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Group
Progress Energy
jim Eckelkamp
No
If this definition moves forward it should be made clear that UFLS programs are excluded.
No
"Volatilities" is undefined term and too broad of a general term to be included here.
No
"Volatilities" is undefined term and too broad of a general term to be included here.
No
On what basis will entities quantify their frequency responsive reserves. This could change based on many unit configurations and the particular circumstance under which the unit is operating on a given day. It seems like a unit would need to be tested to determine this capability. Generator Operators would need to provide this specification to BAs.
Yes
No
This requirement to perform this analysis and thus keep hourly records on this type of analysis in order to prove compliance is overly burdensome and does not improve the Reliability of the BES. The job of a NERC Certified System Operator is to perform this type of analysis constantly. This requirement should be deleted from the proposed Standard.

No
This requirement seems to duplicate R5 with different language. Combine the requirements to achieve the objective of eliminating double-counting.
There is no proposed restoration period for frequency responsive reserves. Should there be?
Group
ISOs Standards Review Committee
Terry Bilke
Yes
1) We don't have a problem with the definition in concept, but the definition raises questions. Is inertia a quantity of reserve? Is the referenced reserve strictly related to post point C response? 2) The definition refers to "local frequency". The term "local" needs to be clarified. Is this referring to an isolated area's frequency during a separation? Is primary control time frame defined?
No
The purpose is not within the scope of the drafting team's SAR. See our general comments.
No
1) While this is good information for a reference document or for a BA's initial certification, to mandate the creation of a binder that documents all these things and needs to be updated annually goes beyond the drafting team's SAR or Order No. 693. 2) We note that "control" (and therefore regulating reserves) is a function of an entity's various characteristics (load (flat or cyclic), types of resources (fast, slow), weather) and not a universal objective function.
No
1) See our comments for the previous question. 2) Balancing reliability has been well served by the existing performance based standards. While a rational BA plans to keep contingency reserves equal to or great than its MSSC, reserves are sometimes deployed for various balancing problems. Also in the case of a DCS event, contingency reserves are not always deployed for the problem.
No
See our comments for the previous question.
No
1) We agree with the general intent of the requirement. The members of the RSG have an inherent interest in the RSG's performance. It is not necessary for NERC to be overly prescriptive in the terms for an agreement. 2) We do not agree with the term "Frequency Response Sharing Group". First of all, this term is capitalized but it is not defined. Secondly, this term is no different from the Reserve Sharing Group; they differ only in that the Frequency Response Sharing Group is more specific that it shares the frequency response obligation only. 3) We strongly urge the SDT to not introduce new terms unless it's absolutely necessary to provide the detailed clarity that otherwise cannot be accomplished by succinct wording in requirements. Within the scope of this standard, using the term Reserve Sharing Group should be sufficient to convey the intent of the requirements. Adding the new term not only creates confusion in the standard as well as to the Functional Model, but also begs the questions on what specific reserves other than that required for frequency response does the RSG share, and creates an unnecessary need for registration.
No
While it is a good operating practice to do a multi-day load forecast and unit commitment, the requirement nor the measure gives no guidance on what is done with the information, other than keep the data for audits. What is the value of a once a week look ahead when weather forecasts change daily? Finally, since the drafting team has not defined how to measure the different types of reserves, it is unclear what value the plan provides.
No
It is unclear how compliance to R6 is achieved. R6 appears to be an hourly assessment and perhaps even a commodity standard, whereby if reserves are below a threshold, non-compliance is assessed. The requirement and measure appear to say you need to create a table of hourly values. How does

this make a material contribution to reliability, particularly when there is no guidance on how the values are created or if they are double or triple counted?

No

It is not clear how R7 is evaluated or how it is measured or really what the requirement is intended to accomplish.

No

The first four measures appear to say that if you have a binder that discusses the items in the requirements, you meet the standard. The remaining measures can be met by creating tables with checkmarks or values within them. We're not sure how this helps reliability.

No

It is not clear how the document is intended to be used, particularly once the standard is approved. The team has gone beyond the directive in Order No. 693, which related to a "contingency reserve policy". The background document goes into regulating and frequency responsive reserves and appears to set a commodity standard. A policy is not a standard.

1) The original SAR for this standard was to clean up the BAL standards and address 693 directives. BAL-002-0 really had only 2 material requirements (get back from all reportable events in 15 minutes and replenish contingency reserves in 90 minutes). The rest of the requirements were administrative and explanatory text caught up in the V0 effort. The SAR intended for these to be cleaned out. This standard goes beyond the existing BAL-002 or the 693 directives and now has nearly 40 requirements and sub requirements. 2) It appears that this standard is attempting to address the Order No. 693 directive to develop a "continent wide contingency reserve policy". A policy is not the same thing as a standard. Also, the directive solely mentioned contingency reserves. An alternative approach to meeting the directive would be to develop a set of common definitions of the different types of reserves and that BAs provide projected (next day) and real time data to their Reliability Coordinators (RCs). RCs could then use this information to support the EEA process. This would make a material contribution to reliability. 3) The SRC would note that the CPS and DCS requirements are the performance requirements, reserves are a means of complying with those objectives. 4) It is time to rethink how we are presently creating standards and move and eliminate prescriptive "How to" requirements such as reserves. These requirements penalize an entity for not complying with the reliability objective and then penalize the entity for not having the "reserves". In addition, the SDT's reserve proposal would in effect eliminate DR and Smart Grid concepts that would switch loads in or out on an "as needed" basis since such assets would not necessarily be specifically set aside as "reserves".

Individual

Anthony Jablonski

ReliabilityFirst

No

ReliabilityFirst offers the following comment for consideration: 1. Requirement R1 a. Requirement R1, Parts 1.1 and 1.2 uses the term regulating margin. RFC seeks further clarity on the meaning of term "regulating margin" since it is not a NERC defined term. Does the SDT intend to have this term be synonymous with "Regulating Reserve" margin? If so, these parts should be modified accordingly.

No

ReliabilityFirst offers the following comment for consideration: 1. Requirement R3 a. RFC seeks further clarity regarding the term "Frequency Response Obligation" within Requirement R3, Parts 3.1 and 3.1. This term is capitalized though it is not an actual NERC defined term. RFC recommends defining this term and proposing it as an addition to the NERC Glossary of terms. b. Requirement R3 introduces a new entity named "Frequency Response Sharing Group". The Frequency Response Sharing Group is not a registered entity and is not defined in the NERC Functional Model. Furthermore, the Frequency Response Sharing Group is not listed in the Applicability section. If it is the intent of the SDT to retain this newly formed entity, the SDT will need to go through the

proper/formal channels to properly define it (e.g. functional model will need to be revised, added to the list of registered entities, etc.)
No
ReliabilityFirst offers the following comment for consideration: 1. Requirement R4 a. Requirement R4 introduces a new entity named "Frequency Response Sharing Group". The Frequency Response Sharing Group is not a registered entity and is not defined in the NERC Functional Model. Furthermore, the Frequency Response Sharing Group is not listed in the Applicability section. If it is the intent of the SDT to retain this newly formed entity, the SDT will need to go through the proper/formal channels to properly define it (e.g. functional model will need to be revised, added to the list of registered entities, etc.) b. RFC request further clarity regarding which "reserves" are being referenced in Part 4.1 and 4.2. Is the term "reserves" referring to Regulating, Contingency and Frequency Reserves? If so, these terms should be added to Parts 4.1 and 4.2.
No
ReliabilityFirst offers the following comment for consideration: 1. Requirement R5 a. RFC recommends removing the phrase "to ensure sufficient reserves to support reliable operation of the Bulk Electric System" from Requirement R5. This phrase is ambiguous and does not add any value to the associated requirements.
No
ReliabilityFirst offers the following comment for consideration: 1. Requirement R6 a. RFC recommends removing the phrase "to ensure sufficient reserves to support reliable operation of the Bulk Electric System" from Requirement R6. This phrase is ambiguous and does not add any value to the associated requirements.
No
ReliabilityFirst offers the following comment for consideration: 1. Requirement R7 a. RFC recommends removing the phrase "to ensure sufficient reserves to support reliable operation of the Bulk Electric System" from Requirement R7. This phrase is ambiguous and does not add any value to the associated requirements.
Individual
Greg Travis
Idaho Power Company
Yes
Yes, but the definition includes the term "primary control time frame" which I don't believe is defined anywhere and may cause trouble.
Yes
Yes
Yes
Yes
I agree with the concept but I don't believe the definition of FRO and FRM has been completed and that concerns me.
Yes
No
No, this seems excessive. We already make daily data submissions to the RRO containing our 72 hr forecast for Load, Unit commitment, and NSI.
Yes

