

**Individual or group. (34 Responses)**

**Name (18 Responses)**

**Organization (18 Responses)**

**Group Name (16 Responses)**

**Lead Contact (16 Responses)**

**IF YOU WISH TO EXPRESS SUPPORT FOR ANOTHER ENTITY'S COMMENTS WITHOUT ENTERING ANY ADDITIONAL COMMENTS, YOU MAY DO SO HERE. (10 Responses)**

**Comments (34 Responses)**

**Question 1 (0 Responses)**

**Question 1 Comments (24 Responses)**

Group
Northeast Power Coordinating Council
Guy Zito
<p>There are concerns with the changes proposed to BAL-002 that were made without demonstrated need, and not proposed in the SAR nor directed in Order No. 693. The NERC Resources Subcommittee performed analysis when DCS was developed and found that the average time to recover from large unit trips was 15 minutes. Recent analysis for BAL-003 has found that all four Interconnections recover from large unit trips in about 5 minutes. Performance in recent years has been noticeably improved. This Standard should not be used to define terms not directly needed in the Standard (e.g. Reporting ACE). We disagree with the new definition of Contingency Reserve as it provides no guidance on how to objectively measure reserves. Regarding R1, there is no reasoning provided for the complexity added to the calculation. The current approach is well understood in the industry. The SAR does not discuss changing the measurement approach. In particular, DCS performance has always be calculated and reported on a quarterly basis. There have been no reliability issues that point to the need for making the DCS an event-by-event standard as is now proposed. The original Policy 1 noted many reasons for operating reserves. BAs whose ACE is extremely negative for other reasons would be reluctant to deploy their contingency reserves because the timer would start ticking on the "available hours" clock. The second unintended consequence for those BAs that don't withhold contingency reserves for non-DCS events is that they will be obliged to increase the amount of contingencies they cover so they always have more reserves than their MSSC. This will increase costs to customers without a demonstrated need. DCS performance in North America has been stellar compared to what was considered adequate performance under Policy 1. The Standard provides no clear definition on how contingency reserves are measured. Does it include all generation headroom available in 10 minutes? In 15 minutes? What about resources that are also providing AGC? Does their instantaneous headroom count? Are load resources available in 10 or 15 minutes? What about demand response resources that aren't directly measured? Finally, are the hours referenced in the Standard clock hours, any contiguous 60 minute periods, or the total minutes in a quarter divided by 60? The SAR directed cleaning up the VO clutter in the Standard and address Order No. 693 directives. The only two true requirements in the VO standard are to recover from reportable events in 15 minutes and replenish reserves 90 minutes thereafter. These should be the basis of this standard. We recommend the two core requirements be: R1. Except when experiencing an Energy Emergency Alert Level 2 or Level 3, a Balancing Authority or Reserve Sharing Group experiencing a Reportable Event less than or equal to its MSSC shall activate sufficient Contingency Reserve to comply with the DCS. R2. Except when experiencing an Energy Emergency Alert Level 2 or Level 3, a Balancing Authority or Reserve Sharing Group experiencing a Reportable Event less than or equal to its MSSC shall replenish its reserves within 105 minutes of the onset of the Reportable Event. The sizes of the Reportable Events for the Interconnections are acceptable. The reporting form should be similar to what is used today. The form should include the basis of the MSSC and the date of the last review of MSSC. We believe it is acceptable to put something in the Compliance Section of the Standard that notes if the same event greater than MSSC occurs within 3 years, the BA should be held to the DCS for that contingency. We agree with the current direction of the Drafting Team to address the directive for the "continent-wide contingency reserve policy" is via the "Reserve Guidelines" document being developed. The document should provide guidance on how the BA assesses the necessary amount of reserves as well as provide simple definitions of the different types of reserves. Once these terms are defined and commented on by the Industry in the document, NERC should add these types of reserves to "Attachment 1-TOP-005 Electric System Reliability Data" with the expectation in the policy that Reliability Coordinators collect this information in real time for use in the EEA process. The policy could ask the BAs to initially review and assess their needs and report this to their RC. This would directly contribute to reliability by providing objective information to BAs and RCs in managing Energy Emergency Alerts. The format of the Requirements must be made to conform to NERC standards development rules, and a timeline should be provided for showing what is needed to have adequate contingency reserves. We also disagree with the new definition of Pre-Reporting Contingency Event ACE Value. The 16 second averaging requirement adds complexity to the calculation with no justification.</p>
Group
Arizona Public Service Company
Janet Smith, Regulatory Affairs Supervisor
<ul style="list-style-type: none"><li>• AZPS Comments: The wording of the qualifying contingency events that affect the disturbance ACE recovery value in R1 is hard to understand.</li><li>• AZPS Proposed solution: offer an example(s) of overlapping contingency events and how they affect the target ACE recovery value.</li></ul>
Individual
Nazra Gladu

