Comment Form

Project 2010-14.1 Balancing Authority Reliability-based Control

BAL-012-1 − Operating Reserve Planning

Please **do not** use this form to submit comments on the proposed BAL-012-1 Operating Reserve Planning standard. Comments must be submitted on the [electronic comment form](https://www.nerc.net/nercsurvey/Survey.aspx?s=b5e2afabc2a3450780766bb468959ba8) by 8 p.m. ET **July 3, 2012**.If you have questions please contact Darrel Richardson (email) or by telephone at (609) 613-1848.

### Background Information:

### This Standard was developed to require a Balancing Authority (BA) to develop and document plans that will detail its appropriate mix of operating reserves. Each plan will detail the specific amounts of operating reserves based on the load characteristics and magnitude, topology, and mix of resources available in the region and to ensure adequate Regulating Reserve (RR), Contingency Reserve (CR) and Frequency Responsive Reserve (FRR) to maintain Balancing Authority load/resource balance in support of interconnection frequency.

### Formal reserve planning has been considered for a long time by the operating entities under NERC going back to Policy 1. NERC Policy 1 required “the minimum reserve requirement for the group, its allocation among members, the permissible mix of Operating Reserve – Spinning and Operating Reserve – Supplemental (Non-spinning) that may be included in Contingency Reserve, and the procedure for applying Contingency Reserve in practice, and the limitations, if any, upon the amount of interruptible load that may be included.” BAL-012-1 takes the planning for operating reserves and divides them into the individual components to provide visibility and accountability.

### Operating reserves are an absolute requirement to maintain a reliable interconnection. It is important that all BAs have long range plans for operating reserves to allow arrangements in terms of contracts, agreements, and testing to meet their long range forecasts. Requiring BAs to develop these operating reserve plans will identify gaps and will require the BAs to resolve these gaps.

**You do not have to answer all questions. Enter All Comments in Simple Text Format.**

*Insert a “check” mark in the appropriate boxes by double-clicking the gray areas.*

**1. The BARC SDT has developed a new term to be used with this standard.**

*Frequency Responsive Reserve:*

An amount of reserve automatically responsive to local frequency deviation during the primary control time frame.

**Do you agree with the proposed definition in this standard? If not, please explain in the comment area below.**

[ ]  Yes

[ ]  No

Comments:

**2. The proposed Purpose Statement for the draft standard is:**

To plan for adequate Regulating Reserve, Contingency Reserve and Frequency Responsive Reserve to maintain Balancing Authority load and resource balance to ensure reliable operation of the Bulk Electric System.

**Do you agree with this purpose statement? If not, please explain in the comment area below.**

[ ]  Yes

[ ]  No

Comments:

**3. The BARC SDT has developed Requirement R1 to ensure that each BA has a documented plan to carry sufficient Regulating Reserves to be able to balance supply and demand within their BA Area as required by BAL-001-1.**

R1. Each Balancing Authority shall, once each calendar year with no more than 15 calendar months between intervals, document its annual plan for Regulating Reserve used to manage the Balancing Authority’s Area Control Error (ACE) addressing each of the following:

1.1. The determination of the Balancing Authority’s regulating margin.

1.2. The types of resources and the portion of their capacity included in the regulating margin.

1.3. The control of supply and demand resources such as generators, controllable Loads, and energy storage devices.

1.4. The incorporation of energy exports and imports by entities within the Balancing Authority Area and with other Balancing Authorities including an assessment of the Balancing Authority’s resources to meet the net ramping requirements associated with these transactions.

1.5. The characteristics: such as capabilities, constraints and volatilities, of the resources operating inside the Balancing Authority Area.

1.6. The characteristics: such as capabilities, constraints and volatilities, of the Load operating inside the Balancing Authority Area.

1.7. The exclusion of any shared portions of regulating resources included in another Balancing Authority’s Regulating, Contingency, or Frequency Responsive Reserve plans.

**Do you agree with this Requirement? If not, please explain in the comment area below.**

[ ]  Yes

[ ]  No

Comments:

**4. The BARC SDT has developed Requirement R2 to ensure that each BA shall have a documented plan to carry sufficient Contingency Reserves to restore the balance of supply and demand within their individual BA Area.**

R2. Each Balancing Authority and Reserve Sharing Group shall, once each calendar year with no more that 15 calendar months between intervals, document its annual plan for Contingency Reserve used to recover from Balancing Contingency Events addressing each of the following:

2.1. The determination of the Balancing Authority’s or Reserve Sharing Group’s Contingency Reserve margin.

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

2.2.1. Balancing Contingency Event

2.2.2. Events associated with Energy Emergency Alert 2, and

2.2.3. Events associated with Energy Emergency Alert 3.

2.3. The control of supply and demand resources such as generators, controllable Loads and energy storage devices.

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

2.5. The characteristics: such as capabilities, constraints and volatilities, of the resources operating inside the Balancing Authority Area.

