NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

March 25, 2009

VIA ELECTRONIC FILING

Ms. Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, D.C. 20426

Re: *North American Electric Reliability Corporation*
Docket Nos. RM09-___-000

Dear Ms. Bose:

The North American Electric Reliability Corporation ("NERC") hereby submits this petition in accordance with Section 215(d)(1) of the Federal Power Act ("FPA") and Part 39.5 of the Federal Energy Regulatory Commission's ("FERC" or the "Commission") regulations seeking approval of one proposed Regional Reliability Standard of the Western Electricity Coordinating Council ("WECC"), BAL-002-WECC-1 — Contingency Reserves, contained in **Exhibit A** to this petition. Upon the effective date of BAL-002-WECC-1, NERC requests that the Commission concurrently retire BAL-STD-002-0. The proposed Regional Reliability Standard was approved by the NERC Board of Trustees at its October 29,' 2008 meeting. NERC requests an effective date of 90 calendar days after receipt of applicable regulatory approval.[1]

[1] The proposed standard was approved by the WECC Board of Directors in April, 2008 with a proposed effective date of "on the first day of the next quarter, after receipt of applicable regulatory approval." WECC submitted a letter to NERC on June 11, 2008 that requested that the NERC Board of Trustees approve the standard in its current form then seek an order from the Commission that approves the standard

NERC's reliability standard petition consists the following:

- This transmittal letter;
- A table of contents for the entire petition;
- A narrative description explaining how the proposed reliability standard meets the Commission's requirements;
- Reliability Standard, BAL-002-WECC-1 — Contingency Reserves, submitted for approval (**Exhibit A**);
- The NERC Board of Trustees' Resolution on BAL-002-WECC-1 Contingency Reserves (**Exhibit B**)
- The complete development record of the proposed Regional Reliability Standard (**Exhibit C**); and
- The Standard Drafting Team roster (**Exhibit D**).

Please contact the undersigned if you have any questions.

Respectfully submitted,

/s/ Rebecca J. Michael

Rebecca J. Michael

Assistant General Counsel for North American Electric Reliability Corporation

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with the modification to the effective date allowing Registered Entities in the Western Interconnection sufficient time to modify their operations to address the change in requirements.

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION	**) Docket No. RM09-__-000)**

PETITION OF THE NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION FOR APPROVAL OF PROPOSED WESTERN ELECTRICITY COORDINATING COUNCIL REGIONAL RELIABILITY STANDARD REGARDING CONTINGENCY RESERVES

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March 25, 2009

TABLE OF CONTENTS

I. INTRODUCTION

The North American Electric Reliability Corporation ("NERC")[2] hereby requests the Federal Energy Regulatory Commission (the "Commission" or "FERC") to approve, in accordance with Section 215(d)(1) of the Federal Power Act ("FPA")[3] and Section 39.5 of the Commission's regulations, 18 C.F.R. § 39.5, one Regional Reliability Standard, BAL-002-WECC-1 — Contingency Reserves, proposed by the Western Electricity Coordinating Council ("WECC") to be in effect within the U.S. portion of the Western Interconnection.

On October 29, 2008, the NERC Board of Trustees approved, with conditions, BAL-002-WECC-1 — Contingency Reserves Regional Reliability Standard proposed by WECC. NERC requests that the Commission approve this WECC Regional Reliability Standard and make it effective 90 days after receipt of applicable regulatory approval. Upon the effective date of BAL-002-WECC-1, NERC requests that the Commission concurrently retire BAL-STD-002-0.[4]

Exhibit A to this filing sets forth the proposed WECC Regional Reliability Standard. **Exhibit B** is the NERC Board of Trustees' resolution to approve, with conditions, the proposed WECC Regional Reliability Standard. **Exhibit C** contains the record of development for the proposed WECC Regional Reliability Standard that includes WECC's approval process prior to submitting the proposed standard to NERC, WECC's submittal request to NERC for evaluation, NERC's response and evaluation of the proposed Regional Reliability Standard, and the comments received during the

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[2] 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).

[3] 16 U.S.C. 824o.

[4] BAL-STD-002-0 is referred to herein as BAL-STD-002-0 or WECC- BAL-STD-002-0.

industry-wide comment period NERC held on the proposed WECC standard. **Exhibit D** includes WECC's standard drafting team roster.

NERC also is filing this Regional Reliability Standard with applicable governmental authorities in Canada.

II. NOTICES AND COMMUNICATIONS

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

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III. BACKGROUND

a. Regulatory Framework

By enacting the Energy Policy Act of 2005,[5] Congress entrusted FERC 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 states that all users, owners and operators of the bulk power

[5] Energy Policy Act of 2005, Pub. L. No. 109-58, Title XII, Subtitle A, 119 Stat. 594, 941 (2005) (to be codified at 16 U.S.C. § 824o).

system in the United States will be subject to the 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 for its approval 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 Commission is authorized to approve those proposed reliability standards that meet the criteria detailed by Congress:

> The Commission 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.[6]

When evaluating proposed reliability standards, the Commission is expected to give "due weight" to the technical expertise of the ERO. Order No. 672 provides guidance on the factors the Commission will consider when determining whether proposed reliability standards meet the statutory criteria.[7]

A 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,

[6] Section 215(d)(2) of the FPA, to be codified at 16 U.S.C. § 824o(d)(2) (2000).
[7] *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").

and in the public interest.[8] If the Regional Reliability Standard is proposed by a Regional Entity organized on an Interconnection-wide basis to be applicable on an Interconnection-wide basis, then NERC (but not the Commission) must rebuttably presume that the standard is just, reasonable, not unduly discriminatory or preferential, and in the public interest.[9]

The Commission's Order No. 672 establishes two 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 Reliability 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.[10]

c. Regional Reliability Standards Development Procedure

NERC develops reliability standards in accordance with Section 300 (Reliability Standards Development) of its Rules of Procedure and the NERC *Reliability Standards Development Procedure*, which is incorporated into the Rules of Procedure as Appendix 3A. In its ERO Certification Order, the Commission found that NERC's proposed rules provide for reasonable notice and opportunity for public comment, due process, openness, and a balance of interests in developing reliability standards and thus satisfies certain of the criteria for approving reliability standards.[11]

Further, Section 311 of the NERC Rules of Procedure enables a Regional Entity to develop Regional Reliability Standards that are to be recognized and made part of

[8] Section 215(d)(2) of the FPA and 18 C.F.R. §39.5(a).
[9] Section 215(d)(3) of the FPA and 18 C.F.R. §39.5(b).
[10] Order No. 672 at P 291.
[11] Order No. 672 at PP 268, 270.

NERC Reliability Standards. To do so, a Regional Entity may request NERC to approve a Regional Entity Reliability Standard development procedure. Included as **Exhibit C** of the Delegation Agreement between NERC and WECC, WECC's Process for Developing and Approving WECC Standards was approved by FERC order originally on April 19, 2007[12] approved as amended on March 21, 2008,[13] and approved as amended on December 19, 2008.[14] Section 312 states that "NERC shall rebuttably presume that a regional reliability standard developed, in accordance with a Regional Reliability Standards development process approved by NERC, by a Regional Entity organized on an interconnection-wide basis, is just, reasonable, and not unduly discriminatory or preferential, and in the public interest, and consistent with such other applicable standards of governmental authorities."

Section 312 also establishes other factors for the NERC Board of Trustees to consider in acting on a request to approve proposed Regional Reliability Standards. The Board of Trustees must consider the Regional Entity's request, NERC's recommendation for action on the Regional Reliability Standard, any unresolved stakeholder comments, and the Regional Entity's consideration of the comments in determining whether to approve the Regional Reliability Standard as a NERC Reliability Standard.[15]

On June 11, 2008 WECC submitted a request to NERC to approve, and submit to FERC for approval, BAL-002-WECC-1 – Contingency Reserves, the proposed Regional Reliability Standard that is the subject of this petition. WECC developed this standard following its Process for Developing and Approving WECC Standards ("WECC

[12] Order Accepting ERO Compliance Filing, Accepting ERO/Regional Entity Delegation Agreements, and Accepting Regional Entity 2007 Business Plans, 116 FERC ¶ 61,062 at P 469
[13] *Order Addressing Revised Delegation Agreements*, 122 FERC ¶ 61,245 at P 225.
[14] *Order Accepting Compliance Filings, Subject to Conditions*, 125 FERC ¶ 61,330.
[15] NERC Rules of Procedure, § 312.3.1.

Process") and therefore, NERC rebuttably presumes it is just, reasonable, and not unduly discriminatory or preferential, and in the public interest. Further, WECC stated and NERC agrees that the proposed WECC Regional Reliability Standard establishes requirements that are more stringent than, or covers areas not covered by, current NERC Reliability Standards thereby meeting the Commission criteria for consideration of a Regional Reliability Standard. Per Section 312 of the ERO Rules of Procedure, NERC commenced a 45-day public comment period (April 4, 2008 through May 20, 2008) and performed an evaluation of the Regional Reliability Standard. WECC responded to the comments presented during the NERC posting and requested NERC to present the WECC Regional Reliability Standard for Board approval. In its evaluation, NERC identified a shortcoming in the standard that WECC agreed to address by submitting a revised version of the standard for approval. NERC's evaluation of the proposed Regional Reliability Standard is available in **Exhibit C**. The proposed WECC Regional Reliability Standard was approved by the NERC Board of Trustees on October 29, 2008 for filing with the Commission and applicable governmental authorities in Canada subject to the condition that WECC address in a future revision the formatting issues identified by NERC.

d. Progress in Improving Proposed Reliability Standards

On March 26, 2007, NERC submitted for Commission approval eight proposed Tier One Regional Reliability Standards for the WECC. NERC approved the proposed Regional Reliability Standards on the conditions that WECC:

(1) remove the one-year term limitation;
(2) address the shortcomings in the standards within one year of approval by the Commission, including removing the sanctions table that conflicts with the NERC Sanction Guidelines;

(3) until the WECC sanction table is removed, follow the NERC Sanction Guidelines to the maximum extent possible within the limits of the WECC sanction table; and
(4) monitor and enforce the standards under a delegation agreement between NERC and WECC, once that agreement is approved.

On June 8, 2007 in the Order Approving Regional Reliability Standards for the Western Interconnection and Directing Modifications ("June 8 Order"), the Commission approved, with conditions, eight WECC Tier 1 Reliability Management System ("RMS") Regional Reliability Standards stating that the reliability of the bulk power system of the Western Interconnection is best served by their implementation.[16] In the June 8 Order, the Commission directed WECC to develop several modifications to the Regional Reliability Standards when WECC develops, through its Reliability Standards development process, permanent, replacement Reliability Standards. Specifically, the Commission directed WECC to meet its commitment to address the shortcomings identified during the NERC review of the standard including the formatting concerns and the inconsistency between the NERC and WECC definition of the term "disturbance." The standards approved in the Order are:

- WECC-BAL-STD-002-0 — Operating Reserves
- WECC-IRO-STD-006-0 —Qualified Path Unscheduled Flow Relief
- WECC-PRC-STD-001-1 — Certification of Protective Relay Applications and Settings
- WECC-PRC-STD-003-1 — Protective Relay and Remedial Action Scheme Misoperation
- WECC-PRC-STD-005-1 — Transmission Maintenance
- WECC-TOP-STD-007-0 — Operating Transfer Capability
- WECC-VAR-STD-002a-1 — Automatic Voltage Regulators

[16] *North American Electric Reliability Corporation*, "Order Approving Regional Reliability Standards for the Western Interconnection and Directing Modifications," ("June 8 Order"), 119 FERC ¶ 61,260 at P 1 (2007).

- WECC-VAR-STD-002b-1 — Power System Stabilizers

WECC, supported by the Western Interconnection Regional Advisory Body ("WIRAB"), identified these Regional standards as essential and necessary for the reliable operation of the Western Interconnection. The majority of these standards were specifically developed to address and mitigate the main causes of two major system outages that occurred in the Western Interconnection in July and August of 1996.

In June, 2008 WECC submitted seven replacement standards for the eight FERC approved Regional Reliability Standards, one of which, BAL-002-WECC-1 — Contingency Reserves, is the subject of this filing.[17] WECC utilized its WECC Process to address the Commission directives in the Order. NERC confirmed that WECC followed its approved process according to its Regional Delegation Agreement with NERC in developing the replacement standards.

In addition to and to address certain of the Commission's concerns in the June 8 Order, WECC made substantial technical modifications to the proposed standard BAL-002-WECC-1. Because WECC followed its approved process in developing these modifications, NERC continues to rebuttably presume this standard is just, reasonable, and not unduly discriminatory or preferential, and in the public interest.

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 basis. As such, NERC rebuttably presumes the proposed standard is just, reasonable, not unduly discriminatory or preferential, and in the public interest. Absent strong technical objection from commenters, NERC will not second-guess the technical merits of the

[17] In total, WECC submitted seven Regional Reliability Standards to replace the original eight the Commission approved in its Order. BAL-002-WECC-1 is proposed to replace BAL-STD-002-0 that was approved by the Commission.

proposed Regional Reliability Standards. It 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. NERC's public posting of this proposed Regional Reliability Standards elicited a small number of comments challenging the technical basis of the proposed contingency reserve standard. WECC explains and NERC accepts that substantial WECC stakeholder outreach was conducted to explain the rationale for the contingency reserve standard. Considering the proposed standard on its merits, NERC staff finds that the proposed standard meets the criteria for consideration and approval as a Regional Reliability Standard.

IV. JUSTIFICATION FOR APPROVAL OF PROPOSED RELIABILITY STANDARD

This section summarizes the development of the proposed Regional Reliability Standard and provides evidence that the proposed reliability standard meets the criteria for approval set by the Commission, that is, the proposed reliability standard is just, reasonable, not unduly discriminatory or preferential and in the public interest. Further, as a Regional Reliability Standard, the standard is more stringent or covers matters not covered by NERC's existing reliability standards. This section describes the reliability objectives to be achieved by approving the Regional Reliability Standard and how the Regional Reliability Standard meets the criteria the Commission has established. The following section describes the development history of the standard including how the proposed standard meets the Commission directives, stakeholder ballot results, and how key issues were considered and addressed by the standard drafting team.

The complete development record for the proposed reliability standard is available in **Exhibit C**. This record includes the WECC approval process prior to

submitting the proposed standard to NERC, the comments received during the industry-wide comment period NERC conducted on the proposed standard, WECC's responses to those comments, the WECC ballot information, WECC's submittal request to NERC for evaluation of the proposed standard and the NERC evaluation of the proposed standard.

a. Basis and Purpose of BAL-002-WECC-1 — Contingency Reserves

The primary purpose of this proposed Regional Reliability Standard is to ensure that adequate generating capacity is 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 loss due to forced outages of generation or transmission equipment. This standard is intended to create a permanent replacement standard for BAL-STD-002-0. BAL-002-WECC-1 is designed to implement the directives of FERC and recommendations of NERC when BAL-STD-002-0 was approved.

As defined in Section 312.1 of NERC's Rules of Procedure, "[r]egional entities may propose regional reliability standards that set more stringent reliability requirements than the NERC reliability standard or cover matters not covered by an existing NERC reliability standard." This proposed WECC Regional Reliability Standard is justified on the basis that the standard requirements are more stringent than the current NERC BAL-002-0 — Disturbance Control Performance reliability standard requirements. Whereas, NERC Reliability Standard BAL-002-0 — Disturbance Control Performance Requirement R3.1 requires that each Balancing Authority or Reserve Sharing Group carry at a minimum at least enough Contingency Reserve to cover the most severe single contingency, proposed BAL-002-WECC-1 – Contingency Reserves Regional Reliability

Standard Requirement R1.1 requires that each Balancing Authority or Reserve Sharing Group maintain as a minimum Contingency Reserves equal to the greater of the amount of reserve equal to the loss of the most severe single contingency (equivalent to NERC's continent-wide standard); or an amount of reserve equal to the sum of three percent of the load (generation minus station service minus Net Actual Interchange) and three percent of net generation (generation minus station service), an approach that is more stringent than NERC's continent-wide standard. Therefore, NERC agrees that the proposed Regional Reliability Standard meets the criteria for approval as a Regional Reliability Standard and serves a valuable reliability purpose.

The proposed Regional Reliability Standard proposes three main requirements and several sub-requirements, one of which is more stringent than FERC-approved reliability standard BAL-002-0 — Disturbance Control Performance as outlined above. The three requirements and sub-requirements that this Regional Reliability Standard proposes are summarized as follows:

> **R1.** Requires Reserve Sharing Groups or Balancing Authorities that are not a member of a Reserve Sharing Group to maintain a minimum Contingency Reserve that is the (R1.1) greater of the following: R1.1.1 an amount of reserve equal to the loss of the most severe single contingency; or R1.1.2 an amount of reserve equal to the sum of three percent of the load (generation minus station service minus Net Actual Interchange) and three percent of the net generation (generation minus station service). Requirement R1.2 requires the Sink Balancing Authority to carry an amount of additional Non-Spinning Contingency Reserve equal to the Interchange Transaction(s) if the Source Balancing Authority designates an Interchange Transaction(s) as part of its Non-Spinning Contingency Reserve. Requirement R1.3 requires the Source Balancing Authority to increase its Contingency Reserves equal in amount and type to the capacity transaction(s) where the Sink Balancing Authority is designating the transaction(s) as a resource to meet its Contingency Reserve requirements.
>
> **R2.** Requires Reserve Sharing Groups or Balancing Authorities that are not a member of a Reserve Sharing Group to maintain at least half of the Contingency Reserve (established in R1.1) as Spinning Reserve. The Spinning Reserve must

(R2.1) immediately and automatically respond proportionally to frequency deviations, *e.g*. through the action of a governor or other control systems; and, (R2.2) be capable of fully responding within ten minutes.

R3. Requires Reserve Sharing Groups or Balancing Authorities to use acceptable types of reserves that must be fully deployable within ten minutes of notification. Sub-requirements R3.1 through R3.6 list the acceptable types of reserves:

R3.1 Spinning Reserve;
R3.2 Interruptible Load;
R3.3 Interchange Transactions designated by the source Balancing Authority as non-spinning contingency reserve;
R3.4 Reserve held by other entities by agreement that is deliverable on Firm Transmission Service;
R3.5 An amount of off-line generation which can be synchronized and generating; or
R3.6 Load, other than Interruptible Load, once the Reliability Coordinator has declared a capacity or energy emergency.

Demonstration that the proposed reliability standard is just, reasonable, not unduly discriminatory or preferential and in the public interest

In Order No. 672, 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 Regional Reliability Standard has met or exceeded the criteria:

1. **Proposed reliability standards must be designed to achieve a specified reliability goal**

   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.

The proposed Regional Reliability Standard, BAL-002-WECC-1 — Contingency Reserves, is designed to achieve the specific reliability goal of ensuring a contingency reserve level adequate to maintain scheduled frequency, avoid loss of firm load following transmission or generation contingencies, and assure Balancing Authorities can comply with NERC's Disturbance Control Standard (BAL-002-0). Contingency reserves are required for the reliable operation of the interconnected power system to replace generating capacity and energy loss due to forced outages of generation or transmission equipment.

2. Proposed reliability standards must contain a technically sound method to achieve the goal

> 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, BAL-002-WECC-1 — Contingency Reserves, was developed by a drafting team comprised of experts in the areas of operating reserves, electric grid operations, and electric markets from throughout the Western Interconnection and contains a technically sound method to achieve its goal.

The existing WECC standard, BAL-STD-002-0, requires an amount of contingency reserve 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 ("MSSC"); 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 proposed standard, BAL-002-WECC-1 — Contingency Reserves utilizes a similar approach to the currently approved version to provide a comparable level of contingency reserves to ensure reliable operation of the electrical grid. However, based on lessons learned from past experiences, it has been revised to remove ambiguous terms (*e.g.*, load responsibility) and separates market transactions from the determination of required reserves that exist using the methodology in the current standard. The proposed standard reads:

> R1.1. The greater of the following:
> R1.1.1. An amount of reserve equal to the loss of the most severe single contingency; or
> R1.1.2. An amount of reserve equal to the sum of three percent of the load (generation minus station service minus Net Actual Interchange) and three percent of net generation (generation minus station service).

Based on technical studies covering eight hours from each of the four operating seasons (summer, fall, winter and spring, both on and off-peak), the drafting team determined that "3% of load and 3% of net generation" level was appropriate to approximate the same level of contingency reserves throughout the year as the existing approved standard provides. The WECC Reliability Policy Issues Committee selected one on and one off-peak hour in each of the four seasons to fairly represent comparative contingency reserve levels without creating an undue burden on reporting entities to provide exhaustive amounts of data for many hours. Due to the ambiguities that exist using the current methodology, historical information required to calculate the required contingency reserve levels under the existing methodology is not readily available from data collected. This is because the calculations are based on the term "load

responsibility" and not load itself. For this reason, WECC does not have additional comparative data for comparing the Contingency Reserve levels required under the existing methodology and the methodology in the proposed BAL-002-WECC-1 Regional Reliability Standard. Consequently, an additional survey of the applicable entities would be required to gather information identifying which generation was serving what load, or the types of transactions in place at the particular hour of observation. This would place an undue burden on the responsible entities to compile and submit the data, and on the drafting team to evaluate and verify the data nearly twelve months after the proposed Regional Reliability Standard BAL-002-WECC-1 was approved by the WECC Board.

Data illustrates[18] that the methodology in the proposed BAL-002-WECC-1 — Contingency Reserve standard results in a slight reduction in total reserves required in the Interconnection for each of the eight hours assessed when compared with the methodology in the existing standard. However, under the existing standard, the potential exists for the total amount of reserves required in the Interconnection to be reduced if firm transactions are purchased from Balancing Authorities or Reserve Sharing Groups whose reserve requirements are determined by most severe single contingency. If the purchasing entity's reserve requirements are based on load responsibility, the purchasing entity's reserve requirements will be reduced by the firm transaction while the selling entity's reserves, because they are based on the most severe single contingency, are not affected. This results in an overall reduction in the amount of reserves required in the Interconnection.

In addition, the ambiguity associated with the term "load responsibility" results in confusion regarding the location and amount of the reserves being carried in the

[18] Exhibit C to this report includes Attachment 2 Table 1 – Contingency Reserve Levels

interconnection. The identification of the entities responsible for providing reserves may be lost as purchases are bundled and remarketed. With regard to the ability to audit applicable entities for compliance to the existing BAL-STD-002-0 relative to the proposed BAL-002-WECC-1 standard, WECC has been able to audit the current standard with a reasonable level of consistency; however, the industry would benefit from greater clarity. The interpretation of the term "load responsibility," which is used to determine the amount of reserves required has been problematic for WECC, particularly because FERC Order No. 888 greatly expanded the types of commercial products traded in the electric power industry. The influence of routine commercial transactions and terms in the existing reliability standard has introduced the possibility of varying interpretations for the term "load responsibility" and a degree of uncertainty as to the responsibility for reserves, resulting in challenges when evaluating compliance.

In addition, the existing approved standard considers load served by "hydro generation" and load served by "thermal generation," but does not on its face require contingency reserves for other types of generation sources including wind, solar or other renewable resources.

The BAL-002-WECC-1 — Contingency Reserves proposed standard represents a clearer and more concise standard when compared to the existing BAL-STD-002-0 — Operating Reserves. This proposed standard will result in more consistency and certainty in expectations, thus enhancing the ability to consistently audit entities for compliance.

The proposed basis of calculating minimum reserve requirements in the proposed Regional Reliability Standard removes the ambiguity associated with the term "load responsibility," as directed by FERC in its order approving the existing standards.

Another factor contributing to the uncertainty in the total amount of reserves being carried under the existing standard is the lack of applicability to new technology such as wind and solar. The existing standard does not specifically require any reserves to be carried for wind or solar generation.

Consequently, the impact of the minimal reduction in the total amount reserves required in the Interconnection by the proposed Regional Reliability Standard is negligible when compared to the uncertainties in the actual amount of reserves being carried in the interconnection under the existing standard and the potential reduction in reserves required as a result of new technologies not being addressed in the existing standard.

The on-peak summer hour was specifically chosen because it reflected the expected system peak hour across the Western Interconnection on the peak demand day, July 24, 2006, across the Western Interconnection). This was to ensure that for critical peak hours, there was not a significant change in reserve requirements under the proposed standard. The drafting team discussed several options upon which to base the reserve requirements, including solely load, solely generation, and different combinations of each. The proposed basis and level provide a similar level of required reserves as the existing standard while minimizing the potential for cost shifts among the WECC membership. The standard drafting team compared the existing reserve requirements of applicable entities to the proposed requirements for the same entities.[19] The proposed basis and allocation methodology does not result in any significant change in the level of reserves or an increase in costs for the applicable entities when compared to those under

[19] Exhibit C to this filing contains Attachment 2 that contains Chart "WECC Total Contingency Reserve Requirement" and Chart "No Significant Change in the Amount of Reserves."

the current levels. Importing Balancing Authorities and Reserve Sharing Groups would see the greatest reduction in required reserves if the reserve requirements were based solely on generation. Exporting Balancing Authorities and Reserve Sharing Groups would see the greatest reduction in required reserves if the reserve requirements were based solely on load. The standard drafting team performed an assessment included in **Exhibit C** that identifies the contingency reserve requirement of the applicable entities whose contingency reserve requirements are based on 3% of load and 3% of net generation, rather than the most single severe contingency. The assessment demonstrated that the total reserve requirements for all of the entities combined are approximately the same level, but the distribution between applicable entities is substantially varied if the reserves are allocated based entirely on 6% of load when compared to reserves based entirely on 6% of net generation. The equal split between load and generation represents a reasonable balance to moderate shifts in contingency reserve responsibility and costs among the applicable entities.

The methodology and basis identified in Requirement R1 of the proposed standard clarifies the amount of reserves required in the interconnection, clarifies the entities responsible for carrying contingency reserves, takes into account all types of generation, and ensures that the amount of reserves required in the interconnection are not affected by the nature of potential transactions.

The additional requirements, Requirement R2 and Requirement R3, are designed to ensure adequate levels of spinning reserve and specify the types of reserves that are acceptable to be used as contingency reserves.

The changes made between the existing standard and the proposed Regional Reliability Standard in the treatment of firm load have reduced the times when an entity may use firm load as contingency reserves. The proposed new Regional Reliability Standard specifies that the Balancing Authority or Reserve Sharing Group may only use firm load as contingency reserves once the Reliability Coordinator has declared a capacity or energy emergency. The proposed new Regional Reliability Standard continues to require that reserves must be deliverable to be included in the minimum calculations.

Additional modifications to the existing standard regarding interruptible imports and on demand obligations are included in the proposed Regional Reliability Standard. Requirement WR1.a.iii of the existing Regional Reliability Standard requires Balancing Authorities and Reserve Sharing Groups to maintain, as part of their Operating Reserves, an amount of reserves that can be made effective within ten minutes, equal to interruptible imports.

The proposed BAL-002-WECC-1 Regional Reliability Standard was revised to remove ambiguous terms and separate the market transactions from the determination of the amount of required reserves that exist in the current standard. Because the term interruptible imports is a market term, Requirement R1.2 of the proposed BAL-002-WECC-1 was included to address the requirement of 100% reserves for interruptible imports in the existing Regional Reliability Standard. Requirement R1.2 of the proposed Regional Reliability Standard reads:

> 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.

This requirement requires the Sink Balancing Authority (BA) to carry 100% Non-Spinning Contingency Reserve for any Interchange Transactions that have been identified by the Source Balancing Authority as part of the Source Balancing Authority's own Non-Spinning Contingency Reserve. By identifying the transaction as part of its own Non-Spinning Contingency Reserve, the Source Balancing Authority is identifying this transaction as one that may be interrupted for a reliability event. This clarification removes the commercial term interruptible imports from the definition of reserve that must be carried, while clarifying for which transactions the Sink Balancing Authority must carry 100% reserves. Requirement R3 identifies the acceptable types of reserve, all of which must be fully deployable within 10 minutes of notification to meet Requirement R1.

The proposed standard provides clarity on the separation of market transactions from the determination of reserves while leaving in place the ability to sell power that can be recalled for a reliability reason. During numerous years of discussion, WECC determined that there are several different opinions on what the term "interruptible" means for reliability purposes. As an example, some entities propose that any transaction that has a non-firm transmission segment should be considered interruptible, while others argue that the type of transaction is dependent only on the energy component of the transaction, and that transmission service does not factor into the determination. When the energy product codes utilized in the WECC during 2005 were reviewed, it was

determined that five percent of the tags used a product code G-NF (non-firm), 10 percent utilized G-FC (firm contingent) and 81 percent showed either G-F (firm) or G-FS (firm system). Opinions ranged from "G-NF is the only product code that is interruptible" to "all transactions are interruptible for reliability reasons." When the drafting team members met to develop the proposed standard, they recommended removing the type of market transactions from the determination of the level of required reserves to avoid further interpretations and the lack of understanding that resulted from them. However, in order to ensure there could be no double counting of reserves, the proposed Regional Reliability Standard requires that any entity selling its reserves must make clear by special tagging codes that reserves have been sold and that if a reliability event occurs, the energy will be recalled.

Requirement WR1.a.iv of the existing standard requires Balancing Authorities and Reserve Sharing Groups to maintain, as part of their Operating Reserves, an amount of reserve, which can be made effective within ten minutes, equal to on-demand obligations to other entities or Balancing Authorities.

Requirement 1.3 of the proposed BAL-002-WECC-1 Regional Reliability Standard was included to address the requirement of 100% reserves for on-demand obligations in the existing standard. Requirement R1.3 of the proposed Regional Reliability Standard reads:

> 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 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.

This requirement requires that the Source Balancing Authority must carry 100% Contingency Reserve, either spinning or non-spinning, for all Interchange Transactions designated by the Sink Balancing Authority as part of either the Sink Balancing Authority's spinning or non-spinning Contingency Reserve. The type of Contingency Reserve, either spinning or non-spinning, that the Sink Balancing Authority identifies as the Interchange Transaction, is the type of Contingency Reserve that the Source Balancing Authority must carry as 100% reserve. As is the case of Requirement R1.2, Requirement R3 identifies the acceptable types of reserve, all of which must be fully deployable within 10 minutes of notification to meet R1.

The need to change from the on-demand language in the existing standard to the proposed language was also required due to differing opinions as to what that language meant. This language was the subject of a hearing at FERC where FERC determined that a standby agreement between a self generator and the Balancing Authority did not require the Balancing Authority to carry 100 percent reserve even though this type of arrangement seems to be an on-demand obligation. The new standard clarifies that the sale of reserves, a kind of on-demand obligation, increases the seller's reserve requirement.

In the existing Regional Reliability Standard, BAL-STD-002-0, and the proposed Regional Reliability Standard, BAL-002-WECC-1, if the Interchange Transaction does not cross a Reserve Sharing Group boundary (both Balancing Authorities are a part of the Reserve Sharing Group), these requirements do not apply to the Interchange Transaction. For example, if Balancing Authority 1 has a transaction with Balancing Authority 2 and

both Balancing Authorities reside in the same Reserve Sharing Group, the amount of required reserves of the Reserve Sharing Group does not change. Depending on the Reserve Sharing Group's allocation methodology, the individual Balancing Authority reserve requirements may change, but the total for the Reserve Sharing Group remains constant. Because most Balancing Authorities within WECC are a part of an Reserve Sharing Group, these requirements, in both the existing Regional Reliability Standard and the proposed Regional Reliability Standard, are not applicable to many of the Interchange Transactions within the Western Interconnection and, therefore, do not impact the overall required reserve levels. The same is true for on-demand obligations.

The clarifying language of Requirements R1.2 and R1.3 in the proposed BAL-002-WECC-1 Regional Reliability Standard removes the ambiguity related to market terms when identifying which transactions must be backed by 100% Contingency Reserves. If there were agreement that the definition of the term "interruptible" in the existing Regional Reliability Standard is that the source Balancing Authority can recall the transaction for an event in the source Balancing Authority, then the existing Regional Reliability Standard and the proposed Regional Reliability Standard requirements for 100% Contingency Reserve for certain transactions are the same. The same can be said if there was agreement on the definition of a reserve transaction as an "on-demand" transaction. However, entities in the Western Interconnection could not agree on a definition of these terms in the existing Regional Reliability Standard. Consequently, the proposed standard eliminates the ambiguity by removing the reliance on these terms. The intent of the clarifying language in the proposed Regional Reliability Standard is to meet

the existing language with concise language that is clear to everyone and eliminates the multiple existing interpretations and ambiguities.

For these reasons, the proposed reliability standard is superior to the existing approved BAL-STD-002-0 because of the increase in certainty regarding contingency reserve obligations.

3. Proposed reliability standards must be applicable to users, owners, and operators of the bulk power system, and not others

> 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.

The proposed Regional Reliability Standard is applicable only to users, owners and operators of the bulk power system located within WECC, and not others. As identified in the applicability section of the proposed standard, the requirements in the proposed Regional Reliability Standard are only applicable to Balancing Authorities and Reserve Sharing Groups. No other Balancing Authorities or Reserve Sharing Groups outside of WECC or other registered entities within WECC are required to comply with these requirements.

4. Proposed reliability standards must be clear and unambiguous as to what is required and who is required to comply

> 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.

The proposed Regional Reliability Standard applies exclusively to Balancing Authorities and Reserve Sharing Groups within WECC. NERC's Compliance Registry identifies, by name, the specific entities registered for these two functions and therefore the specific entities that are obligated to comply with the proposed standard.

The proposed Regional Reliability Standard's three requirements clearly and unambiguously establish the applicable entities' compliance obligations by: (1) identifying the minimum amount of contingency reserves that must be maintained by the Reserve Sharing Group or Balancing Authority in Requirement R1, (2) requiring that at least half of the contingency reserves be maintained as spinning reserve in Requirement R2, and (3) identifying the acceptable types of reserve that must be fully deployable within 10 minutes in Requirement R3.

5. Proposed reliability standards must include clear and understandable consequences and a range of penalties (monetary and/or non-monetary) for a violation

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.

The proposed Regional Reliability Standard has a Violation Risk Factor and Violation Severity Levels for each main requirement in the reliability standard. Upon approval by the Commission, the ranges of penalties for violations will be based on the applicable Violation Risk Factor and Violation Severity Levels and will be administered based on the sanctions table and supporting penalty determination process described in the Commission-approved NERC Sanction Guidelines, Appendix 4B in NERC's Rules of Procedure.

6. Proposed reliability standards must identify clear and objective criterion or measure for compliance, so that it can be enforced in a consistent and non-preferential manner

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.

Section C of the proposed Regional Reliability Standard contains individual measures that support each of the standard's three requirements by clearly identifying what is required and how the requirement will be enforced. These three measures will ensure the requirements are enforced in a clear, consistent, and non-preferential manner. Measurement M1 requires Reserve Sharing Groups and stand-alone Balancing Authorities to document the amount of reserves carried each hour. Similarly, Measurement M2 and Measurement M3 require that entities document that the appropriate level of spinning reserve and type of reserve was carried to meet Requirements R2 and Requirement R3, respectively.

Furthermore, to aid in the compliance monitoring process, a reliability standard audit worksheet ("RSAW") will be developed for this standard once it is approved. RSAWs also assist the applicable registered entity in understanding what the entity is expected to provide in support of the particular measures to demonstrate compliance.

7. Proposed reliability standards should achieve a reliability goal effectively and efficiently - but does not necessarily have to reflect "best practices" without regard to implementation cost

> 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.

The proposed standard will require a level of contingency reserves sufficient to ensure reliable operation of the bulk power system in the Western Interconnection similar to that required under the existing WECC reliability standard. The proposed standard clearly states the required basis for, and level of, reserves and removes the ambiguities that exist in the current standard. These improvements better enable the proposed standard to achieve the stated reliability goal.

The drafting team recognized that any change in the basis of or allocation of contingency reserve responsibility is likely to produce shifts in responsibility and costs at the individual entity or reserve sharing group level. The proposed basis for the change in allocation methodology was the subject of a fully vetted standards development process and two workshops within WECC, and entities faced with potential responsibility and cost shifts actively presented their positions. WECC conducted one workshop and participated in a second workshop sponsored by the Western Systems Power Pool ("WSPP") to educate and communicate to the industry the basis of the proposed standard. The workshops were well attended with approximately 50 attendees at the first workshop and between 150 and 200 attendees at the WSPP sponsored workshop. Materials from these two workshops are available on the WECC and WSPP websites respectively.[20]

On the whole, total aggregate cost to the applicable entities should remain the same or decrease slightly as compared to the existing level of reserves; however, depending upon the actions by each Reserve Sharing Group, individual members of Reserve Sharing Groups could see an increase in their costs that would be offset by decreases in other members' cost to comply.

The drafting team developed a balanced approach to the proposed contingency basis and allocation, which moderates potential shifts while ensuring adequate overall contingency reserve levels and, importantly, eliminates the ambiguities associated with the existing standard, resulting in improved reliability. The certainty introduced in

[20] WECC workshop materials can be found at:
http://www.wecc.biz/index.php?module=pagesetter&func=viewpub&tid=22&pid=16
http://www.wspp.org/reserves_issues.php

establishing responsibility for and increasing accountability of contingency reserves outweighs the potential individual entity cost shift impacts caused by the change in allocation methodology. Ultimately, the proposed standard was approved by WECC's Operating Committee and Board of Directors.

8. Proposed reliability standards cannot be "lowest common denominator," *i.e.*, cannot reflect a compromise that does not adequately protect bulk power system reliability

> 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 the Commission 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.

The proposed Regional Reliability Standard does not reflect a "lowest common denominator" approach. While the NERC standard BAL-002-0 — Disturbance Control Performance requires the Balancing Authority or Reserve Sharing Group to carry minimum contingency reserves to cover the most single severe contingency, the proposed WECC standard requires the Balancing Authority or Reserve Sharing Group to carry the greater of an amount of reserve equal to the most single severe contingency or an amount of reserve equal to the sum of three percent of the load (generation minus station service minus Net Actual Interchange) and three percent of net generation.

Based on WECC's study, this results in an amount of contingency reserves for the Western Interconnection that is more than double the NERC most single severe contingency requirement during summer peak conditions and between eighteen and forty-five percent higher than the NERC most single severe contingency requirement during conditions other than summer peak (**Exhibit C** contains a comparison of the overall level

of reserves required for the WECC in each of the hours studied and the impact to each applicable entity for each hour reviewed).

9. Proposed reliability standards may consider costs to implement for smaller entities but not at consequence of less than excellence in operating system 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 operator of the Bulk-Power System must bear the cost of complying with each Reliability Standard that applies to it.

The proposed Regional Reliability Standard does not represent a "lowest common denominator" and was neither developed nor adopted solely to protect against the imposition of reasonable expenses. The drafting team considered and evaluated the effect of a change in the reserve requirement on the distribution of cost among applicable entities and determined that the change provided in the proposed standard results in less of a cost-shift than would have been created by other alternatives such as basing the requirement solely on an applicable entity's load or net generation (**Exhibit C** includes data used to support these conclusions). Importantly, the proposed methodology increases the certainty of contingency reserve responsibility and identification thereby enhancing reliable operations relative to the current approved version of the Regional Reliability Standard. There was no special allocation or accommodation made for smaller entities in the proposed standard.

10. 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 area or approach

> 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.

The proposed Regional Reliability Standard applies throughout the Western Interconnection and does not favor one area or approach. The proposed standard applies to each Balancing Authority and Reserve Sharing Group in the Western Interconnection.

A 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. Furthermore, the Commission's Order No. 672 establishes two additional criteria that a Regional Reliability Standard must satisfy. A Regional difference from a continent-wide reliability standard must either be more stringent than the continent-wide reliability standard (which includes a Regional Reliability Standard that addresses matters that the continent-wide standard does not), or a Regional Reliability Standard that is necessitated by a physical difference in the bulk power system. The proposed standard satisfies the Commission's criteria for approval of a Regional Reliability Standard. Specifically, the proposed BAL-002-WECC-1 Standard is more stringent than the NERC standard BAL-002-0 — Disturbance Control Performance in that it results in an amount of contingency reserves for the Western Interconnection

that is more than double the NERC requirement during peak summer conditions and between eighteen and forty-five percent higher than the NERC requirement during conditions other than summer peak.

11. Proposed reliability standards should cause no undue negative effect on competition or restriction of the grid

> Order No. 672 at P 332. As directed by section 215 of the FPA, the Commission 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.

The proposed Regional Reliability Standard does not restrict the available transmission capability or limit use of the bulk power system in a preferential manner. The proposed standard reduces market uncertainty by removing the ambiguity related to the term "load responsibility" relative to the determination and assignment of contingency reserves. Among other things, the WECC's Market Interface Committee ("MIC") is responsible for considering matters pertaining to the impact of reliability standards, practices and procedures on the commercial electricity market in the Western Interconnection. The MIC strongly supported the proposed standard in an advisory ballot, which provides an important indication that the proposed standard will not adversely or unfairly affect competition in the Western Interconnection.

12. The implementation time for the proposed reliability standards must be reasonable.

> Order No. 672 at P 333. In considering whether a proposed Reliability Standard is just and reasonable, the Commission 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.

Registered Entities in the Western Interconnection will have to modify their operations to address the change in contingency reserve calculations mandated by the proposed Regional Reliability Standard. This could be difficult and lead to unnecessary, technical compliance violations due to delays in implementation. The WECC Board of Directors recognized this issue and passed a motion seeking to make the proposed standard effective 90 calendar days after receipt of regulatory approval. Therefore, WECC requested that NERC seek an order from the Commission approving the proposed standard and specifying that it is to become effective "90 calendar days after receipt of applicable regulatory approval."

13. The reliability standard development process must be open and fair

> 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 the Commission.

The proposed Regional Reliability Standard was developed in accordance with the Commission-approved Process for Developing and Approving WECC Standards, which provides for a fair and open Regional Reliability Standards development process. Specifically, this process included drafting by an open and inclusive standards drafting team, consideration of industry comments received during three WECC public posting and comment periods; approval by the WECC Operating Committee; approval by the WECC Board of Directors; WECC response to comments received by NERC as a result of NERC's public posting; WECC response to comments by Commission Staff; WECC

response to comments by NERC Staff; and production of other supporting documentation in response to various public and staff questions or concerns. In addition, WECC sponsored in whole or in part two workshops with a total attendance of nearly 250 people to discuss the proposed standard and address issues raised by different commenters.

14. Proposed reliability standards must balance with other vital public interests

> 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.