Manitoba Hydro
Manitoba Hydro is in support of this revised standard.
Group
Salt River Project
Bob Steiger
The draft standard introduces several magnitudes of complexity when compared with the existing standard. We understand and appreciate the reasoning behind accommodating preceding and subsequent contingency events in a measured recovery. However, our BA could not grasp the concept of how compliance would be determined until they downloaded and used the "CR Form 1" spreadsheet. This was the only way they could comprehend how the preceding and subsequent events would be calculated into final compliance determination. The wording of a requirement should be clear and stand-alone. We favor the definition of the Reporting ACE and the designation of the ATEC ACE for the WECC. We are concerned that the complexity will ultimately result in many NO votes simply because of the difficulty to understand the compliance concept. I suggest the DT simplify the requirement language.
Group
Tennessee Valley Authority
Dennis Chastain
Agree
SERC OC Review Group
Individual
John Bee
Exelon and its' affiliates
While we appreciate the work done since previous versions of the project, and recognize the clarity gained by eliminating reference to Balancing Contingency Events with a future impact to ACE, we feel that additional confusion has been inserted by the sub-points of R1. Given that the recovery requirement is a relatively short time-frame, the ability to quickly determine the recovery obligation is critical to the ability to ensure compliance. We appreciate that the drafting team is attempting to accommodate the notion that a prior Balancing Contingency Event might impact any future events, but the methodology given for determining the recovery threshold is overly complex, and represents a significant barrier to a system operator's ability to interpret the requirement in Real Time and respond appropriately. Additionally, the definition provided for Reportable Balancing Contingency Event inserts confusion as to which value is to be used for determining MSSC. The definition does not clarify whether the responsible entity is to independently elect whether to use: A) Its individual MSSC value or the Interconnection values provided B) The Interconnection values provided The definition should make clear which value is to be used, and under which circumstances (for example, a "lesser of" statement would be useful, here, if that is the intent)
Individual
Thomas Foltz
American Electric Power
AEP questions if this new version is an improvement over the current BAL-002-1. There are many more terms that are cross referenced and it will become a risk that operators will struggle to tie all the pieces together. This proposed standard, while it might be more flexible in some regards, might cause unnecessary confusion. AEP recommends changing the definition for Balancing Contingency Event to the following: "Any single event described below, or any series of such otherwise single events, with each separated from the next by less than one minute and, that causes a significant change to the responsible entity's ACE caused by 1. Sudden loss of supply (generation or import), not including controlled shutdown of a unit. 2. Restoration of a load" Reserve Sharing Group: the addition of the "at the time of measurement" is now stated twice in the same sentence. We believe one of the references should be removed. R1.1 and R1.2 should be either footnotes or bullet points, but not sub requirements. R2 is very difficult to follow with all of the exceptions. Furthermore, it would be better to start with the expected obligation and have the exceptions to the rule follow in the sentence or maybe in a footnote. We do support some amount of a "grace period" during these events, however, what is the reliability basis for the 5 hour duration?
Individual
Michael Falvo
Independent Electricity System Operator
a. Definition of Balancing Contingency Event: The proposed definition addresses loss of resource, but there is no specific mention of loss of load which could also cause a change of sudden change to ACE requiring recovery as its loss of resource counterpart. Please add this condition so that ACE recovery also applies for sudden loss of load, or elaborate why loss of load is not considered important to correcting ACE or reliability. Also, we believe the words "and interchange" should be inserted in Item B so that it will read: "imbalance between generation, load and interchange on the Interconnection..." b. Definition of Reportable Balancing Event: We propose to change the word "or" to "and" in the part: Reportable Balancing Contingency Event: Any Balancing Contingency Event resulting in a loss of MW output greater than or equal to the lesser