Yes, if real-time monitoring is sufficient.
No
No, this requirement is confusing.
Yes
No
No, it provides very little actual information.
No
I agree with the intent of this standard, but I'm concerned about additional excessive documentation requirements.
Individual
Michael Falvo
Independent Electricity System Operator
We don't have a problem with the definition, but its creation is beyond the scope of the SAR.
No
While we do not believe frequency response reserve is in the original SARs of the two projects which are now combined, we are unable to access the original SARs to confirm this understanding. At any rate, we believe frequency control, and the reserve requirement and any other requirements for frequency control should be addressed by the BAL-003 project. Having reserve to respond to frequency is only one of the measures, there are other measures that may be required to fully address frequency response requirements. To stipulate having sufficient frequency responsive reserve in this standard gives the wrong impression that frequency response is fully addressed.
This requirement is not needed. Documenting a plan to include specific resource types and characteristics does not contribute to reliability. The key result to be achieved is to have regulating reserve to meet the ACE requirements which are covered by BAL-001 and BAL-002. How to meet the ACE requirements should not be stipulated in a standard. We suggest to remove this requirement.
Similar comments as in Q3, above. We do not see a need to have a document indicating specific resource types and characteristics to meet the contingency reserve requirements. The key result to be achieved is to have sufficient Contingency Reserve to recover from Balancing Contingency Events. How to meet the contingency reserve requirement should not be stipulated in a standard. We suggest to remove this requirement.
Same comment as in Q3 and Q4 above regarding the need for having a requirement for documenting the type of resource available or planned to be used to meet frequency response requirements. Further, we suggest any inclusion of reserve requirements to meet frequency response standard be coordinated with the project on BAL-003 – Frequency Response.
No
We agree with the intent of the requirement, but do not agree with the term "Frequency Response Sharing Group". First of all, this term is capitalized but it is not defined. Secondly, this term is no different from the Reserve Sharing Group; they differ only in that the Frequency Response Sharing Group is more specific that it shares the frequency response obligation only. We strongly urge the SDT to not introduce new terms unless it's absolutely necessary to provide the detailed clarity that otherwise cannot be accomplished by succinct wording in requirements. Within the scope of this standard, using the term Reserve Sharing Group should be sufficient to convey the intent of the requirements. Adding the new term not only creates confusion in the standard as well as to the Functional Model, but also begs the questions on what specific reserves other than that required for frequency response does the RSG share, and creates an unnecessary need for registration.
No
We agree with the intent of this requirement, but as worded this requirement implies that an operational plan needs to be developed first such that it can be reviewed weekly. However, the wording to require the development of an operational plan is absent. We therefore suggest to reword this requirement as follows: R5. Each Balancing Authority shall develop a weekly operational plan(s) that covers for the next seven days the Regulating Reserve, Contingency Reserve and Frequency Responsive Reserve to ensure sufficient reserves to support reliable operation of the Bulk Electric System.

No
It is unclear how compliance to R6 is achieved. R6 appears to be an hourly assessment and perhaps even a commodity standard, whereby if reserves are below a threshold, non-compliance is assessed. We believe the intent of this requirement is to assess reserve adequacy, and take remedial actions is found inadequate. We therefore suggest revising this requirement to the following: R6. Each Balancing Authority shall assess, on at least an hourly basis, if 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, and take remedial actions to provide the required amount of reserve if any of the available reserves are found to be inadequate.
No
The type of planned reserve and the timing for completing this assessment are not explicit. When does this assessment need to be completed and is this assessment to be performed for the operational plans or for real-time operations? These need to be clearly spelled out.
We have concerns and objections to a number of requirements in this standard, hence we are unable to support the Measures as presented.
We do not have any major concerns with the Background Document. However, we question the need to include discussion on Frequency Response in the Document in view of the parallel development of BAL-003. There is no mention of the coordination between this project and the BAL-003 project.
1. Frequency Responsive Reserve is a proposed defined term but Frequency Responsive by itself is not a defined term. There are places in the standard that apply Frequency Responsive to describe certain word (e.g. Frequency Responsive resources in Part 3.6, which is confusing. We suggest the SDT to review such applications, and replace them with the appropriate wording to drive home the intent of the requirements. 2. Some of the requirements proposed in this standard are contingent on the approval of BAL-003, which is under development. We suggest the SDT to closely coordinate with the BAL-003 SDT, and consider merging the two projects or synchronize the balloting and approval of the two sets of standard to avoid unintended consequence.
Individual
Michael Goggin
American Wind Energy Association
Yes
Yes
No
This seems to be a very open-ended standard that does not provide any guidance or limits on what the appropriate quantity and mix of regulating reserve resources would be. The standard should offer more guidance about what are appropriate mixes and quantities of operating reserves.
Yes
Yes
Individual
Thad Ness

American Electric Power
No
There does not appear to be a definition for “primary control time frame” that is within the new term definition for Frequency Responsive Reserve. AEP recommends one be established to prevent any misconception of time period for Measure of Performance. What is the meaning of the phrase “local frequency deviation”? Should it actually be “Interconnect frequency deviation”, instead?
Yes
Yes
Yes
No
There is no specific applicability provided within the proposed Standard for the term Frequency Response Sharing Group. Is FRSG implied to be a subset of RSG or is it a new entity in the NERC functional model? Will a BA’s Frequency Reserve Obligation come from other proposed BAL Standard rewrites, such as BAL-003?
No
There is no specific applicability provided within the proposed Standard for the term Frequency Response Sharing Group. Is FRSG implied to be a subset of RSG or is it a new entity in the NERC functional model? Will a BA’s Frequency Reserve Obligation come from other proposed BAL Standard rewrites, such as BAL-003?
No
How will the Frequency Response Reserve be calculated 7 days out? The triggering events occur in real-time, and at 7 days out, the information is not very reliable compared to the information available in real-time. In addition, if an Entity is non-compliant with R6, would it be non-compliant with R5 also? AEP recommends that SDT remove R5 and focus solely on R6 (hourly assessment).
No
How far into the future does the hourly assessment need to occur? Is it for the next hourly interval or for the next 24 hours?
Yes
Yes
Yes
There needs to be an understanding and appreciation of the increasing number of newly-registered market participant Generator Operators that are not from the traditional, vertically integrated utility environment, and their impact on a Balancing Authority’s ability to balance. We encourage the SDT to think of opportunities to develop appropriate requirements in order to ensure that Generator Operators can help support the objectives of balancing load and generation in a reliable manner. The background information on balancing sometimes refers back to the former “NERC Policy”, at a time when the preceding “Control Area” model applicability had different operating characteristics than today’s more granular functional model entity in terms of Balancing Authority, Generator Operator, Load Serving Entity (Demand Side Load Management), Market Operator, etc. The stated compliance applicability within the proposed Standard fails to address inherent impact of these other functional entities and variables on a Balancing Authority’s sole ability to comply with these requirements in today’s actual practice. Balancing Authorities that are part of regional energy and/or ancillary service markets may have unique challenges with respect to deployment of Balancing Authority resources. For example, the failure of following market deployment may only involve a financial market charge, however the results could have significant impact on Balancing Authority obligations.
Individual