Neither NERC nor WECC believes there are any competing public interests with respect to the request for approval of this proposed Regional Reliability Standard. No comments were received that indicated the proposed standard conflicts with other vital public interests.

15. Proposed reliability standards must consider any other relevant factors

> 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.
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> Order No. 672 at P 337. In applying the legal standard to review of a proposed Reliability Standard, the Commission will consider the general factors above. The ERO should explain in its application for approval of a proposed Reliability Standard how well the proposal meets these factors and explain how the Reliability Standard balances conflicting factors, if any. The Commission may consider any other factors it deems appropriate for determining if the proposed Reliability Standard is just and reasonable, not unduly discriminatory or preferential, and in the public interest. The ERO applicant may, if it chooses, propose other such general factors in its ERO application and may propose additional specific factors for consideration with a particular proposed Reliability Standard.

NERC does not propose any additional factors for consideration at this time.

V. SUMMARY OF THE RELIABILITY STANDARD DEVELOPMENT PROCEEDINGS

a. Development History

In September 2007, WECC posted the initial draft of the proposed BAL-002-WECC-1 Regional Reliability Standard for industry comment. The drafting team reviewed and responded to initial comments in November 2007. During the first comment period WECC received comments from 22 entities. **Exhibit C** of this filing contains the record of development of the proposed reliability standard including the comments received during the first public posting of the proposed standard and the drafting team responses to the comments. The majority of comments addressed three major topics.

Of the 22 entities submitting comments, 11 identified the need for greater clarity in the language of the requirements. Several entities provided suggested language as part of their comment submittal. The drafting team implemented many of these proposed modifications to the language of the standard and made additional modifications to provide the requested clarity.

The second major topic identified by the commenters was the lack of sufficient technical basis for the change in allocation of contingency reserves. Three of the six commenters who cited this concern indicated there was no technical basis established; with one these three indicating the basis should be established at 6% of load. The drafting team responded that the supporting basis was that the proposed methodology reduced existing ambiguity in reserve responsibility and thus provided a much clearer requirement while approximating the same level of contingency reserves throughout the year as the existing approved standard. To help communicate and educate the industry

regarding the basis for the proposed methodology, WECC sponsored in whole or in part two workshops with a total attendance of nearly 250 people to discuss the proposed standard and address issues raised by different commenters.

The third major topic cited by commenters was the allocation of potential sanctions for non-compliance among the individual Balancing Authorities in a Reserve Sharing Group. Commenters indicated a concern that, as a member of a Reserve Sharing Group, they may be subject to sanctions for non-compliance when only certain Balancing Authorities in the Reserve Sharing Group had failed to provide their "share" of reserves. The drafting team addressed these concerns by adding clarifying information in Section D.1.4, Additional Compliance Information. D.1.4.3 states that:

1.4.3. If an agent properly designated in accordance with Section 1.4.2 identifies individual Balancing Authorities within the Reserve Sharing Group responsible for noncompliance at the time of data submission, together with the percentage of responsibility attributable to each identified Balancing Authority, then, except as may otherwise be finally determined through a duly conducted review or appeal of the initial finding of noncompliance,

(a) any penalties assessed for noncompliance by the Reserve Sharing Group shall be allocated to the individual Balancing Authorities identified in the applicable data submission in proportion to their respective percentages of responsibility as specified in the data submission,

(b) each Balancing Authority shall be solely responsible for all penalties allocated to it according to its percentage of responsibility as provided in subsection (a) of this Section 1.4.3, and

(c) neither the Reserve Sharing Group nor any member of the Reserve Sharing Group shall be responsible for any portion of a penalty assessed against another member of the Reserve Sharing Group in accordance with subsection (a) of this Section 1.4.3 (even if the member of Reserve Sharing Group against which the penalty is assessed is not subject to or otherwise fails to pay its allocated share of the penalty).

Associated with these three major topics were comments suggesting that WECC did not need to include a requirement for contingency reserves greater than the most single severe contingency required by NERC. The drafting team responded that the

majority of entities supported the higher contingency reserve level based on the vote for the initial Tier 1 (existing) standard. Several commenters also suggested that neither the existing Tier 1 standard nor the proposed revised BAL-002-WECC-1 standard were necessary because of WECC's ongoing work related to Frequency Responsive Reserves ("FRR") reliability standard. The drafting team indicated that the FRR effort was being conducted in parallel with the proposed BAL-002-WECC-1 standard and would not be completed in time to address FERC expectations related to the existing approved standard. WECC did not make any other significant conforming changes to the standard as a result of the comments.

In November 2007, the drafting team posted a second draft of the proposed standard for comment. During the second comment period WECC received comments from nine entities. **Exhibit C** of this filing contains the comments received during the second public posting of the proposed standard and the drafting team responses to the comments. Six commenters specifically indicated support for the revised standard. Five of these six commenters also proposed additional clarifying language for the standard. The drafting team implemented the majority of these clarifying changes in language. One commenter indicated opposition to the proposed methodology, indicating the equal split between load and generation penalized regions with significant hydro generation relative to the existing approved standard. The drafting team did not modify the requirements based on this comment, indicating that an equal split between load and generation was preferred by the team, and that the drafting team's review of the impact to existing Reserve Sharing Groups and Balancing Authorities that are not members of a Reserve Sharing Group indicates there is not a significant shift in reserve allocations to

the applicable entities from the existing methodology. This conclusion was based on the analysis that an equal split between load and generation represents a reasonable balance to moderate shifts in contingency reserve responsibility and costs among the applicable entities. Other than the clarifying language changes, WECC did not make any other significant conforming changes to the standards as a result of the comments.

The WECC Operating Committee balloted the proposed standard in March, 2008 with 59 votes in favor of the proposed standard, 16 negative votes, and 11 abstentions. The WECC Board of Directors balloted the proposed standard in April 2008, voting 28 in favor of the standard, one in the negative, with two abstentions.

Concurrent with WECC Board consideration of the proposed Regional Reliability Standard in April, 2008 and as permitted by NERC's Rules of Procedure, WECC submitted and NERC posted BAL-002-WECC-1 for the required 45-day public posting that took place from April 4, 2008 through May 20, 2008. During the NERC 45 day posting, although substantial technical comments were made, no different issues were identified apart from those offered previously in WECC's public comment periods. The comments received are summarized below.

There were a total of seven sets of comments from 42 companies representing five of the ten industry segments. Several technical comments expressed concern that only eight hours of data was analyzed in the determination of the contingency reserves methodology making it difficult to properly establish any risks associated with its implementation. WECC did not make any conforming changes to the standard as a result of these comments but rather responded that the drafting team analyzed data from the four seasons both on and off peak. The hours chosen were representative of conditions

during each season. The drafting team determined that additional analysis was not necessary due to the careful selection of hours. Finally, WECC responded that since WECC is a separate interconnection there is no reliability risk to other interconnections or regions.

Other technical comments indicated that the proposed standard will create a substantial cost shifting within the interconnection. WECC responded by stating that the proposed standard removes the existing ambiguity that has caused market and reliability uncertainty. The proposed standard does not assume the existence of a market rather it puts forth clear requirements on Balancing Authorities and Reserve Sharing Groups in the Western Interconnection, necessary for enhanced reliability.

Lastly, several commenters indicated that the shift in contingency reserve allocation methodology is not based on evidence (operational or reliability needs) that the shift of part of the responsibility for contingency reserves from generation to loads will have any positive impacts on reliability. As a result, the proposed standard will pose a substantial burden on competitive electricity markets that is not necessary for reliability. WECC did not make any conforming changes to the proposed standard as a result of these comments but rather reiterated their response that contingency reserves are needed to ensure loads are served after the unexpected loss of any resource including transmission, generation or import schedules. The proposed standard creates a clear reserve requirement for Balancing Authorities and Reserve Sharing Groups that eliminates much ambiguity in the term “load responsibility” in the current approved version of the standard.

Several commenters challenged the WECC process by indicating that the drafting team did not respond to all comments expressing key concerns during the standard development. Other commenters indicated that the process is not open and excluded input from end users. WECC responded that the drafting team responded to all written comments pursuant to the Process for Developing and Approving WECC Standards approved by FERC. While the comments submitted were deliberated on by the Operating Committee, there was no unanimous agreement within the drafting team on the key concerns; however, there was general consensus regarding the language of the standard within the drafting team and the majority of both transmission providers and transmission customers (who approved the standard). Lastly, WECC indicated that their process is open and permits all industry stakeholders including end use customers to participate in the development of standards. The WECC process requires public notices of the intent to draft a standard.

WECC submitted the proposed Regional Reliability Standard to NERC in June, 2008 along with the drafting team's Consideration of Comments. In accordance with NERC's Rules of Procedure and the Regional Reliability Standards Evaluation Procedure approved by the Regional Reliability Standards Working Group, NERC provided its evaluation of the WECC proposed Regional Reliability Standard BAL-002-WECC-1 — Contingency Reserves and identified several concerns. NERC's general observation was that the proposed standard was significantly modified from that of the existing BAL-STD-002-0 standard. Specifically, NERC commented on the change to the amount of the contingency reserves that a Balancing Authority is required to carry from five and seven percent load responsibility served by hydro and thermal generation to the sum of three

percent of the total load plus three percent of the total generation. In addition, NERC expressed a concern that Requirement R2 as written may limit the use of demand side resources to fifty percent of the Contingency Reserves. Lastly, NERC made minor clarifying suggestions to be applied to Requirement R1.1 and identified that while WECC had included Violation Severity Levels in the proposed standard NERC suggested that for consistency with the continent-wide standard the Violation Severity Levels be presented in a table format. In response to these concerns, WECC indicated that the drafting team wrote the BAL-002-WECC-1 Standard to permit load, Demand-Side Management,[21] generation, or another resource technology that qualifies as Spinning Reserve[22] or Contingency Reserve[23] to be used as such. In the case of Demand Side Management, the declared amount would be required to respond automatically to frequency deviations and be capable of fully responding in ten minutes. Demand Side Management that is deployable within ten minutes is a subset of Interruptible Load.[24] Interruptible load is defined in Requirement R3.2 as an acceptable type of Contingency Reserve. In response to the concern on the shift of contingency reserve methodology in the proposed Regional Reliability Standard, WECC indicated that the drafting team wrote a paper titled "WECC Standard BAL-002-WECC-1 Contingency Reserves" that provides an explanation supporting the modification. In this paper WECC elaborated on the use of eight hours of data to establish the proposed allocation methodology. The paper was included as part of

[21] The NERC Glossary of Terms defines Demand-Side Management as "[t]he term for all activities or programs undertaken by Load-Serving Entity or its customers to influence the amount or timing of electricity they use."
[22] The NERC Glossary of Terms defines Spinning Reserve as "[u]nloaded generation that is synchronized and ready to serve additional demand."
[23] The NERC Glossary of Terms defines Contingency Reserve as "[t]he provision of capacity deployed by the Balancing Authority to meet Disturbance Control Standard (DCS) and other NERC and Regional Reliability Organization contingency requirements."
[24] The NERC Glossary of Terms defines Interruptible Load as "[d]emand that the end-use customer makes available to its Load-Serving Entity via contract or agreement for curtailment."

the standards approval package filed on June 11, 2008 with NERC. Lastly, WECC did not agree to make clarifying conforming changes to Requirement R1.1 as no commenter during the postings of the standard expressed concerns on this issue. WECC did agree to modify the format of the Violation Severity Levels during the next revision of this standard.

The BAL-002-WECC-1 — Contingency Reserves Regional Reliability Standard was approved by the NERC Board of Trustees on October 29, 2008. **Exhibit B** of this filing contains the NERC Board of Trustees' resolution on the WECC Regional Reliability Standard.

b. Key Issues

Commission Directives

The Commission approved BAL-STD-002-0 — Operating Transfer Capability Regional Reliability Standard in its June 8 Order. In the Order the Commission approved the Regional Reliability Standard on the basis that it is more stringent than the corresponding NERC Reliability Standard BAL-002-0 — Disturbance Control Performance, because WECC requires a more stringent minimum reserve requirement than the NERC requirement. Further, the WECC standard contains a requirement to restore contingency reserves within 60 minutes which is more stringent than the NERC requirement to restore reserves within 90 minutes in BAL-002-0 — Disturbance Control Performance. In the Order, the Commission directed WECC to develop several specific modifications to the Regional Reliability Standard when WECC develops, through its Reliability Standards development process, permanent, replacement Reliability Standards. The Commission directed WECC to meet its commitment to address the

shortcomings identified during the NERC review of the standard during its development of permanent, replacement standards.

The Commission directed WECC to make the following modifications:

- Address the inconsistency between the NERC and WECC definition of the terms "Automatic Generation Control," "Disturbance," "Frequency Bias," and "Non-Spinning Reserve"
- Ensure that documents that are referenced are attached to the standard
- Remove the Sanctions Table (that is inconsistent with NERC's Sanction Guidelines)
- Develop Violation Risk Factors and Violations Severity Levels that conform to the NERC standards
- Eliminate the "excuse of performance" provision of the Regional Reliability Standard which is inconsistent with NERC's format
- Clarify the ambiguities related to the use of terms "load responsibility" and "firm transaction"
- Address NERC's formatting concerns

In developing the proposed Regional Reliability Standard WECC:

- WECC removed the conflicting definition of "Automatic Generation Control," "Disturbance," "Frequency Bias," and "Non-Spinning Reserve"
- Removed references to other documents
- Removed the Sanctions Table
- Developed Violation Risk Factors and Violation Severity Levels
- Removed the "excuse of performance" provision
- Eliminated the use of terms "load responsibility" and revised the requirements to clearly establish minimum reserve requirements
- Addressed NERC's formatting concerns

Key Issues during Standard Development

The drafting team identified and addressed two key issues during the development of the proposed BAL-002-WECC-1 Regional Reliability Standard. The first issue is the ambiguity associated with the term "load responsibility" and how to equitably address the concern voiced by those opposed to the potential shift in costs for any revisions to the existing methodology.

For many years, the WECC minimum operating (contingency) reserve requirement had been the greater of, a) the most severe single contingency, or b) the sum of 5% of the load responsibility served by hydro generation and 7% of load responsibility served by thermal generation. WECC defines the term "load responsibility" as "a control area's (now a Balancing Authority under the NERC Functional Model terminology) firm load demand plus those firm sales minus those firm purchases for which reserve capacity is provided by the supplier." For example, a hydro-only Balancing Authority Area with firm load of 20,000 MW would have a minimum operating reserve requirement of 1,000 MW. If this Balancing Authority purchased 1,000 MW of firm energy and the seller supplied the reserve capacity, the purchasing Balancing Authority's reserve requirement would be reduced to 950 MW.

As early as 2002, WECC's Minimum Operating Reliability Criteria Working Group (now the Operating Reliability Criteria Working Group or "ORCWG") was pursuing an operating reserve standard that attempted to define market products for the purposes of determining reserve requirements. This effort failed to garner support of the majority of WECC members due to numerous concerns by the membership. In 2005, the WECC MIC, the WECC Operating Committee and the ORCWG formed the Operating Reserves Standards Task Force ("ORSTF") to deal with the ongoing concerns caused by the ambiguity related to the definition of "load responsibility" and its impact on the determination of the required level of contingency reserves. Questions had been raised about the firmness of certain purchase/sales, especially those under Schedule C of the WSPP agreement (liquidated damages contracts) – *i.e.*, what purchases/sales are firm,

and whether the control area where the transaction is sourced has an obligation, by default, to carry operating reserve for the sale even if it is not a party to the transaction.

The ORSTF proposed a new standard which established minimum operating reserve as the greater of, a) most severe single contingency, or 2) 5% of load. This proposal was considered by the task force as an improvement to the current standard because it did not leave any ambiguity about which control area is responsible for operating reserves, therefore eliminating the possibility that adequate reserves are not carried. The MIC voted in favor of the standard. WECC's Operating Committee voted against it, arguing in part that the reduction in operating reserves anticipated, without any technical justification, could have an adverse reliability impact. With the MIC voting in favor of the proposed revision, the proposal was sent forward to the WECC Board of Directors.

Due to the concerns raised by the WECC Operating Committee, the WECC Board of Directors asked for data to be gathered to determine the actual impact that would occur to the required level of reserves based on moving from the 5% and 7% of load responsibility to the 5% of load. In early 2007, the chair of the WECC Reliability Policy Issues Committee sent a request to all entities in the WECC responsible for reserves asking for all the data necessary to determine the impacts. In order to help ensure cooperation from the responsible entities, the request was limited to eight hours specifically picked to ensure comparable data from all entities and ensure that a representative critical summer period was covered. Based on the data that was gathered, and continuing concerns based by members of the WECC Operating Committee, the WECC Board of Directors chose not to act on the proposal.

During this time, the WECC had also moved certain portions of its Reliability Management System ("RMS") through the process to make them Regional Reliability Standards approved by the Commission, including the section related to Contingency Reserves. These Regional Reliability Standards (referred to as WECC Tier 1 Regional Reliability Standards) were approved by the Commission in June of 2007, while ordering certain modifications to each of the standards.

After FERC approved the current BAL-STD-002-0 standard as an enforceable Regional Reliability Standard, the WECC Board adopted an interpretation of the term "load responsibility" in September 2007. Under the interpretation, the responsibility for operating reserves is to be specified in e-Tags. This interpretation was implemented with the roll-out of the e-Tag Version 1.8 on December 4th, 2007. Two results of the interpretation were that the interpretation required parties to existing contracts to potentially renegotiate parts of the contracts that diminished the trading liquidity in western energy markets. Marketers and Independent Power Producers also argued that the interpretation disadvantages them, because they cannot always purchase reserve products to firm up their sales while marketers associated with Balancing Authority operators making system sales can sell on a firm basis. WSPP tried, but failed, to adapt its Schedule C to the new requirement.

As part of the FERC approval of the existing Operating Reserves standard in mid-2007, FERC ordered that WECC address several issues that were raised. One of the issues FERC ordered be addressed was the concern raised by parties related to the ambiguity that was present in the standard.[25] WECC formed a standard drafting team as identified in the Process for Developing and Approving WECC Standards. Most of the

[25] June 8, 2007 Order at P 56.

members of the drafting team had been involved in previous attempts to address the concerns raised over the previous five or more years. Therefore, the drafting team recommended that the discussion focus on attempting to determine a reserve policy that maintained a level of reserves similar to the existing level while removing market transactions from the determination of reserve requirements.

In March 2008, the standard drafting team presented a new proposed standard that would require minimum operating reserve at the greater of, a) the most severe single contingency, or 2) 3% of load plus 3% internal generation of a Balancing Authority or Reserve Sharing Group. The drafting team made this recommendation based on the fact that the proposed standard maintains an overall level of reserves in WECC comparable to the level under the existing 5-7% requirement and it improves reliability by eliminating any ambiguity in responsibility for operating reserves. The WECC Operating Committee overwhelmingly approved the proposed standard March, 2008 and the MIC expressed its overwhelming approval in an advisory vote at the same time. The WECC Board of Directors approved the standard in April, 2008 by a vote of 28 in favor, one opposed, and two abstentions. A minority of WECC members continue to object to the proposal claiming that it does not have a technical justification. Some are also opposed, because they believe the proposed standard shifts more operating reserves responsibility and cost to their systems. Opposing comments were received and responded to in both the WECC and NERC comment periods.

Another key issue was identified during the development of the standard regarding the restoration time of contingency reserves to within 60 minutes. The current standard, BAL-STD-002-0, requires the restoration of contingency reserves within the

first 60 minutes following an event. This requirement was eliminated in the proposed BAL-002-WECC-1 Regional Reliability Standard. By eliminating this requirement in the proposed standard, WECC adopts the NERC default standard that requires the restoration of contingency reserves within 90 minutes from the end of the disturbance recovery period (15 minutes). The 60 minute restoration period required by the current standard was developed and used under a manual interchange transaction structure among vertically integrated utilities. As the electric utility industry restructured, there has been a substantial increase in the number of market participants and interchange transactions. To accommodate the increase in number of interchange transactions and market participants an electronic tagging system was implemented in the Western Interconnection. The adoption of an electronic tagging system that accommodates multiple market participants and a large number of interchange transactions made the current mid-hour reserve restoration more cumbersome and made the inappropriate rejection of reserve restoration transactions more likely because such transactions are outside the electronic tagging cycle. Eliminating the 60 minute reserve restoration requirement and adopting the NERC requirements results in more efficient communication among Balancing Authorities because it aligns the restoration of contingency reserves with the electronic tagging system approval cycle.

Exhibit C of this filing contains the record of development of the proposed reliability standard including the minority opinions expressed from the Operating Committee vote received before the WECC Board of Directors balloted BAL-002-WECC-1.

VI. CONCLUSION

NERC requests that the Commission approve the Regional Reliability Standard BAL-002-WECC-1 — Contingency Reserves, to take effect 90 days after Commission approval. Upon the effective date of BAL-002-WECC-1, NERC requests that the Commission concurrently retire BAL-STD-002-0. The reliability of the bulk power system of the Western Interconnection is best served by the implementation of this proposed Regional Reliability Standard. In the interest of improved reliability, NERC staff recommends Commission approval of the proposed Regional Reliability Standard.

Respectfully submitted,

/s/ Rebecca J. Michael

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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 25th day of March, 2009.

/s/ Rebecca J. Michael
Rebecca J. Michael

Assistant General Counsel for North American Electric Reliability Corporation

Exhibit A

Reliability Standard Proposed for Approval

Definitions of Terms Used in Standard

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

A. Introduction

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

4. **Applicability**

   4.1 Balancing Authority

   4.2 Reserve Sharing Group

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

B. Requirements

R1. Each Reserve Sharing Group or Balancing Authority that is not a member of a Reserve Sharing Group shall maintain as a minimum Contingency Reserve that is the sum of the following: *[Violation Risk Factor: Medium] [Time Horizon: Real-time Operations]*

R1.1. The greater of the following:

R1.1.1. An amount of reserve equal to the loss of the most severe single contingency; or

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

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

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

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

R2. Each Reserve Sharing Group or Balancing Authority that is not a member of a Reserve Sharing Group shall maintain at least half of the Contingency Reserve in R1.1 as Spinning Reserve. Any Spinning Reserve specified in R1 shall meet the following requirements. *[Violation Risk Factor: High] [Time Horizon: Real-time Operations]*

R2.1. Immediately and automatically responds proportionally to frequency deviations, e.g. through the action of a governor or other control systems.

R2.2. Capable of fully responding within ten minutes.

R3. Each Reserve Sharing Group or Balancing Authority shall use the following acceptable types of reserve which must be fully deployable within 10 minutes of notification to meet R1: *[Violation Risk Factor: Medium] [Time Horizon: Real-time Operations]*

R3.1. Spinning Reserve

R3.2. Interruptible Load;

R3.3. Interchange Transactions designated by the source Balancing Authority as non-spinning contingency reserve;

R3.4. Reserve held by other entities by agreement that is deliverable on Firm Transmission Service;

R3.5. An amount of off-line generation which can be synchronized and generating; or

R3.6. Load, other than Interruptible Load, once the Reliability Coordinator has declared a capacity or energy emergency.

C. Measures

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

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

M2. The Reserve Sharing Group or Balancing Authority that is not a member of a Reserve Sharing Group has documentation that it maintained at least 100% of minimum Spinning Contingency Reserve required based upon data averaged over each clock hour except within the first 105 minutes following an event requiring the activation of Contingency Reserves. For each hour, Reserve Sharing Group or Balancing Authority that is not a member of a Reserve Sharing Group shall have and provide upon request the Spinning Reserve Requirement in MW and amount of Spinning Reserve available in MW that is automatically responsive to frequency and can be fully deployed in 10 minutes.

M3. The Reserve Sharing Group or Balancing Authority that is not a member of a Reserve Sharing Group has documentation that it used the acceptable types of reserve for each hour to meet R3.

M3.1 Any Reserve Sharing Group or Balancing Authority utilizing Load other than Interruptible Load shall submit documentation demonstrating that the Reliability Coordinator declared a Capacity and/or Energy Emergency prior to utilizing Load for Contingency Reserves.

D. Compliance

1. Compliance Monitoring Process

1.1 Compliance Monitoring Responsibility

Compliance Enforcement Authority

1.2 Compliance Monitoring Period

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

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

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

1.2.1 Compliance Monitoring Period: One Clock Hour.

1.2.2 The Performance-reset Period is calendar quarter.

1.3 Data Retention

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

1.4. Additional Compliance Information

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

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

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

1.4.4. If an agent properly designated in accordance with Section 1.4.2 fails to identify individual Balancing Authorities within the Reserve Sharing Group responsible for noncompliance at the time of data submission or fails to specify percentages of responsibility attributable to each identified Balancing Authority, any penalties for noncompliance shall be assessed against the agent on behalf of the Reserve Sharing Group, and it shall be the responsibility of the members of the Reserve Sharing Group to allocate responsibility for such noncompliance.

1.4.5. Any Balancing Authority that is a member of a Reserve Sharing Group that has failed to register as provided in Section 1.4.2 shall be subject to this Standard on an individual basis.

2. Violation Severity Levels for Requirement R1

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

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

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

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

3. Violation Severity Level for Requirement R2

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

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

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

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

4. Violation Severity Level for Requirement R3

4.1 Lower: Not Applicable

4.2. Moderate: Not Applicable

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

4.4. Severe: Not Applicable

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

Version	Date	Action	Change Tracking
1	April 16, 2008	Permanent Replacement Standard for BAL-STD-002-0	

Exhibit B

The NERC Board of Trustees' Resolution

on the WECC Regional Reliability Standard

NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Resolution of the NERC Board of Trustees

October 29, 2008
The Westin Arlington Gateway
801 North Glebe Road
Arlington, Virginia

WECC Tier 1 Reliability Standards

RESOLVED, that the North American Electric Reliability Corporation Board of Trustees approves the following proposed Regional Reliability Standards developed by the Western Electricity Coordinating Council (WECC), on condition that WECC address the shortcomings raised during the comment periods in the next revision of the standards:

FAC-501-WECC-1 — Transmission Maintenance
PRC-004-WECC-1— Protection System and Remedial Action Scheme Misoperation
TOP-007-WECC-1 — System Operating Limits
VAR-002-WECC-1 — Automatic Voltage Regulators
VAR-501-WECC-1 — Power System Stabilizer

In addition, the Board approves proposed standard BAL-002-WECC-1 — Contingency Reserves.

The Board also defers action on proposed standard IRO-006-WECC-1 — Qualified Transfer Path Unscheduled Flow (USF) Relief, pending receipt of additional information.

116-390 Village Blvd.
Princeton, NJ 08540
609.452.8060 | www.nerc.com

Exhibit C

Record of Development of Proposed Reliability Standard

WECC Standard BAL-002-WECC-1 Contingency Reserves

WECC has been attempting to clarify ambiguities related to the Contingency Reserve requirements that exist in today's Standard for more than 5 years. The lack of agreement among entities about the correct interpretation of the Standard has thwarted previous attempts. Unresolved issues include ambiguity in the definition of load responsibility, inclusion of market transactions in the determination of reserve requirements, and the emergence of market products that do not fit into the reliability concept. By modifying the manner in which required reserves are determined, the drafting team has endeavored to remove these controversial issues without significantly altering the amount of reserves required in the WECC.

The drafting team used information for eight selected hours from a one year period for the entities – Reserve Sharing Groups and Balancing Authorities not members of Reserve Sharing Groups – responsible for reserves in the WECC. Using this information, the drafting team estimated the impact of different levels of reserve requirements. Based on our review and discussions, the drafting team is proposing an allocation of reserves based on a combination of generation and load, an approach intended to minimize adverse impacts to any one entity while separating the market products and reliability requirements. Reserve requirements, as proposed, will be will be the greater of (i) three percent (3%) times the Balancing Authority (BA) Load plus three percent (3%) times the BA net generation, or (ii) an entity's Most Severe Single Contingency. Additionally, the requirement to maintain at least half of this total as spinning reserve remains. The estimated impact of these changes to the required level of reserves in the WECC is a reduction of 650 MWs or less, a decrease of approximately 9% at most. Of the eight representative hours of data, only in one of these hours would any entity have seen a minimal increase in its reserve requirement. Additionally, the proposed allocation of reserves results in very little change in the distribution of reserves in the WECC. Note that these numbers only reflect the aggregate requirement for Reserve Sharing Groups and that the impact to individual members of the groups cannot be determined.

The proposed standard accomplishes the following objectives:

- It clearly identifies the responsible entity and creates a measurable requirement by imposing a Contingency Reserve Requirement based upon a BA's generation (3%) and load (3%).
- It maintains WECC Contingency Reserves similar to today's levels (if not higher, since it is currently unknown whether reserves are being held for some transactions). Based on information provided to the drafting team, the proposed requirements would cause an overall decrease of WECC required reserves of approximately 350 MWs (from approximately 10,850 MWs to 10,500 MWs) on high load days. The largest change of required contingency reserves during the hours reviewed indicate a decrease of 650 MW.

- By not carrying all Contingency Reserves based on load or all based on generation, it minimizes overall cost shifting and shares the requirement between generation and load.
- It eliminates ambiguity related to transactions by eliminating their impact on the determination of requirements (with the exception of Contingency Reserve-specific Transactions). It eliminates the need for WECC to define products that are bought and sold between marketing entities, which is important because the responsible BA is not privy to the specifics surrounding each transaction. Each BA will clearly understand the requirement without having to monitor each transaction and determine the impact of each tag to its requirements.
- It removes the uncertainty of whether or not the requirements change based on the type of transmission being used to move energy from one BA to another.
- It helps WECC to better transition to a Frequency Responsive Reserve (FRR) Standard that would not include transactions (with the exception of FRR-specific transactions).
- It eliminates the need to define and agree on the requirements for non-hydro and non-thermal generation. Different regions currently seem to use differing reserve requirements for generation such as wind.
- It retains the NERC standard of Most Severe Single Contingency (MSSC) as the minimum level of Contingency Reserves, as the requirement would become the greater of MSSC or 3 % of net generation plus 3% of load.
- It maintains applicability to BA or Reserve Sharing Group, the same as today.
- It enhances the ability to meet load due to any type of contingency by carrying for both generation and load, because Contingency Reserves may be activated for loss of a transaction due to transmission or generation loss.

BAL-002-WECC-1 - Contingency Reserve - Comments due October 30, 2007
November 19, 2007

Mike Ryan Posted: 19.10.2007, 13:59

I appreciate the work put into this necessary replacement for BAL-STD-002-0 and offer the following comments:

• At present, the WECC has four requirements for operating reserves that are captured in BAL-STD-002-0 B.WR1.a.(i)(ii)(iii) and (iv).

The replacement draft seems to drop the contents of (i) on regulating reserve and (iv) on interruptible imports, and then labels what remains as "Contingency Reserve" through a title change.

Is this intended to mean that the identical provisions in WECC MORC are still in effect for WECC members, or does the drafting team mean to eliminate these paragraphs from WECC MORC and fall back on NERC Standards?

If it's the latter, this would seem to eliminate the requirement for a "sink" BA to carry additional reserves for interruptible imports. I would not be in favor of this.

Response: The language related to regulating reserve in the WECC Standard BAL-STD-002-1 states that an entity must meet the NERC Standard BAL-001. Therefore, the language in WR1.a.(i) is duplicative to the NERC standard and not needed in the WECC standard. The WECC standard should not be expected to cover all issues and should only cover very specific items that are required in the standard. The drafting team has removed all items that are discussion, explanation or theory. Only clear, concise requirements have been retained in the standard.

The language related to additional reserves for interruptible imports has been removed and replaced with a requirement to carry reserves if the source is counting the energy as part of its reserves. The current requirement to carry 100% of "interruptible transactions" has no basis. When viewed from a logical perspective rather than a nostalgic perspective, the fact that something could happen does not mean that it is likely to happen. Therefore, the drafting team is recommending that the current requirement be changed to more appropriately require reserves for only those clearly defined transactions that are used by the source to meet its reserve requirements and get away from any attempt to define market products.

The comments also raise an issue related to the existing MORC document language. While it has not yet been determined what to do with existing WECC documents, the drafting team believes that any standard will replace comparable language in any existing document. The drafting team will recommend to the ORCWG that the MORC document be revised to remove the existing language related to contingency reserves as well as any other language that duplicates or conflicts with approved standards.

The contents of (ii) on contingency reserves and (iii) on on-demand obligations are implicitly lumped together as "Contingency Reserve" by the title change which doesn't seem helpful to me.

• The contingency reserve requirement is contained in (ii).

I really wish that the drafting team had resisted the temptation to mount another campaign for the elimination of the "load responsibility" in contingency reserves. This attempt to revive the ORSTF debate seems particularly ill-timed as we move to implement a clarified definition for "load responsibility" that was just approved by the WECC's BOD.

Response: The drafting team respectfully disagrees with this position. The drafting team feels that the proposed standard is an improvement over the clarification of the term "load responsibility," especially since there are still some people who disagree with the clarification. Ultimately, a Balancing Authority must balance its loads and resources in order to meet its obligations. It is the drafting team's belief that this proposal will ensure that a Balancing Authority can do so using the proposed standard while not putting them at risk of differing interpretations. This methodology ultimately allocates the contingency reserve amount to entities in the WECC. It does not dictate how or when these reserves can be utilized. Requirement R1.3 is used to identify the needed reserves that is currently termed "on-demand obligations." The drafting team has attempted to clarify this section of the proposed standard.

• The replacement draft drops the language in BAL-STD-002-0 A.4 that try to describe how this standard applies to Reserve Sharing Groups (RSG's) and their members. The members of the NWPP believe that the replacement draft needs to contain similar language, and should also address responsibilities for fines/sanctions allocated by RSG's to their members. What follows is some language drafted by people smarter than me:

o 4. Applicability

4.1 Balancing Authority. This Standard shall apply to a Balancing Authority individually unless the Balancing Authority is a member of a Reserve Sharing Group that has registered with the WECC as provided in Section 4.2.2.

4.2 Reserve Sharing Group.

4.2.1 This Standard shall apply to a Reserve Sharing Group that has registered with the WECC as provided in Section 4.2.2, and each Balancing Authority identified in the registration shall be responsible for compliance with this Standard through its participation in the Reserve Sharing Group and not on an individual basis.

4.2.2 A Reserve Sharing Group may register as the Responsible Entity for purposes of compliance with this Standard by providing written notice to the WECC (a) indicating

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

4.2.3 If an agent properly designated in accordance with Section 4.2.2 identifies individual Balancing Authorities within the Reserve Sharing Group responsible for noncompliance at the time of data submission, together with the percentage of responsibility attributable to each identified Balancing Authority, then, except as may otherwise be finally determined through a duly conducted review or appeal of the initial finding of noncompliance, (a) any penalties assessed for noncompliance by the Reserve Sharing Group shall be allocated to the individual Balancing Authorities identified in the applicable data submission in proportion to their respective percentages of responsibility as specified in the data submission, (b) each Balancing Authority shall be solely responsible for all penalties allocated to it according to its percentage of responsibility as provided in subsection (a) of this Section 4.2.3, and (c) neither the Reserve Sharing Group nor any member of the Reserve Sharing Group shall be responsible for any portion of a penalty assessed against another member of the Reserve Sharing Group in accordance with subsection (a) of this Section 4.2.3 (even if the member of Reserve Sharing Group against which the penalty is assessed is not subject to or otherwise fails to pay its allocated share of the penalty).

4.2.4 If an agent properly designated in accordance with Section 4.2.2 fails to identify individual Balancing Authorities within the Reserve Sharing Group responsible for noncompliance at the time of data submission or fails to specify percentages of responsibility attributable to each identified Balancing Authority, any penalties for noncompliance shall be assessed against the agent on behalf of the Reserve Sharing Group, and it shall be the responsibility of the members of the Reserve Sharing Group to allocate responsibility for such noncompliance.

4.2.5 Any Balancing Authority that is a member of a Reserve Sharing Group that has failed to register as provided in Section 4.2.2 shall be subject to this Standard on an individual basis.

Response: The drafting team has inserted the proposed language in D.1.4 to address the issue raised. The drafting team is unsure if the language proposed will be acceptable to NERC and FERC for inclusion in a Regional Reliability Standard. It is possible that the issue will be resolved in a forum other than a reliability standard. In the event this issue is resolved in another form, the language of D.1.4 will be removed. The drafting team has been assured that the WECC Board will attempt to address this issue at its December meeting through adoption of a policy statement related to this issue.

• The replacement draft replaces the 60 minute limit on the use of operating reserves following their activation with a 105 minute limit. While I support the idea of lengthening the time limit, I note that the NERC limit in BAL-002-0 is set at 90 minutes.

Longer time limits are allowed, but require justification. It seems to me that adopting the NERC 90 minute limit makes the most sense.

Response: The NERC limit is 90 minutes following the Disturbance Recovery Period, which is 15 minutes. This gives a total time period from the time of the event to the time of restoration of reserves of 105 minutes. The drafting team modified the language to clarify that the restoration period is the same as NERC's time period.

Thank you for considering my comments.
Michael Ryan
Portland General Electric

Gordon Rawlings Posted: 22.10.2007, 15:31

BCTC in support of the NWPP recommends adding the following comments to Section (A) of the proposed Standard BAL-002-WECC-1.

4. Applicability

4.1 Balancing Authority. This Standard shall apply to a Balancing Authority individually unless the Balancing Authority is a member of a Reserve Sharing Group that has registered with the WECC as provided in Section 4.2.2.

4.2 Reserve Sharing Group.

4.2.1 This Standard shall apply to a Reserve Sharing Group that has registered with the WECC as provided in Section 4.2.2, and each Balancing Authority identified in the registration shall be responsible for compliance with this Standard through its participation in the Reserve Sharing Group and not on an individual basis.

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

4.2.3 If an agent properly designated by a Reserve Sharing Group in accordance with Section 4.2.2 identifies individual Balancing Authorities within the Reserve Sharing Group responsible for noncompliance at the time of data submission, together with the percentage of responsibility attributable to each identified Balancing Authority, then, except as may otherwise be finally determined through a duly conducted review or appeal of the initial finding of noncompliance, (a) any penalties assessed for noncompliance by

the Reserve Sharing Group shall be allocated to the individual Balancing Authorities identified in the applicable data submission in proportion to their respective percentages of responsibility as specified in the data submission, (b) each Balancing Authority shall be solely responsible for all penalties allocated to it according to its percentage of responsibility as provided in subsection (a) of this Section 4.2.3, and (c) neither the Reserve Sharing Group nor any member of the Reserve Sharing Group shall be responsible for any portion of a penalty assessed against another member of the Reserve Sharing Group in accordance with subsection (a) of this Section 4.2.3 (even if the member of Reserve Sharing Group against which the penalty is assessed is not subject to or otherwise fails to pay its allocated share of the penalty).

4.2.4 If an agent properly designated by a Reserve Sharing Group in accordance with Section 4.2.2 fails to identify individual Balancing Authorities within the Reserve Sharing Group responsible for noncompliance at the time of data submission or fails to specify percentages of responsibility attributable to each identified Balancing Authority, any penalties for noncompliance shall be assessed against the agent on behalf of the Reserve Sharing Group, and it shall be the responsibility of the members of the Reserve Sharing Group to allocate responsibility for such noncompliance.

4.2.5 Any Balancing Authority that is a member of a Reserve Sharing Group that has failed to register as provided in Section 4.2.2 shall be subject to this Standard on an individual basis.

Response: Please refer to the response to Mike Ryan's comments above.

DON BADLEY Posted: 23.10.2007, 18:38

The following commentary and proposed language for Section A.4 are made on behalf of the Northwest Power Pool Reserve Sharing Group (NWPP RSG). Balancing Authority participants in the NWPP RSG are: AESO, AVA, BCTC, BPAT, CHPD, DOPD, GCPD, IPC, NWMT, PACE, PACW, PGE, PSE, SMUD, SCL, SPPC, TID, TPWR, and WAUW.

INTRODUCTORY COMMENTARY

The Northwest Power Pool Reserve Sharing Group (NWPP Reserve Sharing Group) urges the WECC to include in BAL-STD-002-1 language that not only expressly recognizes Reserve Sharing Groups, but resolves concerns that could undermine the viability of Reserve Sharing Groups if not addressed.

The current version of the standard, BAL-STD-002-0, contains language indicating that when an agent for a Reserve Sharing Group has provided in its data submission a specific identification of Reserve Sharing Group members that are responsible for noncompliance, allocation of penalties will follow the indicated responsibility.

The concept expressed in BAL-STD-002-0 needs to be carried over to the proposed

successor standard (BAL-STD-002-1), but it also must be extended and clarified. These comments include the clarifications and proposed language that the NWPP Reserve Sharing Group suggests be made to BAL-STD-002-1. We appreciate WECC's consideration of these comments.

Reserve Sharing Groups enhance reliability while saving costs. This is good for utilities and their customers. A policy to support the operation of Reserve Sharing Groups is already reflected in the current BAL-STD-002-0, as well as the national standard adopted by NERC (BAL-002-0). In order to continue the benefits provided by reserve sharing groups, the proposed changes in the standard are necessary.

The language of the standard must assure members of Reserve Sharing Groups that once specific responsibility for noncompliance has been assigned to the appropriate members of the Reserve Sharing Group, the penalty assessment process will not shift liability to other Reserve Sharing Group members, or make the Reserve Sharing Group act as guarantor for member penalty obligations.

This issue is extremely important to the NWPP Reserve Sharing Group because it encompasses members (such as Canadian Balancing Authorities) that are not subject to FERC enforcement authority with respect to BAL-STD-002, as well as members that may have unresolved issues regarding the imposition of monetary penalties. It is neither appropriate nor feasible to expect this issue to be resolved among the members of the Reserve Sharing Group. Further, many entities have legal prohibitions against their being liable for another entity's penalties or debts.

To illustrate the problem: If the NWPP Reserve Sharing Group as whole had an instance of noncompliance with BAL-STD-002-1, and if the noncompliance were 50% attributable to Canadian Balancing Authorities, it is vital for the standard to clearly provide that the share of monetary penalties that would have been payable by the Canadian Balancing Authorities (which are not subject to monetary penalties under FERC rules) cannot be shifted onto the other Balancing Authorities that bear the remaining 50% of the responsibility (or onto other Reserve Sharing Group members that bear no responsibility).

The critical concepts are that a Reserve Sharing Group (1) must not become an indirect mechanism to impose penalties that could not be assessed directly against a Balancing Authority, and (2) must not shift liability among members of a Reserve Sharing Group in such as way as to cause any Balancing Authority to pay penalties that are greater than its proportionate share of responsibility for an instance of noncompliance.