amount of 80 percent of the Most Severe Single Contingency or the amount listed below for the applicable Interconnection..." since we are addressing the greater value of A (loss of MW output greater than or equal to the lesser amount of 80 percent of the Most Severe Single Contingency) and B (the amount listed below for the applicable Interconnection). c. We do not understand the basis of including the definition of Reporting ACE in this standard. The definition has received industry approval and adopted by the BoT as part of the BAL-001-2 standard. There does not appear to be any rationale provided in either the Comment Report or the background document or in this Comment Form. Also, this term is not referenced/used in this standard. d. We commented during the last posting that we didn't see the need to define the term Reserve Sharing Group Reporting ACE. This term is not referenced or used in the standard at all. On the other hand, if including RSG in the Applicability Section is intended to make it a Responsible Entity to simplify drafting of the requirements (by starting off with "Responsible Entity"), then the RSG should comply with a Reserve Sharing Group ACE – a term which has not been defined but which we would refer it to be the algebraic sum of the ACE among the participating BAs. The SDT in its response to our comment indicates that "the use of the term Responsible Entity requires the inclusion of this definition for Reserve Sharing Groups. The SDT eliminated Requirement R5.1 and R5.2 from the existing standard and moved the language to this definition." While we agree that the intent of R5.1 and R5.2 of the existing BAL-002-1 standard have been moved to this standard, we do not believe the important granularity has been retained. R1 requires the Responsible Entity experiencing a Reportable Balancing Contingency Event shall, within the Contingency Event Recovery Period, return its ACE to at least: ... ACE is currently defined as: "The instantaneous difference between a Balancing Authority's net actual and scheduled interchange, taking into account the effects of Frequency Bias, correction for meter error, and Automatic Time Error Correction (ATEC), if operating in the ATEC mode. ATEC is only applicable to Balancing Authorities in the Western Interconnection." We thus interpret "its ACE" in Requirement R1 to mean a BA's ACE unless the RSG is explicitly mentioned in the requirement. If this is to be interpreted as the Responsible Entity's ACE which also include the RSG as it is included in the Applicability Section, then a term Reserve Sharing Group ACE will need to be defined, or some explicit language be added to R1 to achieve the purpose that the SDT suggests in its response to our comments. In brief, the term Reserve Sharing Group Reporting ACE is not needed as it is not referenced in the standard and serves no purpose. To include the obligation for REG to meet group ACE, a term Reserve Sharing Group ACE needs to be defined instead. e. In general, we do not agree with the use of this standard to define terms not directly needed in the standard (e.g. Reporting ACE). f. We do not see the need for R2 when there is already a requirement to meet the DCS. While the trigger for meeting DCS is the occurrence of a Reportable Balancing Contingency Event which is linked to the Most Severe Single Contingency may not be at the MSSC level, the requirement to carry a prescribed amount of reserve is unnecessary for so long as the Responsible Entity meets the DCS requirement. R2 as proposed presents the "how", not the "what". g. This standard needs only to have very simple and plain language to require each BA and those engage in RSG to: • Meet DCS requirement within 15minutes • Replenish reserve within a certain time period to prepare for meeting DCS cause by another event • (If necessary) Report the occurrence of reportable events

Individual

Oliver Burke

Entergy Services, Inc.