The requirements for regulation and contingency reserve are met for the most part by existing operating procedures, reserve monitors, and business practices. Compliance will generate additional paperwork. Frequency responsive reserve requirements will be substantial. Balancing Authorities will need to know which resources provide frequency response, determine how much in aggregate is needed, include those constraints in its day-ahead commitment, monitor the actual value in real-time, and take corrective action in real-time when becoming deficient in frequency responsive reserve. Other than the reason that it meets a FERC directive, the usefulness of the Standard is questionable. It will draw greater attention to the frequency response issue, but opinions throughout the industry vary as to whether that attention is needed.
Individual
John Tolo
Tucson Electric Power
No
The term local should be removed. Primary control time frame is not defined.
No
Regulating, Contingency and Frequency Responsive Reserves all come from the same unloaded and synchronized generation/load sources. There are already existing control performance Standards to ensure reliable operation of the BES.
No
The current BAL-001 covers control performance. An annual plan for Regulating Reserves is of little value to a BA. Regulating Reserves is a concern for hour you are in and maybe the next hour or two at the most. If a BA does not follow its "Annual Plan" to meet a current control performance issue, BAs could be found non-compliant for not following their plan.
No
The western interconnection already has such a contingency reserves plan. Compliance is measured through BAL-002.
No
Frequency response will be addressed in the new BAL-003 Standard currently being drafted.
Yes
No
Current Control Performance Standards are adequate. Added paperwork for no real gain.
No
Already done in the western Interconnection. Current Control Performance Standards are adequate. Added paperwork for no real gain.
No
Already done in the western Interconnection. Current Control Performance Standards are adequate. Added paperwork for no real gain.
No
Disagree with the need for the Standard
No
This Standard goes beyond the original Standards Authorization Request (SAR) that directed the drafting team to consider the directives points from FERC Order 693.
no
Individual
Kathleen Goodman
ISO New England Inc.
No
The definition Frequency Responsive Reserve raises several questions. Is inertia a quantity of

reserve? Is the referenced reserve strictly related to post point C response? Requirements 1-4 are documentation-driven and offer no benefit to reliability; they are not results-based and provide simply paperwork exercises. Further, requiring BAs, who may not own or operate resources, to have access to a product for which they have no control is unacceptable. The requirements need to be written for the resources to provide such capabilities to the BA who, in turn, similar to reserves and DCS recovery, will dispatch to a reliability threshold accordingly. We encourage the SDT to alter this proposed standard to be more performance-based, such as "Each BA shall operate to have Contingency reserves equal the MSSC at all times except following an event for which it has deployed said Contingency reserves."; "Each BA shall replenish its Contingency reserves ... following an event for which it has deployed said reserves."

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No

This is a documentation exercise and not needed to support, promote or enhance reliability. This is not results-based.

No

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Contingency reserves equal the MSSC at all times except following an event for which it has deployed said Contingency reserves."; "Each BA shall replenish its Contingency reserves ... following an event for which it has deployed said reserves."

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Given the rampant need in the industry for Requests for Interpretations, Rapid Revisions, and CANs, we believe that future Standards need to be written so that they can "stand alone" upon scrutiny.

Group

Arizona Public Service Company

Janet Smith, Regulatory Affairs Supervisor

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

No conflicts

No comments

Group

Southern Company

Antonio Grayson

Yes
Southern is concerned with how the changes to BAL-003 are being coordinated with the new standard. We suggest that the two SDT's coordinate with each other prior to submitting future revisions of this standard.
Yes
No
First, FERC invited NERC, the Regional Entities and other interested entities (in paragraph 81 of the FERC Oder of FFT) to review the Reliability Standards and propose to remove unnecessary or redundant requirements. This requirement is purely documentation based in the fact that it requires Responsible Entities to implement, publish or post a document. Southern suggests that this requirement provides little protection to the BPS and should not be approved. At a minimum, Southern suggest that the proposed requirement is too prescriptive. Each entity should be allowed to develop their own plan using their own resources to meet the requirements of CPS1 and BAAL; therefore, we propose that all sub requirements in R1 (1.1 through 1.7) be deleted.
No
First, FERC invited NERC, the Regional Entities and other interested entities (in paragraph 81 of the FERC Oder of FFT) to review the Reliability Standards and propose to remove unnecessary or redundant requirements. This requirement is purely documentation based in the fact that it requires Responsible Entities to implement, publish or post a document. Southern suggests that this requirement provides little protection to the BPS and should not be approved. At a minimum, Southern suggest that each entity develop their own plan using their own resources to meet requirements consistent with BAL-002; therefore, we propose that all sub requirements in R2 (2.1 through 2.8) be deleted.
No
First, FERC invited NERC, the Regional Entities and other interested entities (in paragraph 81 of the FERC Oder of FFT) to review the Reliability Standards and propose to remove unnecessary or redundant requirements. This requirement is purely documentation based in the fact that it requires Responsible Entities to implement, publish or post a document. Southern suggests that this requirement provides little protection to the BPS and should not be approved. At a minimum, Southern suggest that each entity develop their own plan using their own resources to meet requirements consistent with BAL-003-1; therefore, we propose that all sub requirements in R3 (3.1 through 3.7) be deleted.
No
We question the reliability reason for Requirement 5.
No
We question the reliability reason for requirement 8 and suggest that it be deleted.
No
It is unclear what the evaluation period is for R7?
No
See comments regarding the requirements within the standard.
Southern suggests that BAL-001, BAL-002 and proposed BAL-003 already addresses the compliance requirements that are re-stated in BAL-012-0.
Individual
Chris Mattson
Tacoma Power
Yes
Tacoma Power agrees with the definition and understands that Frequency Responsive Reserve is a replacement for the previous requirement called spinning reserve.