The language of the standards needs to be clarified in this respect so that it is workable for Reserve Sharing Groups to register as Responsible Entities for purposes of compliance with BAL-STD-002-1. If a Reserve Sharing Group is unable to register for compliance purposes, this would essentially defeat the Reserve Sharing Group's ability to operate for any purpose.

We are providing proposed language to be included in the standard BAL-STD-002-1. We believe this language addresses the concerns and legal issues we have raised while maintaining the standard's requirements for a balancing authority related to reliability of the bulk electric system.

PROPOSED LANGUAGE FOR SECTION A, PARAGRAPHS 4.1 AND 4.2

4. Applicability
4.1 Balancing Authority. This Standard shall apply to a Balancing Authority individually unless the Balancing Authority is a member of a Reserve Sharing Group that has registered with the WECC as provided in Section 4.2.2.

4.2 Reserve Sharing Group.

4.2.1 This Standard shall apply to a Reserve Sharing Group that has registered with the WECC as provided in Section 4.2.2, and each Balancing Authority identified in the registration shall be responsible for compliance with this Standard through its participation in the Reserve Sharing Group and not on an individual basis.

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

4.2.3 If an agent properly designated in accordance with Section 4.2.2 identifies individual Balancing Authorities within the Reserve Sharing Group responsible for noncompliance at the time of data submission, together with the percentage of responsibility attributable to each identified Balancing Authority, then, except as may otherwise be finally determined through a duly conducted review or appeal of the initial finding of noncompliance, (a) any penalties assessed for noncompliance by the Reserve Sharing Group shall be allocated to the individual Balancing Authorities identified in the applicable data submission in proportion to their respective percentages of responsibility as specified in the data submission, (b) each Balancing Authority shall be solely responsible for all penalties allocated to it according to its percentage of responsibility as provided in subsection (a) of this Section 4.2.3, and (c) neither the Reserve Sharing Group nor any member of the Reserve Sharing Group shall be responsible for any portion of a penalty assessed against another member of the Reserve Sharing Group in accordance with subsection (a) of this Section 4.2.3 (even if the member of Reserve Sharing Group against which the penalty is assessed is not subject to or otherwise fails to pay its allocated share of the penalty).

4.2.4 If an agent properly designated in accordance with Section 4.2.2 fails to identify individual Balancing Authorities within the Reserve Sharing Group responsible for

noncompliance at the time of data submission or fails to specify percentages of responsibility attributable to each identified Balancing Authority, any penalties for noncompliance shall be assessed against the agent on behalf of the Reserve Sharing Group, and it shall be the responsibility of the members of the Reserve Sharing Group to allocate responsibility for such noncompliance.

4.2.5 Any Balancing Authority that is a member of a Reserve Sharing Group that has failed to register as provided in Section 4.2.2 shall be subject to this Standard on an individual basis.

Response: Please refer to the response to Mike Ryan's comments above.

DON BADLEY Posted: 23.10.2007, 18:42

The following comments and questions related to Sections of BAL-002-WECC-1 are made on behalf of the Northwest Power Pool Reserve Sharing Group (NWPP RSG). Balancing Authority participants in the NWPP RSG are: AESO, AVA, BCTC, BPAT, CHPD, DOPD, GCPD, IPC, NWMT, PACE, PACW, PGE, PSE, SMUD, SCL, SPPC, TID, TPWR, and WAUW.

A. Introduction
Comment regarding title:
• Title should be Contingency Reserve not Contingency Reserves. Contingency Reserve is a category of reserve.

Response: The drafting team has made this change.

B. Requirements
Comments regarding R1.1.2:
• What is the technical justification for the3% quantities used to determine the minimum level of contingency reserve? Why require more than MSSC?
• Don't you mean Net Actual Interchange instead of "interchange"?
• Is behind-the-meter generation to be counted when determining the minimum amount of contingency reserve? What about generation that is not telemetered into AGC?

Response: The technical justification is that this proposal provides a clear requirement without reducing the amount of reserves required in the WECC. When the information from surveys of applicable entities was reviewed, this level of reserve provided a level approximately equal to that calculated under our interpretation of today's rules. The proposed language clarifies issues related to the reserves required for different types of generation, transactions impact on the level of required reserves and others listed in the "Reasons Why Bal-002 – 9-14-07."

While some on the drafting team would agree with moving to only MSSC, the WECC Board of Directors and the majority of the members of WECC voted to include the Tier 1 standard in the filings to NERC and therefore FERC to ensure that the level of

reserves did not decrease with the implementation of mandatory standards. The Board of Directors and members in attendance at the OC continue to voice concern over a potential reduction in the level of required reserves in the WECC.

The drafting team has modified the proposed standard to address the issue of "net Interchange" versus "Net Actual Interchange." We have also tried to clarify the language regarding generation.

The drafting team believes that the generation and interchange measured by the Balancing Authority EMS system shall be sufficient for determination of contingency reserve requirements greater than Most Severe Single Contingency. Due to the limited size of non-metered generation, it is not a reliability issue to leave small generators not telemetered into the EMS system out of the equation.

Comment regarding R2:
• Does Requirement R2 mean that BAs within a reserve sharing group are not individually responsible to carry 50% spinning reserve?

Response: Yes, the allocation of reserves among RSG members is not being dictated by this standard. This is a business issue that the RSG members should address rather than having the standard direct how an entity complies.

Comments regarding R2.1:
• Does "initially automatically respond" mean it no longer has to automatically respond after the initial period ends?
• What is the length of the initial period?

Response: The drafting team has revised R2.1 to clarify the intent.

Comment regarding R2.2:
• How does one determine "capable of responding"?

Response: Unit testing, actual unit operation or other means of proving that a unit can provide the response claimed.

Comment regarding R.3:
• These types of reserve must be clearly defined in a way that they can be applied to contingency reserve; this would include a statement about the length of time it would take to deploy the reserve.

Response: The drafting team has clarified that only the amount that can be deployed within 10 minutes can be counted.

C. Measures
Questions regarding M1:
• FERC is opposed to fill-in-the-blank (self reported) data. How will any auditor know

whether the data used for analysis is true or false?
• What data is required as documentation?
• Why is the metric based upon data averaged over the clock hour when the standard requires a minimum to be available “at all times”?
• How are we to handle the 105 minute exception when we are keeping records that based upon data averaged over the clock hour?
• Since interchange transactions claimed as a resource for contingency reserve must be added or subtracted to determine the minimum amount of contingency reserve required, how is this do be documented within a reserve sharing group or with BAs outside of the reserve sharing group?

Response: The drafting team does not agree that the measurement data is a fill-in-the-blank issue. All data ultimately comes from the entity. The drafting team does not see any other way than to require the responsible entity to have the data to prove that it met the requirements. The required data that must be provided for an audit is spelled out in the measurement section. The measurement period provided for in the standard is the same that has been used previously. The drafting team recommended that this be maintained. ISSUE OF MEASUREMENT OF RESERVE RESTORATION. The drafting team believes that a tag showing the availability of the reserves would suffice, although a contract with the party in addition to the tag would probably be better.

Questions regarding M2:
• If a BA carries 200% of its required spinning reserve for the first half hour and 0% for the second half hour, does it meet the standard?
• How is the amount of spinning reserve to be determined? Is it that which can be fully deployed in 10 minutes, 1 minute, 30 seconds? Does it have to respond automatically to frequency?

Response: Yes, technically this would meet the requirements, but in reality, it is unlikely that this could be done. Additionally, operating this way would cause the likelihood of failing the DCS requirements to dramatically increase. The drafting team modified the proposed standard to address the time period for the response. NERC has defined spinning reserve, and the drafting team recommends using this definition. In R2, the drafting team has required that spinning reserve be responsive to frequency.

Questions regarding M3:
• Does this mean a record of every source of contingency reserve used to recover from an event must be documented?
• Is it necessary to track the availability as well as the deployment of every type of acceptable reserve?

Response: Recovery from an event is not measured in M3. Rather the amount of reserves that comes from acceptable resources is measured. There is nothing about recovery in this measurement. Documentation should be provided that shows the reserves used to meet the requirement.

Question regarding M3.1:
• What is necessary to demonstrate a declared capacity or energy emergency? A NERC EEA issuance or declaration of emergency? What is the definition of an emergency?

Response: The intent of using capitalized terms in R3 is to require the RC to declare an emergency according to NERC Standard EOP-002. The drafting team has modified the standard to clarify this issue.

D. Measures
Question regarding D1.3:
• What form of record keeping is acceptable – electronic, paper, or both?

Response: Either form would suffice.

General Questions about Compliance
The introductory description of this draft standard states it is "designed to implement the directives of FERC and recommendations of NERC when BAL-002-0 was approved as a NERC reliability standard." Does this mean that quarterly compliance reports no longer need to be sent to NERC? Are BAs within the WECC still expected to file monthly exception reports regarding Operating Reserve to the WECC to satisfy the requirements in RMS?

Response: The reporting requirements in this standard only pertain to this standard. Reports required by NERC standards are not affected by this standard. The Compliance Monitor in the WECC will determine the reporting requirements. The Compliance Monitor will issue a WECC Compliance Manual that covers all aspects of the reporting requirements. The reporting requirements from the Tier 1 standard would be replaced with the reporting requirements related to this standard when approved.

Are all the Existing Standards (NERC BAL-002, and WECC BAL-002) replaced by this proposed Standard BAL-002-WECC-1? What about the other requirements such as compliance with DCS etc. are they still required? Will there be one place or one Standard that captures all the issues associated with BAL-002?

Response: The WECC Standard will be replaced by this standard. The requirements in this standard will supplement the requirements in the NERC standard, but since the NERC standard has additional requirements not covered by this standard, the NERC standard would still apply as well, just as it does today.

Robert Schwermann Posted: 24.10.2007, 20:11

SMUD appreciates the opportunity to comment, and applauds the work of the Committee for its efforts in addressing these difficult issues. In general, SMUD is supportive of the proposed standard. We support having a higher Contingency Reserve (CR) Requirement

for exporting systems than that required for importing systems, as this assigns a greater reserve requirement to the suppliers where the generation is located. In addition we believe that allowing reserve-sharing groups to share CR obligations is a positive improvement, as it provides greater flexibility to utilize available resources. The proposed standard gets rid of much of the confusion that currently exists over Load Responsibility, and eliminates dependence on various Market Products (Firm, Exchanges, and Unit Contingent etc). In addition it eliminates complication over reserve amounts based on type of generation currently Hydro (5%), Thermal (7%), and Wind or Solar (no specified reserve requirements).

Response: Thank you for your supporting comments.

We would like to suggest that R1.2 and R1.3 be clarified to avoid interpretation and application errors. It appears that R1.2 and R1.3, were based on, and are intended to be similar to the existing MORC 1.A.1.c, Additional Reserve for Interruptible Imports and 1.A.1.d, Additional Reserve for on-demand obligations. Both of these additional reserve obligations were originally allowed to be "Non-Spinning" reserves. Although many exporters honored On-demand obligations with in-kind reserves, it is not clear if the intent of R1.2 is to continue this use of in-kind reserves or to include the value in overall Contingency Reserve such that 50% of that amount would be required to be spinning reserve. If a Source Balancing Authority (BA) is claiming an interchange transaction as a Contingency Reserve resource the Source Balancing Authority can only count it as a Non-Spinning resource. As such the receiving BA should only have to maintain non-spinning CR's for this transaction.

Response: The drafting team has modified the proposed standard to address this issue.

SMUD would also like to sound a cautionary note regarding elimination of the requirement to carry additional reserves for curtailable transactions, as is the effect of R 1.2 . The use of such curtailable transactions are limited in volume currently primarily because the additional reserve burden required under the current MORC creates a disincentive. Elimination of this reserve burden could significantly increase reliance on curtailable transactions. Should heavy reliance on these types of transactions create a reliability problem, entities relying heavily on such transactions for serving load may have a new most single severe contingency that drives their reserve obligation.
R1.3 uses "slightly" different wording where it is specified that the Source BA must maintain an amount of CR equal to the transaction amount when the Sink BA is claiming the transaction as a resource to meet its "like" CR Requirement. This implies that R1.3 may require either Spinning or Non-Spinning Reserve.

We offer the following wording change:

R1.2 Contingency Reserve for a Sink Balancing Authority, capable of fully responding in 10 minutes, in an amount equal to Interchange Transaction(s) where the Source Balancing Authority is claiming the Interchange Transaction(s) as
a resource to meet its Contingency Reserve requirements.

R1.3 Contingency Reserve, for a Source Balancing
Authority, equal in amount and type, to the capacity transaction(s) where the Sink Balancing Authority is claiming the transaction(s) as a resource to
meet its Contingency Reserve requirements.

Response: The drafting team has made changes to the proposed standard similar to those proposed by SMUD.

SMUD Coordinated Comments

Mark Willis Posted: 25.10.2007, 12:23

SMUD has previously commented on this standard as a coordinated response from both the Merchant and Reliability divisions of the company. These comments focused primarily on clarifications of the proposed standard to eliminate ambiguity.

SMUD System Operations and Reliability is also submitting separate comments as a Northwest Power Pool member in support of the comments previously made by Don Badley of the NWPP with respect to the potential impact on reserve sharing groups. The comments from the Northwest Power Pool do not conflict with SMUD's previous submission, but provide more detail and are more applicable to the operation of the Reserve Sharing Group.

In particular, the following items should be considered by the standards drafting team:

• We support clarification of compliance language that ensures responsibility for sanctions is allocated correctly to the individual BA's members of an RSG, in accordance with the wording changes to Paragraphs 4.1 and 4.2 submitted by the NWPP.

Response: Please refer to the response to Mike Ryan's comments above.

• Without a technical basis to establish the need for contingency reserve in excess of the MSSC, we feel that although conservative, it is unwise to establish a mandatory and enforceable standard for these arbitrary and additional reserves above and beyond what NERC has considered adequate.

Response: While some on the drafting team would agree with moving to only MSSC, the WECC Board of Directors and the majority of the members of WECC voted to include the Tier 1 standard in the filings to NERC and therefore FERC to ensure that the level of reserves did not decrease with the implementation of mandatory standards. The Board of Directors and members in attendance at the OC continue to voice concern over a potential reduction in the level of required reserves in the WECC.

• The standard should clarify if the availability of reserves can be integrated over an hour

or if it must represent a continuous availability.

Response: The drafting team clarified that the measurement of compliance will be the hourly integrated calculation.

• The standard should clarify what delivery time frame is acceptable for “Spinning Reserve” considering the delay in instantaneous deployment due to actions required by operators.

Response: In the proposed standard, R2.1 and R2.2 has been adjusted to clarify the requirements related to Spinning Reserve. The drafting team believes that the revised language is clear in that Spinning Reserve is automatically responsive to a frequency deviation (i.e. without operator intervention) and that the reserves must be fully deployable within 10 minutes.

SMUD - System Operations & Reliability

Brent Kingsford Posted: 29.10.2007, 09:17

The California ISO appreciates the opportunity to comment on BAL-002-WECC-1. This is a critical standard that requires careful attention to detail in drafting. The CAISO requests careful consideration of the following suggestions.

The CAISO believes that there should be greater detail in R2 and its sub-requirements to define spinning reserve. We believe that in order to be counted as spinning reserve the resource not only “Initially automatically responds to frequency deviations “but need additional details to ensure the quality of the reserves. We believe that there needs to be greater detail in the requirement as to frequency responsiveness for Spinning Reserve qualifying for Contingency Reserve.

Response: The drafting team has reviewed and revised the language in R2.1 and R2.2.

We would like to suggest a 0.36 Hz Dead-Bandwidth and a response rate that is inversely proportional to the magnitude of frequency deviation, essentially the same benefit that the 5% droop characteristic achieved.

Response: The drafting team does not feel that this should be included in the proposed standard as it is beyond the scope of this standard. It is possible that it would be more appropriate in another standard at NERC or WECC regional criteria.

There needs to be a requirement detailing the duration a resource counted as Contingency Reserve must be available once deployed. While the CAISO uses 2 hours, we recognize that not all entities would want to require the resource to be available for this full time period. We would suggest that an appropriate time would be 105 minutes to coincide

with disturbance recovery time. It would also be appropriate to designate in some method that a fast, fully responsive, yet energy-limited resource may be replaced or combined with a slower-responding, energy-abundant resource in a manner that achieves adequate response that is both timely and long-lasting enough to meet this and all other requirements.

Response: The drafting team believes that this issue is best addressed by each individual entity that is required to meet the NERC DCS requirements and the WECC Contingency Reserve requirements.

There needs to be details included in the M1 that details what intervals are appropriate for attaining the clock hour average of reserves. Is the appropriate measure at the AGC scan rate, a one minute interval, or a twice an hour measure? Without the appropriate detail included in the standard, a BA would be left to choose a measure that would be best for their compliance rather than a "standard" measurement.

Response: The drafting team believes that the proposed language in M1 is clear.

In addition, The CAISO could not implement this proposal from a settlement perspective until after MRTU go live on March 31, 2008. Moreover, to ensure CAISO readiness, a 90 day advance written notice is needed.

Response: The Implementation Date for this standard will be the first day of the quarter following regulatory approval. Based on the current timeline, this is unlikely to happen prior to the last quarter of 2008.

California ISO

Tom Cooper

Salt River Project

A few questions for the drafting team:

When does the 10-minute measurement period begin for spinning and non-spinning reserves (i.e., is it 10-minutes following a contingency, 10-minutes following notification, or some other starting point)?

Response: The 10 minutes is from notification. The drafting team has clarified this in the standard.

How would the requirement that spinning reserve be automatically responsive to frequency deviations be measured for compliance?

Response: The drafting team has clarified the Measurement and Compliance Sections of the standard.

Is it the intent of the proposal that, for the purpose of operating reserve, the concept of non-firm transactions is eliminated, i.e. all generation has to carry some amount of reserves?

Response: Since the use of the term non-firm mixes reliability and commercial products, the concept of this type of transaction has been removed from the determination of reserve requirements. The issue is covered in Requirement R1.2 in that if the source claims that the energy could be recalled for an event in the source BA Area, the sink would have an obligation to increase it's non-spinning reserve in an amount equal to the transaction. Requirement R1.1 would require that the source BA increase its contingency reserve requirement by 3% of the sale for the recallable sale.

Is it the intent of the proposal that an entity with on-demand contract obligations is no longer required to carry operating reserves to cover those obligations until the obligation is called on, at which point it might become generation with the 3% requirement?

Response: No, refer to the revised Requirement R1.3.

Thank you for considering these questions.

Greg Lange
Grant County PUD

As Grant has commented during the discussions on BAL-STD-002-0, we are not at all apposed to changing the way reserves are handled in the west. There are several issues that need cleaning up. We just would like to see us quit working on temporary fixes and get moving on the Board approved Frequency Responsive Reserves (FRR) process in combination with the MSSC as the most technically defensible backstop that we have. We would like to see one change for the better, not multiple changes. Especially when they don't look and feel anything like what the FRR will look like. Each temporary change comes with unnecessary added costs. In the Northwest we not only have to modify our individual EMS and Accounting programs, but we also have a very sophisticated automatic reserve sharing program that will need changes for each change in reserves we make. We would like to make those changes once and get on with it.

Response: The FRR standard is being worked on in parallel with this proposed standard. In the event that it is adopted prior to this standard, this standard would likely be dropped. However, due to the time constraints of the Tier 1 replacement requirements that WECC and FERC expects, this standard must continue through the process.

The other major heartburn we are having with this proposal is that it still does not take care of the NERC requirement to have a technically defensible standard. We still will have arbitrary percentages, which will be placed half on load and half on generation. This may help everyone feel better, but is still no more technically defensible than what we

have today.

Response: The technical justification for this standard is that this proposal provides a clear requirement without reducing the amount of reserves required in the WECC. When the information from surveys of applicable entities was reviewed, this level of reserve provided a level approximately equal to that calculated under our interpretation of today's rules. The proposed language clarifies issues related to the reserves required for different types of generation, transactions impact on the level of required reserves and others listed in the "Reasons Why Bal-002 – 9-14-07."

This current proposal still leaves interpretation up to the individual entities for what is generation. So we believe we will still have the same loopholes we have today. There is generation behind meters, IPP's are still reluctant to give accurate forecasts to their BA's and there is still generation that is not telemetered into an AGC system and thus hard to determine.

Response: The drafting team believes that the generation and interchange measured by the Balancing Authority EMS system shall be sufficient for determination of contingency reserve requirements greater than Most Severe Single Contingency. Due to the limited size of non-metered generation, it is not a reliability issue to leave small generators not telemetered into the EMS system out of the equation.

Until we create the technical defensible amount of reserves needed for the health of the interconnection under reasonable circumstances and that number is allocated to the BA's in the interconnection there will be no solution to this problem.
Grant would like to see us abandon these temporary efforts and concentrate on getting to the long term solution that reasonably protects the Western Interconnection infrastructure and its customers and truly eliminates the ambiguities in the system today.

Response: While some of the drafting team may agree with this position, the fact is that the FRR standard is not yet supported by a majority of the WECC members for the purposes of implementing an enforceable standard. Until questions related to the measurement processes, duration of measurement, and other basic issues are answered, the FRR standard will not be implemented in the WECC.

Chris Turner
Seattle City Light

Seattle City Light appreciates the opportunity to respond and also appreciates all the hard work put into developing this version of the standard.

Instead of repeating many of the comments that have already been made, City Light would like to point out two issues of note and then echo comments made by the NWPP.

Issue 1: What is the technical basis for changing to a reserve of 3% of the BA load and

3% of the net generation? (R1.1.2). A change from the existing percentages to new percentages should be driven by a defensible technical methodology.

Response: The technical justification for this standard is that this proposal provides a clear requirement without reducing the amount of reserves required in the WECC. When the information from surveys of applicable entities was reviewed, this level of reserve provided a level approximately equal to that calculated under our interpretation of today's rules. The proposed language clarifies issues related to the reserves required for different types of generation, transactions impact on the level of required reserves and others listed in the "Reasons Why Bal-002 – 9-14-07."

Issue 2: With a frequency responsive reserve standard on the horizon, this standard seems to be mis-timed. Instead of making two many major changes of this type close together (especially since the current requirements have served us well) we should wait for the FRR standard to play out.

Response: The FRR standard is being worked on in parallel with this proposed standard. In the event that it is adopted prior to this standard, this standard would likely be dropped. However, due to the time constraints of the Tier 1 replacement requirements that WECC and FERC expects, this standard must continue through the process.

Comment: If this standard moves forward to a vote, City Light would like to echo and repeat proposed language changes previously made by the NWPP. These are:

PROPOSED LANGUAGE

4. Applicability

4.1 Balancing Authority. This Standard shall apply to a Balancing Authority individually unless the Balancing Authority is a member of a Reserve Sharing Group that has registered with the WECC as provided in Section 4.2.2.

4.2 Reserve Sharing Group.

4.2.1 This Standard shall apply to a Reserve Sharing Group that has registered with the WECC as provided in Section 4.2.2, and each Balancing Authority identified in the registration shall be responsible for compliance with this Standard through its participation in the Reserve Sharing Group and not on an individual basis.

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

4.2.3 If an agent properly designated in accordance with Section 4.2.2 identifies individual Balancing Authorities within the Reserve Sharing Group responsible for noncompliance at the time of data submission, together with the percentage of responsibility attributable to each identified Balancing Authority, then, except as may otherwise be finally determined through a duly conducted review or appeal of the initial finding of noncompliance, (a) any penalties assessed for noncompliance by the Reserve Sharing Group shall be allocated to the individual Balancing Authorities identified in the applicable data submission in proportion to their respective percentages of responsibility as specified in the data submission, (b) each Balancing Authority shall be solely responsible for all penalties allocated to it according to its percentage of responsibility as provided in subsection (a) of this Section 4.2.3, and (c) neither the Reserve Sharing Group nor any member of the Reserve Sharing Group shall be responsible for any portion of a penalty assessed against another member of the Reserve Sharing Group in accordance with subsection (a) of this Section 4.2.3 (even if the member of Reserve Sharing Group against which the penalty is assessed is not subject to or otherwise fails to pay its allocated share of the penalty).

4.2.4 If an agent properly designated in accordance with Section 4.2.2 fails to identify individual Balancing Authorities within the Reserve Sharing Group responsible for noncompliance at the time of data submission or fails to specify percentages of responsibility attributable to each identified Balancing Authority, any penalties for noncompliance shall be assessed against the agent on behalf of the Reserve Sharing Group, and it shall be the responsibility of the members of the Reserve Sharing Group to allocate responsibility for such noncompliance.

4.2.5 Any Balancing Authority that is a member of a Reserve Sharing Group that has failed to register as provided in Section 4.2.2 shall be subject to this Standard on an individual basis.

Response: Please refer to the response to Mike Ryan's comments above.

Thank you for the opportunity to comment on this standard.

Scott Kinney
AVA

Avista submits the following comments on the proposed BAL-002-WECC-1 standard.

As a member of the NWPP Reserve Sharing Group Avista agrees with the comments submitted by the NWPP RSG to ensure the benefits of participating in a RSG continue forward under the new standard. Here is the proposed language much of which is in the current standard.

4. Applicability

4.1 Balancing Authority. This Standard shall apply to a Balancing Authority individually unless the Balancing Authority is a member of a Reserve Sharing Group that has registered with the WECC as provided in Section 4.2.2.

4.2 Reserve Sharing Group.

4.2.1 This Standard shall apply to a Reserve Sharing Group that has registered with the WECC as provided in Section 4.2.2, and each Balancing Authority identified in the registration shall be responsible for compliance with this Standard through its participation in the Reserve Sharing Group and not on an individual basis.

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

4.2.3 If an agent properly designated in accordance with Section 4.2.2 identifies individual Balancing Authorities within the Reserve Sharing Group responsible for noncompliance at the time of data submission, together with the percentage of responsibility attributable to each identified Balancing Authority, then, except as may otherwise be finally determined through a duly conducted review or appeal of the initial finding of noncompliance, (a) any penalties assessed for noncompliance by the Reserve Sharing Group shall be allocated to the individual Balancing Authorities identified in the applicable data submission in proportion to their respective percentages of responsibility as specified in the data submission, (b) each Balancing Authority shall be solely responsible for all penalties allocated to it according to its percentage of responsibility as provided in subsection (a) of this Section 4.2.3, and (c) neither the Reserve Sharing Group nor any member of the Reserve Sharing Group shall be responsible for any portion of a penalty assessed against another member of the Reserve Sharing Group in accordance with subsection (a) of this Section 4.2.3 (even if the member of Reserve Sharing Group against which the penalty is assessed is not subject to or otherwise fails to pay its allocated share of the penalty).

4.2.4 If an agent properly designated in accordance with Section 4.2.2 fails to identify individual Balancing Authorities within the Reserve Sharing Group responsible for noncompliance at the time of data submission or fails to specify percentages of responsibility attributable to each identified Balancing Authority, any penalties for noncompliance shall be assessed against the agent on behalf of the Reserve Sharing Group, and it shall be the responsibility of the members of the Reserve Sharing Group to allocate responsibility for such noncompliance.

4.2.5 Any Balancing Authority that is a member of a Reserve Sharing Group that has

failed to register as provided in Section 4.2.2 shall be subject to this Standard on an individual basis.

Response: Please refer to the response to Mike Ryan's comments above.

B. Requirements

R.1.1
With the continued focus on developing and implementing an FRR standard Avista does not see the need to change from the current contingency reserve requirement of 5% and 7% at this time. Again there is no technical basis for the new 3% requirement. Why not base the requirement on the NERC standard of MSSC or twice MSSC?

Response: The technical justification for this standard is that this proposal provides a clear requirement without reducing the amount of reserves required in the WECC. When the information from surveys of applicable entities was reviewed, this level of reserve provided a level approximately equal to that calculated under our interpretation of today's rules. The proposed language clarifies issues related to the reserves required for different types of generation, transactions impact on the level of required reserves and others listed in the "Reasons Why Bal-002 – 9-14-07."

The FRR standard is being worked on in parallel with this proposed standard. In the event that it is adopted prior to this standard, this standard would likely be dropped. However, due to the time constraints of the Tier 1 replacement requirements that WECC and FERC expects, this standard must continue through the process.

R.2.1
What is meant by initially automatically responds to frequency deviations?

Response: Please refer to the response to Tom Cooper.

C. Measures

M1 through M3
Need more clarity and definition around what data is required and how is it to be determined.

Response: The drafting team has clarified the measurement section.

Gregg Travis

I would like to thank the standard drafting team for its hard work. I have an appreciation for the difficulty of this task and the level of commitment and perseverance required.

My comments are in recognition of the diverse make up of the Western Interconnection

and specifically the northwest which is comprised of public and private as well as U.S. and Canadian entities. Please consider the following:

It would be helpful if BAL-002-WECC -1 contained language that clarifies the allocation of penalties to Reserve Sharing Groups. Specifically, it could state clearly how penalties will be handled if allocated to Reserve Sharing Group members that are not obligated by law (statute or regulation) to pay. Idaho Power, an IOU, would prefer the addition of language that states parties responsible for causing or contributing to an event of noncompliance by the Reserve Sharing Group are solely responsible for paying its allocated share of any resulting penalties and neither the Reserve Sharing Group nor any member of the Reserve Sharing Group can be required to pay any penalties allocated to another member.

The following was drafted by NWPP members as language that addresses our concerns.

PROPOSED LANGUAGE

4. Applicability

4.1 Balancing Authority. This Standard shall apply to a Balancing Authority individually unless the Balancing Authority is a member of a Reserve Sharing Group that has registered with the WECC as provided in Section 4.2.2.

4.2 Reserve Sharing Group.

4.2.1 This Standard shall apply to a Reserve Sharing Group that has registered with the WECC as provided in Section 4.2.2, and each Balancing Authority identified in the registration shall be responsible for compliance with this Standard through its participation in the Reserve Sharing Group and not on an individual basis.

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

4.2.3 If an agent properly designated in accordance with Section 4.2.2 identifies individual Balancing Authorities within the Reserve Sharing Group responsible for noncompliance at the time of data submission, together with the percentage of responsibility attributable to each identified Balancing Authority, then, except as may otherwise be finally determined through a duly conducted review or appeal of the initial finding of noncompliance, (a) any penalties assessed for noncompliance by the Reserve Sharing Group shall be allocated to the individual Balancing Authorities identified in the applicable data submission in proportion to their respective percentages of responsibility

as specified in the data submission, (b) each Balancing Authority shall be solely responsible for all penalties allocated to it according to its percentage of responsibility as provided in subsection (a) of this Section 4.2.3, and (c) neither the Reserve Sharing Group nor any member of the Reserve Sharing Group shall be responsible for any portion of a penalty assessed against another member of the Reserve Sharing Group in accordance with subsection (a) of this Section 4.2.3 (even if the member of Reserve Sharing Group against which the penalty is assessed is not subject to or otherwise fails to pay its allocated share of the penalty).

4.2.4 If an agent properly designated in accordance with Section 4.2.2 fails to identify individual Balancing Authorities within the Reserve Sharing Group responsible for noncompliance at the time of data submission or fails to specify percentages of responsibility attributable to each identified Balancing Authority, any penalties for noncompliance shall be assessed against the agent on behalf of the Reserve Sharing Group, and it shall be the responsibility of the members of the Reserve Sharing Group to allocate responsibility for such noncompliance.

4.2.5 Any Balancing Authority that is a member of a Reserve Sharing Group that has failed to register as provided in Section 4.2.2 shall be subject to this Standard on an individual basis.

Response: Please refer to the response to Mike Ryan's comments above.

Anita Lee, P. Eng.
Manager, Operating Policies and Procedures
Alberta Electric System Operator (AESO)

The AESO appreciates the opportunity to comment on the WECC proposed changes to BAL-002-WECC-1. Our comments are as follows:

1. The AESO supports the comments submitted by the NWPP Reserve Sharing Group.

Response: Please refer to the response to Mike Ryan's comments above.

2. The AESO is also concerned of the lack of technical explanation and risk/impact assessment for a couple of fundamental changes to the contingency reserve requirements: a) in R1 - changing to the sum of 3% load and 3% net generation, from the current 5% of the load responsibility served by hydro generation and 7% of the load responsibility served by thermal generation, b) in M1 - changing the time period when the contingency reserve must be re-established to 105 minutes from the current 60 minutes.

Response: The technical justification for this standard is that this proposal provides a clear requirement without reducing the amount of reserves required in the WECC. When the information from surveys of applicable entities was reviewed, this level of reserve

provided a level approximately equal to that calculated under our interpretation of today's rules. The proposed language clarifies issues related to the reserves required for different types of generation, transactions impact on the level of required reserves and others listed in the "Reasons Why Bal-002 – 9-14-07."

On the reserve restoration time issue, the WECC Performance Work Group performed studies in 2005 that shows little if any increase in risk to the system by changing the restoration period to the NERC time. Therefore, the drafting team is recommending that the WECC adopt the NERC time period.

3. The AESO recommends that the WECC continues the use of the 5% hydro and 7% thermal requirement, in conjunction with the WECC Board approved interpretation on Load Responsibility, until the WECC moves to an FRR standard.

Response: The proposed language clarifies issues related to the reserves required for different types of generation, transactions impact on the level of required reserves and others listed in the "Reasons Why Bal-002 – 9-14-07." One issue that is clearly not covered by the existing reserve language that would be covered under the proposed language is the proliferation of renewable generation resources that are neither thermal nor hydro. Therefore, these generation resources have no reserve requirements under the current WECC standard.

Anita Lee, P. Eng.
Manager, Operating Policies and Procedures
Alberta Electric System Operator (AESO)

In measure M2, I suggest a wording change: "The Reserve Sharing Group or Balancing Authority has documentation that it maintained at least 100% of required Contingency Reserve levels..."

A similar insertion of "at least" should occur in M2, just before "100%."

Response: The drafting team has made this modification.

Measure M3 should be removed. The key here is performance (i.e., compliance with NERC BAL-002 [DCS], not the process (i.e., what kind of reserves are used).

Measure M3.1 should be promoted to M3.

Response: The drafting team disagrees with this proposed change. There is a requirement to use acceptable reserves to meet R1. Therefore, the measurement is to ensure that the correct form of reserves was used, not to see if an entity met its DCS requirements.

Jay Campbell
Staff Engineer

Electric System Control Center
Sierra Pacific Power Co.

We would like to say thank you for the opportunity to express our opinion concerning the proposed Contingency Reserves business practice BAL-002-WECC-1.

All of the work that was put into this proposal is appreciated and you should be commended for your effort.

Response: Thank you for your support.

As PGE Merchant we realize there has been a tremendous amount of concern over the years of who should be responsible for providing reserves and what amount is appropriate. Arguments have been presented that reserves should be defensible and easy to implement. In addition, arguments have also been made that reserves are being held in one area which would be impossible to call upon if an event occurred due to various constraints.

We agree with those who stated prior that it doesn't make sense to make changes for the sake of change and we would have to develop new processes, and associated standards, again once FRR is implemented. We note that Frequency Responsive Reserve has an identified regional criteria and field test time line which was presented to the Reliability Policy Issues Committee on August 30, 2007.
We are concerned that the potential for complex system modifications and associated costs do not appear to have been considered. Also, the proposed standard does not solve the issue of reserves in other areas since a compromise is proposed and there are still reserves spread all over. This proposal doesn't seem any more defensible than the present 5% and 7% and seems more of a change for the sake of change and not a real fix.

We believe that we need to stop creating partial solutions and focus on coming up with a long term solution that solves all of the issues and not create another band-aid.

Response: The proposed language clarifies issues related to the reserves required for different types of generation, transactions impact on the level of required reserves and others listed in the "Reasons Why Bal-002 – 9-14-07." One issue that is clearly not covered by the existing reserve language that would be covered under the proposed language is the proliferation of renewable generation resources that are neither thermal nor hydro. Therefore, these generation resources have no reserve requirements under the current WECC standard.

The FRR standard is being worked on in parallel with this proposed standard. In the event that it is adopted prior to this standard, this standard would likely be dropped. However, due to the time constraints of the Tier 1 replacement requirements that WECC and FERC expects, this standard must continue through the process.

Bill Casey
Portland General Electric

Comments for BAL-002-WECC-1
Submitted by: Tri-State Generation and Transmission Association, Inc. (Duane Helderlein and Dan Walter)

- Overall, the concepts and rewrite of this standard is appealing. The work group has laid out a nice starting point to debate the pros and cons of this topic, hopefully with the outcome to eliminate ambiguity related to transactions and their impact (or proposed removal of impact) on the determination of contingency reserve requirements and eliminates the need to define requirements for non-hydro and non-thermal generating resources.

Response: Thank you for the support.

- Clarification is required regarding the contingency reserve calculation which is based upon net generation inside the Balancing Authority (BA). Does net generation apply to the physical generation inside the BA? Or, the electrically metered generation inside the BA? For example, if a generator owner owns generation remote to it's physical BA boundary, however, schedules and tags their ownership share of the generator from the physical location of the generator to their physical BA system, and upon the loss of resource, the generator owner's share is immediately reduced (their share not covered by the reserve sharing group in which the unit physically resides), then does the generator owner, or the BA where the generator physically resides, calculate 3% of the generation for their contingency reserve requirement?

Response: The drafting team believes that the standard is clear. All generators are considered to be part of a Balancing Authority under NERC rules. A generator could be considered part of multiple Balancing Authorities under certain conditions, such as partial units being moved from one BA to another through the use of a pseudo-tie arrangement. Units moved from one area to another through these arrangements would move the unit (or partial unit) into the sink Balancing Authority. If the generation is moved from one BA to another through the use of an Interchange Transaction (dynamic schedule or otherwise), it would not be considered part of the Sink Balancing Authority's generation.

- Although this would diminish one of the objectives of the current draft (eliminate transaction ambiguity), if under current R.1.1.2. if "Load Responsibility" was inserted for "load", can you explain the impacts of this change and how it would either be a net benefit or drawback to the current proposed language?

Response: Due to the issues surrounding the definition of Load Responsibility and then the definitions of firm and interruptible transactions, the drafting team feels that the term Load Responsibility is not clear or usable for a permanent standard. Additionally, with

the historic “understanding” of the term, all parties would benefit from not using this term. It also causes the reserves to move around based on day-ahead and real-time transactions, which hinders the ability of Reliability Coordinators to determine where reserves are held and if that could cause a reliability issue. For these reasons, the drafting team does not believe that using the Load Responsibility term in the future benefits the need for reliability in the WECC.

B. Requirements

R1. Each Reserve Sharing Group or Balancing Authority that is not a member of a Reserve Sharing Group shall maintain as a minimum, Contingency Reserve, of which, at least half must be Spinning Reserve, that is the sum of the following: [Violation Risk Factor: Medium] [Time Horizon: Real-time Operations]

R1.1. The greater of the following:

R1.1 R1.1.1. An amount of reserve equal to the loss of the most severe single contingency; or

R1.2 R1.1.2. An amount of reserve equal to the sum of three percent of the Balancing Authority load (net actual generation minus net actual Interchange) and three percent of net actual generation.

R3. R1.2. The Source Balancing Authority An amount of Non-Spinning Contingency Reserve Interchange Transaction(s), for a Sink Balancing Authority, shall increase their Non-Spinning Contingency Reserve by the amount equal to the Interchange Transaction(s), adding to the obligation as calculated in R1. where the Source Balancing Authority is claiming the Interchange Transaction(s) as a resource to meet its Contingency Reserve requirements.

R4. R1.3. The Source Balancing Authority An amount of Non-Spinning Contingency Reserve Transaction(s), for a Source Balancing Authority, shall increase their Non-Spinning Contingency Reserve by the amount equal to the capacity transaction(s), adding to the obligation as calculated in R1. where the Sink Balancing Authority is claiming the transaction(s) as a resource to meet its like Contingency Reserve requirements.

R5. The Source Balancing Authority of Spinning Contingency Reserve Transaction(s), for a Source Balancing Authority, shall increase their Spinning Contingency Reserve by the amount equal to the capacity transaction(s), adding to the obligation as calculated in R1.

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 component in R1.1 that is Spinning Reserve, which shall meet the following requirements. [Violation Risk Factor: High] [Time Horizon: Real-time Operations]

R2.1. Initially automatically responds to frequency deviations.

R2.2. Capable of fully responding within ten minutes

R6. R3. Each Reserve Sharing Group or Balancing Authority shall use the following acceptable types of reserve to meet R1.1: [Violation Risk Factor: Medium] [Time Horizon: Real-time Operations]

R6.1. R3.1. Spinning Reserve

R6.2. R3.2. Interruptible Load;

R6.3. R3.3. Interruptible exports;

R6.4. R3.4. Reserve held by other entities by agreement;

R6.5. R3.5. An amount of off-line generation which can be synchronized and generating within 10 minutes; or

R6.6. R3.6. During Capacity and/or Energy Emergencies, Reserve Sharing Group or Balancing Authority may utilize Load.

C. Measures

M1. The Reserve Sharing Group or Balancing Authority has documentation that it maintained 100% of required Contingency Reserve levels based upon data averaged over each clock hour except within the first 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 the Contingency Reserve Requirement in MW, how the requirement was calculated, and amount of Contingency Reserve available in MW.

Response: The drafting team adopted one of the proposed changes and made multiple other changes similar to what you have proposed. Please review the revised draft for clarification on most of these items.

Bart McManus - BPAT
Brenda Anderson - BPAP

Bonneville Power Administration is in support of this standard.

BPA prefers to have an FRR standard, but until an FRR standard gets through the standards drafting process and is FERC approved, we believe the 3% load plus 3% generation (3 and 3) concept for contingency reserve obligation is a reasonable replacement of the current standard and its associated ambiguities. Although the 3 and 3 is not technically justified, it does retain the current level of reserve being carried under the current standard. The 3 and 3 also addresses the issues that exist today with the current standard by removing transactions from the calculation of contingency reserve

responsibility.

Under CRITF, all transactions will need to be tagged with the responsible entity for contingency reserve as well as the percentage required on each transaction. This will create an undue burden on scheduling for market participants. Including contingency reserve with energy has caused a lot of confusion. The 3 and 3 eliminates the confusion and the additional burden that will be put on the market participants by CRITF.

Under the current standard and CRITF NWPP particpants carry 5% CR for wind resources and southern WECC members carry 7%. For transactions from the north to the south, the amount of reserve to be carried on wind is unknown so the tag author will not know which amount to put in that field on the tag. The 3 and 3 will remove this issue.