Agree

SERC OC Review Group

Individual

Alice Ireland

Xcel Energy

Xcel Energy is voting no on the proposed standard due to issues with R1. It is our opinion that events greater than MSSC should not be covered at all by the revised BAL-002-2. Instead, those events are appropriately addressed under the recently approved BAL-001-2 Balancing Authority ACE Limit (BAAL) and TOP-007-0 that sets the limits on exceeding the IROL or SOL. Standards addressing the BAAL and IROL/SOL require an entity to address the reliability issue within 30 minutes. As part of our rationale, if an entity does experience an event greater than its MSSC, it is possible that the entity will lose some if not all of the units carrying their reserves. If this occurs, the entity is unable to respond with all of its reserves as required by the proposed R1 in BAL-002-2. Therefore, Xcel Energy recommends the following modifications:

1. Change the definition for Reportable Disturbances to state that only those events 80 percent of the MSSC (or the appropriate level of loss by interconnection) up to the MSSC would be reportable. This would clarify that events greater than the entity's MSSC is not a Reportable Event under the NERC Standards.
2. Simplify the language in R1 to address multiple events within the period and include the limit of MSSC in this process.
3. The drafting team should also modify the background document and other related documents to clearly state that events greater than the MSSC are not in scope of BAL-002-2 and document how these events are already addressed utilizing the BAAL and IROL limitations.

Group

FirstEnergy

Larry Raczkowski

Agree

PJM

Group

SERC OC Review Group

Stuart Goza

Comments: Applicability Section: 4.1.1 A Balancing Authority that is a member of a Reserve Sharing Group is the Responsible Entity only in periods during which the Balancing Authority is not in active status under the applicable agreement or governing rules for the Reserve Sharing Group. • Further clarification is requested. Please review previous versions. The concern in this area is event-by-event participation versus general RSG membership R1 sub-bullet: less the sum of the magnitudes of all subsequent Balancing Contingency Events that occur Added in draft: "prior to that value of Reporting ACE" within the Contingency Event Recovery Period, and • Language still remains awkward and the SDT is requested to continue to refine. • Time line or something visual to clarify the requirement further o The SDT is encouraged to work on drafting an RSAW for this standard • The SDT is requested to review and confirm that the obligation to report occurs once the analysis is completed R1.1: SDT is requested to further clarify 1.1 to the extent possible • Question to the SDT: By having CR Form 1 in the standard would changes to the form have to go through a formal standard revision change? CR Form 1 is the NERC reporting form. • Consider adding a new R2.1.1 and R2.1.2 to further clarify the calculation for each of the two different entities (BA and RSG) R2. Except during the Added in draft: "Responsible Entity's Contingency Event Disturbance" Recovery Period and Added in draft: "the Responsible Entity's" Contingency Reserve Added in draft: "Restoration" Deleted in draft: "Recovery" Period, or during an Energy Emergency Alert Level 2 or 3 Added in draft: "for the Responsible Entity and for an additional five hours during a given calendar quarter, the" Deleted in draft: "each" Responsible Entity shall maintain an amount of Contingency Reserve at least equal to its Most Severe Single Contingency. • R2 The SDT is requested to further clarify how contingency reserves are measured. • R2 The SDT is further requested to clarify the 5 hour calculation • R2 The SDT is requested to further define the 105 minute We agree with the current direction of the team to address the directive for the "continent-wide contingency reserve policy" is via with the "Reserve Guidelines" document being developed. The document should provide guidance on how the BA assesses the necessary amount of reserves as well as provide simple definitions of the different types of reserves. M2. Each Responsible Entity shall have dated documentation that demonstrates its Contingency Reserve, averaged over each Clock Hour, was maintained in accordance with "the amounts identified in Requirement R2 Deleted in draft: "except within the first 105 minutes following an event requiring the activation of Contingency Reserve". • M2. Each Responsible Entity shall have dated documentation that demonstrates its Contingency Reserve, averaged over each Clock Hour, was maintained in accordance with Requirement 2. • M2: SDT is requested to clarify that the hourly data retention is limited to one number per hour which represents your contingency reserves for the hour • M2: SDT is requested to add "calendar quarter" to M2 The comments expressed herein represent a consensus of the views of the above named members of the SERC OC Review Group only and should not be construed as the position of the SERC Reliability Corporation, or its board or its officers.