No
Tacoma Power generally agrees with the proposed Purpose Statement. However, the use of the term "Balancing Authority" should be clarified. Tacoma Power suggests that the term be replaced with "Reserve Sharing Group or a Balancing Authority not in a Reserve Sharing Group." The purpose of this standard should only apply to an individual Balancing Authority when the Balancing Authority is not a member of a Reserve Sharing Group.
No
Tacoma Power generally does not agree with the proposed Requirement. The use of the term "Balancing Authority" should be clarified. Tacoma Power suggests that the term be replaced with "Reserve Sharing Group or a Balancing Authority not in a Reserve Sharing Group." This Requirement should allow for Reserve Sharing Groups and only apply to an individual Balancing Authority when the Balancing Authority is not a member of a Reserve Sharing Group. Additionally, the Requirement may be counter-productive. The configuration of a Reserve Sharing Group's or Balancing Authority's Regulating Reserve on its units and how it is calculated can vary considerably over time. Compliance with sufficient Regulating Reserves is already apparent in the entity's Control Performance Standards scores. It is not necessary to further bind an entity to documentation of this Requirement that may prevent undocumented, yet prudent actions by the entity. A specific recommendation, item 1.2 should be revised by eliminating the undefined term "regulating margin" with the defined term "Regulating Reserve."
No
Tacoma Power generally does not agree with the proposed Requirement. The use of the term "Balancing Authority" should be clarified. Tacoma Power suggests that the term be replaced with "Reserve Sharing Group or a Balancing Authority not in a Reserve Sharing Group." This Requirement should allow for Reserve Sharing Groups and only apply to an individual Balancing Authority when the Balancing Authority is not a member of a Reserve Sharing Group. Additionally, the Requirement may be counter-productive. The configuration of a Reserve Sharing Group's or Balancing Authority's Contingency Reserve on its units and how it is calculated can vary considerably over time. Compliance with sufficient Contingency Reserves is already apparent in the entity's compliance with BAL-002. It is not necessary to further bind an entity to documentation of this Requirement that may prevent undocumented, yet prudent actions by the entity. A specific recommendation, item 2.1 should be revised by replacing "margin" with "obligation."
No
Tacoma Power generally does not agree with the proposed Requirement. The use of the term "Balancing Authority" should be clarified. Tacoma Power suggests that the term be replaced with "Reserve Sharing Group or a Balancing Authority not in a Reserve Sharing Group." This Requirement should allow for Reserve Sharing Groups and only apply to an individual Balancing Authority when the Balancing Authority is not a member of a Reserve Sharing Group. Additionally, the Requirement may be counter-productive. The configuration of a Reserve Sharing Group's or Balancing Authority's Frequency Responsive Reserve on its units, how it is calculated, and contracts terms can vary considerably over time. Compliance with sufficient reserves is already apparent in the entity's compliance with BAL-002. It is not necessary to further bind an entity to documentation of this Requirement that may prevent undocumented, yet prudent actions by the entity.
Yes
Tacoma Power generally supports the Requirement.
No
Tacoma Power does not agree with this Requirement. The current processes do not require a forward look at 7 days of reserves. Instead, that forward look and breakdown of resources is prepared in preparation of Day Ahead trading. Any detailed breakdown of resources beyond the Day Ahead trading is unnecessary at this time.
Yes
While Tacoma Power does agree with the intent of this Requirement, the phrase, "... to ensure reliable operation of the Bulk Electric System," is beyond the control of any single Balancing Authority. Therefore, we suggest striking the phrase.
Yes
While Tacoma Power does agree with the intent of this Requirement, the phrase, "... to ensure reliable

operation of the Bulk Electric System," is beyond the control of any single Balancing Authority. Therefore, we suggest striking the phrase.
No
Tacoma Power generally does not agree with the proposed Requirements and Measures. The use of the term "Balancing Authority" should be clarified. Tacoma Power suggests that the term be replaced with "Reserve Sharing Group or a Balancing Authority not in a Reserve Sharing Group." This Requirement should allow for Reserve Sharing Groups and only apply to an individual Balancing Authority when the Balancing Authority is not a member of a Reserve Sharing Group. Additionally, the Requirements and Measures in M1 through M5 may be counter-productive. The configuration of a Reserve Sharing Group's or Balancing Authority's reserve on its units, how it is calculated, and contracts terms can vary considerably over time. Compliance with sufficient reserves is already apparent in the entity's compliance with BAL-001, BAL-002, and the economics of the system. It is not necessary to further bind an entity to documentation of this Requirement that may prevent undocumented, yet prudent actions by the entity.
Yes
Tacoma Power generally does agree with the background document. However, the use of the term "Balancing Authority" should be clarified. Tacoma Power suggests that the term be replaced with "Reserve Sharing Group or a Balancing Authority not in a Reserve Sharing Group." This standard should allow for Reserve Sharing Groups and only apply to an individual Balancing Authority when the Balancing Authority is not a member of a Reserve Sharing Group. Additionally, the standard may be counter-productive when requirements documented plans. The configuration of a Reserve Sharing Group's or Balancing Authority's Frequency Responsive Reserve on its units, how it is calculated, and contracts terms can vary considerably over time. Compliance with sufficient reserves is already apparent in the entity's compliance with BAL-001, BAL-002, and the economics of the system. It is not necessary to further bind an entity to documentation of this standard that may prevent undocumented, yet prudent actions by the entity.
Tacoma Power does not have any comments at this time.
Tacoma Power does not have any additional comments at this time. Thank you for consideration of our comments.
Group
LG&E and KU Services
Brent Ingebrigtsen
Yes
How are the changes to BAL-003 being coordinated with this new standard?
No
LG&E and KU Services suggest deletion of all the sub requirements (1.1 through 1.7) which will allow each entity to develop its own plan to meet CPS1 and BAAL requirements consistent with its particular resources.
No
LG&E and KU Services suggest the deletion of all sub requirements (2.1 through 2.8) and allow each entity to develop its own plan to meet requirements consistent with BAL-002.
No
LG&E and KU Services suggest deleting all the sub requirements (3.1 through 3.7) and allow each entity to develop its own plan to meet requirements consistent with BAL-003-1.
No
What is the rationale for a weekly update? A next date look-ahead seems reasonable but brings up documentation retention issues. For example, maintaining a minimum amount of Frequency Responsive Reserves (equal to or greater than the FRO) may be problematic during turndown periods.
No
LG&E and KU Services suggest the deletion of this requirement.
Yes

Note: the parenthetical expression should be double "accounting".
This Standard is somewhat redundant with BAL-001, BAL-002, proposed BAL-003 in that an entity's compliance with these standards would inherently require implementation of the plans as outlined in this draft standard.
Group
SPP Standards Review Group
Robert Rhodes
Yes
Yes
Yes
Yes
No
The definition of Frequency Response Sharing Group is contained in the BAL-003-1 standard which is currently under development. What happens if that standard or definition is not approved by the industry or FERC? What is the quantitative link between Frequency Responsive Reserve and Frequency Response Obligation? Is FRR expected to be greater than or equal to FRO? If so, why not require that in the standard?
Yes
Yes
No
We are concerned with the somewhat ambiguous use of the term 'assess' in the requirement. What exactly is a compliant assessment? The Measure goes on to mention assumptions associated with the assessments. What assumptions will be acceptable to an auditor? We understand the need to ensure that adequate reserves – Regulating, Contingency and Frequency Responsive – are available in the real-time environment but we are concerned about how we will demonstrate compliance with the requirement as it is worded.
No
The wording used in the requirement is cumbersome at best. The use of forecasted demand when referring to Regulating, Contingency and Frequency Responsive Reserves is confusing. We think the SDT means that reserves, in all three categories, are required to be able to handle variations both above and below forecasted levels. If this is not the intent, the SDT needs to rewrite the requirement such that the true intent is evident. If that is the intent of the SDT, then it needs to clarify the requirement to eliminate any confusion. Additionally, we have some question about designating Contingency Reserves in the downward direction. This may be related to BAL-013 and the loss of large loads. Whereas for generation contingencies, reserves are needed to fill in for the capacity lost, when load is lost there is an excess of generation. The proper action to take at that time is to reduce generation. It appears to us that what is needed is the ability to ramp generation down in this situation yet the standard doesn't mention maintaining ramp capability.
No
Measure 5 needs to be revised to make it more closely parallel what is stated in Requirement 5. We suggest replacing '...as needed..' with '...at least weekly...'. Please refer to our comment in Question 8 regarding Measure 6. To clarify what specific elements are intended in Measure 7, we suggest inserting the phrase '...as contained in Requirements R1, R2 and R3,...' following the word 'elements'.