Another issue in WECC is a misunderstanding concerning deployment of reserve versus the allocation of contingency reserve. Carrying a small percentage of a transaction does not move the DCS requirement from the source to the sink BA. Under the current standard many WECC members believe that contingency reserve obligation equates to DCS recovery. By removing the link to individual transactions when calculating contingency reserve obligation, the 3 and 3 will insure that it only determines the allocation without moving the DCS responsibility.

Response: Thank you for your support.

BPA would like to see the following modifications to the standard.

BPA is in agreement with the comments by other NWPP members concerning language on Reserve Sharing Groups. Clarification is needed for RSGs in the document.

Response: Please refer to the response to Mike Ryan's comments above.

BPA agrees with moving from the current 60 minute recovery of contingency reserve to NERC recovery period of 90 minutes from the end of the DCS recovery period. This should be spelled out as 90 minutes rather than the 105 minutes that is in the current draft.

Response: The drafting team has clarified this language.

Bart McManus - BPAT
Brenda Anderson - BPAP

PPL EnergyPlus appreciates the opportunity to comment on replacement of BAL-STD-002-0. Our comments are focused primarily on clarifications of the proposed standard and are intended to eliminate ambiguity.

B. Requirements
R1.1.2 - Is Balancing Authority load determined from actual or scheduled net generation and interchange? The Contingency Reserve requirement is currently calculated from scheduled generation and interchange. The requirement should be clarified to specify that the calculation is based on scheduled, not actual, net generation and net interchange because the actual amounts are not known until after the fact.

Response: The Requirements are based on actual loads and actual generation inside the Balancing Authority. Interchange Transactions should not impact these numbers directly. If a generator is inside the BA and generating 500 MW at that moment, the reserve requirement is 3 percent of 500 MW. If the load is 600 MW inside the BA, the reserve requirement is 3 percent of 600 MW. Total reserve requirement for this BA would be 33 MW unless its Most Severe Single Contingency is greater than 33 MW.

R1.2 and R1.3 - Do these requirements exclude [?] Contingency Reserves for the Source or Sink Balancing Authorities to be held in Intermediate Balancing Authorities that are neither the source nor the sink?

Response: There would not be any intermediate Balancing Authorities under the proposed rules. The Source is where the energy is coming from under R1.2 and under R1.3 where the capacity is held. There cannot be an intermediate BA holding the reserves under the proposed rules.

R3.5 - Is there a valid reason to keep the requirement for off-line generation to be synchronized and generating within 10 minutes, or could it be increased to 15 minutes to match the NERC requirement for Contingency Requirement?

Response: These are two different requirements. The NERC requirement is to meet DCS in 15 minutes. The WECC requirement is to limit the amount of reserves that can be held on a single unit to what it can move in 10 minutes. In theory, this allows for 5 minutes for the notification to be made to other members of an RSG and then they have a full 10 minutes to move generation.

C. Measures
M1 and M2 - Is the change to 105 minutes intended to match the NERC standard of 15 minutes for the Disturbance Recovery Period plus 90 minutes for the Contingency Reserve Restoration Period? If so, would it be helpful to add such definition to the standard?

Response: The drafting team has modified the proposed language.

D. Compliance
1.4 Additional Compliance Information - The current WECC Standard BAL-STD-002-0 references a Sanction Table. Will the proposed Standard BAL-002-WECC-1 have a similar table? What will be the guide for non-compliance sanctions?

Response: The sanction table that will be utilized in the revised standard will be the NERC Sanction Table. The sanction table is not included in each standard but is available from NERC as well as documents that explain the sanction process.

2. Violation Severity Levels - Violation Severity Levels 2.1 and 2.2 state that it is the Balancing Authority or Reserve Sharing Group's "Contingency Reserve" that must meet certain parameters. Should Violation Severity Level 2.3 and 2.4 also be using "Contingency Reserve" instead of "Operating Reserve?"

Response: Yes, the drafting team has made this correction.

General Questions:
Does the absence of Regulating Reserve language mean that WECC intends to either default to the NERC Standard BAL-005-0 or will adopt a companion WECC standard in the future?

Response: NERC Standards BAL-001 and BAL-005 cover all current requirements that are in the existing WECC standard. Therefore, the drafting team has removed all reference to the regulating requirements.

Thank you for the opportunity to comment. PPL EnergyPlus looks forward to commenting further regarding this drafting process of Standard BAL-002-WECC-1.

Jon Williamson
PPL EnergyPlus

Chelan County would like to add our support for several of the arguments made by others which we believe to have significant merit.

1) We support the comments submitted by the NWPP Reserve Sharing Group.

Response: Please refer to the response to the NWPP comments above.

2) We support the idea of delaying any significant modification (read expensive) to the reserve sharing allocation unless it moves us in the direction of a technically defensible standard.

Response: Please refer to response to comments Scott Kinney and others above.

3) We support the insertion of language in this standard that definitively removes the concept of Joint and Several Liability for members of a Reserve Sharing Group where responsibility for any liability for non-compliance has been fixed by the RSG or its authorized agent. Several NWPP member commentors have included proposed text.

Response: Refer to the response to Mike Ryan above.

John Appel
Chelan PUD

TID also appreciates the work of the drafting team. This is a difficult subject and any changes are likely to have intended and unintended consequences.

TID supports the language submitted by the NWPP RSG regarding the allocation of responsibility to individual Balancing Authorities within a Reserve Sharing Group. BA's that do not contribute to a violation should not be saddled with any penalties.

Response: Refer to the response to Mike Ryan above.

TID agrees with other comments regarding the need to justify reserves in excess of the MSSC. Furthermore, the requirement to hold 50% of Contingency Reserves as spinning reserve should also be examined and justified. In some applications, it appears to be an unnecessarily generalized requirement. Some areas may need spinning reserve to remain stable after certain contingencies. In other areas, such a requirement may not be required.

Response: Please refer to the response to Don Badley and Scott Kinney above.

With regard to R1.1 and R1.2, it should be clear that any such claim should be substantiated by the appropriate designation on an e-tag. Absent designation on the e-tag, minimum Contingency Reserve associated with R1.2 and R1.3 shall equal 0.

Response: The drafting team believes this is covered under the measurement section of the standard. Modifications have been made to clarify the measurement.

I believe the list of acceptable types of reserve listed under R3 applies to meet R1, not just R1.1. (Those reserves are also utilized for R1.2 and R1.3 as well.)

Response: The drafting team agrees and has made this modification.

In calculating reserves under M1, shall each component of the reserve determination be averaged over each clock hour? Shall any and all clock hours that include the 105 minutes after a contingency be excluded from the calculation?

Response: The drafting team has clarified this section.

I believe M3.1 may be more clear if it refers to a BA requesting that its RC declare a Capacity or Energy Emergency. In some parts of the NERC standards, it appears that only a RC can declare such an Emergency.

Response: The drafting team has clarified this section.

In determining the Violation Severity Levels, it should be clear that one occurrence refers to the average of Contingency Reserve for one hour, not one instant in time.

Response: The drafting team has made this clarification.

I also suggest that the severity level should reflect the reliability impacts of the infraction. For example, a 25 MW shortfall in Contingency Reserve would be unlikely to have a moderate affect on reliability. Accordingly, I would suggest that any violation of less than 25 MW be considered no more than a Lower Level Violation. Similarly, a violation of 50 MW or less would be considered no more than a Moderate level of non-compliance. Lastly, I would suggest that a violation of 75 MW be considered no more than a High Level of non-compliance. The MW values chosen may not be the most appropriate but are used for illustrative purposes.

By way of an example, under the proposed standard, a BA with a 1000 MW MSSC could be 100 MW deficient and have a lower severity level (Lower) than a BA with a 100 MSSC and a 25 MW deficiency (High). I believe such a result is not commensurate with the reliability impacts to the interconnection.

Response: Due to the varying sizes of Balancing Authorities and Reserve Sharing Groups, the drafting team believes that the percent of required reserves is a better measure than a straight MW number. Additionally, the compliance monitor will have discretion in adjusting the sanction based on the size of the entity involved.

TID appreciates the opportunity to provide its comments.

Jim Farrar
Phone 209 883 8210
Fax 209 656 2147

PacifiCorp Commercial and Trading (PacifiCorp Merchant) submits the following comments in support of the draft “WECC Standard BAL-002-WECC-1 Contingency Reserves”. PacifiCorp Merchant believes the proposed standard relieves ambiguity created by the current standard and fairly allocates reserve amounts based on the type of generation. PacifiCorp Merchant also believes additional safeguards exist to eliminate any threat to reliability caused by any possible reduction in available reserves due to the proposed changes. Finally, PacifiCorp Merchant believes the proposed change to the Reserve Restoration Period provides a more practical period than the current requirement.

The proposed standard eliminates the confusion that currently exists over the definition and implementation of the defined term “Load Responsibility.” By eliminating Market Products (Firm, Exchanges, and Unit Contingent, etc.) from the load responsibility calculation, clarity of contingency reserve obligation is greatly enhanced.

The proposal eliminates the arbitrary allocation of contingency reserve amounts based on

type of generation, currently hydro (5%), thermal (7%), and wind (5%) or solar. While a 3% load / 3% generation split may result in a lower level of contingency reserve obligation for the interconnection, it is also likely that, through clarity in the calculation, contingency reserve obligations currently unmet will be remedied resulting in additional contingency reserve held within the interconnection. Although there is no technical basis for the 3% load / 3% generation split, there has never been a technical basis for the current 5% hydro / 7% thermal split.

The Disturbance Control Standard (DCS) provides some built-in protection against insufficient contingency reserve. If implementation of the proposed standard results in the balancing authority's inability to recover from contingencies under the new allocation, the DCS ensures documentation of this failure and the balancing authority will adjust its own reserve requirement to carry additional future contingency reserve . Were this phenomenon endemic throughout the interconnection, the reliability work groups and the operating committee has the ability to act quickly to adjust the 3% load / 3% generation allocation accordingly.

Response: The drafting team appreciates these comments in support of the proposed standard.

Don Badley, on behalf of Northwest Power Pool members, has submitted proposed language for section A, paragraphs 4.1 and 4.2. PacifiCorp Merchant seconds the concern that the standard must explicitly identify the Reserve Sharing Group member's rights and obligations, and supports the comments of the NWPP in this matter.

Response: Please refer to the response to Mike Ryan's comments above.

Changing the Reserve Restoration Period from 60 minutes to 105 minutes is also an important enhancement. Currently, when contingency reserves are activated mid-hour, the reserves must be restored within 60 minutes, ending mid-hour. With almost universal block-hour scheduling in the Western Interconnection, reserve restoration mid-hour can be cumbersome and can jeopardize the balancing authority's responsibility to maintain appropriate contingency reserves at all times. The proposed change would allow sufficient time to allow for restoration regardless of when during the current hour the situation arose, thus greatly alleviating these problems.

Response: This is one of the main reasons for the recommended changes. The second reason is that there is no material impact to system reliability as determined by studies done by the WECC Performance Work Group. Finally, this complies with the existing NERC requirements.

Thank you for the opportunity to comment.

Michael Reid
PacifiCorp C&T

The following comments were posted by WECC staff on behalf of Leland McMillan of NorthWestern Energy.

NorthWestern Energy (NWMT) supports the following changes to BAL-WECC-002-1 as proposed by the NWPP.

PROPOSED LANGUAGE FOR SECTION A, PARAGRAPHS 4.1 AND 4.2

4. Applicability

4.1 Balancing Authority. This Standard shall apply to a Balancing Authority individually unless the Balancing Authority is a member of a Reserve Sharing Group that has registered with the WECC as provided in Section 4.2.2.

4.2 Reserve Sharing Group.

4.2.1 This Standard shall apply to a Reserve Sharing Group that has registered with the WECC as provided in Section 4.2.2, and each Balancing Authority identified in the registration shall be responsible for compliance with this Standard through its participation in the Reserve Sharing Group and not on an individual basis.

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

4.2.3 If an agent properly designated in accordance with Section 4.2.2 identifies individual Balancing Authorities within the Reserve Sharing Group responsible for noncompliance at the time of data submission, together with the percentage of responsibility attributable to each identified Balancing Authority, then, except as may otherwise be finally determined through a duly conducted review or appeal of the initial finding of noncompliance, (a) any penalties assessed for noncompliance by the Reserve Sharing Group shall be allocated to the individual Balancing Authorities identified in the applicable data submission in proportion to their respective percentages of responsibility as specified in the data submission, (b) each Balancing Authority shall be solely responsible for all penalties allocated to it according to its percentage of responsibility as provided in subsection (a) of this Section 4.2.3, and (c) neither the Reserve Sharing Group nor any member of the Reserve Sharing Group shall be responsible for any portion of a penalty assessed against another member of the Reserve Sharing Group in accordance with subsection (a) of this Section 4.2.3 (even if the member of Reserve Sharing Group against which the penalty is assessed is not subject to or otherwise fails to

pay its allocated share of the penalty).

4.2.4 If an agent properly designated in accordance with Section 4.2.2 fails to identify individual Balancing Authorities within the Reserve Sharing Group responsible for noncompliance at the time of data submission or fails to specify percentages of responsibility attributable to each identified Balancing Authority, any penalties for noncompliance shall be assessed against the agent on behalf of the Reserve Sharing Group, and it shall be the responsibility of the members of the Reserve Sharing Group to allocate responsibility for such noncompliance.

4.2.5 Any Balancing Authority that is a member of a Reserve Sharing Group that has failed to register as provided in Section 4.2.2 shall be subject to this Standard on an individual basis.

Response: Please refer to the response to Mike Ryan's comments above.

In addition to the above changes, NWMT does not agree with the proposal as currently described in R.1.1.2. The 3% of load and 3% of generation, besides having no sound technical justification, is too complicated and will be difficult to monitor, verify and report. NWMT recommends that, through changes to R1.1.2., the standard incorporate the interpretation of load responsibility as recently approved by the WECC Board of Directors. For example, R1.1.2. could be changed as follows:

R1.1.2. An amount equal to 6% of the Balancing Authority's Load Responsibility.

Response: The term Load Responsibility causes problems today and would likely continue to do so into the future if we leave it in the standard. Additionally, it is unreasonable to continue to base reserve requirements on market products. The drafting team feels that the reliability standard should not be based on market products, which is what happens with the Load Responsibility definition that exists today. Reliability Coordinators are unable to forecast where reserves will reside, most Balancing Authorities are unable to decide what will be needed due to the separation between markets and transmission and finally there is no way to ensure that definitions that cover today's market products will cover those of tomorrow. In order to make progress and insure that the reliability of the system is maintained, the WECC reserve requirements must be separated from the market products. Please refer to the other posted documents for a more complete discussion of these issues.

NWMT supports the 105 minute time value included in M.1. and M.2.

Response: Thank you for your support.

Leland McMillan
NorthWestern Energy

Below are Dynegy's comments to the draft Contingency Reserve Standard BAL-002-WECC1.

First, we would like to express our concern regarding changing the existing reserve requirement from load based to a combination of load and generation based. In our view this would lead to a major cost shift in several areas in the west, especially for Generation-Only Control Areas. Under the proposed standard, the Generation-Only Control Areas would be required to carry 3% reserves whenever they are operating, something that they do not have to do today.

In addition, though the standard design team has maintained that, in their view, WECC is not responsible for the actions of different Balancing Authority and Reserve Sharing Groups regarding cost assignment associated with reserve requirements, we believe that this proposal may result in incentivizing actions on behalf of BAs and Reserve Sharing Groups that would results in imposing additional burden on IPPs for carrying reserves (that they do not have to do today). Unlike a Load Serving Entity, an IPP has no mechanism to recover these additional costs. In an economically efficient market, a generator would eventually be compensated as well, if required, but that transparency does not exist in the Northwest or Southwest of WECC specifically. The markets in WECC are not efficient specifically for reserves and this unduly burdens generators. Furthermore, we do not believe that the white paper justifies this action or quantifies its benefits. As such, we recommend that the Standard Design Committee revisit this issue of changing the reserve from a load based to a combination of load and generation based. Further, should the design team decide not to accept our recommendation, we request that the design team provide a justification that is based upon technical facts. Finally, the design team must address the cost shift issues before moving forward with a change in structure as such.

Response: The drafting team believes that the proposed standard is the best possible compromise at this time. While there may be a cost shift, this is true under any change that could be considered.

Second, we are concerned about the move to conform back to the NERC time standard of 105 minutes. We contend that the WECC has the option to still be more stringent and only allowing 60 minutes following an event, and we recommend that WECC maintain its current standard of 60 minutes. If the team feels a need to modify the current time window, we recommend that it be aligned with the scheduling windows.

Response: The drafting team has changes the restoration period to conform to the NERC restoration period. The WECC Performance Work Group has review this change and found little risk to the change.

Finally, we believe that proposal standard only partially address the "reserve capacity availability" issue that was so effectively addressed by the ORSTF proposal. One of the key reliability issue faced by the operators today is that the reserves associated with Firm Imports are not available to the operators in case of any outage within the importing

Balancing Authority. The ORSTF proposal effectively addressed this issue by requiring procurement of reserves for all imports. In our view, this proposal only partially addresses this issue. We recommend that this proposal be modify to effectively address this issue so provide positive reliability benefits.

Response: The drafting team believes that since the 3 and 3 only will be used in instances where the required level of reserves are greater than the Most Severe Single Contingency, there will be sufficient reserve on both sides of any transaction. Therefore, system reliability will be maintained regardless of where an event occurs.

Thanks for giving us the opportunity to provide these comments. If you have any questions, please contact me at (408) 204-7630.

Ali Amirali
Managing Director - Dynegy Inc.

Consideration of Comments for BAL-002-WECC-1 - Contingency Reserve
Comments were due January 2, 2008
January 25, 2008

The BAL-002-WECC-1 Standard Drafting Team thanks all commenters who submitted comments on the WECC BAL-002-WECC-1 Standard. This Standard was posted for a public comment period from November 20, 2007 through January 2, 2008. The Standard Drafting Team asked stakeholders to provide feedback on the standard by posting comments on the WECC website. There were nine sets of comments from nine companies.

In this 'Consideration of Comments' document, stakeholder comments have been organized so that it is easier to see the responses associated with each comment.

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 may contact the Director of Standards, Steve Rueckert at 801-582-0353 or at steve@wecc.biz. In addition, there is a WECC Appeals Process.

Comments and Responses

The proposed contingency reserve requirement of 3% load plus 3% generation penalizes regions with high hydro generation relative to the existing requirement for 5% hydro and 7% thermal. This is contrary to the direction provided by the study group looking into frequency responsive reserves, which concluded that hydro resources are more effective and generally takes on a larger proportionate share in responding to contingencies. Changing the proposed requirement to 3% load plus 2% hydro plus 4% non-hydro would address the issues around what to allocate for resources which are neither hydro nor thermal (wind for example), be more consistent with the existing allocations, and should provide a smoother transition to ultimately adopting some form of frequency responsive reserve requirements.

Allan Woo

Reply: The drafting team believes that having a uniform allocation for reserves based upon load and generation before a frequency responsive reserve standard is implemented is preferred. The FRR standard is expected to measure the response of generators to changes in frequency regardless of generator type. Different generators will respond differently to frequency deviations. In addition, our review of the impact to existing reserve sharing groups and balancing authorities that are not members of reserves sharing groups and the proposed allocation based upon 3% load and 3% generation does not cause a significant shift in reserve allocation from the existing allocation methodology.

The following comment and proposed section relocation request are made on behalf of the Northwest Power Pool Reserve Sharing Group (NWPP RSG). Balancing Authority participants in the NWPP RSG are: AESO, AVA, BCTC, BPAT, CHPD, DOPD, GCPD, IPC, NWMT, PACE, PACW, PGE, PSE, SMUD, SCL, SPPC, TID, TPWR, and WAUW.

Section D.1.1.4 - Remove Drafting Team comment from the proposed standard. It does not belong in the standard.

Reply: The drafting team comment has been removed.

Section D.1.1.4 - Relocate all of Section D.1.1.4 to Section A.4, Applicability. This Section has more to do with applicability than compliance.

Reply: The drafting team understands the concerns of the NWPP. The drafting team believes the best chance for the standard to receive regulatory approval is to leave the wording from the NWPP in the compliance section.

Don Badley

The Bonneville Power Administration (BPA) would like to thank the BAL-002 Drafting Team for their diligent efforts in developing this standard and for the opportunity to provide comments. BPA supports this current draft of the proposed standard in its entirety. We are especially pleased that the language proposed by the Northwest Power Pool concerning penalty responsibilities of Reserve Sharing Groups was included in this latest draft. This is a particularly important issue for the Northwest. We commend the Drafting Team for addressing it and strongly recommend that the language as written be included in the final standard.

Some parties have asked why this contingency reserve standard is being put forward when work is under way to develop a Frequency Responsive Reserve (FRR) standard by 2009. BPA is well aware of the work being done on the FRR proposal and fully supports it. However, we also understand that the FRR standard is unlikely to be in place in time to meet the FERC-imposed deadline for the Contingency Reserve standard. Furthermore, the FRR standard does not address the non-spinning reserve component of Contingency Reserves. Hence, this updated BAL-002 standard is required in order to properly cover the full range of reserve requirements needed to maintain reliability.

BPA supported a contingency reserve allocation method based on load; however, we do understand the concern that such an allocation approach would cause some amount of cost shifting. BPA believes that the allocation methodology based on 3% of generation within the Balancing Authority plus 3% of the load within the Balancing Authority is an excellent compromise. In addition, a very important and positive feature of the latest

draft of BAL-002 is the removal of Load Responsibility from the reserve allocation calculation. The Load Responsibility component of the existing allocation methodology has proven to be difficult to interpret and implement. Its elimination from the standard will alleviate a number of these problems, which the WECC has been attempting to resolve for quite some time.

Reply: Thank you

BPA would like to suggest the following clarifying comments. They are not meant to change the intent of the standard.

1. Modify the language in section R1.1.2 to read "generation minus station service minus net interchange" inside the parentheses and "…three percent of generation minus station service" at the end of the sentence.

Reply: The drafting team made refinements to R1.1.2 to add clarification.

2. Modify section R2.1 to read, "Responds to frequency immediately by governor action."

Reply: The drafting made refinements to R2.1 to incorporate the concept of governor action.

3. Modify section R3.6 to read, "Load, once the Reliability Coordinator has declared a capacity or energy emergency."

Reply: The drafting team implemented this refinement.

4. In section D, we strongly recommend that a reset period of 24 hours be explicitly defined.

Reply: The drafting team believes a reset period of 24 hour is too short and is not appropriate for this standard. Since each Balancing Authority or Reserve sharing Group is required to verify quarterly that operating reserve violations have been reported, the drafting team believes a quarterly reset period is more appropriate.

5. Replace the phrase "Reserve Sharing Group or Balancing Authority" wherever it appears throughout the document with the phrase " Reserve Sharing Group or Balancing Authority (if not part of a Reserve Sharing Group)."

Reply: The drafting team implemented this recommendation as proposed by SMUD.

Thank you again for the opportunity to comment on this document.

John Anasis – BPA Transmission Services
Brenda Anderson – BPA Power Services

The SMUD coordinated response team appreciates the work of the Bal-002 drafting team and supports the standard with one minor modification. For consistency the language in R1, and R2, should R3 state:

"Each Reserve Sharing Group or Balancing Authority that is not a member of a Reserve Sharing Group…

Thank you for your hard work in developing a standard that will help alleviate the confusion surrounding the reserves issues.

Robert D Schwermann
On behalf of the SMUD coordinated response team

Reply: The drafting team implemented this recommendation.

PG&E appreciates the work of the Drafting Team and supports the proposed BAL-002-WECC-1 standard. The clarification of Balancing Authority and Reserve Sharing Group responsibilities resulting from the elimination of the Load Responsibility term and the removal of market transactions in calculating reserve requirements are particularly positive changes. Although PG&E recognizes that the 3% gen / 3% load formulation for reserve requirements does not have a technical basis and probably requires reserves in excess of the true technical requirements, it represents a reasonable equitable interim solution to be implemented while FRR requirements are tested and refined. The 3% gen / 3% load compromise also shares reserve requirements equitably across WECC entities of varying ratios of generation to load. In addition, the proposed standard eliminates requirements based on specific generation technologies (hydro vs. thermal), a methodology which did not have a true technical justification and required additional clarification for emerging generation technologies such as wind and solar. In summary, the proposed standard appears to address the most significant flaws with the existing standard while maintaining comparable requirements as an interim bridging solution for WECC entities until FRR requirements can be implemented, which is why PG&E supports this proposed standard.

Kris Buchholz

Reply: Thank you for your comment.

BCTC is appreciative of the hard work by the Standard Drafting Team to develop this draft. We support this standard but have the following comments for the drafting team's further consideration.

1. In R1.2, the language pertaining to interruptible export has been replaced with

"Interchange Transaction that the Source BA has claimed as part of its non-spinning contingency reserve." In R3.3, the term "interruptible exports" is identified as an acceptable type of reserve, which must be fully deployable within 10 minutes of notification to meet R1. It would seem a lot clearer if "interruptible export" was also retained in R1.2 unless there is some other type of Interchange Transaction that would require the Sink BA to carry the same amount of additional non-spinning contingency reserve under this Requirement.

Reply: The drafting team made refinements to R1.2, R1.3, and R3.3 to remove reference to interruptible export to clarify the type of transactions in the requirements.

2. In R1.3, the Interchange Transaction claimed by the Sink BA as its Spinning or Non-Spinning Contingency Reserve is meant to capture the existing MORC term for "on-demand obligation" or as described in R3.4, "Reserve held by other entities by agreement." In the WECC MORC, there is a requirement for this type of Interchange Transaction to be scheduled on firm transmission. Did the Standard Drafting Team consider specifying this as a requirement in this standard?

Reply: The drafting team has implemented a refinement to R3.4 to address this issue.

3. We support the comments made by Don Badley that was posted on 07.12.2007.

Reply: Please see response to Don Badley.

Thomas Fung
BCTC, System Operations

We at the Los Angeles Department of Water and Power appreciate the work of the drafting committee on this fundamentally important standard. In order to enhance the standard's value, we suggest the following changes.

1. Add to Section A. 3. (Purpose): "This Standard is not meant to include Regulating Reserves (which are additional to these requirements) or Frequency Responsive Reserves (which will partially or totally replace these requirements)."

Reply: The drafting team believes the purpose statement should address what is covered rather than the items not covered. The comment will be addressed in the reasons why document.

2. Requirements R1.2 and R1.3 place reserve obligations on the Sink and Source Balancing Authorities, respectively, triggered solely by the actions of each other's BA ("…claiming an Interchange Transaction(s) as part of its … Contingency Reserves…"). But what if such "claims" are unjustified (intentionally or not) with respect to the underlying transactions? One solution to this problem would be to amend Section 4.3

(Violation Severity Level for Requirement R3) to read: "… if the Balancing Authority or Reserve Sharing Group used unacceptable resources for Contingency Reserves, including non-qualifying Interchange Transactions."

Reply: The business practice tagging requirements in INT-BPS-009 and INT-BPS-011 identify these transactions specifically; therefore, BA approval of the tags shall ensure that both source and sink BAs agree to the obligations associated with the transactions.

3. Requirement R3.4 shows, as an acceptable form of Contingency Reserves, "Reserve held by other entities by agreement." Let's append to that the phrase "and accessible to the Balancing Authority or Reserve Sharing Group via firm transmission."

Reply: The drafting team has modified R3.4 to address this issue.

As a whole, the proposed standard addresses many of the concerns historically voiced by the industry over the current MORC, and it serves as an interim measure until the Frequency Responsive Reserve Standard goes into effect.

- John Hormozi, L.A. Dept. of Water and Power

Reply: Thank you for your comments.

Chelan PUD supports this draft of the proposed standard.

Chelan understands that WECC is working to implement a Frequency Responsive Reserve standard by 2009 and this new FRR standard may replace some of what is in this proposed BAL-002-WECC-1. Chelan supports the work to implement a FRR standard. However, Chelan feels BAL-002-WECC-1 is still needed at this time because it:

- provides a reasonable compromise between an all load based requirement and an all generation based requirement.
- addresses the non-spinning component of contingency reserve requirement (not addressed by FRR).
- removes "Load Responsibility" from the reserve standard.
- helps meet the FERC imposed deadline to have a permanent reserve standard.
- removes the ambiguity that currently exists regarding the reserve requirement for different kinds of generation.

Chelan notes that the language proposed by the Northwest Power Pool concerning penalty responsibilities of Reserve Sharing Groups is included in this draft. Chelan feels strongly this language remain in the standard, unless resolved in some other manner.

Furthermore, Chelan supports the comments of Don Badley that the location of the language should be moved from the compliance section to the applicability section and that the editorial comments of the drafting team be removed.

Reply: Thank you for your comments. Please refer to the response to Don Badley's comments above.

The Alberta Electric System Operator (AESO) appreciates the opportunity to comment and would like to offer the following:

- It is not clear in R3 whether some of the listed type of services can be used to meet the spinning reserve requirement in R2. For example, if spinning reserve is contracted from an external source to the BA area, it should contribute to the meeting of the spinning requirement in R2. And, if an energy or capacity emergency alert has been issued for the BA, then load can be used to meet the CR requirement in R1 as well as the spinning reserve requirement in R2.

Thank you.

Anita Lee, P. Eng.
Manager, Operating Policies and Procedures
Alberta Electric System Operator

Reply: The drafting team believes that any Interruptible Load that has been qualified as spinning reserve would be considered spinning reserve at any time and does not require an emergency alert. The intent of R3.6 is to ensure that Load other than Interruptible Load is utilized as non-spinning reserve only during time of extreme duress. R2 indicates that 50% of R1 must be Spinning Reserve and meet the sub-requirements for Spinning Reserve.

Western Electricity Coordination Council

Operating Committee Meeting
March 6-7, 2008
Albuquerque, NM
Voting Results

1. **Motion:**

The BAL-002-WECC-1 Standard Drafting Team recommends that the OC approve BAL-002-WECC-1 and that after regulatory approval, it shall supersede BAL-STD-002-0.

Explanation: 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.

VOTING CLASS	YES	NO	ABSTAIN
TRANSMISSION PROVIDERS	22	6	6
TRANSMISSION CUSTOMERS	36	10	5
STATE and PROVINCIAL	1	0	0
TOTALS	**59**	**16**	**11**

Result: PASSED

Minority Opinion:

- Talking about a reliability standard, the existing standard with a proven track record of over a few decades is being replaced with one that is based entirely on compromise. The result will be a massive shift in cost without any technical studies to justify the shift to 3% generation and 3% load. The suspicion is an overall reduction of reserves carried in WECC without any technical justification. It is better to spend time on a technical based standard like FRR than putting in place a compromise solution in the interim.
- The standard is based on compromise and reducing reliability

- There are a number of market issues with this standard to the point where the entity is not comfortable supporting the standard even though they think it is the right direction
- Please see Appendix A for comments received via email – Comments submitted by BC Hydro, EPLUW, NCPA, NWMT, Powerex, PGE (TP), PGE (TC), PSEI, SCL, SMUD and TANC

APPENDIX A

REASONS FOR NO VOTES [1]

Clement Ma, BC Hydro

BC Hydro has serious concerns regarding the proposed standard BAL-WECC-002. The team that developed the standard has indicated that the 3% load, 3% generation numbers were proposed as a compromise as opposed to being based on a technical evaluation of reserves from a reliability standpoint. In analyzing the costs of the proposal, the team only looked at aggregate impacts for the WECC and the sub regions. However, this analysis misses the significant cost impact that arises for predominantly hydro based Balancing Authorities. BC has operated reliably using the 5% hydro standard for many years. The proposed standard will result in an increase in BC Hydro's operating reserve requirements by almost 1% (close to 100 MW on winter peak) without any technical justification (nor practical justification in light of our reliable operating history) to justify to its ratepayers the increase in cost of holding this additional operating reserve.

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John Cummings, PPL Energy Plus (EPLUW)

BAL-002-WECC-1 Contingency Reserves

While EPLUW believes that the redrafted BAL-002 is an improvement, EPLUW voted no because there is an inconsistency between the proposed reliability requirement and the method in which reserves are procured and provided under the existing Open Access Transmission Tariffs (OATT). Transmission Providers (TP) must generally offer operating reserves under their OATTs to Transmission Customers serving load in the TP's Control Area. Otherwise, there is no default supplier of reserves. Further, the implementation of the proposed standard has not been fully explained, and it is unclear if reserves will be available to all market participants that may be required to procure or provide them in the future. EPLUW would like to see these issues addressed before the standard becomes effective.

****

Fred Young, Northern California Power Agency (NCPA)

NCPA reviewed this standard prior to the OC meeting and from an operating/reliability perspective has no objection to the proposed changes to BAL-STD-002-0. However, based on discussions with our trading personnel and counter-parties, there is significant confusion as to the impacts of the change from 5%hydro/7%thermal to

[1] The reasons for no votes in the appendix were submitted by the individual entities via email after the Operating Committee meeting. The reasons for no votes in the main document were stated at the Operating Committee Meeting in Albuquerque, NM

3%generation/3%load in the calculation of a BA's Contingency Reserve requirement. The market is saying that the 3% of load portion will be passed on to the LSE irrespective of the LSE's location, i.e. in the Source BA or Sink BA. This confusion was further reinforced by Mr. David Lemmons response to a question from Powerex concerning cost shifts. Mr. Lemmons' response is that it is time for the load to carry their share.

This standard, BAL-002-WECC-1 does not contain language that moves any contingency reserve responsibility to the load. It only changes how the Contingency Reserve requirement for a BA or Reserve Sharing Group is calculated. It is evident by one of the author's comments, Mr. Lemmons, that there are some significant market changes that will result from implementation. Without clarification of these market impacts, NCPA could not support BAL-002-WECC-1.

NCPA fully supports standards that enhance reliability. But reliability at any cost or unknown cost is unacceptable.

The foregoing is why NCPA did not support BAL-002-WECC-1.

Thank you for your consideration.

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Marc Donaldson, North Western Energy (NWMT)

Reasons for NorthWestern Energy (NWMT) No Vote on WECC Standard BAL-002-WECC-1 – Contingency Reserves

On March 6, 2008, NorthWestern Energy (NWMT) voted No on WECC Standard BAL-002-WECC-1 – Contingency Reserves for the following reasons:

1. Although the amount of required reserves stated in R1.1.2. (sum of three percent of the load and three percent of net generation) may make the determination of required reserves easier than the prior five percent of hydro and seven percent of thermal and, although the previous five and seven percent was determined arbitrarily, the "three plus three" approach is still arbitrary and may negatively impact reliability of the Western Interconnection.

2. The standard may result in an unfair shift of reserve obligation, which may also result in a shift of costs.

****

Mike Ryan, Portland General Electric (PGE), Transmission Provider

This is in response to your request for the reasons behind NO votes on BAL-002-WECC-1.

As you well know, I have been voicing my concerns over the direction that this drafting team has taken at every opportunity to change the WECC's contingency reserve requirements. I have regularly offered comments on the posted drafts, but have seen little change in the contents.

My comments about the reliability consequences of BAL-002-WECC-1 are these:

- The "Tier One" BAL-STD-002-0 reflects the current WECC MORC by breaking down required operating reserve into four components: regulating reserve, contingency reserve, reserve for on-demand obligations, and reserves for interruptible imports. The proposed BAL-002-WECC-1 narrows the scope to only contingency reserve, which raises the question of what happens to the other components. NERC BAL-002 adequately covers regulating reserve, but includes no provisions for on-demand obligations or interruptible imports. BAL-002-WECC-1 does include some language for on-demand obligations, but only as contingency reserve; no other types of on-demand rights are addressed.

  It's not clear to me how the decision to narrow the scope of the WECC BAL-002 standard will affect the current requirements in the WECC MORC. This should have been made clear in the proposal. I hope the Board will make it clear that BA's must still carry additional operating reserves to account for on-demand obligations and interruptible imports.

- The "load responsibility" concept helped characterize the nature of the transactions. For the "sink" BA, it identified those imports that were "firm for the hour". Simplifying the calculation of contingency reserve does NOT relieve the BA from anticipating which imports might be interrupted in-hour, and therefore what additional reserves need to be available. The recently adopted clarification of "load responsibility" and e-tag 1.8 made it easier. Now it seems everyone will be forced to parse the energy codes to infer what's "firm for the hour".

  It would be helpful if the Board directed members to continue to use the "load responsibility" feature in e-tag 1.8 to clearly identify those transactions that are not "firm for the hour".

- Despite voiced concern over the difficulty of interpreting "load responsibility", the drafting team saddled WECC BAL-002 with "interruptible load". As a BA, I do not want to be put in a position to judge whether or not loads offered up by an LSE meet the contract requirements of being "interruptible".

I also have a comment not related to reliability. Or rather, a comment that the changes made through BAL-002-WECC-1 don't seem to be prompted by genuine reliability concerns (only thinly disguised in them). At their heart the changes seem to be driven more by the economic interests of some to shift contingency reserve responsibility (i.e. costs) from the generators to the loads (and perhaps the new MIC mantra that transactions

can't have reliability implications). I'd like to think that reliability changes should be driven by technical merit weighed against overall costs, and that the Board will not allow the WECC's standards process to be used as a lever to shift costs among members.

You'll also remember that I've frequently found myself defending the drafting team's right under WECC "due process" to produce their draft as they see fit, however to my eyes the results are far from pretty. This standard, combined with the NERC/FERC ability to trump WECC "due process" (e.g. sanction tables), raises serious doubts in my mind to about the workability of WECC standards process.

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JJ Jamieson, Portland General Electric (PGE), Transmission Customer

Portland General Electric voted against BAL-002-WECC-1 at the 3/6/08 meeting in Albuquerque, New Mexico.

Portland General Electric Merchant posted the following comments 02/21/08 in response to the posting of BAL-002-WECC-1 for review before voting at the upcoming Operating Committee meeting in Albuquerque, New Mexico. Our comments have not been responded to in any forum since posting.

> "Portland General Electric Merchant is concerned with the movement toward unnecessary changes to the approved standard proposed in BAL-002-WECC-1 particularly due to the motivation being cited. At no time should the basis of a reliability standard be centered on "a compromise" rather than the requirements of operational reliability.
>
> In public meetings held with / by the BAL-002-WECC-1- drafting team there was no evidence presented that illustrated increased reliability under BAL-002-WECC-1. The meetings showed that in fact BAL-002-WECC-1 could result in a reduced level of reliability in the WECC region.
>
> Why is a reliability entity allowing a compromise on standards that impact reliability?
> We are all being held to these standards and they should be defined by what is necessary for reliability, otherwise it isn't a reliability issue and the market will define the products.
>
> The biggest deficiency of this "compromise" is that it assumes that we have a robust and fully functioning market for reserves. To our knowledge most merchants do not have the right to sell reserves, let alone have extra to sell, and there has not been any formal discussion of how cost based entities can function in a WECC region reserves market. We need to agree that reserves are a reliability issue in determining use and level but a market issue when determining responsibility.

> The public meetings showed the proposed BAL-002-WECC-1 move towards the creation of a market product rather then a reliability standard.
>
> WECC has been very clear that the definition of market products is not within their mandate "WECC should focus on the interpretation of reliability criteria. It should not define energy market products." (Load Responsibility July 26, 2007) and it is equally as clear that the proposed BAL-002-WECC-1, while perhaps not intentionally, will result in the definition of a new energy product albeit not named by the standard itself.
>
> Is it WECC's intention, with BAL-002-WECC-1, to create an energy product leaving only the naming of said product to the WSPP and other like entities?
>
> Portland General Electric Merchant encourages the BAL-002-WECC-1 drafting team to work towards the establishment of a standard that is focused on the reliability of the system rather then a compromise that defines a market product.
>
> Portland General Electric Merchant"

It was communicated at the Operating Committee meeting that we should pass BAL-002-WECC- 1 because 'WECC doesn't want to go to FERC and request an extension.' Is this appropriate reasoning when dealing with issues affecting reliability?

We are concerned that BAL-002-WECC-1 is assuming a robust reserves market in the West. The West doesn't have a mature reserves market and this will put additional burden on the load serving merchants by forcing them to procure reserves from the generators in order to meet the new standard. How does WECC propose BAL-002-WECC- 1 will be able to sustain a reliable system absent a robust reserves market?

We echo Puget Sound Energy's concerned that BAL-002-WECC- 1 will result in a cost shift between Market participants without any additional reliability being realized.

Portland General Electric also agrees with Powerex in that there simply was not an appropriate level of analysis down to support a wholesale change in how reserves are handled in the WECC.

Finally, Portland General Electric states again that reliability standards should not be based on compromise but rather careful consideration of what will provide the most reliable and effective system.

Thank you for the opportunity to comment

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Mike Goodenough, Powerex (PWX)

Powerex agrees with the explanation for voting "No" to BAL-002 offered by BC Hydro.

In addition, Powerex would add that the proposed standard will require changes in markets that have not yet been considered. While we are supportive of the objectives to bring clarity to how reserve obligations are determined and commend the team for making progress in obtaining that clarity, no consideration was provided for how implementation of the new standard might impact the existing market and transmission tariff structures and what new uncertainties might be created. This should be considered so that we do not incur unnecessary adaption costs, which would then be followed by additional costs to implement the Frequency Response Reserves standard, which is a far more technically sound approach to re-examining the way reserve requirements should be calculated. BC Hydro and Powerex believe that this consideration should occur before the standard is adopted.

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Gary Nolan, Puget Sound Energy (PSEI)

PSEI, as a TP, only voted "No" on BAL-002. Our explanation is summed up by the comments Joe Hoerner from PSEM posted on the WECC website with our agreement.

Puget Sound Energy (PSE) appreciates the opportunity to provide comments on the proposed WECC Standard BAL-002-WECC-1 (Contingency Reserve). These comments are provided on behalf of Puget Sound Energy's transmission and merchant functions.

Upon review and analysis of the proposed Standard BAL-002-WECC-1, PSE can not determine how this standard provides any additional reliability over today's standard. The proposal alters the calculation for contingency reserves instead of clearly defining how contingency reserves would be activated to ensure system reliability. Furthermore, PSE's analysis indicates that adoption of this standard will result in significant cost shifts from generators to load-serving entities. PSE's ratepayers could expect to pay an additional $14,000,000 more per year in increased contingency reserve obligations without any added reliability benefit. PSE cannot find any legitimate reason as to why our regulating entities could justify our approval of such a cost increase with no benefit. If, in fact, the primary justification for creating the standard is to firmly establish the obligation of where the reserve obligation lies, then we feel it is more appropriate to address this issue in the commercial forum.