Group

Associated Electric Cooperative, Inc. - JRO00088

David Dockery

Agree

SERC OC Review Group

Group

ACES Standards Collaborators

Ben Engelby

(1) SAR We have concerns with the proposed revisions to BAL-002, particularly when the changes were neither proposed in the team's SAR nor directed in FERC Order No. 693. We do not agree with the use of this standard to introduce nine new defined terms, and defined terms that are not directly needed in the standard (e.g. Reporting ACE). The SAR directed the drafting team to clarify the language in the existing standard and to address Order 693 directives. The only two true requirements in the version zero standard are to recover from reportable events in 15 minutes and replenish reserves 90 minutes thereafter. These actions should be the basis of this standard. (2) Definition of Balancing Contingency Event There is nothing provided to justify the need of this term. There is a statement in the background document that the previous version of the standard was "broad and could be interpreted in various manners," yet there have been no reliability issues or events that justify the need for further clarification. (3) Definition of Reportable Balancing Contingency Event We continue to question the definition of Reportable Balancing Contingency Event. There is no explanation for why Reportable Disturbance is not a satisfactory definition as used in the existing standard and why it is replaced with Reportable Balancing Contingency Event. The numbers provided for each interconnection appear to be arbitrary. The background document explains that the drafting team decided "to capture the majority of events having significant impact on frequency" by setting the threshold to 80 percent of the MSSC, but it did not explain why it was important "to capture the majority of events." There is no justification provided for changing the sizes of Reportable Events for the Interconnections from 80 percent. Where did the thresholds come from? We would like additional clarification and technical justification. (4) Definition of Pre-Reporting Contingency Event ACE Value Additional justification is necessary to change the pre-disturbance calculation from an average of 10 to 60 seconds of ACE data prior to the disturbance to a 16-second interval. There is no explanation of this in the background document and we cannot support such a change without a justification for how it supports reliability. Furthermore, it is not consistent with BAL-005-0.2b which requires ACE calculation on at least a six-second basis. A BA using a six-second sample rate could be viewed as being out of compliance if an entity used either two (12 seconds) or three (18 seconds) samples since they cannot use exactly 16 seconds of data. Furthermore, using only two or three samples could lead to unrealistic averages particularly if there are any glitches in the data. What does an entity do if a scan was skipped or there was a data spike? More samples would make it less likely for this to be an issue. (5) Definition of Reserve Sharing Group Reporting ACE We believe the definition as proposed is already a common understanding and is not needed. We simply do not see how it adds value. Further, having multiple definitions for ACE creates unnecessary confusion. (6) Definition of Contingency Reserve We disagree with the new definition of Contingency Reserve as it provides no guidance on how to objectively measure reserves. Please strike the last sentence of the definition. It is an explanation of what may constitute contingency reserve and is not actually part of the definition. It