No
The document only contains an introductory paragraph, the requirements themselves and another brief paragraph consisting of only a few lines of background and rationale material. The document contains no helpful information that provides any further clarity to the standard.
Not aware of any conflicts.
As proposed the approved standard would take effect 12 months following approval by the appropriate regulatory bodies. There is a considerable amount of work that needs to be done for the BAs to prepare for the compliance burden this standard will place on them. While assessments of reserve capability are currently being performed for regulating and contingency reserves, there is very little being done in this area for frequency responsive reserves. Additionally, once the standard is approved, BAs will have to maintain documentation on all the assessments that are conducted. This effort, coupled with work required by other standards activity in addition to the day-to-day efforts to keep the lights on, puts quite a burden on the BAs. We suggest that the standard not become effective until 18 months following regulatory approval.
Individual
Brett Holland
KCP&L
The amount of data needed to show compliance with R6 seems to be overly burdensome. The combination of proving hourly assessments were performed and the data retention period specified in section D - 1.2 could make for a large amount of retained data.
Individual
Don Jones
Texas Reliability Entity
No
A definition is needed for the "primary control time frame", (e.g., from the start of the frequency decline to the point of frequency stabilization, typically 16-18 seconds). We suggest rewording as follows: "The amount of reserve that provides Primary Frequency Response for system Frequency Deviations". There is an existing definition for "Contingency Reserve" which may need to be modified (refers to DCS standard and RRO).
Yes
We agree with the purpose as long as the actual implementation of the plans are covered by other standards and meet the intent of the SDT (implementation of Regulation Reserve plan is covered by BAL-001-1 (not explicitly stated), implementation of Contingency Reserve plan is covered by BAL-002-2, and implementation of Frequency Responsive Reserve plan is covered by BAL-003-1 (not explicitly stated), etc.). That coverage should be explicitly stated in a mapping document if that is the overall intent of these BAL changes.
Yes
Should there be references to Reserve Sharing Group?
Yes
Should there be references to Reserve Sharing Group within the sub-requirements?



Yes
We agree with the intent of the requirement. Can resources used for Contingency Reserve also be used to provide Frequency Responsive Reserve? Or is it the intent of the SDT that the two are mutually exclusive? ERCOT Protocols currently require resources that are providing responsive reserve service (used as contingency reserve) to also be frequency responsive. Is Frequency Response Sharing Group defined?
Yes
Is this intended to imply exclusive counting of the reserves in each category (see question 5 comment)?
Group
ACES Power Marketing Standards Collaborators
Jason Marshall
No
We believe it is premature to develop any requirements or definitions surrounding frequency response until Project 2007-12 Frequency Response is complete. The Project 2007-12 drafting team is still working on how they are going to implement frequency response requirements. If the Project 2010-14.1 drafting team continues to believe a requirement regarding frequency responsive reserves is necessary, they should hand this responsibility off to that drafting team.
No
We believe this standard is administrative, is not technically justified, and is contrary to the recent FFT order. The standard focuses purely on having a plan to for regulating, contingency and frequency responsive reserves that will subject responsibility entities to what will likely be countless documentation violations that will provide no reliability benefit. This is precisely the situation that FFT order is trying to avoid by offering NERC the opportunity to eliminate requirements that provide no reliability benefit and are primarily documentation driven. Furthermore, there is no demonstrated reliability need. Lack of an operating reserve policy or even lack of operating reserves has not been cited to be the cause of any significant system reliability events nor has NERC even identified any violations of BAL-002. Establishment of operating reserves such as regulating and contingency reserves is such a basic responsibility of the BA, it is unnecessary to have any requirement to plan for them. If a BA fails to plan to have contingency reserves, it will show up as a violation of BAL-002 R1. If it fails to have regulating reserves, CPS1 will be violated or even potentially BAAL if load is ramping. Auditors regularly already ask for the BA to provide the evidence of the actual reserve levels. Thus, the existing standard would appear to be sufficient. We understand that the drafting team is attempting to address a FERC directive to establish a continent wide reserve policy from Order 693. However, requiring each BA to have its own policy is not a continent wide policy. Furthermore, FERC has repeatedly indicated that NERC may use alternative proposals to address directives as long as they are equally efficient and effective. Given that the FFT order has come out long after the directive from Order 693, we think this is a very appropriate place to use an equally efficient and effective alternative. In particular, we think a whitepaper would be a more appropriate way to address this issue to avoid creating a new set of documentation violations that this proposed standard will surely cause.
No
Please see our comments in Q2.
No
Please see our comments in question 2.
No

Please see our comments in question 2.
No
This requirement is unnecessary. First, the registration process already identifies whether an RSG exists and which BAs participate. Thus, the reason the SDT gives for writing the requirement is already addressed. Second, no BA will join an RSG without an executed contract because financial obligations are involved. Industry does not need another administrative requirement to compel an executed contract that is already required for other reasons. Third, the registration process usually requires documentation of the agreement.
No
Given that there have been no citations of operating reserve deficiencies causing system events and that there have been no violations due to insufficient operating reserves, we simply do not see how adding this requirement is technically justified. It serves to expand the time period for which a responsible entity has to demonstrate its contingency reserve. While a weekly basis is a fairly typical operational planning period, it might not be appropriate for all entities. It also requires the reserves that have to be specifically demonstrated by including regulating reserve. Given that CPS1 cannot be satisfied without adequate regulating reserve and BAAL puts a limit on ACE, we see no reliability benefit to include a requirement that compels the need to demonstrate explicitly the regulating reserve amount. For the reasons discussed in question 1, we do not think frequency responsive reserve should be included. Furthermore, this is essentially a unit commitment requirement and we do not see how it benefits reliability. BAs have always performed unit commitment and will continue to do so.
No
Given that there have been no citation of operating reserve deficiencies causing system events and that there have been no violations due to insufficient operating reserves, we simply do not see how adding this requirement is technically justified. It essentially just expands the existing BAL-002-1 R1 requirement to include regulating and frequency responsive reserves. Given that CPS1 cannot be satisfied without adequate regulating reserve and BAAL puts a limit on ACE, we see no reliability benefit to include the need to demonstrate explicitly the regulating reserve amount. For these and additional reasons discussed question 1, we do not think frequency responsive reserve should be included.
No
While we have no issues with the attempt to avoid double counting, we see no need for this requirement. BAs already have strong controls in place to avoid double counting reserves. Given that there have been virtually no violations of BAL-002 contingency reserve requirements and that there are no system events caused by double counting of reserves, there simply is no technical justification. As a result, it is essentially an administrative requirement.
No
Please see our comments in other questions.
No
This document provides no technical justification for the development of this standard. It does not explain why these requirements are so important to become enforceable particularly given that there have been no violations or events caused by a lack of operating reserve. Reliability is being served adequately with the existing BAL-002. Only a few refinements are necessary There are two specific issues. On page 8 in the first paragraph, there is a statement that says R4 allows reserve sharing groups to be formed. Reserve sharing groups can be formed today without this requirement. Thus, it seems to be an incorrect statement. Also on page 8 in the third paragraph, there is a contradiction. It states R5 compels the BA to perform it operating reserves plan review as necessary or on an at least weekly basis. The requirement actually only requires a weekly review.
We disagree with the data retention requirements of up to four years. It is not consistent with NERC Rules of Procedure. Section 3.1.4.2 of Appendix 4C – Compliance Monitoring and Enforcement Program states that the compliance audit will cover the period from the day after the last compliance audit to the end date of the current compliance audit. The “current year, plus three calendar years” exceeds the compliance audit period of three years for the BA.
Group