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Pawel Krupa, Seattle City Light (SCL)

I have to apologize for being late in responding to your e-mail.

On the behalf of SCL I cast NO vote for the BAL-002-WECC-1 standard. In preparation for the OC meeting I attended the BAL-002-WECC-1 workshop in Portland and we discussed this standard internally within SCL. Based on our internal discussions we believed we could not support this standard at its current version. Below are some of the reasons that we are not supporting this proposed standard as currently written:

1. Requirement R.1. The proposed standard changes the amount of contingency reserves required to carry by the BA's to 3% of the BA's total generation and 3% of the BA's total load. The current WECC standard BAL-STD-002-0 requires to carry 5% reserves for load responsibility served by hydro generation and 7 % served by thermal generation. We believe that there is no technical explanation for the new allocation of 3% generation and 3% of load. The 5% and 7% allocation was based on system data collected during the previous system disturbances and it provided safe contingency reserve margin during many severe disturbances in WECC interconnection. During the workshop in Portland drafting team stated that the 3% and 3% allocation was the best compromise the members of the drafting team were able to agreed to. The data presented by the drafting team during the workshop did not support the statement that the amount of contingency reserves available in the WECC Interconnection will not decrease as a result of this new standard. We believe that the reserve allocations should be based on the system studies rather then the ability of the drafting team to reach a compromise.

2. Requirement R.2. This requirement changes the definition of spinning reserve. Under this requirement the spinning reserve doesn't have to be carried by the synchronized generating units. The requirement states that spinning reserve needs to meet two requirements

R.2.1 Initially automatically respond to frequency deviations.

R.2.2. Capable of fully responding within ten minutes.

Based on this definition it is possible to use devices other generators to provide spinning reserves that could meet these requirements. The underfrequency relays for example could meet these new requirements, they will automatically respond to frequency deviation and will definitely respond within 10 minutes. We believe that this is a significant change in the definition of spinning reserves that again could have a detrimental effect on the stability of the WECC Interconnection.

3. R.3.6. This requirement identifies firm load as an acceptable type of reserves during energy emergency. This requirement does not specify if the load could only be used as a reserves by the BA declaring energy emergency. Based on the interpretation it is possible that every BA in the WECC or every BA in the Reserve Sharing Group could use firm load as a source of reserves once the energy emergency is declared by one single BA. This is also significant change from the previous standard and WECC MORC. The firm load was never before consider a source of reserves. I asked this question during the workshop and the drafting team did not provide an explanation why this was included as a acceptable source of contingency reserves.

We understand that there were many comments submitted to the drafting team during development process and we don't believe that all of these comments were addressed by the drafting team. We understand that there were some time limitations to develop and approve this standard, but we don't agree that this standard as currently written addresses all issues related to the contingency reserves in WECC Interconnection.

We believe that the above reasons were sufficient to justify our NO vote for this standard.

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Vicken Kasarjian, Sacramento Municipal Utility District (SMUD)

The following are the reasoning behind my “no” vote on BAL-002-WECC-1.

General comments:

1. Unnecessary additional requirements for WECC Members with higher exposure to violations/sanctions. Without justification, WECC is trying to hold itself to higher standards than the rest of the nation under NERC.
2. The drafting teams did not actually test the proposed standards prior to bringing it to a vote. A 6 month test with some applicable entities would have been quite helpful.
3. No guidance on how to actually be compliant with these standards.

Additional specific comments:

1. BAL-002-WECC-1: 3% has no technical basis – should go with MSSC to retain or enhance reliability

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John S. Forman, Transmission Agency of Northern California (TANC)

In response to the question of why a no vote was made on the standards at the OC meeting, TANC's OC representative voted no on five of the seven proposed standards for one basic reason: The standards require that the WECC be more stringent than the NERC standards. Those entities that have gone through an audit of the standards that are in effect are finding that they will be sited for something that is not in compliance. In other words, the auditors will keep looking until something is found to be wrong. With the WECC standards higher than NERC, even more compliance problems are anticipated. We believe that one basic instruction to the drafting teams should be that they need to justify a standard being more stringent than NERC, and that the basic draft should be no more than equal to NERC, unless it's clearly in the interest of the WECC. Our two positive votes on VAR-501 and IRO-006 are in that "best interest of WECC" category.

The other standards were not. Basically, we are not sure that always being better than NERC is the right philosophy.

****

John Jamieson
John.Jamieson@pgn.com

Portland General Electric Merchant is concerned with the movement toward unnecessary changes to the approved standard proposed in BAL-002-WECC-1 particularly due to the motivation being cited. At no time should the basis of a reliability standard be centered on "a compromise" rather than the requirements of operational reliability.

Response: The drafting team's presentations described the process used to determine the means of calculating the additional reserves that may be necessary, in addition to that determined by MSSC. The team recognizes that the existing standard focuses on only load served by hydro or thermal resources. The team felt compelled to include all types of generation as the Western Interconnection (WI) is experiencing a significant increase in alternative generation sources that are not addressed by the existing standard. The compromise mentioned is the reserve allocation mechanism adopted that recognizes both load and generation responsibilities in providing reserves.

In public meetings held with / by the BAL-002-WECC-1- drafting team there was no evidence presented that illustrated increased reliability under BAL-002-WECC-1. The meetings showed that in fact BAL-002-WECC-1 could result in a reduced level of reliability in the WECC region.

Response: The drafting team disagrees with this statement. In fact, the proposed standard addresses many shortcomings in the existing standard, such as clarifying when an entity needs reserves and what amount. Today's standard has several ambiguous statements that have caused considerable disagreement and misunderstandings between members. For example the current standard refers to Firm and Interruptible. There are many market products that do not fall in either of those categories, or there is disagreement between BA's/RSG on whether they would fit under Interruptible or Firm. This makes it difficult to be sure a BA is carrying the appropriate quantities. This proposed standard removes the type of market products from the allocation requirements. All of these issues are addressed by the proposed standard.

Why is a reliability entity allowing a compromise on standards that impact reliability? We are all being held to these standards and they should be defined by what is necessary for reliability, otherwise it isn't a reliability issue and the market will define the products.

Response: At issue today is that the reliability standard has in the past attempted to define the market products. The WECC has determined that it should not be defining market products in this way. For this reason the drafting team recommends changing the allocation method from what exist today because it includes market products as part of the standard. This in and of itself has caused the uncertainty that exists in the reliability standard, to say nothing of the adverse impacts that are occurring in the WECC markets.

The biggest deficiency of this "compromise" is that it assumes that we have a robust and

fully functioning market for reserves. To our knowledge most merchants do not have the right to sell reserves, let alone have extra to sell, and there has not been any formal discussion of how cost based entities can function in a WECC region reserves market. We need to agree that reserves are a reliability issue in determining use and level but a market issue when determining responsibility.

Response: The standard does not assume there is any market for any product. In fact, the standard clearly separates the market issues from the reliability issues. The WECC has created business practices (approved by the OC and MIC) that allow for buying and selling of products that would help a Balancing Authority meet its load service and additional capacity needs. This standard clearly defines how transactions for reserves must be utilized to ensure appropriate information is provided to both source and sink Balancing Authorities. The drafting team disagrees with the statement that reserves are a market issue when determining reliability. Reserves are a reliability issue and should not interfere with markets, and market definitions should not cause confusion within the reliability standards. The products needed to meet the reliability needs will be offered through the markets if there is a demand for them. The drafting team believes that reserves are an issue for the Balancing Authorities as defined in the NERC Functional Model and not an issue for Purchase-Selling Entities.

The public meetings showed the proposed BAL-002-WECC-1 move towards the creation of a market product rather then a reliability standard.

Response: The drafting team disagrees with this statement. The drafting team attempted to address questions it had heard in previous meetings related to how a Balancing Authority would be able to meet its reserve requirements since it would no longer be able to change its reserve responsibility through purchase of energy. The drafting team did not in any way use BAL-002-WECC-1 to create market products. Rather the drafting team ensured that if market products were used to meet an obligation, they were used in an appropriate and correct manner.

WECC has been very clear that the definition of market products is not within their mandate "WECC should focus on the interpretation of reliability criteria. It should not define energy market products." (Load Responsibility July 26, 2007) and it is equally as clear that the proposed BAL-002-WECC-1, while perhaps not intentionally, will result in the definition of a new energy product albeit not named by the standard itself.

Response: The drafting team did not create any new market products. It removed the market products from the reliability standard. Any products discussed at the presentation on February 6th are already in use today. The drafting team strove to ensure that to the extent market products are used to meet a reliability requirement, the rules for doing so are clearly stated.

Is it WECC's intention, with BAL-002-WECC-1, to create an energy product leaving only the naming of said product to the WSPP and other like entities?

Response: Please refer to the response above. To the extent that a product is for a reliability need, such as reserves, the drafting team felt it imperative to define the rules under which this product would be acceptable.

Portland General Electric Merchant encourages the BAL-002-WECC-1 drafting team to work towards the establishment of a standard that is focused on the reliability of the system rather then a compromise that defines a market product.

Response: The drafting team appreciates this advice and feels that is exactly what was done.

Portland General Electric Merchant

Mike Goodenough
Mike.Goodenough@powerex.com

The proposed standard BAL-002 is seriously flawed in that it is not based on a technical evaluation of reserves from a reliability standpoint. The team that developed the standard has indicated that the 3% load, 3% generation numbers were proposed as a compromise. Though there may be some benefits to moving the reserves requirement towards load, it cannot be done without an in-depth study to determine the reliability impacts, market impacts, and the costs to the Balancing Authorities, particularly the costs that will be shifted to the BAs that are primarily load. None of this analysis has been done.

Response: The drafting team disagrees with the statements made here. First, the drafting team agreed to a compromise in the allocation methodology, not in the amount of reserves held in the WECC. In other words, the drafting team discussed basing the reserves on Generation only, Load only or a compromise position of half and half. The compromise position was determined to be the best solution because it minimized adverse impacts to the different entities that are currently applicable entities (Reserve Sharing Groups (RSGs) or the stand-alone Balancing Authorities) under the existing WECC standard. The reliability impacts were reviewed by looking at the amount of reserves for each applicable entity in the WECC. This review clearly shows that there is no significant cost increase to any of the applicable entities in the WECC. Based on the changes to each entity, it is the drafting team's belief that there should not be any significant changes to costs to the overall Reserve Sharing Groups (RSGs) or the stand-alone Balancing Authorities. If a RSG decides to change its allocation methodology at this time, there could be significant impacts to members of that RSG. However, the drafting team ensured that the WECC standard does not require a RSG to reallocate its reserve requirement. The allocation methodology has been left up to the members of that RSG.

The Frequency Response Reserves Project is a far more technically sound approach to re-examining the way reserve requirements should be calculated. Given that the existing reserve requirement standard has a proven reliability track record, we feel it should remain in place until the FRR project has been concluded. BAL-002 at best is change for the sake of change, but at worst it is potentially a serious step backward in reliability for the western region.

Response: The Frequency Response Reserve Project is not ready for the WECC to adopt as a standard at this time. It will be some time before it is ready. In the meantime, issues were raised with the existing standard during the FERC approval process that FERC required to be addressed within a very limited timeframe. The drafting team believes it has addressed the issues in a manner that can be adopted here without causing delay to a more technically based standard. It is possible, but not assured by any means that this standard may be revised during the FRR development process. An FRR standard would ensure that the Western Interconnection carries sufficient reserves to respond to frequency declination. However, adoption of an FRR standard will not erase the need for contingency reserves. The drafting team proposes this standard as a long term solution to contingency reserve issues that should dovetail with an FRR standard. Until then, the WECC needs a clear, unambiguous contingency reserve standard for both compliance and reliability.

Joe Hoerner
joseph.hoerner@pse.com

Puget Sound Energy (PSE) appreciates the opportunity to provide comments on the proposed WECC Standard BAL-002-WECC-1 (Contingency Reserve). These comments are provided on behalf of Puget Sound Energy's transmission and merchant functions.

Upon review and analysis of the proposed Standard BAL-002-WECC-1, PSE can not determine how this standard provides any additional reliability over today's standard. The proposal alters the calculation for contingency reserves instead of clearly defining how contingency reserves would be activated to ensure system reliability. Furthermore, PSE's analysis indicates that adoption of this standard will result in significant cost shifts from generators to load-serving entities. PSE's ratepayers could expect to pay an additional $14,000,000 more per year in increased contingency reserve obligations without any added reliability benefit. PSE cannot find any legitimate reason as to why our regulating entities could justify our approval of such a cost increase with no benefit. If, in fact, the primary justification for creating the standard is to firmly establish the obligation of where the reserve obligation lies, then we feel it is more appropriate to address this issue in the commercial forum.

Response: Based on discussions with PSE, the drafting team believes that the methodology used to determine the impact to PSE is a reasonable methodology and, therefore, the results are a possible outcome. The standard does not dictate how a Reserve Sharing Group allocates the reserve requirement to its members. The drafting

team recommends that all entities in a Reserve Sharing Group work with the RSG to insure equal allocation of savings due to reallocation of reserve obligation. The drafting team disagrees that the commercial forum is the correct venue to establish where the reserve obligation lies, this is a reliability issue. However, the commercial forum can be used to determine how an entity meets its obligation.

Finally, the drafting team was not asked to clarify when reserves should be activated or how they should be activated. The drafting team only identified the need to determine the level of reserves needed as being within its scope. The drafting team believes the NERC standard addresses when reserves should be activated. Each individual entity determines how reserves are activated. The selection of which reserve to activate should not be dictated by a standard.

Anonymous

The proposed standard is silent on how Firm Contingent generation reserve requirements (which would be 3%) would be the requirement of the sink rather than the source. It is unacceptable to require IPPs to purchase the 3% reserves from the host BA and it is also unacceptable to require IPPs to purchase firm transmission and capacity in order to provide reserves for their transactions. New reserve requirements must allow the reserve requirement to be exported to the sink when the unit is sold firm contingent. The sink BA must also be aware of the fact that they have this responsibility. This responsibility can be shifted, and must be clear to all parties to the transaction.

Response: The drafting team disagrees with this statement. The responsibility for providing reserves resides with BAs and RSGs not IPPs. The standard does not dictate how a Reserve Sharing Group or Balancing Authority allocates its reserve requirement. With the proposed standard, reserve obligation is no longer dictated by transaction type. This is one of the driving forces behind the creation of this standard. The issues raised by Anonymous should be settled in the commercial forum because there is no requirement in the standard for an IPP to carry reserves. If the IPP has a reserve allocation from its RSG or BA, then an IPP may purchase reserve from its host BA or it may purchase reserve from the sink BA. Under the proposed standard, the responsibility is split between the two Balancing Authorities. The need to activate reserves would reside with the sink Balancing Authority if the unit were to be unable to generate suddenly since the schedule would likely be curtailed when the unit tripped.

Board of Directors
April 16-18, 2008 Voting Summary
Coronado, CA BAL-002-WECC-1

Last Name	First Nam	Organization	Class
Anderson	Bob	Non-affiliated Director	Non-Affiliated
Areghini	David	Salt River Project	Class 1
Barbash	Carolyn	Sierra Pacific Power Company	Class 1
Beyer	Lee	California Public Utilities Commission	Class 5
Brown	Duncan	Calpine Corporation	Class 3
Campbell	Ric	Utah Public Service Commission	Class 5
Cauchois	Scott	CADRA	Class 4
Chamberlain	Bill	California Energy Commission	Class 5
Cleary	Anne	Mirant Americas, Inc.	Class 3
Conway	Teresa	Powerex Corp.	Class 6
Coughlin	John	Non-affiliated Board Member	Non-Affiliated
Dearing	Bill	Grant County PUD	Class 2
Ferreira	Richard	TANC Executive Advisor	Class 2
Grantham-Richards	Maude	Farmington Electric Utility System	Class 2
Gutting	Scott	Energy Strategies, LLC	Class 4
Kelly	Nancy	Utah Committee of Consumer Services	Class 4
King	Jack	Non-affiliated Board Member	Non-Affiliated
LaFond	Steve	The Boeing Company	Class 4
*Little	Doug	British Columbia Transmission Corporation	Class 6
McMaster	Dale	Alberta Electrical System Operator	Class 6
Moya	Jesus	Comision Federal de Electricidad	Mexico
Newton	Tim	Non-affiliated Director	Non-Affiliated
Sharpless	Jananne	Non Affiliated Board Member	Non-Affiliated
Smith	Marsha	Idaho Public Utilities Commission	Class 5
Stout	John	Mariner Consulting	Class 3
Tarplee	Gary	Southern California Edison	Class 1
Thuston	Tim	Williams Power	Class 3
Weis	Larry	Turlock Irrigation District	Class 2
VanZandt	Vicki	Bonneville Power Administration	Class 1
Zaozirny	Lori Ann	British Columbia Utilities Commission	Class 6

The Board Members listed above voted whether to approve BAL-002-WECC-1.
Twenty-eight members voted Yes.
One member (identified with an asterisk) voted No.
Two members (not identified) abstained.

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

Standard Development Roadmap

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

Development Steps Completed:

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

Description of Current Draft:

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

This version of the BAL-002-WECC-1 standard is for NERC Board of Trustee ballot. The WECC Board of Directors approved the standard April 16, 2008. WECC Operating Committee approved the standard March 6, 2008. The WECC Board of Directors and Operating Committee request that the NERC Board of Trustees approve the BAL-002-WECC-1 Standard as a permanent replacement standard for BAL-STD-002-0 and that the NERC Board of Trustees submits the standard to FERC for approval and replacement of BAL-STD-002-0.

Future Development Plan:

Anticipated Actions	Anticipated Date
1. NERC Board approval request	June 2008
2. Request FERC approval	June 2008

Definitions of Terms Used in Standard

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

A. Introduction

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

4. **Applicability**

   4.1 Balancing Authority

   4.2 Reserve Sharing Group

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

B. Requirements

R1. Each Reserve Sharing Group or Balancing Authority that is not a member of a Reserve Sharing Group shall maintain as a minimum Contingency Reserve that is the sum of the following: *[Violation Risk Factor: Medium] [Time Horizon: Real-time Operations]*

R1.1. The greater of the following:

R1.1.1. An amount of reserve equal to the loss of the most severe single contingency; or

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

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

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

Comment [AJR1]: Suggest this be written as a formula. This prose is somewhat confusing, as we are saying that the "sum" is the greater of 1.1.1 and 1.1.2, plus a really long paragraph, plus another really long paragraph. Hard to follow.

Comment [AJR2]: Why is this done as two terms? Note that you deduct station service twice. i.e. R = ((.03 x G) – S – NAI) + ((.03 x G) – S) = (.06 x G) – NAI – 2S. Was that the intent? Or should this really be (.06 x G) – NAI – S?

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

Comment [AJR3]: I think I know what this is trying to say, but I suggest there could be a better way to say it.. See previous comment on use of a formula to try to make more clear.

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. Be c~~C~~apable of fully responding within ten minutes.

R3. Each Reserve Sharing Group or Balancing Authority shall use the following acceptable types of ~~reserve~~ Contingency Reserve which must be fully deployable within 10 minutes of notification to meet R1: *[Violation Risk Factor: Medium] [Time Horizon: Real-time Operations]*

Comment [sm4]: Order 693 directs that DSM be treated comparably with generator resources for contingency reserves. This requirement could be interpreted to exclude the use of DSM (specifically R4.1)

R3.1. Spinning Reserve

R3.2. Interruptible Load;

R3.3. Interchange Transactions designated by the source Balancing Authority as non-spinning contingency reserve;

R3.4. Contingency Reserve held by other entities by agreement that is deliverable on Firm Transmission Service;

R3.5. An amount of off-line generation which can be synchronized and generating; or

R3.6. Load, other than Interruptible Load, once the Reliability Coordinator has declared a capacity or energy emergency.

C. Measures

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

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

M2. The Reserve Sharing Group or Balancing Authority that is not a member of a Reserve Sharing Group has documentation that it maintained at least 100% of minimum Spinning Contingency Reserve required based upon data averaged over each clock hour except within the first 105 minutes following an event requiring the activation of Contingency Reserves. For each hour, Reserve Sharing Group or Balancing Authority that is not a member of a Reserve Sharing Group shall have and provide upon request the Spinning Reserve Requirement in MW and amount of Spinning Reserve available in MW that is automatically responsive to frequency and can be fully deployed in 10 minutes.

M3. The Reserve Sharing Group or Balancing Authority that is not a member of a Reserve Sharing Group has documentation that it used the acceptable types of reserve for each hour to meet R3.

M3.1 Any Reserve Sharing Group or Balancing Authority utilizing Load other than Interruptible Load shall submit documentation demonstrating that the Reliability Coordinator declared a Capacity and/or Energy Emergency prior to utilizing Load for Contingency Reserves.

D. Compliance

1. Compliance Monitoring Process

1.1 Compliance Monitoring Responsibility

Compliance Enforcement Authority

1.2 Compliance Monitoring Period

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

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

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

1.2.1 Compliance Monitoring Period: One Clock Hour.

1.2.2 The Performance-reset Period is calendar quarter.

1.3 Data Retention

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

1.4. Additional Compliance Information

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

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

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

1.4.4. If an agent properly designated in accordance with Section 1.4.2 fails to identify individual Balancing Authorities within the Reserve Sharing Group responsible for noncompliance at the time of data submission or fails to specify percentages of responsibility attributable to each identified Balancing Authority, any penalties for noncompliance shall be assessed against the agent on behalf of the Reserve Sharing Group, and it shall be the responsibility of the members of the Reserve Sharing Group to allocate responsibility for such noncompliance.

1.4.5. Any Balancing Authority that is a member of a Reserve Sharing Group that has failed to register as provided in Section 1.4.2 shall be subject to this Standard on an individual basis.

2. Violation Severity Levels for Requirement R1

Comment [sm5]: These VSLs should be in table format as opposed to the format proposed.

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. ~~4.4.~~ Severe: Not Applicable

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

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Requirment		Lower VSL	Moderate VSL	High VSL	Severe VSL
R1		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.	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.	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.	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.
R2		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.	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.	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.	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.
R3		Not Applicable	Not Applicable	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	Not Applicable

				used unacceptable resources for Contingency Reserves.	

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

Version	Date	Action	Change Tracking
1	April 16, 2008	Permanent Replacement Standard for BAL-STD-002-0	

BAL-002-WECC-1 Comparison

This following document prepared by the drafting team during the development of the WECC Standard BAL-002-WECC-1 – Contingency Reserve compares this proposed regional standard to the existing WECC BAL-STD-002-0.

The purpose of this document to provide documentation of each proposed change.

BAL-002-WECC-1	WECC Standard BAL-STD-002-0 - Operating Reserves	Comment
A. Introduction		
1. Title: Contingency Reserves	**1. Title: Operating Reserves**	
2. Number: BAL-002-WECC-1	**2. Number:** BAL-STD-002-0	Title updated to reflect revised titling criteria
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. Purpose:** Regional Reliability Standard to address the Operating Reserve requirements of the Western Interconnection.	Updated to reflect the overall purpose of the proposed revised standard.
4. Applicability	**4) Applicability**	
4.1 Balancing Authority.	4.1.1 This criterion applies to each Responsible Entity that is (i) a Balancing Authority or a member of a Reserve Sharing Group that does not designate its Reserve Sharing Group as its agent, or (ii) a Reserve Sharing Group. A Responsible Entity that is a Balancing Authority and a member of a 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 Reserve Sharing Group is not subject to this criterion on an individual basis.	Balancing Authority is a defined term in NERC's Glossary of Terms Used in Reliability Standards so it is used in this standard without being redefined.
4.2 Reserve Sharing Group	4.1.2 Responsible Entities that are members of a Reserve Sharing Group may designate in writing to WECC a Responsible Entity to act as agent for purposes of this criterion for each such Reserve Sharing Group. Such Reserve Sharing Group agents	Reserve Sharing Group (RSG) is a defined term in NERC's Glossary of Terms Used in Reliability Standards so it is used in this standard without being redefined.

BAL-002-WECC-1	WECC Standard BAL-STD-002-0 - Operating Reserves	Comment
	shall be responsible for all data submission requirements under Section D of this Reliability Agreement. Unless a Reserve Sharing Group agent identifies individual Responsible Entities responsible for noncompliance at the time of data submission, sanctions 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: On the first day of the next quarter, after receipt of applicable regulatory approval.	**4. 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	Introductory section in existing standard has been replaced with the purpose statement in the proposed Regional Reliability Standard.

BAL-002-WECC-1	WECC Standard BAL-STD-002-0 - Operating Reserves	Comment
	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 Balancing Authority shall maintain minimum Operating Reserve which is the sum 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).	The proposed standard refers only to contingency reserves and therefore no longer outlines the requirement for Regulating Reserves. This is a duplication of BAL-005-0b R2. The drafting team recommends removing the duplication.
R1. Each Reserve Sharing Group or Balancing Authority that is not a member of a Reserve Sharing Group shall maintain as a minimum Contingency Reserve that is the sum of the following: *[Violation Risk Factor: Medium] [Time Horizon: Real-time Operations]* **R1.1.** The greater of the following:	(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	The proposed standard changes the amount of the contingency reserves required to carry 3% of the BA's total load and 3% of the BA's total generation. This replaces the existing 5% and 7% load responsibility and generation based calculation. The requirement to carry a minimum of MSSC remains.

Comment [ga1]: Why the change though? What is the basis here?

BAL-002-WECC-1	WECC Standard BAL-STD-002-0 - Operating Reserves	Comment
R1.1.1. An amount of reserve equal to the loss of the most severe single contingency; or **R1.1.2.** An amount of reserve equal to the sum of three percent of the load (generation minus station service minus Net Actual Interchange) and three percent of net generation (generation minus station service).	responsibility served by hydro generation and seven percent of the load responsibility served by thermal generation.	
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		The proposed standard clarifies the requirement to carry Contingency Reserve based on the Interchange arrangements.

BAL-002-WECC-1	WECC Standard BAL-STD-002-0 - Operating Reserves	Comment
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 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		The proposed standard now specifies that the spinning reserve component of Contingency Reserves is capable of fully responding within 10 minutes, and that its initial response is automatically responsive to the frequency deviations to ensure that new standard is performance based.

Comment [ga2]: Need to clarify. NERC's definition of spinning reserve is explicit to generation. I therefore go back to our concern we expressed about DSM.

BAL-002-WECC-1	WECC Standard BAL-STD-002-0 - Operating Reserves	Comment
control systems. **R2.2.** Capable of fully responding within ten minutes.		
	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 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. 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.	The proposed standard is being revised to be based on the BA or RSG performance with actual event rather than a standard that outlines the preparation requirement for events.
	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)	Restoration requirement moved to measurement 2. In addition, the time to restore was lengthened to better align with NERC's Interchange scheduling standards and electronic tagging functional specification. See Measure 2 of this document for details.
R3. Each Reserve Sharing Group or Balancing Authority shall use the following acceptable types of reserve which must be	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	Added to the proposed standard the acceptable use of load for contingency reserve only during those times of a Capacity and/or

Comment [ga3]: Some of this seems lost in the new version. Is it covered with new language that I am not connecting?

Comment [ga4]: See previous comment.

BAL-002-WECC-1	WECC Standard BAL-STD-002-0 - Operating Reserves	Comment
fully deployable within 10 minutes of notification to meet R1: *[Violation Risk Factor: Medium] [Time Horizon: Real-time Operations]* **R3.1.** Spinning Reserve **R3.2.** Interruptible Load; **R3.3.** Interchange Transactions designated by the source Balancing Authority as non-spinning contingency reserve; **R3.4.** Reserve held by other entities by agreement that is deliverable on Firm Transmission Service; **R3.5.** An amount of off-line generation which can be synchronized and generating; or **R3.6.** Load, other than Interruptible Load, once the Reliability Coordinator has declared a capacity or energy emergency.	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.	Energy Emergencies. Added the specification for nonspinning reserve that this off line generation capacity must be capable of being activated within 10 minutes. Clarified when it is permissible to use end-use customer load (i.e. interruptible load and firm load) for the non-spin portion of contingency reserve. The use of firm load is limited to capacity and energy emergencies. To be compliant with the BAL-002-WECC-1 standard, the Balancing Authority must always have the required amount of spinning reserve even during the capacity/energy emergencies. There is no time when a Balancing Authority or Reserve Sharing Group is permitted to not have spinning reserves. Interruptible Load includes loads that are reduced in 10 minutes through demand side management actions.
C. Measures	**C. Measures WM1.**	
M1. The Reserve Sharing Group or Balancing Authority that is not a member of a Reserve Sharing Group has documentation that it maintained 100% of required Contingency Reserve levels based upon data integrated	M1 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.	Measures expended and split into a measure of total contingency reserves and spinning reserves to ensure both are measured. Time period after an event requiring the

Comment [ga5]: Don't know if this makes sense. Why couldn't DSM be used as a routine option for spinning if so available aside and apart from a capacity and energy emergency?

Comment [ga6]: The earlier reference is to load which I interpreted to be DSM as well. Here they limit the sue of firm load to capacity and energy emergencies without reference DSM. Does the same prohibition exist on DSM>

BAL-002-WECC-1	WECC Standard BAL-STD-002-0 - Operating Reserves	Comment
over each clock hour except within the first 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 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	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)	activation of Operating Reserves lengthened to 105 minutes to align with NERC standards. Measure added to ensure that load, other than Interruptible Load, can be used as contingency reserve only during times of a declared Capacity and/or Energy Emergency.

BAL-002-WECC-1	WECC Standard BAL-STD-002-0 - Operating Reserves	Comment
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. Any Reserve Sharing Group or Balancing Authority utilizing Load other than Interruptible Load shall submit documentation demonstrating that the Reliability Coordinator declared a Capacity and/or Energy Emergency prior to utilizing Load for Contingency Reserves.		
D. Compliance	**D Compliance**	
1 Compliance Monitoring Process	**1. Compliance Monitoring Process**	
1.1 Compliance Monitoring Responsibility Compliance Enforcement Authority	**1.1Compliance Monitoring Responsibility** Western Electricity Coordinating Council (WECC**)**	
1.2 Compliance Monitoring Period The Compliance Enforcement Authority may use one or more of the following methods to assess compliance: - Reports conducted quarterly - Spot check audits conducted anytime with 30 days notice given to prepare - Periodic audit as scheduled by the Compliance Enforcement Authority - Investigations - Other methods as provided for in the Compliance Monitoring Enforcement Program Reserve Sharing Groups and Balancing	**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	Compliance reporting period updated to a quarterly reporting period and to reflect an audit approach rather than the reporting approach utilized in the existing standard.

BAL-002-WECC-1	WECC Standard BAL-STD-002-0 - Operating Reserves	Comment
Authorities shall submit to their Compliance Enforcement Authority a Contingency Reserve verification report on or before the tenth business day following the end of each calendar quarter. **1.2.1** Compliance Monitoring Period: One Clock Hour. **1.2.2** The Performance-reset Period is calendar quarter.	Form A.1(b) (available on the WECC web site) for the immediately preceding calendar quarter.	
1.3 Data Retention Data Retention Reserve Sharing Groups and Balancing Authorities shall keep evidence for Measure M.1 through M3 for three years plus current, or since the last audit, whichever is longer.	**1.3 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)	Data retention period lengthened to 3 years or longer to ensure data is kept in a contiguous manner between audit periods.
1.4 Additional Compliance Information **1.4.1.** This Standard shall apply to a Reserve Sharing Group that has registered with the WECC as provided in Section 1.4.2, and each Balancing Authority identified in the registration shall be responsible for compliance with this Standard through its participation in the Reserve Sharing Group and not on an individual basis.	**1.4. 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)	No longer needed because the NERC sanction table is used. Added clarification language for Reserve Sharing Groups and sanctions.

BAL-002-WECC-1	WECC Standard BAL-STD-002-0 - Operating Reserves	Comment
1.4.2. A Reserve Sharing Group may register as the Responsible Entity for purposes of compliance with this Standard by providing written notice to the WECC (a) indicating that the Reserve Sharing Group is registering as the Responsible Entity for purposes of compliance with this Standard, (b) identifying each Balancing Authority that is a member of the Reserve Sharing Group, and (c) identifying the person or organization that will serve as agent on behalf of the Reserve Sharing Group for purposes of communications and data submissions related to or required by this Standard. **1.4.3.** If an agent properly designated in accordance with Section 1.4.2 identifies individual Balancing Authorities within the Reserve Sharing Group responsible for noncompliance at the time of data submission, together with the percentage of responsibility attributable to each identified Balancing Authority, then, except as may otherwise be finally determined through a duly conducted review or appeal of the initial finding of noncompliance, (a) any penalties assessed for noncompliance by the Reserve Sharing Group shall be allocated to the individual Balancing		

BAL-002-WECC-1	WECC Standard BAL-STD-002-0 - Operating Reserves	Comment
Authorities identified in the applicable data submission in proportion to their respective percentages of responsibility as specified in the data submission, (b) each Balancing Authority shall be solely responsible for all penalties allocated to it according to its percentage of responsibility as provided in subsection (a) of this Section 1.4.3, and (c) neither the Reserve Sharing Group nor any member of the Reserve Sharing Group shall be responsible for any portion of a penalty assessed against another member of the Reserve Sharing Group in accordance with subsection (a) of this Section 1.4.3 (even if the member of Reserve Sharing Group against which the penalty is assessed is not subject to or otherwise fails to pay its allocated share of the penalty). **1.4.4.** If an agent properly designated in accordance with Section 1.4.2 fails to identify individual Balancing Authorities within the Reserve Sharing Group responsible for noncompliance at the time of data submission or fails to specify percentages of responsibility attributable to each identified Balancing Authority, any penalties for noncompliance shall be assessed		

BAL-002-WECC-1	WECC Standard BAL-STD-002-0 - Operating Reserves	Comment
against the agent on behalf of the Reserve Sharing Group, and it shall be the responsibility of the members of the Reserve Sharing Group to allocate responsibility for such noncompliance. **1.4.5.** Any Balancing Authority that is a member of a Reserve Sharing Group that has failed to register as provided in Section 1.4.2 shall be subject to this Standard on an individual basis.		
2. Violation Severity Levels for Requirement R1	**Levels of Non-Compliance Sanction**	
	Measure: Average Generation	
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.	2.1. 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 100% but greater than or equal to 90% of the required Operating Reserve.	Same non compliance severity violation measure as existing standard except updated to reflect standard current guidelines and to reflect that the revised standard pertain to contingency reserve and not operating reserves
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.	2.2. 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.	Same as above
2.3. High: There shall be a High Level of non-compliance if there is one hour during a	2.3. Level 3: There shall be a Level 3 non-compliance if any of the following conditions exist:	Same as above

BAL-002-WECC-1	WECC Standard BAL-STD-002-0 - Operating Reserves	Comment
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.	2.3.1 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. 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.	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	Same as above
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.		Violation Severity Levels are added for each requirement.
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.		Same as above
3.3. High: There shall be a High Level of		Same as above

BAL-002-WECC-1	WECC Standard BAL-STD-002-0 - Operating Reserves	Comment
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.		Same as above
4. Violation Severity Level for Requirement R3		
4.1 Lower: Not Applicable		Same as above
4.2. Moderate: Not Applicable		Same as above
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.		Same as above
4.4. Severe: Not Applicable		Same as above

FERC and NERC Directives for a Permanent Replacement Standard for BAL-STD-002-0 Operating Reserves

Received From	FERC and NERC Directives for a Permanent Replacement Standard for BAL-STD-002-0 June 8, 2007	Completed Actions
NERC Staff Common Revisions to WECC "Tier 1" Standards	Remove RMS Sanction Table	The Reliability Management System (RMS) Sanction Table is removed from the standard.
	Include Violation Risk Factors	The drafting team added Violation Risk Factors.
	Include Violation Severity Levels	The drafting team added Violation Severity Levels for each main requirement.
	Include Mitigation Time Horizon	The drafting team added Time Horizon.
	Start date first day of quarter	**Effective Date:** On the first day of the next quarter, after receipt of applicable regulatory approval.
	Include Applicable functional entity in Requirements and Measures	The drafting team included the applicable functional model entity in requirements and measures.
	Written in Active Voice	The standard is written in an active voice.
	Exclude comments, statements, background and references	The drafting team removed comments, statements, background, and references.
	Individual requirements and measures convey only one main issue	Each requirement and measure conveys only one main issue.
	Each measure refers to clearly to requirement(s) applicable to	There is a measure for each main requirement.
	Include Reset Time Frame	The drafting team included a

Received From	FERC and NERC Directives for a Permanent Replacement Standard for BAL-STD-002-0 June 8, 2007	Completed Actions
		reset time frame.
	Remove second sentence of data retention	The drafting team removed reference to data retention.
	Exclude Excuse for Performance	The drafting team removed the Excuse for Performance provision.
	Align definitions with NERC definitions	The standard uses the NERC definitions.
	Include functional entity in Additional Compliance Information	Functional model entity information is in the compliance section.
	Clarify reference used for Business Day	The definition for Business Day is removed.
FERC Revisions to BAL-STD-002-	Attach referenced documents	Reference documents are attached with the posting and will be posted on the WECC website. Modifications to reference will be notice and posted following WECC's process.
	Eliminate Excuse for Performance – can be used as mitigating factors when assessing penalty	The drafting team removed the Excuse for Performance provision.
	Clarify Applicability to address "Responsible Entities" Break WR1 into at least 2 requirements and revise Measures accordingly.	The use of "Responsible Entities" is removed.
	Rewrite WM1 as two measures Move paragraph two under Compliance Monitoring Period to Additional Compliance Information	The measurement section has been rewritten.
NERC Question #1	**Was the proposed standard developed in a fair and open process, using the associated Regional Reliability Standards Development Procedure? If not,**	

Received From	FERC and NERC Directives for a Permanent Replacement Standard for BAL-STD-002-0 June 8, 2007	Completed Actions
	please explain in the comment area.	
Constellation Energy Control and Dispatch	Yes	
Xcel Energy Services, Inc.	Yes	
Cogeneration Association of California, and Energy Producers & Users Coalition	Yes	
Ben Wiant 21.03.2008, 09:04	Yes	

Received From	FERC and NERC Directives for a Permanent Replacement Standard for BAL-STD-002-0 June 8, 2007	Drafting Team Consideration of Comments	Completed Actions
NERC Question #1	**Was the proposed standard developed in a fair and open process, using the associated Regional Reliability Standards Development Procedure? If not, please explain in the comment area.**		
Constellation Energy Control and Dispatch	Yes		
Xcel Energy Services, Inc.	Yes		
Cogeneration Association of California, and Energy Producers & Users Coalition	No It is our understanding that WECC determined that certain of its existing standards should be approved as regional standards once NERC's mandatory reliability standards are approved. WECC used an expedited process	**Response: Thank you for your comment. All comments relating to technical issues will be forwarded to the appropriate Standards Drafting Team for consideration during the**	The Bal-002-WECC-1 standard was developed using the Process for Developing and Approving WECC Standards. The use of the term Load Responsibility was removed from the standard.

Received From	FERC and NERC Directives for a Permanent Replacement Standard for BAL-STD-002-0 June 8, 2007	Drafting Team Consideration of Comments	Completed Actions
	to approve the submittal to NERC of the existing standards. However, WECC has recognized for several years a deficiency in the definition of load responsibility in the requirement for contingency reserves in Requirement #1, but did not correct it prior to its submittal. The use of the expedited process eliminated most of the opportunity to have input to the content of the standard.	**development of the successor permanent standard. The requirements in WECC BAL-STD- 002-0 are taken directly from the existing RMS Operating Reserve Criterion contained in RMS Reliability Criteria Agreement. The requirements for the operating reserve criterion have been measurable and enforced with monetary penalties for many years. Refinements to the definition for load responsibility have been recommended by your organization and are being addressed through another WECC standards development process. The standard request only authorized the translation of the existing RMS Operating Reserve Criterion into the NERC standards format. The**	

Received From	FERC and NERC Directives for a Permanent Replacement Standard for BAL-STD-002-0 June 8, 2007	Drafting Team Consideration of Comments	Completed Actions
		Expedited Process for Urgent Action Interim Standards contained several comment periods where entities were given an opportunity to comment on the accurateness of the translation. If WECC does not develop a successor permanent standard, the interim standard will expire one year after FERC approval.	
Rocky Mountain Reserve Group	Yes		
Question #2	**Does the proposed standard pose an adverse impact to reliability or commerce in a neighboring region or interconnection?**		
Constellation Energy Control and Dispatch	Yes, As an entity that operate is both Eastern and Western Interconnections CECD is	**Response: Thank you for your comment. As noted in WECC's response to comments on**	The development of the BAL-002-WECC-1 Contingency Reserves Standard followed the Process for Developing and

Received From	FERC and NERC Directives for a Permanent Replacement Standard for BAL-STD-002-0 June 8, 2007	Drafting Team Consideration of Comments	Completed Actions
	concerned that by establishing this Regional Standard CECD is required to operate to multiple standards, though there is not a clear benefit to reliability under these criteria that is greater than that supplied under NERC BAL-001-0 and BAL-002-0. The standard is also presented as a temporary standard that will be replaced by a "North American Standard", which is a term that is not defined and requires clarification, i.e. a statement that approval of NERC Reliability Standards BAL-001-0 and BAL-002-0 will replace this standard and eliminate need for the regional difference.	**Question 1, your comments will be forwarded to the appropriate drafting team for consideration during the development of the successor permanent standard. An opportunity to comment on specific technical issues will be also be afforded to interested persons during the WECC standards development process of the permanent standard. The requirements in WECC BAL-STD-002-0 are either more restrictive or are not addressed by the requirements of NERC BAL-002-0 and thus meet the requirements for a regional reliability standard. NERC BAL-002-0 requirement 2 requires each Regional Reliability Organization to specify its Contingency Reserve Policies. WECC uses WECC**	Approving WECC Standards. BAL-002-WECC-1 Reliability Standard is the permanent replacement standard for BAL-STD-002-0 that was referenced as a response to Constellation Energy's comment.