should be included in the background document. We understand the reason for the inclusion may be in response to a directive to further the Commission's policy on expanding the use of DSM. However, the use of DSM has expanded significantly since the directives were issued and could be said to have been "overcome" by events. It is well understood within this industry that DSM may be used as a resource. The drafting team could include an explanation in the application guidelines or the background document that would explain that DSM could be used among other resources. (7) Definition of Reporting ACE We do not see the benefit of including a three-page definition for this standard. As stated above, we do not agree with adding terms that are not directly needed in this standard. Furthermore, the kind of information included in this definition is more appropriate to include in a technical guideline or the application guidelines section. (8) Purpose of Standard The purpose statement still needs to be modified. We continue to recommend striking the following language "balances resources and demand," because these actions are addressed by BAL-001. The purpose of the standard should state: "To ensure the BA or RSG recover ACE following a Reportable Balancing Contingency Event." (9) Comments on R1 There is no technical justification for the complexity added to the calculation, and this is out of scope of the SAR. The SAR does not discuss changing the measurement approach of DCS performance from being calculated and reported on a quarterly basis. The current approach is well understood in the industry. Therefore, we suggest modifying the standard to remove the complexity. Proposed Solution for R1: "R1. Except when experiencing an Energy Emergency Alert Level 2 or Level 3, a Balancing Authority or Reserve Sharing Group experiencing a Reportable Event less than or equal to its MSSC shall activate sufficient Contingency Reserve to comply with the DCS." (10) Comments on R2 This requirement will have significant negative unintended consequences. Reserves are an inventory intended to be used when there is a reliability need. The first unintended consequence is that BAs are encouraged by this requirement never to deploy their contingency reserves except for DCS-reportable events. The original Policy 1 noted many reasons for operating reserves. BAs whose ACE is extremely negative for other reasons would be reluctant to deploy their contingency reserves because the timer would start ticking on the "available hours" clock. A BA should not be restricted to deploying it only for contingent events. There may be other reasons for a BA to have a large negative ACE (i.e. units don't ramp as expected) and the BA should be free to call upon its contingency reserve to recover ACE in such a situation. Since the FERC directive that is driving this requirement is to establish a continent wide policy on contingency reserve, a better solution would be for NERC to write an operating policy describing appropriate uses of various types of contingency reserves. A guideline document would provide better details for an operating policy than a requirement. The second unintended consequence for those BAs that don't withhold contingency reserves for non-DCS events is that they will be obliged to increase the amount of contingencies they carry so they always have more reserves than their MSSC. This will increase costs to end-users without a demonstrated need. Furthermore, there is no data indicating that operating reserves carried by BAs today are insufficient. Proposed Solution for R2: "R2. Except when experiencing an Energy Emergency Alert Level 2 or Level 3, a Balancing Authority or Reserve Sharing Group experiencing a Reportable Event less than or equal to its MSSC shall replenish its reserves within 105 minutes of the onset of the Reportable Event." (11) VSLs for Requirement R1 and Requirement R2 We disagree with the VSLs for both requirements. The VSLs significantly increase the compliance burden for registered entities without a technical justification. DCS compliance should continue to be determined by a quarterly average of response to events. Thus, failure to recover ACE for two events within the same quarter would be a single violation. We disagree with the proposed VSLs, as they would treat each event as a separate violation. The VSLs for Requirement R2 need to be justified. There is no explanation provided for the values chosen for the various thresholds. For example, the Lower VSL covers contingency deficiency for a period of 5 to 15 hours. Why shouldn't this go to 20, 30, 40 or any other number of hours? Without a justification, we can only assume the numbers were selected arbitrarily. While we understand from the response to comments that the modifications are intended to reflect actual enforcement practices, there have been no reliability issues or events that justify the need to shift the DCS to an event-by-event standard. NERC enforcement staff can submit comments requesting changes to the standards to reflect enforcement practices and FERC can clearly issue directives for changes once the standard is submitted for their approval. We have not seen any directives from FERC or comments from NERC enforcement staff regarding the need to revise the quarterly calculation. However, this raises bigger concerns in that the response implies that enforcement has not been consistent with the current common understanding of a quarterly calculation for DCS within the standard. If enforcement has not been consistent with the existing standard, then that issue needs to be addressed outside the standards development process and settled before the standard is changed to reflect a different period for the calculation DCS compliance. (12) Compliance Section of Standard The data retention required for the current versions of this standard is too long. BAs submit monthly data to their regional entities, so they should not be required to retain three years worth of data. No more than six months of data is necessary. (13) Technical Background Document We agree with the current direction of the team to address the directive for the "continent-wide contingency reserve policy" is via the "Reserve Guidelines" document being developed. The document should provide guidance on how the BA assesses the necessary amount of reserves as well as provide simple definitions of the different types of reserves subject to industry comment. We suggest drafting team retain the original language regarding the R1 that requirement applies except during EEAs 2 and 3. While we agree with the compliance exception, the language was moved to component 1.2 and does not comport with the statements from NERC's August 10, 2009 filing indicating the purpose and use of numbered components. Specifically, the filing indicates that numbered "components" will be used for parts that "contribute to the achievement of the reliability objective of the main requirement, but that individually do not achieve a reliability objective separate from the main requirement." We do not believe component or part 1.2 could be viewed as "contributing to the achievement of the reliability objective." Rather, it is a compliance exception and should be included as an exception clause similar to the way it was written in the prior version of the standard. Part 1.1 could be viewed as a paragraph 81 requirement meeting criterion B4 on reporting. NERC and the Regional Entities already require registered entities to use various reporting forms that are not identified in a standard. The Rules of Procedure allow NERC and the Regions to request data, thus, we think this is simply not necessary to document the need to use the CR Form I 1 in the requirement. Thank you for the opportunity to comment.