2.6. The characteristics: such as capabilities, constraints and volatilities, of the Load operating inside the Balancing Authority Area.

2.7. The exclusion of any portion of shared contingency resources included in another Balancing Authority’s Regulating, Contingency, or Frequency Responsive Reserve plans.

2.8. The amount of the Balancing Authority’s or Reserve Sharing Group’s resources that can be reduced in response to a Large Loss of Load Event.

**Do you agree with this Requirement? If not, please explain in the comment area below.**

[ ]  Yes

[ ]  No

Comments:

**5. The BARC SDT has developed Requirement R3 to ensure that each BA shall have a documented plan to carry sufficient Frequency Responsive Reserves to maintain system frequency within limits as defined within BAL-003-1.**

R3. Each Balancing Authority and Frequency Response Sharing Group shall, once each calendar year with no more than 15 calendar months between intervals, document its annual plan for Frequency Responsive Reserve to arrest frequency change during imbalance events addressing each of the following:

3.1. The Frequency Response Obligation (FRO) assigned to the Balancing Authority or Frequency Response Sharing Group.

3.2. The minimum amount and capability of resources required to meet the Balancing Authority’s or Frequency Response Sharing Group’s FRO.

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

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

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

3.6. The exclusion of any portion of shared frequency responsive resources included in another Balancing Authority’s Regulating, Contingency, or Frequency Responsive Reserve plans.

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

**Do you agree with this Requirement? If not, please explain in the comment area below.**

[ ]  Yes

[ ]  No

Comments:

**6. The BARC SDT has developed Requirement R4 to determine whether a Balancing Authority is part of a Reserve Sharing Group. This requirement allows for Reserve Sharing Groups to be formed to meet the requirements of BAL-002-2 and BAL-003-1.**

R4. Each Reserve Sharing Group or Frequency Response Sharing Group shall have a signed agreement among the participating Balancing Authorities addressing each of the following:

4.1. The minimum reserve requirement for the group

4.2. Allocation of reserves among members

4.3. The procedure for activating reserves

4.4. Reporting and record keeping processes

**Do you agree with this Requirement? If not, please explain in the comment area below.**

[ ]  Yes

[ ]  No

Comments:

**7. The BARC SDT has developed Requirement R5 to ensure that a BA reviews and updates its plan as necessary on at least a weekly basis for the next seven calendar days for Regulating, Contingency, and Frequency Responsive Reserves.**

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

**Do you agree with this requirement? If not, please explain in the comment area below.**

[ ]  Yes

[ ]  No

Comments:

**8. The BARC SDT has developed Requirement R6 to require the BA to review reserves in the real-time environment and make the adjustments as needed to account for items such as: loss of planned resources, unexpected changes in loads, forecast errors, unexpected generating unit limitations etc.**

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

**Do you agree with this requirement? If not, please explain in the comment area below.**

[ ]  Yes

[ ]  No

Comments:

**9. The BARC SDT has developed Requirement R7 to eliminate the possibility of “double counting” reserves.**

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

**Do you agree with this requirement? If not, please explain in the comment area below.**

[ ]  Yes

[ ]  No

Comments:

**10. The BARC SDT has developed Measures for the proposed Requirements within this standard. Do you agree with the proposed Measures in this standard? If not, please explain in the comment area.**

[ ]  Yes

[ ]  No

Comments:

**11. The BARC SDT has developed a document “BAL-012-1 Operating Reserve Planning Standard Background Document” which provides information behind the development of the standard. Do you agree that this new document provides sufficient clarity as to the development of the standard? If not, please explain in the comment area.**

[ ]  Yes

[ ]  No

Comments:

**12. If you are aware of any conflicts between the proposed standard and any regulatory function, rule order, tariff, rate schedule, legislative requirement, or agreement please identify the conflict here.**

Comments:

**13. Do you have any other comment on BAL-012-1, not expressed in the questions above, for the BARC SDT?**

Comments:

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