Bonneville Power Administration
Chris Higgins
No
The definition listed above for Frequency Responsive Reserve is different than what is in the standard. Please clarify which is correct. BPA believes that "locally sensed" should be removed from the definition in the standard. BPA asks the drafting team to clarify primary control time frame as it is not defined.
No
BPA does not agree with the Purpose Statement, BPA suggests changing "ensure" to "plan for": To plan for adequate Regulating Reserve, Contingency Reserve and Frequency Responsive Reserve to maintain Balancing Authority load and resource balance to plan for reliable operation of the Bulk Electric System.
No
BPA suggests that the annual planning requirement be reworded to make clear that deviations from the annual plan are not violations, because operating plans must be adjusted to reflect updated planning information and actual operating conditions. It has been shown that when FERC/NERC requires a plan, they expect it to be followed. If not followed, then it is a compliance violation.
No
BPA suggests that the annual planning requirement be reworded to make clear that deviations from the annual plan are not violations, because operating plans must be adjusted to reflect updated planning information and actual operating conditions. It has been shown that when FERC/NERC requires a plan, they expect it to be followed. If not followed, then it is a compliance violation. BPA suggests that the drafting team remove planning for Energy Emergency Alerts included in 2.2.2 and 2.2.3 from the standard. EEA2 and EEA3 are declared when a plan does not work and reserves have run out.
No
BPA suggests that the annual planning requirement be reworded to make clear that deviations from the annual plan are not violations, because operating plans must be adjusted to reflect updated planning information and actual operating conditions. It has been shown that when FERC/NERC requires a plan, they expect it to be followed. If not followed, then it is a compliance violation. BPA requests clarification on how the drafting team anticipates BAs to separately account for frequency responsive reserves. BPA believes that the formation of Frequency Reserve Sharing Groups may create a more clustered frequency response. This may not benefit reliability, because it has been shown in the West that spreading out frequency response is better for the system.
No
BPA believes that Standards should not dictate the signing of agreements. BPA believes that the formation of Frequency Reserve Sharing Groups may create a more clustered frequency response. This may not benefit reliability, because it has been shown in the West that spreading out frequency response is better for the system.
No
BPA suggests that the weekly planning requirement be reworded to make clear that deviations from updated plans are not violations, because operating plans must be adjusted to reflect updated planning information and actual operating conditions. It has been shown that when FERC/NERC requires a plan, they expect it to be followed. If not followed, then it is a compliance violation. In addition, BPA suggests that the drafting team remove the "at least" qualifier from the requirement because this could lead to inconsistent audit application.
No
This requirement is not necessary because performance based BAL standards already govern reliable operation of the Bulk Electric System. It has been shown that when FERC/NERC requires a plan, they expect it to be followed. If not followed, then it is a compliance violation. The phrase 'at least' should be removed from the requirement because it could lead to inconsistent audit application.
No
There is no time frame referenced and BPA believes that the requirement needs additional clarity. If the goal is to eliminate double counting, then BPA recommends simplifying to, "no double counting"

or "separately account for". BPA requests clarification on how the drafting team anticipates BAs to separately account for frequency responsive reserves.

No

BPA does not agree with the proposed Measures in the standard as BPA does not agree with the requirements. In M5, the "as needed" review should be replaced with "weekly" review wording, consistent with our suggestion for R5.

No

BPA believes this standard is going far beyond the SAR directives to the drafting team (listed below) and that the directives are not related to planning reserves. The original Standards Authorization Request (SAR) directed the drafting team to consider the following directives points from FERC Order 693. • Include a continent-wide Contingency Reserve policy, which should include uniform elements (definitions and requirements). • Include a requirement that explicitly provides that Demand Side Management (DSM) may be used as a resource for Contingency Reserves. • Recognizes the loss of Transmission, as well as generation; thereby providing a realistic simulation of possible events that might affect the Contingency Reserves.

There is potential for double jeopardy with the performance based standards. At times there could be a problem where your plan doesn't meet real-time conditions. This standard could lead to a situation forcing the choice to follow your plan or meet DCS. BPA recommends that 2.2.2 and 2.2.3 be removed. At this point if there were reserves, they would have been deployed. EEA2 and EEA3 are declared when the plan doesn't work and reserves run out.

BPA believes that the Frequency Responsive Reserves standard should not be referenced as it has not been approved by FERC.

Individual

RoLynda Shumpert

South Carolina Electric and Gas

Yes

Yes

No

South Carolina Electric and Gas supports the comments submitted by the SERC OC Standards Review Group.

No

No

Yes

No

South Carolina Electric and Gas supports the comments submitted by the SERC OC Standards Review Group.

No

South Carolina Electric and Gas supports the comments submitted by the SERC OC Standards Review Group.

Yes

Yes

Yes

No

South Carolina Electric and Gas supports the comments submitted by the SERC OC Standards Review Group.
Group
Associated Electric Cooperative, Inc., JRO00088
David Dockery
Yes
Yes
No
Changes to BAL-012-1 R1: Remove: "addressing each of the following:" Remove: parts 1.1 through 1.7, moving them into the guidance document Rationale: As currently drafted, this itemized list should certainly be considered, but it seems unwise to burden the industry with having to prove null sets or overdone documentation to demonstrate that they "addressed" each and every item and the underlying characteristics. As currently drafted, these items are overly prescriptive toward entities' resource plans to meet CPS1 and BAAL requirements.
No
Changes to BAL-012-1 R2: Remove: "addressing each of the following:" Remove: parts 2.1 through 2.8, moving them into the guidance document Rationale: As currently drafted, this itemized list should certainly be considered, but it seems unwise to burden the industry with having to prove null sets or overdone documentation to demonstrate that they "addressed" each and every item and the underlying characteristics. As drafted, these items are overly prescriptive toward entities' resource plans to meet BAAL-002 requirements.
No
Changes to BAL-012-1 R3: Remove: "addressing each of the following:" Remove: parts 3.1 through 3.7, moving them into the guidance document Rationale: As currently drafted, this itemized list should certainly be considered, but it seems unwise to burden the industry with having to prove null sets or overdone documentation to demonstrate that they "addressed" each and every item and the underlying characteristics. As drafted, these items are overly prescriptive toward entities' resource plans to meet BAAL-003-1 requirements.
No
Change BAL-012-0 R4 as follows: Replace: "addressing each" With: "addressing, at a minimum, each" Rationale: While AECI believes this itemized level of transparency to be necessary within group participants who collectively share these responsibilities, we do not believe this to be the closed set of items for collective governance. The suggested change seeks to avoid groups having to create two separate documents, one for NERC compliance, and then the superset they develop for completely defining their relationship of governance.
No
AECI believes that dictating a 7-day near-term planning horizon, to be overly prescriptive one-size-fits-all, demanding unnecessary documentation for smaller BAs. While we agree it to be a great idea and probably normative for medium and large BAs, some may benefit from shorter horizons or just as much from longer near-term horizons. If this requirement is not removed, we believe it should simply dictate a near-term planning horizon, with guidance worded around 7-days or what is truly appropriate for each entity to become necessarily aware of surrounding conditions that would require greater than next-hour reaction-planning.
No
BAAL-012-1 R6 Changes : Remove R6 entirely. Rationale: This requirement, while again a good idea, places entities into double-jeopardy when related BAAL standards are violated. AECI there sees no value in its existence, because it is inherent to meeting the BAAL standards that address real-time performance.
No
See SERC comment for R7.
No

M1 through M4 are fine. M5 would need to go if R5 goes, and M6 and M7 should be deleted along with R6 and R7.

Yes

No

AECI believes much of this particular standard, R5-R7, to be overly prescriptive as to how entities are to achieve BAL-001, BAL-002, and proposed BAL-003. While offering great guidance, they instead risk double-jeopardy for entities that are found in non-compliance of those other BAL standards. Either R5-R7 should be removed, or they provide sufficient reliability assurances such that BAL-001, BAL-002, and BAL-003 will be unnecessary and can be removed.

Individual

Joe Tarantino

Sacrametno Municipal Utility District

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Individual

Karen Webb

City of Tallahassee

No

The proposed definition introduces the "primary control time frame", which is not previously defined and may not be known to non-generation personnel. Definitions should stand independently to ensure everyone involved with performance and compliance monitoring understands what is expected when using a term.