Individual

John Seelke

Public Service Enterprise Group

Agree
PJM Interconnection, L.L.C.
Individual
Anthony Jablonski
ReliabilityFirst
<p>ReliabilityFirst votes in the Negative 1), ReliabilityFirst believes the introductory paragraph within the Applicability section is unclear as written, which could lead to unintended compliance implications; 2) the standard should not rely on Energy Emergency Alert Level 2 or Level 3 which are defined within another standard. The requirements of the standard should stand on their own merit and not rely on conditions defined within an attachment within another standard and; 3) it is unclear whether the use of the referenced CR Form 1 is an actual requirement and is enforceable. ReliabilityFirst offers the following comments for your consideration: 1. Applicability Section – ReliabilityFirst believes the introductory paragraph within the Applicability section is unclear as written. The language stating “on an individual event basis” is ambiguous and can lead to questions on the Applicability of this standard. ReliabilityFirst believes the intent of this language is meant to apply to Reportable Balancing Contingency Events. ReliabilityFirst recommends the following for consideration: “Applicability is determined on an individual [Reportable Balancing Contingency Events] basis, but this standard does not apply to a Responsible Entity during periods when the Responsible Entity is in Energy Emergency Alert Level 2 or Level 3.” 2. Reference to Energy Emergency Alert Level 2 or Level 3 - ReliabilityFirst believes referencing Energy Emergency Alert Level 2 or Level 3 within this standard without defining it within the standard itself is incorrect and troublesome for two reasons. First, the term Energy Emergency Alert Level is not a NERC defined term and the levels are only referenced in Attachment 1 of EOP-002-3. Entities which are not familiar with Attachment 1 of EOP-002-3 may have no idea what constitutes an Energy Emergency Alert Level 2 or Level 3. Second, ReliabilityFirst believes the BAL-002-2 should stand on its own merit and not rely on conditions within an attachment within another standard. For example, if the Energy Emergency Alert levels designations ever change (as a result of modifications to Attachment 1 of EOP-002-3), this has the potential to have an impact on the intent of the BAL-002-2 standard. For the two reasons noted, ReliabilityFirst recommends formally defining all the Energy Emergency Alert Levels within the NERC Glossary of Terms. This would be a valid option since this term would now be used in multiple standards (e.g., EOP-002-3 and BAL-002-2). 3. Requirement R1, Part 1.1 – As written, it is unclear whether this is an actual requirement requiring the entity to use the CR Form 1? The parent requirement R1 requires the Responsible Entity to return its ACE to either zero or its Pre-Reporting Contingency Event ACE Value, but does not require the use of the CR Form 1. If it is the intent of the SDT to require the Responsible Entity to use the CR Form 1, ReliabilityFirst recommends making a new standalone requirement such as “The Responsible Entity shall use the CR Form 1 for compliance calculations for Reportable Balancing Contingency Events.” Furthermore, the CR Form 1 is not associated with the standard itself. Without this form being associated as an attachment or appendix to the standard, how will the Responsible Entity know the location of the referenced form? Also, ReliabilityFirst believes there may be issues with regulatory approval absent the referenced CR Form 1 being included as part of the standard. ReliabilityFirst recommends including the CR Form 1 as either an attachment or appendix to the standard.</p>
Group
SPP Standards Review Group
Robert Rhodes
<p>On BAL-002-2: We would like to see further development of the qualifier ‘sudden loss’. Specifically what comprises a sudden loss? Naturally we all believe the opening of a unit breaker creates a sudden loss of generation but what about those events, such as unit runbacks, where there is no clear-cut line of distinction. We have experienced multiple contingencies where one of the units has tripped out right and the other lingers on for some time before eventually tripping. Depending upon when the clock starts, this could be interpreted to have occurred within one minute which could qualify the event as a reportable DCS event. We have talked to multiple REs as well as industry SMEs to determine exactly what the correct interpretation is in this situation. The way the standard is written there is no single, correct interpretation. Do we want to incorporate such criteria into the standard or could we find language which would provide additional clarification to assist in making that determination? This dilemma also extends to situations with imports where sudden loss is again not clearly defined. This becomes more and more of an operational nightmare when the variability of intermittent resources is taken into account. Demand-Side Management should be properly handled as a defined term from the NERC Glossary throughout the standard as well as the Background Document. We ask that the drafting team provide additional clarification on ‘active status’ found in the Applicability Section 4.1.1. We are most concerned by the incorporation of the 5-hour exclusion in R2. While on one hand we like the idea of some flexibility in the standard, providing such flexibility will not improve the reliability of the BES one bit. In fact it would decrease the reliability of the BES. We suggest removing that language as well as the last paragraph on Page 10 in the Background Document which details the reasoning behind the exclusion. CR Form 1 requires reporting on a single event basis rather than the quarterly reporting basis as currently exists. We recommend maintaining the existing quarterly reporting requirement. The argument here is the same as that used to support the exclusion of contingency events greater than MSSC. That exclusion is currently found in the Additional Compliance Information Section 1.5 of BAL-002-1 and has been moved into the requirements of the proposed standard. Likewise, the quarterly reporting criteria contained in the same Additional Compliance Information section of BAL-002-1 but in Section 2., could just as easily be incorporated into the new standard. We also support the following comments provided by Xcel Energy. Xcel Energy is voting no on the proposed standard due to issues with R1. It is our opinion that events greater than MSSC should not be covered at all by the revised BAL-002-2. Instead, those events are appropriately addressed under the recently approved BAL-001-2 Balancing Authority ACE Limit (BAAL) and TOP-007-0 that sets the limits on exceeding the IROL or SOL. Standards addressing the BAAL and IROL/SOL</p>