Received From	FERC and NERC Directives for a Permanent Replacement Standard for BAL-STD-002-0 June 8, 2007	Drafting Team Consideration of Comments	Completed Actions
		BAL-STD-002 to comply with NERC requirement 2. NERC in its standards development plan recognizes that regions will continue to have operating reserve standards because of physical differences. Therefore, WECC will have a need for a similar standard in the future. If WECC does not develop a successor permanent standard, the interim standard will expire one year after FERC approval. WECC is in the process of developing a permanent standard. The requirements of WECC BAL-STD-002-0 do not change any requirements of NERC Reliability Standard BAL-001-0.	
Xcel Energy Services, Inc.	No		

Received From	FERC and NERC Directives for a Permanent Replacement Standard for BAL-STD-002-0 June 8, 2007	Drafting Team Consideration of Comments	Completed Actions
Cogeneration Association of California, and Energy Producers & Users	No comment.		
Coalition Rocky Mountain Reserve Group	Restoration of reserves in 60 minutes is very restrictive on the ability to secure additional energy or reserves within the established business practices in the region. The NERC Standard of up to 105 minutes after the event has much less commercial impact and is acceptable from a commercial standpoint.	**Response: Thank you for your comment. As noted in WECC's response to comments on Question 1, your comments will be forwarded to the appropriate drafting team for consideration during the development of the successor permanent standard. An opportunity to comment on specific technical issues will be also be afforded to interested persons during the WECC standards development process of the permanent standard. The 60 minute requirement in WECC BAL-STD-002-0 is taken existing Reliability**	The development of the BAL-002-WECC-1 Contingency Reserves Standard followed the Process for Developing and Approving WECC Standards. The Rocky Mountain Reserve Group participated on the standard drafting team and submitted its comments during the public comment periods.

Received From	FERC and NERC Directives for a Permanent Replacement Standard for BAL-STD-002-0 June 8, 2007	Drafting Team Consideration of Comments	Completed Actions
		Management System (RMS) Reliability Criteria Agreement and has been measurable and enforced with monetary penalties for many years. The standards request authorized the translation of the existing RMS Operating Reserve Criterion into the NERC standards format using the Expedited Process for Urgent Action Interim Standards. These recommendations to modify the existing RMS criteria are outside the scope of the standards request. If WECC does not develop a successor permanent standard, the interim standard will expire one year after FERC approval.	
Question #3	**Does the proposed standard pose a serious and substantial**		

Received From	FERC and NERC Directives for a Permanent Replacement Standard for BAL-STD-002-0 June 8, 2007	Drafting Team Consideration of Comments	Completed Actions
	threat to public health, safety, welfare, or national security?		
Constellation Energy Control and Dispatch	No		
Xcel Energy Services, Inc.	No		
Cogeneration Association of California, and Energy Producers & Users Coalition	No comment.		
Rocky Mountain Reserve Group	No		
Question #4	**Does the proposed standard pose a serious and substantial burden on competitive markets within the interconnection that is not necessary for reliability?**		

Received From	FERC and NERC Directives for a Permanent Replacement Standard for BAL-STD-002-0 June 8, 2007	Drafting Team Consideration of Comments	Completed Actions
Constellation Energy Control and Dispatch	By introducing a standard that is (1) not uniform with NERC Reliability Standards, (2) contains sanctions previously only agreed to by the signatories of the WECC RMS agreement, and (3) contains ambiguities, there are differences between the Western and Eastern markets that create additional burdens which may create a competitive advantage.	**Response: Thank you for your comment. As noted in WECC's response to comments on Question 1, your comments will be forwarded to the appropriate drafting team for consideration during the development of the successor permanent standard. An opportunity to comment on specific technical issues will be also be afforded to interested persons during the WECC standards development process of the permanent standard. The requirements in WECC BAL-STD-002-0 are either more restrictive or are not addressed by the requirements of NERC BAL-002-0 meeting the requirements for a regional reliability standard. NERC BAL-002-0 requirement 2 requires each Regional**	

Received From	FERC and NERC Directives for a Permanent Replacement Standard for BAL-STD-002-0 June 8, 2007	Drafting Team Consideration of Comments	Completed Actions
		Reliability Organization to specify its Contingency Reserve Policies. WECC uses WECC BAL-STD-002 to comply with NERC BAL-002-0 requirement 2. NERC's standards development plan recognizes that regions will continue to have operating reserve standards because of physical differences. Therefore, in the future WECC will have a need for a similar standard. WECC BAL-002-0 is taken directly from the existing RMS Operating Reserve Criterion contained in RMS Reliability Criteria Agreement and has been measurable and enforced with monetary penalties for many years. In 1999 the WECC Board adopted a policy requiring all WECC members to comply with the	

Received From	FERC and NERC Directives for a Permanent Replacement Standard for BAL-STD-002-0 June 8, 2007	Drafting Team Consideration of Comments	Completed Actions
		requirements of the RMS Reliability Criteria. Therefore, the WECC members have complied with the operating reserve requirements for many years even though they may not be RMS signatories. **The requirements of the RMS Reliability Criteria Agreement were developed through an open and fair process. Please refer to the WECC web site that contains the FERC and Department of Justice approvals that were obtained before RMS was implemented. The Department of Justice issued a ruling that the RMS process was non discriminatory.**	
Xcel Energy Services, Inc.	Due to the confusion that is caused from the lack of clear definitions of "firm transactions"	**Response: As noted in WECC's response to comments on Question 1, your comments will**	The development of the BAL-002-WECC-1 Contingency Reserves Standard followed the Process for Developing and

Received From	FERC and NERC Directives for a Permanent Replacement Standard for BAL-STD-002-0 June 8, 2007	Drafting Team Consideration of Comments	Completed Actions
	there has been and continues to be adverse impacts to the commerce in the WECC. Additionally, there is no way to verify that an entity is actually abiding by this standard. Finally, the requirement to restore reserves within 60 minutes as stated in WR1 paragraph (d) has not been approved by the NERC OC as required by NERC Standard BAL-002-0 R6.2. Xcel Energy fully supports the NERC Standard BAL-002-0, R6.2 regarding reserve restoration. WECC has not presented any documentation that indicates that the NERC Standard of 105 minutes is inadequate and degrades reliability. In a similar manner the load based reserve requirement of 5 percent of load served by hydro plus 7 percent of load served by	**be forwarded to the appropriate drafting team for consideration during the development of the successor permanent standard. An opportunity to comment on specific technical issues will be also be afforded to interested persons during the WECC standards development process of the permanent standard. The term "firm transactions" is not used in WECC BAL-STD-002-0. The RMS Operating Reserve Criterion that requires the restoration of contingency reserves within 60 minutes and reserves based upon five and seven percent of load responsibility has been a FERC approved RMS reliability standard since September 1, 1999. The requirements in WECC BAL-STD-002-0 are**	Approving WECC Standards. The Xcel Energy Services participated on the standard drafting team and submitted its comments during the public comment periods. The standard drafting team resolved the issue for restoring reserves by deleting the 60 minute restoration requirement and adopting the NERC restoration requirement (see BAL-002-0 R6). **Completed Actions:** The development of the BAL-002-WECC-1 Contingency Reserves Standard followed the Process for Developing and Approving WECC Standards. The Xcel Energy Services participated on the standard drafting team and submitted its comments during the public comment periods. The standard drafting team resolved the issue for restoring reserves and making refinements to the load based reserve requirement.

Received From	FERC and NERC Directives for a Permanent Replacement Standard for BAL-STD-002-0 June 8, 2007	Drafting Team Consideration of Comments	Completed Actions
	thermal based is without technical justification and has significant commercial impacts without any established technical justifications.	**taken directly from the existing RMS Reliability Criteria Agreement. The standard request only authorized the translation of the existing RMS Operating Reserve Criterion into the NERC standards format using the Expedited Process for Urgent Action Interim Standards. These recommendations modify the existing RMS criteria. WECC is required to develop a successor permanent standard or the interim standard expires one year after FERC approval.**	
Cogeneration Association of California, and Energy Producers & Users Coalition	Requirement #1 sets one of the alternative requirements for contingency reserves based on "load responsibility." However, load responsibility is not defined and there has been an ongoing	**Response: As noted in WECC's response to comments on Question 1, your comments will be forwarded to the appropriate drafting team for consideration during the**	

Received From	FERC and NERC Directives for a Permanent Replacement Standard for BAL-STD-002-0 June 8, 2007	Drafting Team Consideration of Comments	Completed Actions
	effort by WECC committees since 2001 to specify that load responsibility does not include load served by customer-owned generation behind the customer's site boundary meter. That definition has never been finally adopted, and the existing standard was forwarded to NERC without that clarification. This creates the risk that one balancing authority may calculate its reserve requirement including such behind-the-meter load while another may not. This imposes differing costs on the balancing authorities. The balancing authorities in allocating their costs may charge different rates to similarly-situated customers, creating an anti-competitive situation. This standard should be remanded to WECC to add a definition of load responsibility	**development of the successor permanent standard. An opportunity to comment on specific technical issues will be also be afforded to interested persons during the WECC standards development process of the permanent standard. The requirements in WECC BAL-STD-002-0 are taken directly from the existing RMS Operating Reserve Criterion contained in RMS Reliability Criteria Agreement and . The requirements for the operating reserve criterion have been measurable and enforced with monetary penalties for many years. Refinements to the definition for load responsibility have been recommended by your organization and are being addressed through another**	

Received From	FERC and NERC Directives for a Permanent Replacement Standard for BAL-STD-002-0 June 8, 2007	Drafting Team Consideration of Comments	Completed Actions
	that excludes "self-provided load" (load met by customer-owned generation backed up by standby service).	**WECC standards development process. The standard request only authorized the translation of the existing RMS Operating Reserve Criterion into the NERC standards format using the Expedited Process for Urgent Action Interim Standards.**	
Rocky Mountain Reserve Group	The RMRG fully supports the NERC Standard BAL-002-0 regarding reserve restoration--R6.2-90 minutes after the DCS period (15 minutes) expires. The WECC requirement of 60 minutes from start of DCS as stated in WR1 paragraph (d) has not been approved by the NERC OC as required by NERC Standard BAL-002-0 R6.2. WECC has not presented any documentation that indicates that the NERC Standard of 105	**Response: As noted in WECC's response to comments on Question 1, your comments will be forwarded to the appropriate drafting team for consideration during the development of the successor permanent standard. An opportunity to comment on specific technical issues will be also be afforded to interested persons during the WECC standards development process of the permanent standard. The**	The development of the BAL-002-WECC-1 Contingency Reserves Standard followed the Process for Developing and Approving WECC Standards. The Rocky Mountain reserve Group participated on the standard drafting team and submitted its comments during the public comment periods. The standard drafting team resolved the issue for restoring reserves and making refinements to the load based reserve requirement

Received From	FERC and NERC Directives for a Permanent Replacement Standard for BAL-STD-002-0 June 8, 2007	Drafting Team Consideration of Comments	Completed Actions
	minutes (90 plus 15) is not adequate and degrades reliability. In a similar manner the load based reserve requirement of 5 percent of load served by hydro plus 7 percent of load served by thermal based is without technical justification and has significant commercial impacts without any established technical justifications.	**RMS Operating Reserve Criterion that requires the restoration of contingency reserves within 60 minutes and reserves based upon five and seven percent of load responsibility has been a FERC approved RMS reliability standard since September 1, 1999. The requirements in WECC BAL-STD-002-0 are taken directly from the existing RMS Reliability Criteria Agreement. The standard request only authorized the translation of the existing RMS Operating Reserve Criterion into the NERC standards format using the Expedited Process for Urgent Action Interim Standards. These recommendations modify the existing RMS criteria and are outside the scope of the**	

Received From	FERC and NERC Directives for a Permanent Replacement Standard for BAL-STD-002-0 June 8, 2007	Drafting Team Consideration of Comments	Completed Actions
		standards request. WECC is required to develop a successor permanent standard or the interim standard expires one year after FERC approval. As indicated above, this comment will be forwarded to the operating reserves standards drafting team for consideration as part of a permanent standard.	
Question #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.	

Received From	FERC and NERC Directives for a Permanent Replacement Standard for BAL-STD-002-0 June 8, 2007	Drafting Team Consideration of Comments	Completed Actions
Constellation Energy Control and Dispatch	Yes		
Xcel Energy Services, Inc.	YES/No This regional standard does meet both of the first two bullets above in several sections. However, as stated above, the standards are not clear or defined to the point of being measurable. Restoration of reserves is not covered by any of the three bullets above. The WECC rule of 60 minutes is very restrictive on the ability to secure additional energy or reserves within the established business practices in the region. The NERC Standard of up to 105 minutes after the event has much less commercial impact and is acceptable from a commercial standpoint. There is also no technical basis for the standard.	**Response: The standard request only authorized the translation of the existing RMS Operating Reserve Criterion into the NERC standards format using the Expedited Process for Urgent Action Interim Standards. These recommendations modify the existing RMS criteria. As noted in WECC's response to comments on Question 1, your comments will be forwarded to the appropriate drafting team for consideration during the development of the successor permanent standard. An opportunity to comment on specific technical issues will be also be afforded to interested persons during the WECC**	The development of the BAL-002-WECC-1 Contingency Reserves Standard followed the Process for Developing and Approving WECC Standards. The Xcel Energy Services participated on the standard drafting team and submitted its comments during the public comment periods. The standard drafting team resolved the issue for restoring reserves.

Received From	FERC and NERC Directives for a Permanent Replacement Standard for BAL-STD-002-0 June 8, 2007	Drafting Team Consideration of Comments	Completed Actions
		standards development process of the permanent standard. The RMS Operating Reserve Criterion that requires the restoration of contingency reserves within 60 minutes and reserves based upon five and seven percent of load responsibility has been a FERC approved RMS reliability standard since September 1, 1999 and has been measurable and enforced with monetary penalties for many years. The requirements in WECC BAL-STD-002-0 are taken directly from the existing RMS Reliability Criteria Agreement. WECC is required to develop a successor permanent standard or the interim standard expires one year after FERC approval.	
Cogeneration	No comment		

Received From	FERC and NERC Directives for a Permanent Replacement Standard for BAL-STD-002-0 June 8, 2007	Drafting Team Consideration of Comments	Completed Actions
Association of California, and Energy Producers & Users Coalition			
Rocky Mountain Reserve Group	This regional standard does not meet any of bullets above regarding the reserve restoration time. As stated above there is no technical basis for the restoration period in the WECC standard and the requirement is adequately covered by NERC BAL-002.	**Response: As noted in WECC's response to comments on Question 1, your comments will be forwarded to the appropriate drafting team for consideration during the development of the successor permanent standard. An opportunity to comment on specific technical issues will be also be afforded to interested persons during the WECC standards development process of the permanent standard. Regions are permitted to file regional reliability standards that are more restrictive than the NERC Reliability**	The development of the BAL-002-WECC-1 Contingency Reserves Standard followed the Process for Developing and Approving WECC Standards. The Rocky Mountain Reserve Group participated on the standard drafting team and submitted its comments during the public comment periods. The standard drafting team resolved the issue for restoring reserves by deleting the 60 minute restoration requirement and adopting the NERC restoration requirement (see BAL-002-0 R6).

Received From	FERC and NERC Directives for a Permanent Replacement Standard for BAL-STD-002-0 June 8, 2007	Drafting Team Consideration of Comments	Completed Actions
		Standards. This standard is more restrictive than the NERC reliability standard thus meeting one of the NERC requirements for developing and becoming a regional reliability standard.	
WECC Proposed Tier 1 Standards – Response to Comments	November 7, 2006 – 3-4:30 PM PST **Conference call participants**: Don Watkins, David Lemons, Ed Hulls, Paul Humberson, Sarah Majok, Brent Kingsford, Steve Cobb		
Paul Rice	In the RMS Reformatted version of VAR-STD-002-1 for Automatic Voltage Regulators, each "Sanction Measure" contains the same following sentence. "There shall be a Level I noncompliance if any of the	Thank you. This has been corrected in the document.	

Received From	FERC and NERC Directives for a Permanent Replacement Standard for BAL-STD-002-0 June 8, 2007	Drafting Team Consideration of Comments	Completed Actions
	following conditions exist:" I believe that the statement should be changed in each of 2.2 Level 2, 2.3 Level 3 and 2.4 Level 4 to coincide with the Level it is referring to. In other words, 2.2. Level 2: (should read) "There shall be a Level 2 non-compliance if any of the following conditions exist:" instead of the way it reads, etc.		
From Nick Klemm, Western Area Power Administration -- Comment on "NERC Title" version:	TOP-STD-000-0 Transmission Maintenance, I believe that there are incorrect references to "Transmission Operator" in section B c (ii) and on the Appendix B Reporting Form. "Transmission Operator" should be replaced with "Responsible Entity". I believe that each Responsible Entity who maintains all or part of a transmission path should be	Thank you. This has been corrected to properly reflect the RMS meaning.	

Received From	FERC and NERC Directives for a Permanent Replacement Standard for BAL-STD-002-0 June 8, 2007	Drafting Team Consideration of Comments	Completed Actions
	responsible for their own plan, record keeping and reporting. The WECC Reformatted form reflects this properly but not the NERC Title form. The Transmission Operator should not be responsible for maintaining records of other entities' maintenance plans or implementation nor should the Transmission Operator be expected to report compliance for other entities.		
Posted by WECC Staff for Donald Brookhyser	I am writing regarding the Operating Committee's consideration of the Tier 1 standards recommended by the Regional Standards Task Force. In particular, I am interested in BAL-STD-002- 0, Operating Reserves. The standard as proposed bases one aspect of the	**Response:** Thank you. As noted in your comments, there has been extensive discussion on the Operating Reserves Standard and there are several efforts intended to correct deficiencies in the standard. The intent of this urgent standard is to assure that the current WECC Operating	

Received From	FERC and NERC Directives for a Permanent Replacement Standard for BAL-STD-002-0 June 8, 2007	Drafting Team Consideration of Comments	Completed Actions
	reserve requirement on the Balancing Authority's "load responsibility," which is not defined. I represent groups of industrial customers with self-generation serving some portion of their own load. How this load served by self-generation is considered for reserve requirements is very important to this group of customers and in the calculation of their rates. This issue has been much discussed by both the MORCE Working Group and the ORSTF, and they have proposed a definition of Load Responsibility which excludes "Self-provided Load." The proposed standard with these additional definitions (BAL-STD-002-1) is also on the agenda for the Operating Committee meeting on October 26 It is unclear from the notice of	reserves standard is adopted as a regional standard that is sanctionable as part of the NERC standards when NERC sanctionable standards are implemented in summer 2007. This assures continuity of enforcement for the more stringent WECC standard. If the ORSTF Standard is approved by the WECC Board of Directors at their December 2006 meeting, the Market Interface Committee has recommended implementation April 2008. In the meantime this RMS based proposed "Tier 1" standard, if approved, will be applicable until replaced by a new approved standard. Changing the RMS standard is outside of the scope of this "Tier 1" standard.	

Received From	FERC and NERC Directives for a Permanent Replacement Standard for BAL-STD-002-0 June 8, 2007	Drafting Team Consideration of Comments	Completed Actions
	the consideration of the Tier 1 standards whether the revised version of BAL-STD-002-1, if approved by the Committee on October 26, would also be immediately incorporated into the Tier 1 standards, but I urge the Committee to expedite the updating of the BAL-STD-002 standard to the revised version. It resolves a major ambiguity in the standards and would be of great assistance to both balancing authorities and end-us customers. Respectfully Don Brookhyser		
Richard Padilla	I have the following comments: 1) The RMS standards are not fully replicated. You have neglected to include the "Excuse for Performance" sections of the RMS. This cannot be allowed.	**Response:** You are correct. This general RMS content will be added to each of the Tier 1 standards it applies to.	

Received From	FERC and NERC Directives for a Permanent Replacement Standard for BAL-STD-002-0 June 8, 2007	Drafting Team Consideration of Comments	Completed Actions
	The development of this as a standard could also allow modifications. I have two items for consideration: a) The "Excuse for Performance" section should also include an order from the transmission operator. Therefore, if the TO refuses to allow work (i.e. no touch day) performance should be excused until such time as the required work to restore service for AVR or PSS can be rescheduled.		
	b) Sub paragraphs c for AVR and g for PSS each include the phrase, "If these changes are outside the control of the owner", this should be stricken since any change that can impact system response will require testing to	**Response:** The standard is intended to exactly preserve the existing RMS meaning. The statement you wish stricken is part of the present RMS requirement and thus included. Changing the RMS standard is	

Received From	FERC and NERC Directives for a Permanent Replacement Standard for BAL-STD-002-0 June 8, 2007	Drafting Team Consideration of Comments	Completed Actions
	safely return the equipment to service. The 60 day period to perform testing must be made available.	outside of the scope of this "Tier 1" standard.	
	2) The reformatted versions are utilizing the new WECC numbering and naming conventions. These new rules have generated two standards with identical names, namely one addressing Automatic Voltage Regulators and one addressing Power System Stabilizers each titled VAR-STD-002-1. This needs to be resolved. I believe that this problem will get worse since NERC has multiple items in single standards and multiple standards addressing similar issues.	**Response:** Thank you for identifying this. We will append the standard number with an a, b, c, etc. to account for this	
	3) The NERC PRC standards for protective relays address both	**Response:** The current RMS standard only addresses	

Received From	FERC and NERC Directives for a Permanent Replacement Standard for BAL-STD-002-0 June 8, 2007	Drafting Team Consideration of Comments	Completed Actions
	Transmission Relays as well as Generator Protective relays. However, the posted standard only addresses the Transmission side.	transmission relays. Changing the RMS standard is outside of the scope of this "Tier 1" standard. It was focused on this due to the substantial participation of relays in the 1996 disturbances. Generation relaying standards in excess to the NERC requirements could be proposed as a future standard if a need was identified.	
	Given the number of issues, how can due process be followed and still meet the identified timeline? Due process and the consensus process for standard development should not be circumvented.	**Response:** While this is a new circumstance, we believe that we are operating within the applicable WECC rules and guidelines. The following language from the Process For Developing And Approving WECC Standards - *Approved by WSCC Board of Trustees* – August 24, 1999, page XI-148- 9: "In cases requiring expediency,	

Received From	FERC and NERC Directives for a Permanent Replacement Standard for BAL-STD-002-0 June 8, 2007	Drafting Team Consideration of Comments	Completed Actions
		such as in the development of emergency operating procedures, the Market Interface Committee, Operating Committee, or Planning Coordination Committee may approve a new or modified Standard. Any such Standard must have an associated termination date and, even though already implemented, must undergo the formal technical review and approval process. Should this Standard not be formally approved through WECC's Standards development and approval process it will cease to be in effect upon conclusion of the process." Additionally, the WECC By-laws and the current WECC Process for Developing and Approving WECC Standards specify the WECC Board of Directors must	

Received From	FERC and NERC Directives for a Permanent Replacement Standard for BAL-STD-002-0 June 8, 2007	Drafting Team Consideration of Comments	Completed Actions
		approve of all standards. This effort has been build around posting the proposed standards (containing content of approved and implemented RMS standards), allowing 30 days comment before a vote of the WECC OC. The comments are responded to and commensurate changes to the proposed standards completed and posted by the start of the 10 day OC e-mail ballot period. If approved, the standards will be immediately posted for 30 days after which the Board of Directors will vote on them. Both the OC and the board ballots will need to occur outside of scheduled meetings and will be done in accordance with their procedures. If the standard is passed it will be submitted to the NERC Board in time for the required posting and comment	

Received From	FERC and NERC Directives for a Permanent Replacement Standard for BAL-STD-002-0 June 8, 2007	Drafting Team Consideration of Comments	Completed Actions
		period in time for their February meeting.	

BAL-002-WECC-1 Comparison

This following document prepared by the drafting team during the development of the WECC Standard BAL-002-WECC-1 – Contingency Reserve compares this proposed regional standard to the existing WECC BAL-STD-002-0.

The purpose of this document to provide documentation of each proposed change.

BAL-002-WECC-1	WECC Standard BAL-STD-002-0 - Operating Reserves	Comment
A. Introduction		
1. Title: Contingency Reserves	**1. Title: Operating Reserves**	
2. Number: BAL-002-WECC-1	**2. Number:** BAL-STD-002-0	Title updated to reflect revised titling criteria
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. Purpose:** Regional Reliability Standard to address the Operating Reserve requirements of the Western Interconnection.	Updated to reflect the overall purpose of the proposed revised standard.
4. Applicability	**4) Applicability**	
4.1 Balancing Authority.	4.1.1 This criterion applies to each Responsible Entity that is (i) a Balancing Authority or a member of a Reserve Sharing Group that does not designate its Reserve Sharing Group as its agent, or (ii) a Reserve Sharing Group. A Responsible Entity that is a Balancing Authority and a member of a 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 Reserve Sharing Group is not subject to this criterion on an individual basis.	Balancing Authority is a defined term in NERC's Glossary of Terms Used in Reliability Standards so it is used in this standard without being redefined.
4.2 Reserve Sharing Group	4.1.2 Responsible Entities that are members of a Reserve Sharing Group may designate in writing to WECC a Responsible Entity to act as agent for purposes of this criterion for each such Reserve Sharing Group. Such Reserve Sharing Group agents	Reserve Sharing Group (RSG) is a defined term in NERC's Glossary of Terms Used in Reliability Standards so it is used in this standard without being redefined.

BAL-002-WECC-1	WECC Standard BAL-STD-002-0 - Operating Reserves	Comment
	shall be responsible for all data submission requirements under Section D of this Reliability Agreement. Unless a Reserve Sharing Group agent identifies individual Responsible Entities responsible for noncompliance at the time of data submission, sanctions 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: On the first day of the next quarter, after receipt of applicable regulatory approval.	**4. 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	Introductory section in existing standard has been replaced with the purpose statement in the proposed Regional Reliability Standard.

BAL-002-WECC-1	WECC Standard BAL-STD-002-0 - Operating Reserves	Comment
	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 Balancing Authority shall maintain minimum Operating Reserve which is the sum 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).	The proposed standard refers only to contingency reserves and therefore no longer outlines the requirement for Regulating Reserves. This is a duplication of BAL-005-0b R2. The drafting team recommends removing the duplication.
R1. Each Reserve Sharing Group or Balancing Authority that is not a member of a Reserve Sharing Group shall maintain as a minimum Contingency Reserve that is the sum of the following: *[Violation Risk Factor: Medium] [Time Horizon: Real-time Operations]* **R1.1.** The greater of the following:	(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	The proposed standard changes the amount of the contingency reserves required to carry 3% of the BA's total load and 3% of the BA's total generation. This replaces the existing 5% and 7% load responsibility and generation based calculation. The requirement to carry a minimum of MSSC remains.

BAL-002-WECC-1	WECC Standard BAL-STD-002-0 - Operating Reserves	Comment
R1.1.1. An amount of reserve equal to the loss of the most severe single contingency; or **R1.1.2.** An amount of reserve equal to the sum of three percent of the load (generation minus station service minus Net Actual Interchange) and three percent of net generation (generation minus station service).	responsibility served by hydro generation and seven percent of the load responsibility served by thermal generation.	
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		The proposed standard clarifies the requirement to carry Contingency Reserve based on the Interchange arrangements.

BAL-002-WECC-1	WECC Standard BAL-STD-002-0 - Operating Reserves	Comment
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 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		The proposed standard now specifies that the spinning reserve component of Contingency Reserves is capable of fully responding within 10 minutes, and that its initial response is automatically responsive to the frequency deviations to ensure that new standard is performance based.

BAL-002-WECC-1	WECC Standard BAL-STD-002-0 - Operating Reserves	Comment
control systems. **R2.2.** Capable of fully responding within ten minutes.		
	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 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. 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.	The proposed standard is being revised to be based on the BA or RSG performance with actual event rather than a standard that outlines the preparation requirement for events.
	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)	Restoration requirement moved to measurement 2. In addition, the time to restore was lengthened to better align with NERC's Interchange scheduling standards and electronic tagging functional specification. See Measure 2 of this document for details.
R3. Each Reserve Sharing Group or Balancing Authority shall use the following acceptable types of reserve which must be	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	Added to the proposed standard the acceptable use of load for contingency reserve only during those times of a Capacity and/or

BAL-002-WECC-1	WECC Standard BAL-STD-002-0 - Operating Reserves	Comment
fully deployable within 10 minutes of notification to meet R1: *[Violation Risk Factor: Medium] [Time Horizon: Real-time Operations]* **R3.1.** Spinning Reserve **R3.2.** Interruptible Load; **R3.3.** Interchange Transactions designated by the source Balancing Authority as non-spinning contingency reserve; **R3.4.** Reserve held by other entities by agreement that is deliverable on Firm Transmission Service; **R3.5.** An amount of off-line generation which can be synchronized and generating; or **R3.6.** Load, other than Interruptible Load, once the Reliability Coordinator has declared a capacity or energy emergency.	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.	Energy Emergencies. Added the specification for nonspinning reserve that this off line generation capacity must be capable of being activated within 10 minutes. Clarified when it is permissible to use end-use customer load (i.e. interruptible load and firm load) for the non-spin portion of contingency reserve. The use of firm load is limited to capacity and energy emergencies. To be compliant with the BAL-002-WECC-1 standard, the Balancing Authority must always have the required amount of spinning reserve even during the capacity/energy emergencies. There is no time when a Balancing Authority or Reserve Sharing Group is permitted to not have spinning reserves. Interruptible Load includes loads that are reduced in 10 minutes through demand side management actions.
C. Measures	**C. Measures WM1.**	
M1. The Reserve Sharing Group or Balancing Authority that is not a member of a Reserve Sharing Group has documentation that it maintained 100% of required Contingency Reserve levels based upon data integrated	M1 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.	Measures expended and split into a measure of total contingency reserves and spinning reserves to ensure both are measured. Time period after an event requiring the

BAL-002-WECC-1	WECC Standard BAL-STD-002-0 - Operating Reserves	Comment
over each clock hour except within the first 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 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	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)	activation of Operating Reserves lengthened to 105 minutes to align with NERC standards. Measure added to ensure that load, other than Interruptible Load, can be used as contingency reserve only during times of a declared Capacity and/or Energy Emergency.

BAL-002-WECC-1	WECC Standard BAL-STD-002-0 - Operating Reserves	Comment
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. Any Reserve Sharing Group or Balancing Authority utilizing Load other than Interruptible Load shall submit documentation demonstrating that the Reliability Coordinator declared a Capacity and/or Energy Emergency prior to utilizing Load for Contingency Reserves.		
D. Compliance	**D Compliance**	
1 Compliance Monitoring Process	**1. Compliance Monitoring Process**	
1.1 Compliance Monitoring Responsibility Compliance Enforcement Authority	**1.1Compliance Monitoring Responsibility** Western Electricity Coordinating Council (WECC**)**	
1.2 Compliance Monitoring Period The Compliance Enforcement Authority may use one or more of the following methods to assess compliance: - Reports conducted quarterly - Spot check audits conducted anytime with 30 days notice given to prepare - Periodic audit as scheduled by the Compliance Enforcement Authority - Investigations - Other methods as provided for in the Compliance Monitoring Enforcement Program Reserve Sharing Groups and Balancing	**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	Compliance reporting period updated to a quarterly reporting period and to reflect an audit approach rather than the reporting approach utilized in the existing standard.

BAL-002-WECC-1	WECC Standard BAL-STD-002-0 - Operating Reserves	Comment
Authorities shall submit to their Compliance Enforcement Authority a Contingency Reserve verification report on or before the tenth business day following the end of each calendar quarter. **1.2.1** Compliance Monitoring Period: One Clock Hour. **1.2.2** The Performance-reset Period is calendar quarter.	Form A.1(b) (available on the WECC web site) for the immediately preceding calendar quarter.	
1.3 Data Retention Data Retention Reserve Sharing Groups and Balancing Authorities shall keep evidence for Measure M.1 through M3 for three years plus current, or since the last audit, whichever is longer.	**1.3 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)	Data retention period lengthened to 3 years or longer to ensure data is kept in a contiguous manner between audit periods.
1.4 Additional Compliance Information **1.4.1.** This Standard shall apply to a Reserve Sharing Group that has registered with the WECC as provided in Section 1.4.2, and each Balancing Authority identified in the registration shall be responsible for compliance with this Standard through its participation in the Reserve Sharing Group and not on an individual basis.	**1.4. 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)	No longer needed because the NERC sanction table is used. Added clarification language for Reserve Sharing Groups and sanctions.

BAL-002-WECC-1	WECC Standard BAL-STD-002-0 - Operating Reserves	Comment
1.4.2. A Reserve Sharing Group may register as the Responsible Entity for purposes of compliance with this Standard by providing written notice to the WECC (a) indicating that the Reserve Sharing Group is registering as the Responsible Entity for purposes of compliance with this Standard, (b) identifying each Balancing Authority that is a member of the Reserve Sharing Group, and (c) identifying the person or organization that will serve as agent on behalf of the Reserve Sharing Group for purposes of communications and data submissions related to or required by this Standard. **1.4.3.** If an agent properly designated in accordance with Section 1.4.2 identifies individual Balancing Authorities within the Reserve Sharing Group responsible for noncompliance at the time of data submission, together with the percentage of responsibility attributable to each identified Balancing Authority, then, except as may otherwise be finally determined through a duly conducted review or appeal of the initial finding of noncompliance, (a) any penalties assessed for noncompliance by the Reserve Sharing Group shall be allocated to the individual Balancing		

BAL-002-WECC-1	WECC Standard BAL-STD-002-0 - Operating Reserves	Comment
Authorities identified in the applicable data submission in proportion to their respective percentages of responsibility as specified in the data submission, (b) each Balancing Authority shall be solely responsible for all penalties allocated to it according to its percentage of responsibility as provided in subsection (a) of this Section 1.4.3, and (c) neither the Reserve Sharing Group nor any member of the Reserve Sharing Group shall be responsible for any portion of a penalty assessed against another member of the Reserve Sharing Group in accordance with subsection (a) of this Section 1.4.3 (even if the member of Reserve Sharing Group against which the penalty is assessed is not subject to or otherwise fails to pay its allocated share of the penalty). **1.4.4.** If an agent properly designated in accordance with Section 1.4.2 fails to identify individual Balancing Authorities within the Reserve Sharing Group responsible for noncompliance at the time of data submission or fails to specify percentages of responsibility attributable to each identified Balancing Authority, any penalties for noncompliance shall be assessed		

BAL-002-WECC-1	WECC Standard BAL-STD-002-0 - Operating Reserves	Comment
against the agent on behalf of the Reserve Sharing Group, and it shall be the responsibility of the members of the Reserve Sharing Group to allocate responsibility for such noncompliance. **1.4.5.** Any Balancing Authority that is a member of a Reserve Sharing Group that has failed to register as provided in Section 1.4.2 shall be subject to this Standard on an individual basis.		
2. Violation Severity Levels for Requirement R1	**Levels of Non-Compliance Sanction**	
	Measure: Average Generation	
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.	2.1. 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 100% but greater than or equal to 90% of the required Operating Reserve.	Same non compliance severity violation measure as existing standard except updated to reflect standard current guidelines and to reflect that the revised standard pertain to contingency reserve and not operating reserves
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.	2.2. 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.	Same as above
2.3. High: There shall be a High Level of non-compliance if there is one hour during a	2.3. Level 3: There shall be a Level 3 non-compliance if any of the following conditions exist:	Same as above

BAL-002-WECC-1	WECC Standard BAL-STD-002-0 - Operating Reserves	Comment
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.	2.3.1 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. 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.	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	Same as above
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.		Violation Severity Levels are added for each requirement.
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.		Same as above
3.3. High: There shall be a High Level of		Same as above

BAL-002-WECC-1	WECC Standard BAL-STD-002-0 - Operating Reserves	Comment
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.		Same as above
4. Violation Severity Level for Requirement R3		
4.1 Lower: Not Applicable		Same as above
4.2. Moderate: Not Applicable		Same as above
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.		Same as above
4.4. Severe: Not Applicable		Same as above

Matthew McVee
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June 11, 2008

Via Electronic Mail

North American Electric Reliability Corporation
Board of Trustees
116-390 Village Boulevard
Princeton, New Jersey 08540-5721

RE: Regional Standard BAL-002-WECC-1 Effective Date – Contingency Reserves

Dear Board of Trustees:

On April 16, 2008, the Western Electricity Coordinating Council ("WECC") Board of Directors approved Regional Standard BAL-002-WECC-1 (the "Standard"). The Standard was brought to the WECC Board after the Standard was approved by the WECC Operating Committee through a majority of votes from both Transmission Providers and Transmission Customers. The WECC Board approved the Standard, but identified a potential concern related to the Standard's effective date.

The Standard includes the following language for the effective date:

> "On the first day of the next quarter, after receipt of applicable regulatory approval."

This is NERC's boilerplate language for a reliability standard's effective date. The WECC Board, however, is concerned that the actual effective date of the Standard could be anywhere from one day after regulatory approval to 90 days after regulatory approval, depending on when the Federal Energy Regulatory Commission (the "Commission") approves the Standard.

The Standard is intended to replace a currently effective regional reliability standard. Consequently, Registered Entities in the Western Interconnection will have to modify their operations to address the change in requirements. This could be difficult and lead to unnecessary, technical compliance violations due to delays in implementation.

The WECC Board recognized this issue and passed a motion to seek a modification of the NERC boilerplate effective date language for this Standard, to set an effective date

for the Standard at 90 calendar days. WECC is aware that the NERC Board of Trustees is limited in its ability to modify a proposed regional standard. Therefore, WECC requests that the NERC Board of Trustees approve the Standard in its current form, then seek an order from the Commission that approves the standard with the following modification to the effective date: "90 calendar days after receipt of applicable regulatory approval."

The WECC Board believes the Standard will provide increased reliability in the Western Interconnection and should not be delayed. For the reasons discussed above, WECC requests that when NERC files the Standard for approval by FERC, NERC also request modification of the Standard's effective date.

Sincerely,

/s/ Matthew McVee

Matthew McVee
General Counsel

MM/cn

NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Regional Reliability Standard
Submittal Review Checklist

Region: Western Electricity Coordination Council

Regional Standard Number: BAL-002-WECC-1

Regional Standard Title: Contingency Reserves

Date Standard Received: 6/11/08

Date Region Notified of Receipt: 6/17/08

Date NERC Evaluation Completed: 7/30/2008

Submittal Review Status:

☒ Complete
☐ Incomplete

Reviewed by:

Stephanie Monzon, Manager of Regional Standards

Andrew Rodriquez, Manager of Business Practices

Gerry Adamski, Vice President and Director of Standards

Approved by:

Review of Request for Completeness:

1. Was a concise statement of the basis and purpose (scope) of request supplied?

   ☒ Yes

   ☐ No

2. Was a concise statement of the justification of the request supplied?

   ☒ Yes

   ☐ No

3. Was the text of the regional reliability standard supplied in MS Word format?

   ☒ Yes

   ☐ No

4. Was an implementation plan supplied?

   ☒ Yes

   ☐ No

5. Was the regional entity standard drafting team roster supplied?

   ☒ Yes

   ☐ No

6. Were the names and affiliations of the ballot pool members or names and affiliations of the committee and committee members that approved the submittal of the standard supplied?

   ☒ Yes

   ☐ No

7. Were the final ballot results, including a list of significant minority issues that were not resolved, supplied?

   ☐ Yes

   ☒ No

8. For each public comment period, was a copy of each comment submitted and its associated response along with the associated changes made to the standard supplied?

   ☒ Yes

   ☐ No

Review of Standard for Completeness:

Title

9. Is there a title that provides a brief, descriptive phrase identifying the topic of the standard?

☒ Yes

☐ No

Number

10. Does the standard have a unique identification number not already used by any NERC reliability standard?

☒ Yes

☐ No

Purpose

11. Does the purpose explicitly state what reliability-related outcome will be achieved by the adoption of the standard?

☒ Yes

☐ No

Applicability

12. Does this reliability standard clearly identify the functional classes of entities responsible for complying with the reliability standard, with any specific additions or exceptions noted?

☒ Yes

☐ No

13. Does this reliability standard identify the geographic applicability of the standard, such as the entire interconnection, or within a regional entity area?

☒ Yes

☐ No

14. Does this reliability standard identify any limitations on the applicability of the standard based on electric facility characteristics, such as generators with a nameplate rating of 20 MW or greater, or transmission facilities energized at 200 kV or greater or some other criteria?

☐ Yes

☒ No

Effective Date

15. Does the effective date start on the 1st day of the 1st quarter after entities are expected to be compliant?

☒ Yes

☐ No

16. Does the effective date provide time to file with applicable regulatory authorities and provide notice to responsible entities of the obligation to comply?

☒ Yes

☒ No Unsure whether the revisions to this standard require implementation time. .

Requirements

17. Does each requirement identify the functional entity that is responsible and the action to be performed or the outcome to be achieved?

☒ Yes

☐ No

18. Does this reliability standard state one or more performance requirements, which if achieved by the applicable entities, will provide for a reliable bulk power system, consistent with good utility practices and the public interest?

☐ Yes

☐ No

19. Are the requirements free of additional comments or statements for which compliance is not mandatory, such as background or explanatory information?

☒ Yes

☐ No

Violation Risk Factors

20. Is there a Violation Risk Factor (High, Medium, Lower) for each requirement?

☒ Yes

☐ No

Time Horizons

21. Is there a Mitigation Time Horizon (Long-term Planning; Operations Planning; Same-day Operations; Real-time Operations; Operations Assessment) for each requirement?

☒ Yes

☐ No

Measures

22. Does each measure identify to whom the measure applies and the expected level of performance or outcomes required to demonstrate compliance?

☒ Yes

☐ No

23. Is each measure tangible, practical, and as objective as is practical?

☒ Yes

☐ No See comment above.

24. Does each measure clearly refer to the requirement(s) to which it applies?

☒ Yes

☐

25. Is there a measure for each requirement?

☒ Yes

☐ No

Compliance Monitoring Responsibility

26. Is the 'Electric Reliability Organization' identified as the Compliance Monitor?

☐ Yes

☒ No The Compliance Enforcement Authority is identified as the Compliance Monitor.

Compliance Monitoring Period

27. Does the standard identify the time period in which performance or outcomes is measured, evaluated, and then reset?

☒ Yes

☐ No

Data Retention

28. Does the standard identify the data retention requirements and assignment of responsibility for data archiving?

☒ Yes

☐ No

Additional Compliance Information

29. Does the standard identify the process that will be used to evaluate data or information for the purpose of assessing performance or outcomes?

☒ Yes

☐ No

30. Does the standard identify the specific data or information that is required to measure performance or outcomes?

    ☐ Yes

    ☐ No

31. Does the standard identify the entity that is responsible for providing data or information for measuring performance or outcomes?

    ☒ Yes

    ☐ No

Violation Severity Levels

32. Is there a Violation Severity Level (lower, moderate, high, severe) for violation of each of the requirements?

    ☒ Yes While there are violation severity levels for the Requirements, the VSLs are not consistent with the table format being used in the current standards.

    ☐ No

Associated Documents

33. If there are standards or forms that are referenced within a standard, are the full names and numbers of the standard identified under, 'Associated Documents'.