Yes

The City of Tallahassee (TAL) believes this purpose statement conveys the intent of the standard. However, TAL is not certain as to the purpose/distinction of this proposed standard. If the desired outcome is to control frequency, the proposed BAL-002-1, R2, adequately captures that performance. The requirements to adequately review on a day-ahead or longer basis, or to analyze on an hourly

basis are moot if we are already measured on a rolling 30-minute performance standard.
No
TAL is unclear as to the distinction/purpose of this requirement, as the background document states that the intent of the requirement is 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".
No
1. TAL is not certain as to the distinction/purpose of this requirement when an entity is compliant with BAL-002-1. 2. R2.8 contemplates the Large Loss of Load Event, which has previously not been included in performance standards. TAL seeks clarification on the inclusion of this in assessing the reliability of the bulk electric system.
No
1. Frequency Response Sharing Group is not a defined term. 2. Frequency Response Obligation is not a defined term. 3. TAL is unclear as to the distinction/purpose of this requirement for an entity compliance with BAL-003-1.
No
The sub-requirements do not address the Frequency Response Sharing Group requirements.
No
TAL is unclear as to the distinction/purpose of this requirement for an entity compliant with BAL-001, -002, and -003.
No
TAL is unclear as to the distinction/purpose of this requirement for an entity compliant with BAL-001, -002, and -003. Real-time operators are performing this function constantly. Documenting an assessment every hour is unnecessary for an entity compliant with the other standards, and would be unduly burdensome.
No
TAL is unsure how R7 differs from R6 without a specified periodicity. While TAL agrees that two different entities should not use the same reserves, TAL does not agree that if a single entity "double counts" a portion of a unit response capability for Contingency Reserves and Frequency Response Reserves that it increases risk to the Bulk Electric System. The Contingency Reserves are only used for 15 minutes and Regulating Reserves can be Frequency Responsive Reserves. TAL is concerned that this standard introduces double jeopardy for any violations of BAL-001, -002, or -003.
No
TAL is not clear as to what constitutes an acceptable assessment for M6. Would an entity be in compliance with this measure with an alarm that warns of insufficient reserves? Would an entity need three individual alarms, one each for Regulating Reserves, Contingency Reserves, and Frequency Response Reserves? This requirement would add to the task-loading of real-time operators.
No
TAL is not clear that the background document adequately explains the need for this standard. The document does not explain how some of the required elements should be acquired, e.g. R3.4, where an entity would need to measure the Frequency Responsive capabilities of load operating inside the Balancing Area or Frequency Response Sharing Group. Operating as an island to measure this would be problematic and a violation of several other standards. This document does not provide sufficient guidance to eliminate subjectivity by audit teams.
Data Retention: TAL suggests a clarification to the requirement language that data retention is the longer of either (a) the data retention period defined in the standard or (b) the period since the last audit. As the proposed language reads, the need to retain evidence since the previous audit (if longer than the defined retention period) is addressed in a separate area from the defined retention period.
Group
MISO Standards Collaborators
Marie Knox
No

MISO acknowledges that the definition is appropriate for its intent, but respectfully reiterates that the BAL-012-1 standard and its creation of the proposed defined term is beyond the scope of the original SAR.
No
MISO respectfully reiterates its general comments that the BAL-012-1 standard and its purpose as defined therein is beyond the scope of the original SAR and the Commission's directives in Order 693.
No
MISO respectfully reiterates its general comments that the BAL-012-1 standard and its R1 as defined therein is beyond the scope of the original SAR, the Order 693 directives from the Commission, and the original content of BAL-002.
No
MISO respectfully reiterates its general comments that the BAL-012-1 standard and its R2 as defined therein is beyond the scope of the original SAR, the Order 693 directives from the Commission, and the original content of BAL-002.
No
MISO respectfully reiterates its general comments that the BAL-012-1 standard and its R3 as defined therein is beyond the scope of the original SAR, the Order 693 directives from the Commission, and the original content of BAL-002.
No
MISO respectfully reiterates its general comments that the BAL-012-1 standard and its R4 as defined therein is beyond the scope of the original SAR, which was intended to identify and remove or revise the non-substantive, administrative requirements in BAL-002.
No
This requirement is redundant to requirements contained in TOP-002. Specifically, Requirement 1 requires Balancing Authorities to develop operations plans which include the characteristics outlined in Requirements 5, 7, and 8, which characteristics directly address the intent of R5 of Bal-012-1. Further, MISO notes the comprehensiveness of TOP-002, which not only requires the same or similar studies and reviews, but also requires coordination and communication of results, which is much more beneficial to the reliability of the BES than the limited, isolated scope of R5 of BAL-012-1.
No
This requirement is redundant to requirements contained in IRO-005-3. Specifically, Requirement 1 requires monitoring of a number of characteristics of the BES including System Real and Reactive Reserves, Capacity and Energy Adequacy Conditions, and Contingency Events by Reliability Coordinators. Although Requirement 1 of IRO-005-3a is not applicable to Balancing Authorities, MISO respectfully suggests that the dual monitoring of these parameters could result in ambiguity regarding delineation of responsibilities that could, ultimately, be detrimental to the reliability of the BES.
No
MISO respectfully reiterates its comments to No. 8 above. Additionally, it notes that no time horizon or other indication of the type, frequency, or timing of the proposed evaluation is indicated. Without this information, this requirement is likely to be interpreted in a number of variable ways by different Registered Entities, which would significantly diminish any benefit to reliability of the BES intended by this requirement.
No
MISO respectfully suggests that the measures proposed underscore the non-substantive, administrative nature of the requirements proposed in BAL-012-1 and, further, do not provide any guidance beyond the plain language of the requirements and are, in fact, almost a restatement thereof.
No
The background document supports MISO's comments that BAL-012-1 goes beyond the original SAR, the Commission directives in Order 693, and the original approved content of BAL-002. More specifically, the standard goes beyond the directive which the Commission indicated should "include procedures to determine the appropriate mix of operating reserves, spinning and non-spinning, as well as requirements pertaining to the specific amounts of operating reserves based on the load characteristics and magnitude, topology, and mix of resources available in the region." The standard



as proposed prescribes significant amounts of detailed documentation and reviews, which were not described in or otherwise indicated by the original SAR, the Commission directives in Order 693, and the original approved content of BAL-002.

Individual

Laura Lee

Duke Energy

No

There needs to be a clearer understanding of terms "local frequency deviation" and "primary control time frame".

Yes

No

The examples listed in 1.5 and 1.6 could create confusion in what is required for compliance. Revise these as follows: Operating characteristics, environmental constraints and other regulatory, reliability and contractual constrains of the resources (or Load) operating inside the Balancing Authority Area that the Balancing Authority considers.

No

The examples listed in 2.5 and 2.6 could create confusion in what is required for compliance. Revise these as follows: Operating characteristics, environmental constraints and other regulatory, reliability and contractual constrains of the resources (or Load) operating inside the Balancing Authority Area that the Balancing Authority or Reserve Sharing Group considers. It is not clear what events 2.2.2 and 2.2.3 refer to. Change the parts of 2.2 to: 2.2.1 Balancing Contingency Event in normal operations, 2.2.2 Balancing Contingency Event associated with Energy Emergency Alert 2, and 2.2.3 Balancing Contingency Event associated with Energy Emergency Alert 3.

No

Delete "during imbalance events" – this is undefined and unnecessary.

No

4.4 is too vague – the requirement needs to specify what reporting and record keeping this is referring to. Additionally, the purpose of the requirement stated in the summary does not seem to be fulfilled by the requirement.

No

While we agree that this is a good practice, the evidence necessary to prove compliance is unduly burdensome. This requirement appears to be a means to an end, the desired end result being to have adequate reserves to respond to an event. There are already requirements that sufficiently specify the desired result.

No

While we agree that this is a good practice, the evidence necessary to prove compliance is unduly burdensome. This requirement appears to be a means to an end, the desired end result being to have adequate reserves to respond to an event. There are already requirements that sufficiently specify the desired result.

No

This appears to prohibit a resource from being counted as Frequency Responsive Reserves if it is being counted as Regulating Reserves, even if it is physically capable of doing so. This should be revised to require the Balancing Authority to define how this is accounted for in its annual plan.

No

For the requirements that we have proposed changes to, the measures would need to be adjusted accordingly.

There is concern that there will be double jeopardy in that a failure to meet CPS requirements, for

example, would also be judged as a failure to have an adequate reserve plan. There are no VRFs, VSLs, or Time Horizons for any of the requirements.
Individual
Alice Ireland
Xcel Energy
No
The definition uses the term "primary control time frame" without defining that period. This makes the definition unacceptable. The definition also does not make it clear what is meant by local frequency.
No
This standard is a documentation standard, not a performance standard. NERC standards must provide the performance metrics and let the industry experts determine what they need to do to meet that requirement. Do not try to tell the industry how and what they need to do as it is likely different for each entity and will limit innovation. Xcel Energy does not support a standard that tells industry participants how to perform rather than what level of performance is required.
No
See comments above.
No
See comments above.
No
The term FRO is being defined by a different drafting team. Until that process moves forward, this requirement can't be implemented.
No
While we do not support this requirement, to the extent the drafting team believes it is needed, it should be in the same standard that addresses RSG performance.
No
See comments above.
No
This requirement tells a system operator that the verification of reserves at least hourly is more important than anything else that might be going on at that time. This is unreasonable. NERC should not be trying to tell the industry how it must operate. This is likely to cause more problems than it addresses. Xcel Energy recommends to the extent that the drafting team believes this concept should go forward, a requirement to have this information readily available to the operator would be reasonable without telling the operator how to do the job.
No
It is unclear how the requirement eliminates the possibility of double counting.
No
Refer to our comments related to the purpose statement.
No
Refer to our comment related to the purpose statement.
Group
Western Electricity Coordinating Council
Steve Rueckert
No
The following are not clear in the definition: 1. Local frequency deviation. The term local should be removed 2. Primary control time frame. this timeframe is not defined
No
The requirements in this standard are documentation related not performance based. The performance based standards that meet these reserve requirements are covered in BAL-001. BAL-002

and BAL-003.
No
The term FRO is not a defined term and is under development under a separate project. If this standard, gets approved prior to other standard then this requirement cannot be implemented or be met. The requirement R3 is applicable to "Frequency Response Sharing Group" yet under the "applicability section " of the standard it identifies only BA and RSG.
No
Requirement R4 is applicable to "Frequency Response Sharing Group" yet under the "applicability section "of the standard it identifies only BA and RSG. Standard should not prescribe requirements of a signed agreement.
No
It's not clear what aggregate margin above and below forecasted demand means. Please clarify what "above and below" means. Not sure how this addresses "double counting"

## 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](#) 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 than 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: This requirement should also state that reserves requirements must be reviewed, in addition to the amount of reserves in those weekly assessments. This would ensure that the MSSC



is re-evaluated based upon the planned outages of the upcoming week. This comment references the one we made in BAL-002.

**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: The wording in the requirement may lead to a lot of interpretation. The aggregated amount of reserves is something that is not clear since the aggregation technique is not defined. Is this simply the sum of the reserve requirements, or something else?

The reason for preventing double-counting is also questionable. There are requirements to measure the performance of BA's with regards with the three reserves products. Regulating reserve is measured through BAL-002 (CPS1, BAAL). Contingency reserve activation performance is measured through BAL-001 (DCS) and frequency responsive reserve through the new BAL-003 under development (FRM vs FRO). Adding this requirement will lead BA's to carry more reserves than what is needed based on the individual requirements and adds unnecessary complexity to the dispatching.

**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:

## 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](#) 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 than 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:

'Balancing Contingency Event' is a proposed definition in Bal-002. If BAL-002 is changed or not approved, there won't be a definition of this term. Would suggest adding the definition to this standard to ensure they are together regardless of what happens with BAL-002. Once approved, it will become part of the glossary and there won't be any repetition.

'Energy Emergency' is a defined term, but Alert 2 and Alert 3 are not defined. Need clarity on what these are.

**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:

'Frequency Response Sharing Group' is not defined and is not listed in the applicability section, yet has requirements in R3, R4, M3, M4 and Compliance 1.2. Data Retention.

**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:

'Frequency Response Sharing Group' is not defined and is not listed in the applicability section, yet has requirements in R3, R4, M3, M4 and Compliance 1.2. Data Retention.

**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:

In both R6 and R7 the objective of the evaluation is given as 'ensure reliable operation of the Bulk Electric System'. It does not seem appropriate to require the entity to evaluate their plans to the standard of ensuring the reliability of the entire BES. Also, R5 refers only to the 'support' of the reliable operation of the BES, is this supposed to imply some lesser standard than 'ensure' the reliable operation of the BES?

**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:

In both R6 and R7 the objective of the evaluation is given as 'ensure reliable operation of the Bulk Electric System'. It does not seem appropriate to require the entity to evaluate their plans to the standard of ensuring the reliability of the entire BES. Also, R5 refers only to the 'support' of the reliable operation of the BES, is this supposed to imply some lesser standard than 'ensure' the reliable operation of the BES?



**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:

In both R6 and R7 the objective of the evaluation is given as ‘ensure reliable operation of the Bulk Electric System’. It does not seem appropriate to require the entity to evaluate their plans to the standard of ensuring the reliability of the entire BES. Also, R5 refers only to the ‘support’ of the reliable operation of the BES, is this supposed to imply some lesser standard than ‘ensure’ the reliable operation of the BES?

Also, there is no direction given with respect to when or how often this evaluation needs to occur.

**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:

‘Frequency Response Sharing Group’ is not defined and is not listed in the applicability section, yet has requirements in M3 and M4.

M5 – does not seem to match up with the language of R5. R5 requires weekly review of its operational plan for the upcoming week and doesn’t talk about the development of the plan or updating it. M5 requires a dated plan and evidence that it was reviewed and updated.

M7 – delete semi color in first line.

**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:

See comments related to 5. Effective Date provided in the BAL-001 comment form.

In all the requirements, VRF and Time Horizon are blank. Will these be filled in later?

Compliance 1.2 – insert ‘previous’ before three calendar years.

## Comment Form

### Project 2010-14.1 Balancing Authority Reliability-based Control BAL-012-1 – Operating Reserve Planning

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#### **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: **How are the changes to BAL-003 being coordinated with this new standard?**

**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: **We suggest deletion of all the sub requirements (1.1 through 1.7) which will allow each entity to develop its own plan to meet CPS1 and BAAL requirements consistent with its particular resources.**

**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 than 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: **We suggest the deletion of all sub requirements (2.1 through 2.8) and allow each entity to develop its own plan to meet requirements consistent with BAL-002.**

**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: **We suggest deleting all the sub requirements (3.1 through 3.7) and allow each entity to develop its own plan to meet requirements consistent with BAL-003-1.**

**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: **What is the rationale for a weekly update? A next date look-ahead seems reasonable but brings up documentation retention issues. For example, maintaining a minimum amount of Frequency Responsive Reserves (equal to or greater than the FRO) may be problematic during turndown periods.**

**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: **We suggest the deletion of this requirement.**

**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: **Note: the parenthetical expression should be double “accounting”.**

**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: **No**

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

Comments: **This Standard is somewhat redundant with BAL-001, BAL-002, proposed BAL-003 in that an entity's' compliance with these standards would inherently require implementation of the plans as outlined in this draft standard.**

*“The comments expressed herein represent a consensus of the views of the above named members of the SERC OC Standards Review group only and should not be construed as the position of SERC Reliability Corporation, its board or its officers.”*

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