    ☐ Yes

    ☐ No

Definitions

34. Are the definitions used and provided in the standard consistent with the NERC definitions.

    ☒ Yes

    ☐ No

Other Observations:

35. Are there any additional comments?

    ☐ Yes

    ☒ No

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NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Regional Reliability Standard Submittal Request

Region: Western Electricity Coordinating Council

Regional Standard Number: BAL-002-WECC-1

Regional Standard Title: Contingency Reserves

Date Submitted: June 11, 2008

Regional Contact Name: Steven L. Rueckert

Regional Contact Title: Director of Standards

Regional Contact Telephone Number: (801) 582-0353

Request (check all that apply):

- ☒ Approval of a new standard
- ☐ Revision of an existing standard
- ☒ Withdrawal of an existing standard
- ☐ Urgent Action

Has this action been approved by your Board of Directors (if no please indicate date standard action is expected along with the current status (e.g., third comment period with anticipated board approval on mm/dd/year)):

- ☒ Yes April 16, 2008
- ☐ No

[Note: The purpose of the remaining questions is to provide NERC with the information needed to file the regional standard(s) with FERC. The information provided may to a large degree be used verbatim. It is extremely important for the entity submitting this form to provide sufficient detail that clearly delineates the scope and justification of the request.]

Concise statement of the basis and purpose (scope) of request:

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

Concise statement of the justification of the request:

The BAL-002-WECC-1 regional reliability standard is more stringent than the continent-wide reliability standard (Standard BAL-002-1 — Contingency Reserves). The new standard addresses the following areas:

1. Demonstrates WECC's compliance with the requirements of NERC Reliability Standard BAL-002-1 R2 that requires each Regional Reliability Organization, sub-Regional Reliability Organization or Sharing Group Reserve to specify its Contingency Reserve policies.
2. It enhances the ability to meet load due to any type of contingency by carrying Contingency Reserves for both generation and load, because Contingency Reserves may be activated for loss of a transaction due to transmission or generation loss.
3. BAL-002-WECC-1 increases the amount of Contingency Reserve above NERC's Reliability Standard BAL-002-1 R3.1 during hours when the amount of the Contingency Reserve requirement based upon an amount equal to the sum of three percent of the load (generation minus station service minus Net Actual Interchange) and three percent of net generation (generation minus station service) is greater than the Contingency Reserve based upon an amount equal to the most severe single contingency.
4. It eliminates ambiguity in the BAL-STD-002-0 related to transactions by eliminating their impact on the determination of requirements (with the exception of Contingency Reserve-specific Transactions). It eliminates the need for WECC to define products that are bought and sold between marketing entities, which is important because the responsible Balancing Authority is not privy to the specifics surrounding each transaction. Each Balancing Authority or Reserve Sharing Group will clearly understand the requirement without having to monitor each transaction and determine the impact of each tag to its reserve requirements.

Other – please attach or include as separate files:

- **The text of the regional reliability standard in MS Word format that:**
  - **has either been, or is anticipated to be, approved by the regional entity's board, and**
  - **is in a format consistent with the NERC template for reliability standards.**
- **An implementation plan.**
- **The regional entity standard drafting team roster.**
- **The names and affiliations of the ballot pool members or names and affiliations of the committee and committee members that approved the submittal of the standard.**
- **The final ballot results, including a list of significant minority issues that were not resolved, and**
- **For each public comment period, a copy of each comment submitted and its associated response along with the associated changes made to the standard.**

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Comment Report Form for WECC Standard BAL-002-WECC-1 - Contingency Reserves

The BAL-002-WECC-1 Standard Drafting Team thanks all commenters who submitted comments on the BAL-002-WECC-1 Standard. This Standard was posted for a 45-day public comment period from April 4, 2008 through May 20, 2008. NERC distributed the notice for this posting on April 7, 2008. The Standard Drafting Team asked stakeholders to provide feedback on the standard through a special Standard Comment Form. There were seven sets of comments from forty-two companies representing five of the ten Industry Segments as shown in the table on the following pages.

In this 'Consideration of Comments' document stakeholder comments have been organized so that it is easier to see the responses associated with each question. All comments received on the Standard can be viewed in their original format at:

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 Manager of Regional Standards, Stephanie Monzon at Stephanie.monzon@nerc.net. In addition, there is a NERC Reliability Standards Appeals Process.[1]

[1] The appeals process is described in the NERC Regional Reliability Standards Development Procedure: ftp://www.nerc.com/pub/sys/all_updl/sac/rrswg/NERC_Regional_Reliability_Standards_Development_Procedure_Version%200-0%202007-06-15_dwt.pdf

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

Commenter		Organization	Industry Segment									
			1	2	3	4	5	6	7	8	9	10
1.	Annette Bannon Jon Williamson John Cummings Tom Olson	PPL Generation, LLC PPL EnergyPlus PPL EnergyPlus PPL Montana, LLC					✓	✓				
2.	JJ Jamieson	Portland General Electric Merchant						✓				
3.	Ted Williams	NorthWestern Energy (NWMT)	✓									
4.	Mike Tongue and Angelia (Angie) R. Eide	Puget Sound Energy	✓									
5.	Brad Van Cleve	Industrial Customers of Northwest Utilities Air Liquide Air Products Amcor PET Packaging USA, Inc. Certain Teed Gypsum & Ceiling Manufacturing, Inc. Blue Heron Paper Company Boeing Boise Cascade ConAgra Foods Dyno Nobel, Inc. Eka Chemicals, Inc. Emerald Kalama Chemical, LLC Evanite Fiber Evraz Oregon Steel Mills Georgia-Pacific Grays Harbor Paper, L.P. Hewlett-Packard							✓				

Commenter		Organization	Industry Segment									
			1	2	3	4	5	6	7	8	9	10
		Inland Empire Paper Co. Intel J.R. Simplot Kimberly-Clark Corporation Longview Fibre Microsoft Corporation Norpac Foods PCC Structurals, Inc. Ponderay Newsprint Co. REC Silicon Shell Oil Products US Simpson Paper & Timber SP Newsprint Tesoro Refining and Marketing Co. Wah Chang West Linn Paper Company Weyerhaeuser										
6.	Mike Goodenough	Powerex						✓				
7.	Denise Koehn	Bonneville Power Administration	✓		✓		✓	✓				

Index to Questions, Comments, and Responses

1. Was the WECC Standard BAL-002-WECC-1 - Contingency Reserves developed in a fair and open process, using the Process for Developing and Approving WECC Standards?

Summary Consideration:

Commenter	Yes	No	Comment
Annette Bannon, Jon Williamson, John Cummings, and Tom Olson			
Response:			
JJ Jamieson		X	The propsed standard was vetted publically on a number of occassions but the drafting team did not respond to all comments posted on the WECC website. A number of key concerns voiced by affected parties were not addressed.
Response: The drafting team responded to all written comments, pursuant to the Process for Developing and Approving WECC Standards approved by FERC as part of WECC's Delegation Agreement with NERC. Comments submitted to the Operating Committee were considered and discussed during open meetings and at the WECC Operating Committee meeting on March 6, 2008, before the vote approving the current language of BAL-002-WECC-1. There was not unanimous agreement regarding what were "key concerns" across the industry; however, there was general consensus regarding the language of the standard within the drafting team and the majority of both transmission providers and transmission customers approved the standard.			
Ted Williams	X		
Response: Thank you.			
Mike Tongue and Angelia (Angie) R. Eide	X		
Response: Thank you.			
Brad Van Cleve		X	The proposed standard was not developed with the input of end use customers. Neither the Industrial Customers of Northwest Utilities ("ICNU") nor its members companies participated in the standard development process. ICNU is an incorporated, non-profit association of large industrial electric customers in the Pacific Northwest. ICNU represents the interests of large end-use consumers. Some of ICNU's members purchase transmission services pursuant to direct access programs, while others pay for transmission costs as part of traditional bundled service. A list of ICNU's member companies is attached to these comments. BAL-002-WECC-1 will likely result in higher costs for ICNU's members. As a result, WECC should have pursued a more thorough process before adopting BAL-002-WECC-1.
Response: Efforts to develop BAL-002-WECC-1 have been underway for over a year following FERC's June 8, 2007 Order approving WECC's Tier One Standards. The BAL-002-WECC-1 standard was developed using the Process for Developing and Approving WECC Standards, which was vetted and			

Commenter	Yes	No	Comment
accepted by FERC. This process is an open process that permits all industry stakeholders, including end use customers, to participate in the development of standards and to comment on each standard. Several ICNU members are also members of WECC and should have been aware of the process through various WECC communications. The WECC process requires public notices of the intent to draft the standard, which included posting on the NERC and WECC websites. ICNU's failure to participate in the process does not mean that that the process was not fair and open.			
Mike Goodenough			
Response:			
Denise Koehn	X		
Response: Thank you.			
Response:			

2. **Does the WECC Standard BAL-002-WECC-1 - Contingency Reserves pose an adverse impact to reliability or commerce in a neighboring region or interconnection?**

Summary Consideration:

Commenter	Yes	No	Comment
Annette Bannon, Jon Williamson, John Cummings, and Tom Olson			
Response:			
JJ Jamieson	X		Only eight hours of data was analyzed during the drafting of the proposed standard making it difficult to properly establish any risks associated with its implementation.
Response: The drafting team analyzed data from the four seasons both on and off peak. The chosen hours were representative of conditions during each season. The drafting team's analysis indentified no reliability risks. The drafting team determined that additional analysis was not necessary due to the selection of hours. Additionally, since WECC is a separate interconnection, there is no reliability risks to other interconnections or regions.			
Ted Williams	X		The reserve requirement specified in this standard (3% of load and 3% of generation) has no technical basis, nor tried-and-true operational experience. To approve this standard without addressing either of these critical items may result in unintentional and unexpected negative reliability consequences. With the removal of reserve-carrying responsibility from E-Tags, as described below, reliability is placed at further risk because Balancing Authorities will not have any verification of who is carrying reserves, or where reserves are being carried, for

Commenter	Yes	No	Comment
			transactions.
Response: Contingency reserves are needed to ensure loads are served after the unexpected loss of any resource including transmission, generation or import schedules. While generators may be lost more often than import schedules or transmission, this does not mean that loss of transmission and import schedules resources should be ignored. Consequently, the drafting team recommended a reserve requirement based on a combination of generation and load. The standard clarifies the contingency reserve requirement in the Western Interconnection, without signifcantly changing the overall interconnection-wide reserve requirements. Under the proposed standard, a Balancing Authority (BA)/Reserve Sharing Group (RSG) can easily calculate its reserve requirement and is not dependent on the type of transaction or the source of a transaction. Therefore, the proposed standard is simpler and clearer in identifying the reserve requirement.			
Mike Tongue and Angelia (Angie) R. Eide		X	
Response: Thank you.			
Brad Van Cleve			
Response:			
Mike Goodenough			
Response:			
Denise Koehn		X	
Response: Thank you.			
Response:			

3. **Does the WECC Standard BAL-002-WECC-1 - Contingency Reserves pose a serious and substantial threat to public health, safety, welfare, or national security?**

Summary Consideration:

Commenter	Yes	No	Comment
Annette Bannon, Jon Williamson, John Cummings, and Tom Olson		X	
Response: Thank you.			
JJ Jamieson		X	Only eight hours of data was analyzed during the drafting of the proposed standard making it difficult to properly establish any risks associated with its implementation.
Response: The drafting team analyzed data from the four seasons both on and off peak. The chosen hours were representative of conditions during each			

Commenter	Yes	No	Comment
season. The drafting team's analysis indified no reliability risks. The drafting team determined that additional analysis was not necessary due to the selection of hours. Additionally, since WECC is a separate interconnection, there is no reliability risks to other interconnections or regions.			
Ted Williams		X	
Response: Thank you.			
Mike Tongue and Angelia (Angie) R. Eide		X	
Response: Thank you.			
Brad Van Cleve			
Response:			
Mike Goodenough			
Response:			
Denise Koehn		X	
Response: Thank you.			
Response:			

4. Does the WECC Standard BAL-002-WECC-1 - Contingency Reserves pose a serious and substantial burden on competitive markets within the interconnection that is not necessary for reliability?

Summary Consideration:

Commenter	Yes	No	Comment
Annette Bannon, Jon Williamson, John Cummings, and Tom Olson	X		EPLUW believes that there is an inconsistency between the proposed reliability requirement and the method in which reserves are procured and provided under the existing Open Access Transmission Tariffs (OATT). Transmission Providers (TP) must generally offer operating reserves under their OATTs to Transmission Customers serving load in the TP's Control Area. Otherwise, there is no default supplier of reserves. Further, the implementation of the proposed standard has not been fully explained, and it is unclear if reserves will be available to all market participants that may be required to procure or provide them in the future. EPLUW would like to see these issues addressed before the standard becomes effective.
Response: The proposed standard requires a level of reserves for a BA or RSG. The standard does not address the issue of procuring reserves from other			

Commenter	Yes	No	Comment
Balancing Areas. The proposed standard merely clarifies reserve responsibility if an interchange schedule is designated by either a sink or source BA as being used to meet its reserve requirement. This has no impact on the availability of reserves for purchase. Delaying the implementation of this standard would not provide the needed clarification in reserve requriements to promote reliability.			
JJ Jamieson	X		The proposed standard will create substantial cost shifting within the interconnection. A competitive market for the supply of reserves within the interconnection has not been established potentially resulting in participants being unable to comply with BAL-002-WECC-1. The physical market liquidity has already been hampered due to shifting of reserve responsiblity.
Response: The proposed standard removes the existing ambiguity that has caused market and reliability uncertainty. This standard does not assume the existence of any market. Rather, it puts a clear requirement on the BAs and RSGs in the Western Interconnection. Source and Sink BAs and RSGs must identify interchange schedules that will be used to meet their reserve requirement, thereby creating certainty. The data analysis during the development of this standard showed only small decreases in the amount of reserves required by the entities responsible for reserves in the Western Interconnection. The drafting team recognized that an RSG may choose to change its allocation methodology, which may cause an increase in an individual member's reserve requirement. The standard, however, does not require an RSG to allocate reserves in any specific manner. An efficient reserves market might help entities reduce their costs, but cost allocation is not the purpose of the standard. The BAL-002-WECC-1 standard does not have an effect on the need for a reserve market. The standard was developed to ensure reliable service to the loads in the Western Interconnection. Development of a reserves market will provide an economically efficient process for maintaining that reliability. This standard does not impede the development of that market. Additionally, it is possible to enter into transactions for non-standard products, so the lack of a standardized product does not prohibit transactions under specific contracts for the desired product.			
Ted Williams	X		With the standard as written, market participants will no longer be concerned about carrying reserves -- in fact, the WECC Interchange Scheduling and Accounting Subcommittee has already voted to remove the WECC Reserve Responsibility field from E-Tags. The result will be that merchants will be selling the maximum output of their generators, and already slim reserves markets will literally disappear. For Balancing Authorities that will likely end up dependent on reserves markets to meet the standard, the outcome created by this standard will be detrimental to both reliability and competitive markets. Additionally, the standard creates an unacceptable shift in risk and cost burden.
Response: The standard creates a clear reserve requirement for RSGs and BAs. It clearly identifies the level of reserves required and the entity responsible for accessing them. The clarification is not a significant deviation from the current requirements and should not impact the competitive market other than to clarify the calculation of a reserve requirement.			

Commenter	Yes	No	Comment
Mike Tongue and Angelia (Angie) R. Eide	X		(4a) Proposed standard, BAL-002-WECC-1, is purportedly designed to implement the directives of FERC and recommendations of NERC when BAL-STD-002-0 was approved as a NERC reliability standard. But the proposed standard is not the result of any technical or operational deficiency in the requirements of BAL-002-WECC-0. The Federal Energy Regulatory Commission (FERC) determined that BAL-002-WECC-0 as a "regional Reliability Standard is sound, as it provides greater stringency than NERC's reserve requirements and meets a need of the Western Interconnection." (Docket No. RR07-11, Order Approving Regional Reliability Standards for the Western Interconnection and Directing Modifications, ¶ 56). The FERC approved BAL-002-WECC-0. The FERC further directed WECC to address shortcomings of the standard identified by NERC and which NERC reported to WECC on January 9, 2007. Identified in the report and of primary concern to the FERC and NERC was the inclusion in the standard of sanction tables which conflicted with NERC's FERC-approved Sanction Guidelines. In addition, NERC identified other administrative shortcomings, including issues relating to proper definition of terms and template formatting and certain ambiguities identified by the commenters. The reliability goal and technical implementation of BAL-002-WECC-0 were not identified as shortcomings and requiring of modification. Therefore, proposed standard, BAL-002-WECC-1, goes well beyond these directions and recommendations to unnecessarily modify the reliability goal in a manner that unduly burdens markets within the Western Interconnection. (4b) In using expedited procedures to develop WECC's initial eight regional Reliability Standards, WECC's rules require WECC to develop permanent, replacement standards using more extensive procedures. Through this process WECC has attempted to clarify ambiguities related to the Contingency Reserve requirements, such as the definition of Load Responsibility, inclusion of market transactions in the determination of reserve requirements and the emergence of market products that do not fit into the reliability concept. While PSE supports efforts to clarify ambiguities, PSE is concerned that a sampling of only 0.0913% of hours out of the year is not adequate support to justify modification to the manner in which reserves are allocated. PSE is concerned that modification to the manner in which reserves are allocated will not achieve any resolution of ambiguities within the standard, but instead

Commenter	Yes	No	Comment
			will pose a serious and substantial burden on competitive markets within the interconnection that is not necessary for reliability. (4c) As described further below, the proposed standard poses a serious and substantial burden on competitive markets within the Western Interconnection in that it unnecessarily and dramatically shifts risk and costs without reasonable justification. The proposed standard would lead to a major cost shift in several areas in the west, i.e., net importing Balancing Authority (BA) areas. Under the proposed standard, the importing BA areas would be required to carry 3% reserves on load, shifting costs from those entities which pose a greater risk or impact to the electric system (generators) to those who do not. Moreover, undeveloped reserve markets in WECC further limit the ability of net importing BA areas to meet their reserve needs. (4d) The proposed standard is unduly burdensome on the market in that it requires that reserves be separated from energy. Under the current standard, buyers in the market can purchase and receive a bundled product wherein the source BA carries extra reserves to maintain the transaction in the event of a loss of generation in the source BA. Under the proposed standard, buyers can no longer purchase this bundled product and must instead arrange a second transaction for reserves and additional firm transmission for those reserves. Furthermore, there currently is not a robust, established reserves market. PSE is concerned that if the appropriate commercial documents etc. are not in place at the time of implementation of this new standard that net importers will suffer as a result. PSE would like to suggest that at the very least, if approved at the NERC and FERC levels, that implementation of the proposed standard be phased-in or an interim adoption period created to provide the market with adequate time to establish the necessary commercial contracts, i.e. to create a liquid reserves market. (4e) The proposed standard further impacts the market in that BAs who are net importers would be required to maintain reserves with out-of-market generation. Contingency reserves are an insurance policy protecting against the potential loss of generation. As loss of generation within the Balancing Authority is the risk, the standard should allow BAs that are net importers to manage the risks (and attendant reserves) within the market in order to

Commenter	Yes	No	Comment
			minimize the impacts of a loss of generation event on transmission. (4f) In conclusion, PSE strongly supports the efforts of WECC to create and implement a permanent solution to contingency reserves and applauds the current work on a Frequency Responsive Reserves (FRR) standard. However, PSE feels that a temporary fix, as provided for in the proposed standard, BAL-002-WECC-1, with wide-ranging market and operational impacts is not beneficial to the region. A WECC-approved FRR process in combination with the Most Single Severe Contingency is the most technically defensible and appropriate solution for providing for contingency reserves in the Western Interconnection. It is PSE's hope that the complex implementation of the proposed standard does not distract from or delay more important work on an FRR process.

Response: (4a) The drafting team developed the standard through an open process in which it endeavored to address the issues raised in the process of implementing the emergency standards. In addressing the concerns raised related to definition of terms, the drafting team determined that it would not be able to define the term "Load Responsbility" without defining market products. This would be outside of the scope of WECC and potentially an issue of limiting the market in an unjust and unreasonable manner. Therefore, the drafting team recommended a standard that would result in a small change to the overall reserve requirement in WECC, but would produce a clear reserve requirement for Balancing Authorities and RSGs. The difficulty associated with the technical implementation of the current standard is a significantreliability shortcoming. Without a clear definition of load responsibility, there is no way to implement the current reserve requirement. The primary reliability goal is to ensure that Balancing Authorities and Reserve Sharing Groups have sufficient reserves to provide reliable service to the loads in the Western Interconnection. The new language accomplishes that while leaving room for markets to develop to meet those reserve requirements.

(4b) These issues were considered by both the drafting team and the balloting groups in WECC. The resolution of the ambiguities is a result of clearly defining the reserve requirement, which is very near that of the existing standard, and the methodology for calculating those reserves. The drafting team analyzed data from the four seasons, both on and off peak. The hours used were representative of conditions during each season. No one has offered any evidence that these hours were not representative of the majority of the hours in a year or that these hours were not representative of the critical hours of a year. As for the burden on the markets, it is the position of market participants that were part of the drafting team that this will greatly alleviate issues that have been seen in the market since the implementation of the tools necessary to track the current standard. This is further evidenced by the WSPP documents that have been developed both prior to and since WECC approved the proposed standard.

(4c) The proposed standard removes the existing ambiguity that has caused market and reliability uncertainty. This standard does not assume the existence of any market. Rather, it puts a clear requirement on the BAs and RSGs in the Western Interconnection. Source and Sink BAs and RSGs must identify interchange schedules that will be used to meet their reserve requirement, thereby creating certainty. The data analysis during the development of this standard showed only small decreases in the amount of reserves required by the entities responsible for reserves in the Western Interconnection. The drafting team recognized that an RSG may choose to change its allocation methodology, which may cause an increase in an individual member's reserve requirement, The standard, however, does not require an RSG to allocate reserves in any specific manner. An efficient reserves market might help entities reduce their costs, but cost allocation is not the purpose of the standard. The BAL-002-WECC-1 standard does not have an effect on the need for a reserve market. The standard was developed to ensure reliable service to the loads in the Western Interconnection. Development of a reserves market will provide

Commenter	Yes	No	Comment
an economically efficient process for maintaining that reliability. This standard does not impede the development of that market. Additionally, it is possible to enter into transactions for non-standard products, so the lack of a standardized product does not prohibit transactions under specific contracts for the desired product. (4d) The current standard does not allow an entity to buy a bundled product of both reserves and energy. The current standard allows an entity to buy energy and reduce its reserves requirement if the seller takes load responsibility and, thus, agrees to provide reserves. This, however, creates the same requirement that reserves be available for purchase from the source BA. Consequently, the buyer of that energy did not purchased reserves, it was only permitted to reduce its reserve requirement based on the seller's agreement to take load responsibility. While some claim that there is the ability to have the reserves delivered based on the type of transaction, that assertion has not been supported and has led to some confusion in the market. In an RSG, the RSG determines the allocation and delivery within the reserve sharing group. In certain cases when both the buyer and seller are in the same RSG, that group's rules allow for delivery of reserves over transmission lines, but that delivery is based on allocation rules, not the transaction itself. Additionally, the argument that the lack of a robust market should forestall the implementation of this standard is misplaced. The current rules were written long before there was a robust market for any energy products. As the markets have evolved, the current rules have limited some parties ability to participate. The propsoed standard removes these barriers to entry and will allow all parties to participate on a reasonably level playing field through clear rules on which market products can be developed. (4e) Contingency reserves are needed to ensure loads are served after the unexpected loss of any resource including transmission, generation or import schedules. This is consistent with the current standard and the pro forma Open Access Transmission Tariff. While generators may be lost more often than import schedules or transmission, this does not mean that the later two resources should be ignored. (4f) The approval of BAL-002-WECC-1 does not impeed or prevent the development of a Frequency Response Reserve Standard. The comment includes several assumptions about a possible standard that has not been determined through a technically defensible process, nor has the WECC membership agreed to methodologies needed to implement such a standard. Those fully involved in development of a standard do not at this time agree on basic issues such as the level of Frequency Responsive Reserve needed, the means of measuring response, and the amount of interaction between contingency reserves. Due to the limited time permitted to develop a permanent replacement standard for BAL-STD-002-0, coordination between the two processes was not possible.			
Brad Van Cleve	X		The proposed standard requires a minimum for Contingency Reserves equal to the sum of three percent of load and three percent of net generation. This is a change from the current standard, which places the responsibility upon generation, with a reserve requirement of five percent for hydro generation and seven percent for thermal generation. There is no evidence that the shift of part of the responsibility for Contingency Reserves from generation to loads will have any positive impacts upon reliability. The change appears to have been made based on a "compromise" by WECC, and not based on operational or reliability needs. The proposed standard will likely impose a serious and

Commenter	Yes	No	Comment
			substantial burden on competitive electricity markets in the Pacific Northwest that is not necessary for reliability. Shifting part of the responsibility for Contingency Reserves from generation to loads will result in significant cost shifts within the Pacific Northwest markets, without any demonstration of any reliability benefits. For example, Puget Sound Energy ("PSE") has estimated that its retail customers could pay an additional $14 million more per year for increased Contingency Reserve obligations. The WECC drafting team agreed that PSE's estimate of additional costs is a possible outcome. The proposed standard also may have harmful impacts on the direct access programs in the Pacific Northwest. Shifting responsibility for Contingency Reserves from generators to loads could cause unintended, harmful impacts upon the existing wholesale power markets and upset current contractual arrangements. The proposed standard also may harm hydro dependent utilities in the Pacific Northwest. The current standard recognizes the lower Contingency Reserve needs for hydro generation. The new standard, without any factual support, increases the Contingency Reserve requirements for utilities with large hydro systems. In the absence of a clear reliability benefit, the current standard for Contingency Reserves should not be changed, especially since the change will cause cost shifts and unintended market consequences. If such a change does occur, it should come only after these impacts have been studied and mitigated.
Response: Contingency reserves are needed to ensure loads are served after the unexpected loss of any resource including transmission, generation or import schedules. The standard creates a clear reserve requirement for RSGs and BAs and clearly identifies the level of reserves required. The standard requires that reserves are deployable when activation is required. All these requirements enhance reliability in the Western Interconnection. The proposed standard removes the existing ambiguity that has caused market and reliability uncertainty. This standard does not assume the existence of any market. Rather, it puts a clear requirement on the BAs and RSGs in the Western Interconnection. Source and Sink BAs and RSGs must identify interchange schedules that will be used to meet their reserve requirement, thereby creating certainty. The data analysis during the development of this standard showed only small decreases in the amount of reserves required by the entities responsible for reserves in the Western Interconnection. The drafting team recognized that an RSG may choose to change its allocation methodology, which may cause an increase in an individual member's reserve requirement, The standard, however, does not require an RSG to allocate reserves in any specific manner. An efficient reserves market might help entities reduce their costs, but cost allocation is not the purpose of the standard. The BAL-002-WECC-1 standard does not have an effect on the need for a reserve market. The standard was developed to ensure reliable service to the loads in the Western Interconnection. Development of a reserves market will provide an economically efficient process for maintaining that reliability. This standard does not impede the development of that market. Additionally, it is possible			

Commenter	Yes	No	Comment
to enter into transactions for non-standard products, so the lack of a standardized product does not prohibit transactions under specific contracts for the desired product. The proposed standard removes the existing market ambiguity that has caused market and reliability uncertainty. This standard does not assume the existence of any market. Rather it puts a clear requirement on the BAs and RSGs in the Western Interconnection. All data evaluated during the development of this standard show only small decreases in the amount of reserves required by the entities responsible for reserves in the Western Interconnection.			

Commenter	Yes	No	Comment
Mike Goodenough	X		BAL-002 may require most (if not all) jurisdictions to reform their existing tariffs and/or rate schedules to reflect the different way they will have to recover ancillary service costs, as well as potential changes to the obligations for Transmission Providers to sell ancillary services. Based on its comments below, Powerex also believes there may also be issues with third parties ability to self-supply or procure ancillary services from other providers. Such reforms can be lengthy processes, normally requiring various stakeholder consultations, customer information processes, etc. It does not seem likely that these processes could be completed in time for the planned implementation of the standard. Further compounding the problem is the fact that many jurisdictions are completing the tariff reforms required by Order 890. It may be difficult for jurisdictions to adjust their tariff reform process in a sufficiently timely manner to implement the new standard. Market Impacts: One of the fundamental problems with BAL-002 is the fact that it assumes the existence of a liquid ancillary service market: no such market exists in the WECC as a whole. Shifting the operating reserve responsibility away from the source to the load will result in significant increases in the operating reserve requirements of a number of jurisdictions (e.g. those who are primarily load-based) and will therefore require them to procure operating reserves outside their own jurisdictions. Because there has been no technical studies done to evaluate the ability of entities to acquire operating reserves, it is not at all clear if reserve-deficit entities will be able to meet the new requirements. Some of the impediments include: Lack of Firm transmission to facilitate the trade of operating reserves - Operating reserves are required to be carried on firm transmission, and due to constraints in the grid, not all entities are able to purchase firm transmission back to their systems. This problem is expected to get worse as grid continues to become more constrained. Business Practices/Operational Dispatch - In several instances, business practices of the differing providers may not allow for operating reserves to be transmitted across their areas in a manner efficient enough for a fluid market to exist. The dispatch of operating reserves can be largely a manual process for a number of jurisdiction. Though it fully expected that the number of operating reserve transaction will

Commenter	Yes	No	Comment
			drastically increase with the implementation of BAL-002, the impact those transaction will have on the dispatchers and their systems and processes has not been considered. Product Standardization - As stated above, BAL-002 assumes that an operating reserve market will develop to meet the new requirements imposed on the WECC BAs. One of the requirements for a liquid market to exist is product standardization; entities will need to know the characteristics of the product they will be trading in advance, otherwise the market cannot trade in a fluid and efficient manner. As of now, no standard operating reserve product exists. In fact, neither the EEI nor the WSPP agreements have operating reserves defined anywhere as tradable products. Because of the number of characteristics that need to be defined for operating reserves (e.g. ramp rate, number of dispatches per hour, per day, the dispatch priority of the product, etc.) it may be difficult for the market as a whole to a agree on standard products.

Response: All data evaluated during the development of this standard show only small decreases in the amount of reserves required by the entities responsible for reserves in the Western Interconnection. The entities that have claimed a possible increase in their reserve requirements have all been members of Reserve Sharing Groups. The data show that the RSGs in question will all see either no change or a slight decrease in their requirements. An RSG may change its allocation methodology that may cause an increase in an individual member's reserve requirement. This standard recognizes the need for clear reserve calculations in either a predominately load BA or predominantly generation BA. This may result in a cost shift between BAs within an RSG. However, the standard provides clear requirements, rather than assumptions on load responsibility that may not actually be available under current tariff arrangements.

If a provider believes the new reserve requirement has changed its revenue requirement significantly as a result of the potential cost shift, it can file for a change in rates. If a customer believes that the change in requirements changes the provider's revenue requirement significantly, the customer can file a rate proceeding against the provider. The regulatory process does not guarantee either the customer or provider perfect pricing, but does ensure that it is just and reasonable. A fixed percent in a tariff will never exactly match the reserves for an entity. These requirements, however, do not place a serious or substantial burden on the competitive markets within the Western Interconnection. Instead, they promote reliability through clearly defined requirements and there is no reason to delay the implementation of this standard.

As for self-provision or procurement of contingency reserves, this standard does not in any way limit an entity's ability to procure reserves in any manner that meets the clear requirements of the standard. At a very basic level, the standard requires either unloaded generation capacity that can be delivered to the BA/RSG or interruptible loads that can be curtailed within 10 minutes of notification. This in no way limits any entity from self-providing or procuring reserves. The deliverability of these reserves is required to be on firm transmission, which is the same requirement that has been required in WECC for years.

In summary, the possible need to change a tariff to address cost recovery should not hinder making changes to the reserve standard. The fact that some entities may need to adjust rates is not a reason to delay the implementation of this new standard.

Commenter	Yes	No	Comment
			Market Impacts: This standard does not assume the existence of any market. Rather it puts a clear requirement on the BAs and RSGs in the Western Interconnection. All data evaluated during the development of this standard show only small decreases in the amount of reserves required by the entities responsible for reserves in the Western Interconnection. The entities that have claimed a possible increase in their reserve requirements have all been members of RSGs. The data show that the RSGs in question will all see either no change or a slight decrease in their requirements. The drafting team recognizes an RSG may change its allocation methodology that may cause an increase in an individual member's reserve requirement. This standard recognizes the need for reserves in a predominately load BA and generation BA. This may result in a cost shift between BAs within an RSG. The standard does not require an RSG to allocate reserves in any specific manner. Lack of Firm transmission to facilitate the trade of operating reserves: The ability to obtain reserves from other entities is not guaranteed, nor required for compliance with this standard. All that is required for compliance is to carry a specified level of reserves. Only if reserves are obtained from another entity is firm transmission required. If an entity carries all of its reserves on its own network resources, no additional transmission is required. Therefore, compliance with this standard does not require any level of firm transmission. Ultimately, the goal of the standard is reliable service to customers, not the facilitation of the trading of operating reserves. Business Practices/Operational Dispatch: The existence of a market is not a requirement of this standard. While it may be economically beneficial to the entities in the Western Interconnection for a market to exist, this is not the goal of the standard. The goal of the standard is to ensure reliable service to the customers in the Western Interconnection. If entities believe that they can provide equivalent service at a lower cost to their customers, this will be an incentive to work to create an efficient market. If business practices prohibit efficient operations, then there will be an incentive to change the business practices to allow for greater efficiencies. To say that a standard cannot be adopted because there might be business practices that will cause issues with efficient operation is putting form ahead of function. The deployment of contingency reserves does not change with the implementation of this standard. Each RSG is a single entity for R3.4. Therefore, R3.4 does not require firm transmission within an RSG. It is the RSG's responsibility to ensure that reserves are deliverable internal to the group. The current practice of Pacific Northwest RSG to monitor available transmission within an operating hour may continue. Product Standardization: An efficient reserves market might help entities reduce their costs, but this is not the purpose of the standard. The BAL-002-WECC-1 standard does not have an effect on the need for a reserve market. The standard was developed to ensure reliable service to the loads in the Western Interconnection without impeding a reasonably efficient energy market. If market participants believe that a standardized product would benefit the entities subject to the requirements of this standard, then this standard may provide the incentive needed to develop the product in the future. It is possible to enter into transactions for non-standard products, so the lack of a standardized product does not prohibit transactions under specific contracts for the desired product. Ultimately, if an efficient market is truly desired, the proposed standard will allow a more efficient market than anything the Western Interconnection has had in the past.

Commenter	Yes	No	Comment
Denise Koehn		X	
Response: Thank you.			
Response:			

5. Does the WECC Standard BAL-002-WECC-1 - Contingency Reserves 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:

Commenter	Yes	No	Comment
Annette Bannon, Jon Williamson, John Cummings, and Tom Olson			
Response:			
JJ Jamieson			
Response:			
Ted Williams	X		
Response: Thank you.			
Mike Tongue and Angelia (Angie) R. Eide			
Response:			
Brad Van Cleve			
Response:			

Commenter	Yes	No	Comment
Mike Goodenough			
Response:			
Denise Koehn	X		
Response: Thank you.			
Response:			

NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

NERC Evaluation of Western Electricity Coordinating Council (WECC) Regional Standards

Executive Summary
July 30, 2008

On June 10, 2008, the WECC submitted the following seven regional standards for NERC evaluation to replace eight original WECC regional standards approved by NERC and FERC in 2007:

- BAL-002-WECC-1 — Contingency Reserves,
- FAC-501-WECC-1 — Transmission Maintenance,
- IRO-006-WECC-1 — Qualified Transfer Path Unscheduled Flow (USF) Relief,
- PRC-004-WECC-1— Protection System and Remedial Action Scheme Misoperation,
- TOP-007-WECC-1 — System Operating Limits,
- VAR-002-WECC-1 — Automatic Voltage Regulators and
- VAR-501-WECC-1 — Power System Stabilizer

NERC posted these seven proposed regional standards for a 45-day public posting beginning April 4–May 20, 2008. The standards received several comments during the NERC public posting. WECC supplied NERC with its responses to the comments on June 10, 2008. WECC did not make conforming changes to the standards as a result of the comments received during the NERC posting. WECC submitted these standards for NERC evaluation on June 10, 2008.

In accordance with NERC's *Rules of Procedure* and the *Regional Reliability Standards Evaluation Procedure* approved by the Regional Reliability Standards Working Group, NERC performed a review of the WECC proposed standards. The intent of this document is to provide WECC with NERC's feedback regarding their regional standards.

In this review, NERC presents a summary of observations for each proposed WECC regional standard. In Appendix A, NERC includes a redlined copy of each proposed regional standard with detailed comments included. NERC believes WECC has satisfied its procedural obligations as outlined in Appendix C of its Regional Delegation Agreement. However, NERC offers concerns and suggestions regarding several of the proposed regional standards that are discussed below.

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Summary of Findings

BAL-002-WECC-1 — Contingency Reserves

In the review of BAL-002-WECC-1, NERC identified several areas for either clarification or opportunities for improvement. Some of the findings point out approaches potentially inconsistent with FERC either directives or concerns with the clarity of the standard. Other NERC comments simply offer areas for improvement.

1. This standard contains a method for Reserve Sharing Groups or Balancing Authorities (BA) that are not members of a Reserve Sharing Group to maintain a level of Contingency Reserves and the standard describes in Requirement 1.1. how to determine the amount of reserves. NERC suggests that instead of describing the formula narratively (Requirements R1.1.1. to R1.1.2.) WECC include the actual equation in the requirement to reduce ambiguity.

2. Requirement R2 is of concern because it is unclear whether the requirement limits the use of Demand Side Resources (DSM) to fifty percent of the Contingency Reserves. Requirement R2. states:

> **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.

   In the first instance, the NERC Glossary of Terms defines Spinning Reserve as "(u)nloaded generation that is synchronized and ready to serve additional demand." In this regard, spinning reserve, as a component of contingency reserves, is limited to the use of generation. In Order 693 at Paragraph 333, the Commission directed NERC to "treat DSM comparably to conventional generation as a resource for contingency reserves." In addition, the Commission in Paragraph 335 of Order No. 693 directs "the ERO to explicitly allow DSM as a resource for contingency reserves…" NERC believes that the proposed regional standard is in potential conflict with the Commission's directive regarding the use of DSM. In order to eliminate this potential conflict, NERC suggests that WECC explicitly include DSM in Requirement R3. as an additional sub-requirement in the list of acceptable types of reserves in support of the FERC directive. Alternately, NERC requests that WECC clarify how the proposed regional standard supports FERC's directives.

3. In Requirement R1., the proposed standard changes the amount of the contingency reserves that a BA is required to the sum of 3 percent of the total load plus 3 percent of the total generation. This replaces the existing 5 and 7 percent load responsibility served by hydro and thermal

generation, respectively. WECC did not provide an explanation for the change and NERC requests that WECC provide information to support this modification.

4. While the standard does contain Violation Severity Levels (VSLs) NERC suggests that for consistency with the continent-wide standards, the VSLs should be presented in table format.

Conclusion

NERC appreciates the opportunity to provide feedback to WECC regarding the seven proposed regional standards WECC submitted on June 11 2007. In some instances, NERC requests additional clarification on the issues and concerns outlined in this document. Others provide suggestions for improving the quality of the proposed regional standards. NERC has included detailed comments directly in the standards that can be found in Appendix A to this document. NERC has also provided comments directly into the comparison mapping documents WECC submitted along with the seven proposed standards in its submittal request.

NERC looks forward to WECC's response to these comments and ultimately, for WECC's decision on whether to request the NERC Board to approve these proposed regional standards.

WECC's Response to NERC's Comments
August 13, 2008
Draft

INTRODUCTION

WECC appreciates NERC staff's evaluation of the proposed WECC Regional Reliability Standards (RRSs) in accordance with NERC's Regional Reliability Standards Evaluation Procedure. These proposed WECC RRSs were developed as permanent replacements for the eight WECC Tier 1 RRSs that previously were approved by NERC and FERC. WECC asserts that the seven proposed standards contain all the performance elements of a Reliability Standard that are contained in the NERC Reliability Standards Development Procedure. In addition, the seven proposed standards address and implement the refinements directed by FERC's order on June 8, 2007 (see FERC Docket No. RR07-11-000) and requested by NERC in its letter dated January 9, 2007. Finally, these proposed standards implement refinements to the approved WECC Tier 1 RRSs which were recommended during the previous expedited direct translation standard development processes.

The attached WECC responses individually address each NERC comment. However, many of the comments submitted by NERC staff relate to refinements that NERC has made to the format of its Reliability Standard Template. These refinements have not been formally approved by NERC, nor have they been transmitted to the regions for comment or additional information, and were therefore unavailable to WECC during the development process. Consequently, WECC has determined not to reopen the standards development process at this stage to address these non-substantive formatting concerns. In addition, during the standards development process, WECC staff twice requested that NERC staff review the proposed WECC standards. WECC did this to ensure that the WECC standard drafting teams were complying with NERC's Regional Reliability Standards Evaluation Procedure as well as its Reliability Standards Development Procedure. NERC did not perform the evaluation of these proposed standards until WECC had completed its Process for Developing and Approving WECC Standards. WECC intends to implement the requested formatting refinements and any potential FERC-directed changes during the next revision of these standards or the next FERC compliance filing.

The proposed WECC RRSs were considered and adopted pursuant to the Process for Developing and Approving WECC Standards. Unless they are approved in their current form, WECC will have to reinitiate the entire process. The consequences of rejecting these WECC RRSs in their entirety would be counterproductive to reliability in the Western Interconnection.

The proposed WECC RRSs will enhance reliability in the Western Interconnection and they will significantly improve the existing eight WECC RRSs because they:

1. Implement ordered NERC and FERC refinements to the existing standards ordered;

2. Eliminate conflicting NERC and WECC requirements contained in the existing RRSs;
3. Include all the Performance Elements of a Reliability Standard;
4. Clarify existing WECC RRSs;
5. Align better with NERC's Functional Model, and
6. Address industry stakeholder concerns.

Therefore, WECC requests the NERC staff recommend approval of these standards to the NERC Board and FERC.

WECC's responses to NERC's initial evaluation are provided in Attachment 1.

Attachment 1

NERC's Written Comments
July 30, 2008
WECC's Written Responses
August 13, 2008

Summary of Findings

BAL-002-WECC-1 — CONTINGENCY RESERVES

NERC COMMENT:
In the review of BAL-002-WECC-1, NERC identified several areas for either clarification or opportunities for improvement. Some of the findings point out approaches potentially inconsistent with FERC either directives or concerns with the clarity of the standard. Other NERC comments simply offer areas for improvement.

1. This standard contains a method for Reserve Sharing Groups or Balancing Authorities (BA) that are not members of a Reserve Sharing Group to maintain a level of Contingency Reserves and the standard describes in Requirement 1.1. how to determine the amount of reserves. NERC suggests that instead of describing the formula narratively (Requirements R1.1.1. to R1.1.2.) WECC include the actual equation in the requirement to reduce ambiguity.

WECC RESPONSE:
1. The requirements in the BAL-002-WECC-1 Standard as written are clear. Industry stakeholders did not submit any comments questioning the clarity of the standard, nor did they identify a need for an equation. The drafting team does not believe there is any ambiguity in the requirements.

NERC COMMENT:
2. Requirement R2 is of concern because it is unclear whether the requirement limits the use of Demand Side Resources (DSM) to fifty percent of the Contingency Reserves. Requirement R2. states:

   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.

WECC RESPONSE:

2. The drafting team wrote the BAL-002-WECC-1 Standard to permit load, Demand-Side Management (DSM), generation, or another resource technology that qualifies as Spinning Reserve or Contingency Reserve to be used as such. In the case of DSM, the declared amount would be required to respond automatically to frequency deviations and be capable of fully responding in 10 minutes. Loads and DSM are not allowed as Spinning Reserve because it is not permitted by the NERC Spinning Reserve definition. NERC requires that the BAL-002-WECC-1 Standard drafting team use NERC's Spinning Reserve definition. If NERC were to modify its Spinning Reserve definition to allow frequency responsive load tripping as part of a Balancing Authority's DSM, then its use would be permitted under the requirements of the BAL-002-WECC-1 Standard as proposed.

NERC COMMENT (continued):

In the first instance, the NERC Glossary of Terms defines Spinning Reserve as "(u)nloaded generation that is synchronized and ready to serve additional demand." In this regard, spinning reserve, as a component of contingency reserves, is limited to the use of generation. In Order 693 at Paragraph 333, the Commission directed NERC to "treat DSM comparably to conventional generation as a resource for contingency reserves." In addition, the Commission in Paragraph 335 of Order No. 693 directs "the ERO to explicitly allow DSM as a resource for contingency reserves…" NERC believes that the proposed regional standard is in potential conflict with the Commission's directive regarding the use of DSM. In order to eliminate this potential conflict, NERC suggests that WECC explicitly include DSM in Requirement R3. as an additional sub-requirement in the list of acceptable types of reserves in support of the FERC directive. Alternately, NERC requests that WECC clarify how the proposed regional standard supports FERC's directives.

WECC RESPONSE (continued):

DSM that is deployable within 10 minutes is a subset of Interruptible Load. Interruptible load is defined in requirement R3.2 as an acceptable type of Contingency Reserve. As described previously, if NERC modifies its Spinning Reserve and Interruptible Load definitions, then it would be clear that qualifying DSM is permitted as part of Spinning and Contingency Reserves.

NERC COMMENT:

3. In Requirement R1., the proposed standard changes the amount of the contingency reserves that a BA is required to the sum of 3 percent of the total load plus 3 percent of the total generation. This replaces the existing 5 and 7 percent load responsibility served by hydro and thermal generation, respectively. WECC did not provide an explanation for the change and NERC requests that WECC provide information to support this modification.

WECC RESPONSE:

3. The drafting team wrote a paper titled "WECC Standard BAL-002-WECC-1 Contingency Reserves" that provides an explanation supporting the modification. The paper was included as part of the standards approval package filed on June 11, 2008 with NERC.

NERC COMMENT:

4. While the standard does contain Violation Severity Levels (VSLs) NERC suggests that for consistency with the continent-wide standards, the VSLs should be presented in table format.

WECC RESPONSE:

4. WECC recognizes the unapproved NERC Reliability Standard Template requires the placement of VSLs in a table. As stated previously, WECC intends to implement this refinement during the next revision of this standard or the next FERC compliance filing.

(NERC) CONCLUSION

NERC appreciates the opportunity to provide feedback to WECC regarding the seven proposed regional standards WECC submitted on June 11 2007. In some instances, NERC requests additional clarification on the issues and concerns outlined in this document. Others provide suggestions for improving the quality of the proposed regional standards. NERC has included detailed comments directly in the standards that can be found in Appendix A to this document. NERC has also provided comments directly into the comparison mapping documents WECC submitted along with the seven proposed standards in its submittal request.

NERC looks forward to WECC's response to these comments and ultimately, for WECC's decision on whether to request the NERC Board to approve these proposed regional standards.

WECC RESPONSE

WECC appreciates the opportunity to discuss NERC staff's initial evaluation and report in conference calls on August 4 and 5, 2008 and to provide the written clarifications and responses contained herein. We trust that WECC's responses, along with all the supporting documentation contained in WECC's submissions, provide the NERC staff a comprehensive basis for recommending NERC Board of Trustees approval of all proposed standards. Please direct any questions relating to WECC's response to WECC Director of Standards, Steve Rueckert at steve@wecc.biz or (801) 883-6878.

Steven L. Rueckert
Director of Standards

801.582.0353 ext. 6878
steve@wecc.biz

Western Electricity Coordinating Council

August 18, 2008

Gerard Adamski
Vice President and Director of Standards
North American Electric Reliability Corporation
116-390 Village Boulevard
Princeton, New Jersey 08540-5721

RE: WECC's response to NERC's initial evaluation of seven WECC regional reliability standards

Dear Gerry,

WECC appreciated the opportunity to discuss NERC staff's initial evaluation of the seven WECC regional reliability standards in conference calls on August 4 and August 5. Attached are WECC's written clarifications and responses to the concerns and issues identified in NERC's written evaluation on July 30 and the subsequent conference calls.

We trust that WECC's responses, along with the supporting documentation contained in WECC's submissions, provide the NERC staff a comprehensive basis for recommending NERC Board of Trustees approval of the seven proposed regional reliability standards. Please direct any questions relating to WECC's response to WECC's Director of Standards, Steve Rueckert at steve@wecc.biz or (801) 883-6878 or Ken Wilson at ken@wecc.biz or (801) 883-6886.

Sincerely yours,

Steve Rueckert

Steven L. Rueckert

SR:
Attachment
Cc: Stephanie Monzon, NERC
Thomas J Schneider, WECC

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

Compliance with FERC Order No. 672

1. **Proposed reliability standards must be designed to achieve a specified reliability goal.**

   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 Cyber security protection."

   Contingency reserves are required for the reliable operation of the interconnected power system to replace generating capacity and energy lost due to forced outages of generation or transmission equipment. The proposed regional reliability standard, BAL-002-WECC-1 – Contingency Reserves, is designed to achieve the specific reliability goal of ensuring a contingency reserve level adequate to maintain scheduled frequency, avoid loss of firm load following transmission or generation contingencies, and assure Balancing Authorities ("BAs") can comply with NERC's Disturbance Control Standard (BAL-002-0).

2. **Proposed reliability standards must contain a technically sound method to achieve the goal.**

   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, BAL-002-WECC-1 – Contingency Reserves, was developed by a drafting team comprised of experts in the areas of operating reserves, electric grid operations, and electric markets from throughout the Western Interconnection and contains a technically sound method to achieve its goal.

In order to comply with the NERC Disturbance Control Standard, BAL-002-0, the existing interim WECC standard, BAL-STD-002-0, requires an amount of contingency reserve 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 ("MSSC"); 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 proposed standard utilizes a similar approach to provide a comparable level of contingency reserves throughout the year to ensure reliable operation of the electrical grid. However, it has been revised to remove the ambiguous terms and separate the market transactions from the determination of required reserves that exist in the current standard. The proposed standard reads:

R1.1. The greater of the following:

R1.1.1. An amount of reserve equal to the loss of the most severe single contingency; or

R1.1.2. An amount of reserve equal to the sum of three percent of the load (generation minus station service minus Net Actual Interchange) and three percent of net generation (generation minus station service).[1]

Based on technical studies covering hours from each of the four operating seasons (summer, fall, winter, and spring, both on and off-peak), the "3% of load and 3% of net generation" level was implemented to approximate the same level of contingency reserves throughout the year as the existing approved interim standard.[2] As illustrated in the first chart of Attachment 2, the methodology in the proposed BAL-002-WECC-1 contingency reserve standard results in a slight reduction in total reserves required in the interconnection for each of the 8 hours assessed when compared with the methodology in the existing standard. However, under the existing standard, the potential exists for the total amount of reserves required in the interconnection to be reduced if firm transactions are purchased from BAs or RSGs whose reserve requirements are determined by MSSC. If the purchasing entity's reserve requirements are based on load responsibility, the purchasing entity's reserve requirements will be reduced by the firm transaction while the selling entity's reserves, because they are based on MSSC, are not affected. This results in an overall reduction in the amount of reserves required in the interconnection.

In addition, the ambiguity associated with the term "load responsibility" results in confusion regarding the location and amount of the reserves being carried in the

[1] The technical basis supporting this change is summarized at Attachment 1.
[2] See drafting team response to comments from the first posting of the standard for comment.

interconnection. The identification of the entities responsible for providing reserves may be lost as purchases are bundled and remarketed. The proposed basis of calculating minimum reserve requirements in the proposed regional reliability standard removes the ambiguity associated with the term "load responsibility," as directed by FERC in its order approving the interim Tier 1 standards.[3]

Another factor contributing to the uncertainty in the total amount of reserves being carried under the existing standard is the lack of applicability to new technology such as wind and solar. The existing standard does not specifically require any reserves for wind or solar generation.

Consequently, the impact of the minimal reduction in the total amount reserves required in the interconnection by the proposed regional reliability standard is negligible when compared to the uncertainties in the actual amount of reserves being carried in the interconnection under the existing standard.

The on-peak summer hour was specifically chosen because it reflected the expected system peak hour across the Western Interconnection on the peak demand day across the western interconnection (July 24, 2006). This was to ensure that critical peak hours did not see a significant change in reserve requirements under the proposed standard. The drafting team discussed several options upon which to base the reserve requirements, including solely load, solely generation and different combinations of each. The proposed basis and level provide a similar level of required reserves as the existing standard while minimizing the potential for cost shifts among the WECC membership. The second chart of Attachment 2 compares the existing reserve requirements of applicable entities to the proposed requirements for the same entities. As illustrated in this chart, the proposed basis and allocation methodology does not result in any significant change in the level of reserves or an increase in costs for the applicable entities when compared to those under the current levels. Importing BAs and RSGs would see the greatest reduction in required reserves if the reserve requirements were based solely on generation. Exporting BAs and RSGs would see the greatest reduction in required reserves if the reserve requirements were based solely on load. Table 1 (attached) identifies the contingency reserve requirement of the applicable entities whose contingency reserve requirements are based on 3% of load and 3% of net generation, rather than MSSC. As illustrated in Table 1, the total reserve requirements for all of the entities combined are virtually identical, but the distribution between applicable entities is substantially varied when the values are based entirely on 6% of load when compared to 6% of net generation. The equal split between load and generation represents a reasonable balance to moderate shifts in contingency reserve responsibility and costs among the applicable entities.

The methodology and basis identified in Requirement 1 of the proposed standard clarifies the amount of reserves required in the interconnection, clarifies the entities responsible

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[3] *Order Approving Regional Reliability Standards for the Western Interconnection and Directing Modifications*, 119 FERC ¶ 61,260, para 56 (2007) ("FERC Approval Order").

for carrying contingency reserves, and ensures that the amount of reserves required in the interconnection are not affected by the nature of potential transactions.

The additional requirements, R2 and R3, are designed to ensure adequate levels of spinning reserve and specify the types of reserves that are acceptable to be used for contingency reserves. The additional requirements are:

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**:** Realtime Operations]*

R3.1. Spinning Reserve

R3.2. Interruptible Load;

R3.3. Interchange Transactions designated by the source Balancing Authority as non-spinning contingency reserve;

R3.4. Reserve held by other entities by agreement that is deliverable on Firm Transmission Service;

R3.5. An amount of off-line generation which can be synchronized and generating; or

R3.6. Load, other than Interruptible Load, once the Reliability Coordinator has declared a capacity or energy emergency.

These changes, made between the current interim standard and the proposed regional reliability standard, in the treatment of firm load have reduced the times when an entity may use firm load as contingency reserves. The proposed new regional reliability standard specifies that the BA or RSG may only use firm load as contingency reserves once the Reliability Coordinator has declared a capacity or

energy emergency. The proposed new regional reliability standard continues to require that reserves must be deliverable to be included in the minimum calculations.

3. Proposed reliability standards must be applicable to users, owners, and operators of the bulk power system, and not others.

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."

The proposed regional reliability standard is applicable only to users, owners, and operators of the bulk power system located within WECC, and not others. As identified in Section 4 (Applicability) of the proposed standard, the requirements in the proposed regional reliability standard are only applicable to Balancing Authorities and Reserve Sharing Groups ("RSGs").[4] No other Balancing Authorities or Reserve Sharing Groups outside of WECC or other registered entities within WECC are required to comply with these requirements.

4. Proposed reliability standards must be clear and unambiguous as to what is required and who is required to comply.

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."

The proposed regional reliability standard applies exclusively to BAs and RSGs within WECC. NERC's Compliance Registry identifies, by name, the specific entities registered for these two functions and therefore the specific entities that are obligated to comply with the proposed standard.

The proposed regional reliability standard's three requirements clearly and unambiguously establish the applicable entities' compliance obligations by: (1) identifying the minimum amount of contingency reserves that must be maintained by the RSG or BA in Requirement 1, (2) requiring that at least half of the contingency reserves be maintained as spinning reserve in Requirement 2, and (3) identifying the acceptable types of reserve that must be fully deployable within 10 minutes in Requirement 3.

5. Proposed reliability standards must include clear and understandable consequences and a range of penalties (monetary and/or non-monetary) for a violation.

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."

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[4] There are thirty-six Balancing Authorities and three Reserve Sharing Groups that operate within the WECC footprint.

The proposed regional reliability standard includes a violation risk factor and violation severity levels for each main requirement in the reliability standard. Upon approval by the Commission, the ranges of penalties for violations will be based on the applicable violation risk factor and violation severity levels and will be administered based on the sanctions table and supporting penalty determination process described in the Commission-approved NERC Sanction Guidelines, Appendix 4B in NERC's Rules of Procedure.

6. Proposed reliability standards must identify clear and objective criteria or measures for compliance, so that they can be enforced in a consistent and non-preferential manner.

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."

Section C of the proposed regional reliability standard contains individual measures that support each of the standard's three requirements by clearly identifying what is required and how the requirement will be enforced. These three measures will ensure the requirements are enforced in a clear, consistent, and non-preferential manner. Measurement M1 requires Reserve Sharing Groups and stand-alone Balancing Authorities to document the amount of reserves carried each hour. Similarly, Measurement M2 and M3 require that entities document that the appropriate level of spinning reserve and type of reserve was carried to meet Requirements R2 and R3, respectively.

Furthermore, to aid in the compliance monitoring process, a reliability standard audit worksheet ("RSAW") will be developed for this standard once it is approved. RSAWs also assist the applicable registered entity in understanding what the entity is expected to provide in support of the particular measures to demonstrate compliance.

7. 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.

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."

The proposed standard will require a level of contingency reserves sufficient to ensure reliable operation of the Bulk Electric System similar to that required under the existing WECC reliability standard as shown on Attachment 2. The proposed standard clearly states the required basis for, and level of, reserves and removes the ambiguities that

exist in the current standard. The overall level of required reserves will still be significantly greater than the comparable NERC MSSC requirement. Total cost to the applicable entities should remain the same or decrease slightly as compared to the existing level of reserves as shown on Attachment 2. As demonstrated by comments received, there is not necessarily a reduction in cost and, depending upon the actions of each reserve sharing group, individual members of those reserve sharing groups could see an increase in their costs that would be offset by decreases in other members' cost to comply.

The drafting team recognized that any change in the basis of or allocation of contingency reserve responsibility is likely to produce shifts in responsibility and costs. The proposed basis was the subject of a fully vetted standards development process and two workshops within WECC, and entities faced with potential responsibility and cost shifts actively presented their positions. WECC conducted one workshop and participated in a second workshop sponsored by the WSPP[5] to educate and communicate to the industry the basis of the proposed standard. The workshops were well attended with approximately 50 attendees at the first workshop and between 150 and 200 attendees at the WSPP sponsored workshop. Materials from these two workshops are available at:
http://www.wecc.biz/index.php?module=pagesetter&func=viewpub&tid=22&pid=16
http://www.wspp.org/reserves_issues.php

The drafting team developed a balanced approach to the proposed contingency basis and allocation, which moderates potential shifts -- while ensuring adequate overall contingency reserve levels and eliminating the ambiguities associated with the existing standard. Ultimately, the proposed standard was approved by WECC's Operating Committee and Board.

8. Proposed reliability standards cannot be "lowest common denominator," i.e., cannot reflect a compromise that does not adequately protect bulk power system reliability.

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 the Commission 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."

The proposed regional reliability standard does not reflect a "lowest common denominator" approach. While NERC standard BAL-002-0 requires the Balancing

[5] Western Systems Power Pool

Authority or Reserve Sharing Group to carry minimum contingency reserves to cover the MSSC, the proposed WECC standard requires the BA or RSG to carry the greater of:

1. An amount of reserve equal to the MSSC or;
2. An amount of reserve equal to the sum of three percent of the load (generation minus station service minus Net Actual Interchange) and three percent of net generation.

Based on WECC's study, this results in an amount of contingency reserves for the Western Interconnection that is more than double the NERC MSSC requirement during summer peak conditions and between eighteen and forty-five percent higher than the NERC MSSC requirement during conditions other than summer peak (see Attachment 2 for a comparison of the overall level of reserves required for the WECC in each of the hours studied and the impact to each applicable entity for each hour reviewed).

9. Proposed reliability standards may consider implementation costs for smaller entities but may not result in less than excellence in operating system 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 operator of the Bulk -Power System must bear the cost of complying with each Reliability Standard that applies to it."

The proposed regional reliability standard does not represent a "lowest common denominator" and was neither developed nor adopted solely to protect against the imposition of reasonable expenses. The drafting team considered and evaluated the effect of a change in the reserve requirement on the distribution of cost among applicable entities and determined that the change provided in the proposed standard results in less of a cost-shift than would have been created by other alternatives such as basing the requirement solely on an applicable entity's load or net generation (see Table 1). There was no special allocation or accommodation made for smaller entities in the proposed standard. (For a more detailed discussion, see the response to item number 2.)

10. 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 area or approach.

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."

The proposed regional reliability standard applies throughout the Western Interconnection and does not favor one area or approach.

A 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.

Furthermore, the Commission's Order No. 672 establishes two additional criteria that a regional 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 standard does not), or

2. A regional reliability standard that is necessitated by a physical difference in the bulk-power system.

The proposed BAL-002-WECC-1 Standard is more stringent than its NERC counterpart in that, as noted in Item 8 above, it results in an amount of contingency reserves for the Western Interconnection that is more than double the NERC requirement during peak summer conditions and between eighteen and forty-five percent higher than the NERC requirement during conditions other than summer peak.

11. Proposed reliability standards should cause no undue negative effect on competition or restriction of the grid.

Order No. 672 at P 332. "As directed by section 215 of the FPA, the Commission 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."

The proposed regional reliability standard does not restrict the available transmission capability or limit use of the Bulk-Power System in a preferential manner. Indeed, the proposed standard reduces market uncertainty by removing the ambiguity related to the term "load responsibility."[6] Among other things, the WECC's Market Interface Committee (MIC) is responsible for considering matters pertaining to the impact of reliability standards, practices, and procedures on the commercial electricity market in the Western Interconnection. The MIC strongly supported the proposed standard in an advisory ballot, which provides an important indication that the proposed standard will not adversely affect competition in the Western Interconnection.[7]

12. The implementation time for the proposed reliability standards must be reasonable.

Order No. 672 at P 333. "In considering whether a proposed Reliability Standard is just and reasonable, the Commission 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."

To facilitate implementation of compliance monitoring and reporting, NERC generally proposes that reliability standards become effective on the first day of a quarter following receipt of regulatory approval. However, Registered Entities in the Western Interconnection will have to modify their operations to address the change in contingency reserve calculations mandated by the proposed regional reliability standard. This could be difficult and lead to unnecessary, technical compliance violations due to delays in implementation. The WECC Board of Directors recognized this issue and passed a motion seeking to make the proposed standard effective 90 calendar days after receipt of regulatory approval. Therefore, NERC seeks an order from the Commission approving the proposed standard and specifying that it is to become effective "90 calendar days after receipt of applicable regulatory approval."

13. The reliability standard development process must be open and fair.

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

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[6] *Order Approving Regional Reliability Standards for the Western Interconnection and Directing Modifications*, 119 FERC ¶ 61,260, para 56 (2007) ("FERC Approval Order").

[7] The results of the MIC advisory vote were 47 in favor of the proposed standard, seven opposed, and eight abstentions.

process if it is conducted in good faith in accordance with the procedures approved by the Commission."

The proposed regional reliability standard was developed in good faith and in accordance with the Commission-approved *Process for Developing and Approving WECC Standards*, which provides for a fair and open regional reliability standards development process.[8] Specifically, this process included drafting by an open and inclusive standards drafting team, consideration of industry comments received during three WECC public posting and comment periods, approval by the WECC Operating Committee, approval by the WECC Board of Directors, WECC response to comments received by NERC as a result of NERC public posting, WECC response to comments by FERC Staff, WECC response to comments by NERC Staff, and production of other supporting documentation in response to various public and Staff questions or concerns. In addition, WECC went beyond the required process by sponsoring in whole or in part two workshops with a total attendance of nearly 300 people to discuss the proposed standard and address issues raised by different commenters. (See also response to item 7 above.)

14. Proposed reliability standards must balanced against other vital public interests.

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."

Neither NERC nor WECC believes there are any competing public interests with respect to the request for approval of this proposed regional reliability standard. No comments were received that indicated the proposed standard conflicts with other vital public interests.

15. Proposed reliability standards must consider any other relevant factors.

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."

Order No. 672 at P 337. "In applying the legal standard to review of a proposed Reliability Standard, the Commission will consider the general factors above. The ERO should explain in its application for approval of a proposed Reliability Standard how well the proposal meets these factors and explain how the Reliability Standard balances conflicting factors, if any. The

[8] *Order Accepting ERO Compliance Filing, Accepting ERO/Regional Entity Delegation Agreements, and Accepting Regional Entity 2007 Business Plans*, 116 FERC ¶ 61,060 at P 469 and *Order Addressing Revised Delegation Agreements*, 122 FERC ¶ 61,245 at P 225.

Commission may consider any other factors it deems appropriate for determining if the proposed Reliability Standard is just and reasonable, not unduly discriminatory or preferential, and in the public interest. The ERO applicant may, if it chooses, propose other such general factors in its ERO application and may propose additional specific factors for consideration with a particular proposed Reliability Standard."

NERC does not propose, nor is it aware of, any additional factors for Commission consideration.

Attachment 1

WECC Standard BAL-002-WECC-1 Contingency Reserves

WECC has been attempting to clarify ambiguities related to the Contingency Reserve requirements that exist in today's Standard for more than 5 years. The lack of agreement among entities about the correct interpretation of the Standard has thwarted previous attempts. Unresolved issues include ambiguity in the definition of load responsibility, inclusion of market transactions in the determination of reserve requirements, and the emergence of market products that do not fit into the reliability concept. By modifying the manner in which required reserves are determined, the drafting team has endeavored to remove these controversial issues without significantly altering the amount of reserves required in the WECC.

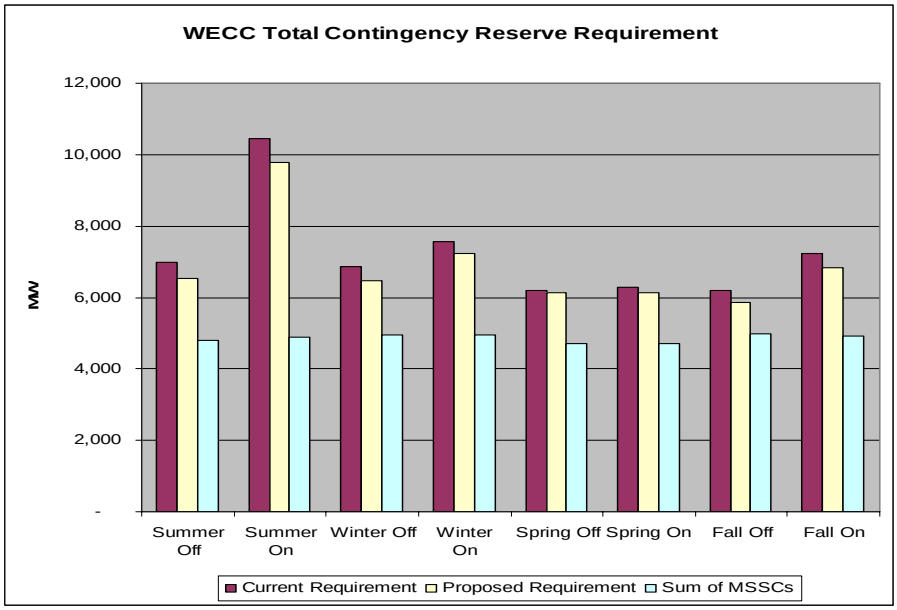
The drafting team used information for eight selected hours from a one-year period for the entities – Reserve Sharing Groups and Balancing Authorities not members of Reserve Sharing Groups – responsible for reserves in the WECC. Using this information, the drafting team estimated the impact of different levels of reserve requirements. Based on our review and discussions, the drafting team is proposing an allocation of reserves based on a combination of generation and load, an approach intended to minimize adverse impacts to any one entity while separating the market products and reliability requirements. Reserve requirements, as proposed, will be will be the greater of (i) three percent (3%) times the Balancing Authority (BA) Load plus three percent (3%) times the BA net generation, or (ii) an entity's Most Severe Single Contingency. Additionally, the requirement to maintain at least half of this total as spinning reserve remains. The estimated impact of these changes to the required level of reserves in the WECC is a reduction of 650 MWs or less, a decrease of approximately 9% at most. Of the eight representative hours of data, only in one of these hours would any entity have seen a minimal increase in its reserve requirement. Additionally, the proposed allocation of reserves results in very little change in the distribution of reserves in the WECC. Note that these numbers only reflect the aggregate requirement for Reserve Sharing Groups and that the impact to individual members of the groups cannot be determined.

The proposed standard accomplishes the following objectives:

- It clearly identifies the responsible entity and creates a measurable requirement by imposing a Contingency Reserve Requirement based upon a BA's generation (3%) and load (3%).
- It maintains WECC Contingency Reserves similar to today's levels (if not higher, since it is currently unknown whether reserves are being held for some transactions). Based on information provided to the drafting team, the proposed requirements would cause an overall decrease of WECC required reserves of approximately 350 MWs (from approximately 10,850 MWs to 10,500 MWs) on high load days. The largest change of required contingency reserves during the hours reviewed indicate a decrease of 650 MW.

- By not carrying all Contingency Reserves based on load or all based on generation, it minimizes overall cost shifting and shares the requirement between generation and load.
- It eliminates ambiguity related to transactions by eliminating their impact on the determination of requirements (with the exception of Contingency Reserve-specific Transactions). It eliminates the need for WECC to define products that are bought and sold between marketing entities, which is important because the responsible BA is not privy to the specifics surrounding each transaction. Each BA will clearly understand the requirement without having to monitor each transaction and determine the impact of each tag to its requirements.
- It removes the uncertainty of whether or not the requirements change based on the type of transmission being used to move energy from one BA to another.
- It helps WECC to better transition to a Frequency Responsive Reserve (FRR) Standard that would not include transactions (with the exception of FRR-specific transactions).
- It eliminates the need to define and agree on the requirements for non-hydro and non-thermal generation. Different regions currently seem to use differing reserve requirements for generation such as wind.
- It retains the NERC standard of Most Severe Single Contingency (MSSC) as the minimum level of Contingency Reserves, as the requirement would become the greater of MSSC or 3 % of net generation plus 3% of load.
- It maintains applicability to BA or Reserve Sharing Group, the same as today.
- It enhances the ability to meet load due to any type of contingency by carrying for both generation and load, because Contingency Reserves may be activated for loss of a transaction due to transmission or generation loss.

Attachment 2



No Significant Change In Amount of Reserves

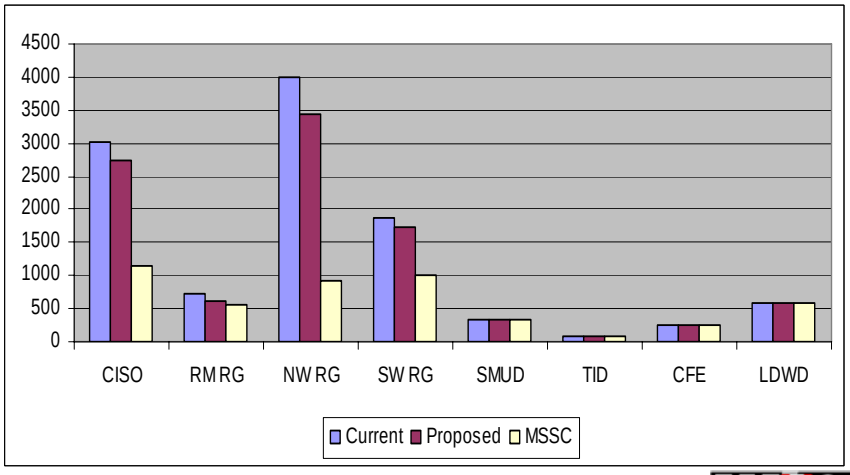


TABLE 1

	6% Load	6% Generation	3%/3%
CISO	3011	2445	2727
RM RG	629	605	617
NW RG	3252	3638	3445
SW RG	1646	1833	1739
TOTAL	8538	8521	8528

Table 1 identifies the level of contingency reserves required of the Responsible Entities whose reserve requirements are based on Load Responsibility. These values are based on the summer peak hour across the Western Interconnection on the peak demand day (July 24, 2006) assessed by the drafting team. Column 1 identifies the levels required based solely on load. Column 2 identifies the levels required based solely on generation. Column 3 identifies the levels based on the proposed methodology.

Those Responsible Entities whose reserve requirements are based on MSSC remain the same and are not included.

BAL-002-WECC-1 Comment summaries.

In September 2007, WECC posted for industry comment the initial draft of the proposed BAL-002-WECC-1 regional reliability standard. The drafting team reviewed and responded to initial comments in November 2007. During the first comment period WECC received comments from 22 entities. WECC supplied NERC with copies of its response to comments on June 11, 2008, as part of its overall filing package for approval of the proposed regional reliability standards. The majority of comments addressed three major topics.

The first topic was the need for additional clarity in the language of the requirements. Of the 22 entities submitting comments, 11 identified the need for clarity. Several provided suggested language as part of their comment submittal. The drafting team implemented many of these proposed modifications to the language of the standard and made additional modifications to provide the requested clarity.

The second major topic identified in the comments was the technical basis for the allocation of contingency reserves with six commenters submitting comments addressing the technical basis of the standard. Three of the six asked what the technical basis for the new standard was and three indicated their belief that there was no technical basis; with one these three indicating the basis should be 6% load. The drafting team responded to these comments, indicating that the basis was that the proposed methodology provided a clear requirement while approximating the same level of contingency reserves throughout the year as the existing approved interim standard. To help communicate and educate the industry regarding the basis for the proposed methodology, WECC sponsored in whole or in part two workshops with a total

attendance of nearly 300 people to discuss the proposed standard and address issues raised by different commenters.

The third major topic was allocation of potential sanctions for non-compliance among the individual Balancing Authorities (BAs) in a Reserve Sharing Group (RSG). Commenters indicated a concern that as a member of an RSG, they may be subject to sanctions for non-compliance when only certain BAs in the RSG had failed to provide their "share" of reserves. The drafting team addressed these concerns by adding clarifying information in Section D.1.4, Additional Compliance Information.

Associated with these three major topics were comments suggesting that WECC did not need to include a requirement for contingency reserves greater than the MSSC required by NERC. The drafting team responded that the majority of entities supported the higher contingency reserve level based on the vote for the initial Tier 1 interim standard. Several commenters also suggested that neither the existing interim Tier 1 standard nor the proposed revised BAL-002-WECC-1 standard were necessary because of WECC's ongoing work related to Frequency Responsive Reserves (FRR). The drafting team indicated that the FRR effort was being worked on in parallel with the proposed BAL-002-WECC-1 standard and that due to time constraints would not be completed in time to address FERC expectations related to the interim Tier 1 standard. WECC did not make any other significant conforming changes to the standard as a result of the comments. Exhibit C of this filing contains the record of development of the proposed reliability standard including the comments received during the first public posting of the proposed standard and the drafting team responses to the comments.

In November 2007, the drafting team posted a second draft of the proposed standard for comment. During the second comment period WECC received comments from nine entities.

WECC supplied NERC with copies of its response to comments on June 11, 2008, as part of its overall filing package for approval of the proposed regional reliability standards. Six commenters specifically indicated support for the revised standard. Five of these six commenters also proposed additional clarifying language for the standard. The drafting team implemented the majority of these clarifying changes in language. One commenter indicated opposition to the proposed methodology, indicating the equal split between load and generation penalized regions with high hydro generation relative to the existing interim standard. The drafting team did not modify the requirements based on this comment, indicating that an equal split between load and generation was preferred. This conclusion was based on the analysis that an equal split between load and generation represents a reasonable balance to moderate shifts in contingency reserve responsibility and costs among the applicable entities. Other than the clarifying language changes, WECC did not make any other significant conforming changes to the standards as a result of the comments. Exhibit C of this filing contains the record of development of the proposed reliability standard including the comments received during the second public posting of the proposed standard and the drafting team responses to the comments.

b. Key Issues

The drafting team identified and addressed one key issue during the development of the proposed BAL-002-WECC-1 regional reliability standard and that was the ambiguity associated with the term "load responsibility" and how to equitably address the concern voiced by those opposed to the potential shift in costs for any revisions to the existing methodology.

For many years, the WECC minimum operating (contingency) reserve requirement had been the greater of, a) the most severe single contingency, or, b) the sum

of 5% of the load responsibility served by hydro generation and 7% of load responsibility served by thermal generation.[1] For most Reserve Sharing Groups in the WECC, because of load size, the 5-7% requirement applies. The term "load responsibility" had been defined as "a control area's (now a Balancing Authority under the NERC Functional Model terminology) firm load demand plus those firm sales minus those firm purchases for which reserve capacity is provided by the supplier." For example, a hydro-only Balancing Authority Area with firm load of 20,000MW would have a minimum operating reserve requirement of 1,000 MW.[2] If this Balancing Authority purchased 1,000 MWs of firm energy and the seller supplied the reserve capacity, the purchasing Balancing Authority's reserve requirement would go down to 950 MWs.

As early as 2002, WECC's Minimum Operating Reliability Criteria Working Group (now the Operating Reliability Criteria Working Group or ORCWG) was pursuing an operating reserve standard that attempted to define market products for the purposes of determination of reserve requirements. This effort failed to garner support of the majority of WECC members due to numerous concerns by the membership. In 2005, the WECC Market Interface Committee (MIC), the WECC Operating Committee (OC) and the ORCWG formed the Operating Reserves Standards Task Force (ORSTF) to deal with the ongoing concerns caused by the ambiguity related to the definition of "Load

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[1] For ease of discussion, details of both standards have been simplified or omitted as not pertinent.

[2] 20,000 x 0.05 = 1,000

Responsibility" and its impact on the determination of the required level of contingency reserves. Questions had been raised about the firmness of certain purchase/sales, especially those under schedule C of Western Systems Power Pool (WSPP) agreement (liquidated damages contracts) – i.e., what purchases/sales are firm, and whether the control area where the transaction is sourced has an obligation, by default, to carry operating reserve for the sale even if it is not a party to the transaction.

The ORSTF proposed a new standard which established minimum operating reserve as the greater of, a) most severe single contingency, or, 2) 5% of load. This proposal was considered by the task force as an improvement to the current standard because it did not leave any ambiguity about which control area is responsible for operating reserves, therefore eliminating the possibility that adequate reserves are not carried. The MIC voted in favor of the standard. WECC's Operating Committee voted against it, arguing in part that the reduction in operating reserves, without any technical justification, could have an adverse reliability impact. With the MIC voting in favor of the proposed revision, the proposal was sent forward to the WECC Board of Directors (Board).

Due to the concerns raised by the WECC OC, the WECC Board asked for data to be gathered to determine the actual impact that would occur to the required level of reserves based on moving from the 5%/7% load responsibility to the 5% of load. In early 2007, the chair of the WECC Reliability Policy Issues Committee sent a request to all entities in the WECC responsible for reserves asking for all the data necessary to determine the impacts. In order to help ensure cooperation from the responsible entities,

the request was limited to 8 hours specifically picked to ensure comparable data from all entities and ensure that a representative critical summer period was covered. Based on the data that was gathered, and continuing concerns based by member of the WECC OC, the WECC Board chose not to act on the proposal.

During this time, the WECC had also moved certain portions of its Reliability Management System (RMS) through the process to make them Regional Reliability Standards, including the section related to Contingency Reserves. These regional standards (referred to as WECC Tier 1 regional reliability standards) were approved by FERC[3] in June of 2007, while ordering certain modifications to each of the standards.

After FERC approved the current BAL-STD-002-0 Operating Reserves standard as an enforceable regional reliability standard, the WECC Board adopted an interpretation of "load responsibility" in September 2007. Under the interpretation, the responsibility for operating reserves is to be specified in e-Tags. This interpretation was implemented with the roll-out of the e-Tag Version 1.8 on December 4th, 2007. Two results of the interpretation were that this interpretation required parties to existing contracts to potentially renegotiate parts of the contracts and diminished the trading liquidity in western energy markets. Marketers and Independent Power Producers also argued that the interpretation disadvantages them because they cannot always purchase reserve products to firm up their sales while marketers associated with Balancing

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[3] *Order Approving Regional Reliability Standards for the Western Interconnection and Directing Modifications*, 119 FERC ¶ 61,260, para 56 (2007) ("FERC Approval Order")

Authority Area operators making system sales can sell on a firm basis. WSPP[4] tried, but failed, to adapt its Schedule C to the new requirement.

As part of the FERC approval of the existing Operating Reserves standard in mid-2007, FERC ordered that WECC address several issues that were raised. One of the issues FERC ordered be addressed was the concern raised by parties related to the ambiguity that was present in the standard. WECC seated a Standard Drafting Team as identified in the *Process for Developing and Approving WECC Standards*. Most of the members of the drafting team had been involved in prior attempts to address the concerns raised over the previous 5 or more years. Therefore, the drafting team recommended that the discussion should focus on attempting to determine a reserve policy that maintained a level of reserves similar to the existing level while removing market transactions from the determination of reserve requirements.

In March 2008, the standard drafting team presented a new proposed standard that would require minimum operating reserve at the greater of, a) the most severe single contingency, or 2) 3% of load plus 3% internal generation.[5] The drafting team made this recommendation based on the fact that the proposed standard maintains an overall level of reserves in WECC comparable to the level under the existing 5-7% requirement and it improves reliability by eliminating any ambiguity in responsibility for operating

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[4] Western Systems Power Pool

[5] For example, a control area with load of 20,000MW and internal generation of 19,000 MW would have a minimum operating reserve requirement of 1140 MW: (20,000 x 0.03 + 19,000x0.03).

reserves. The WECC OC overwhelmingly approved the proposed standard March, 2008, as well as the MIC expressing its overwhelming approval in an advisory vote at the same time. The WECC Board approved the standard in April, 2008 by a vote of 28 in favor, one opposed, and two abstentions. A minority of WECC members continue to object to the proposal on the basis that it does not have a technical justification.[6] Some are also opposed because they believe the proposed standard shifts more operating reserves responsibility and cost to their systems. Opposing comments were received and responded to in both the WECC and NERC comment periods.

A lesser key issue that the drafting team identified was the allocation of penalties for potential violations. Many commenters raised a concern related to assessment of penalties on an RSG when the potential existed for only one or a few of the BAs in the RSG to have caused the violation. Many commenters supported suggested language that the drafting team included in section D.1.4, Additional Compliance Information, of the proposed standard.

WECC did not identify other key issues to the standard as a result of the comments submitted or the minority opinions provided from the Standing Committee vote. Exhibit C of this filing contains the record of development of the proposed reliability standard including the minority opinions expressed from the Operating Committee vote received before the WECC Board of Directors balloted BAL-002-WECC-1.

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[6] The taskforce analyzed 8 hours (one on-peak and one off-peak hour in each of four seasons) and determined that overall WECC operating reserves are about the same under the existing and proposed standards. Opponents argued for more analysis.

Exhibit D

Standard Drafting Team Roster

Drafting Team BALSTD002

FIRST_NAME	LAST_NAME	COMPANY
Jeffrey	Ackerman	Western Area Power Administration (WAUC) (Marketing)
Ali	Amirali	Dynegy, Inc.
John	Anasis	Bonneville Power Administration (Transmission - Primary)
Brenda	Anderson	Bonneville Power Administration (Marketing)
David	Frederick	Salt River Project
Steve	Heidt	Alberta Electric System Operator
Duane	Helderlein	TriState Generation & Transmission Association, Inc. (TSMD)
Robert	Johnson	Public Service Company of Colorado (RMRG Representative)
Steve W.	Johnson	Western Area Power Administration (Transmission)
Kenneth	Wilson	Western Electricity Coordinating Council
David	Lemmons	Public Service Company of Colorado
Clyde	Loutan	California Independent System Operator (Alternate)
John	Marusenko	British Columbia Transmission Corporation
Bart	McManus	Bonneville Power Administration (Transmission - Alternate)
Joe	Medina	Arizona Public Service Company
Tim	Newton	Non-Affiliated Directors (Board Representative)
Philip	Tice	Deseret Generation and Transmission Cooperative
John	Tolo	Tucson Electric Power Company
Gregory	Van Pelt	California Independent System Operator (Primary)
Vickie	VanZandt	Bonneville Power Administration (Board Representative)
Ben	Williams	Pacific Gas and Electric Company