require an entity to address the reliability issue within 30 minutes. Additionally, if an entity does experience an event greater than its MSSC, it is possible that the entity will lose some if not all of the units carrying their reserves. If it does, it is unlikely to be able to respond with all of its reserves as required by the proposed R1 in BAL-002-2. Therefore Xcel Energy recommends the following modifications: 1. The definition for Reportable Disturbances should be changed to state that only those events 80 percent of the MSSC (or the appropriate level of loss by interconnection) up to the MSSC would be reportable. Events greater than the entity's MSSC is not a Reportable Event under the NERC Standards. 2. Simplify the language in R1 to address multiple events within the period to address concerns in a similar manner. 3. The drafting team should also modify the background document and other related documents to clearly state that events greater than the MSSC are not in scope of BAL-002-2 and document how these events are already addressed utilizing the BAAL and IROL limitations. Xcel Energy recognizes that this proposal will likely cause concern amongst those who participate in the NERC Resources Subcommittee due to the loss of the quarterly reporting of events greater than the MSSC currently in the standard. We believe that these quarterly reports, for the evaluation of performance outside of the compliance process, should not be part of the standard. Instead, if NERC believes this process is needed, create a guideline or other means to have entities provide the needed information without using compliance with the standard as the reporting process. A clear separation between standards compliance and data evaluation would provide the industry the clarity of separation between compliance and data evaluation and study. Background Document: (Page number references are based on the clean version of the document.) To accentuate the potential for conflict between BAL-002 and EOP-002, we suggest rewording the first two (2) sentences of the last paragraph on Page 4 to read: 'Additionally, possible conflict existed between BAL-002 and EOP-002 as to when an entity could deploy its contingency reserve. To eliminate the conflict and to assure...' The following terms are contained in the NERC Glossary and should be consistently capitalized in the document: Operating Reserve Contingency Reserve Spinning Reserve Non-Spinning Reserve Frequency Response Obligation (new term associated with BAL-003-1) We recommend rewriting the first line of the second paragraph under Background and Rationale on Page 6 to read: 'By incorporating new definitions, including the modification of existing definitions, with the proposed R1 above, the ...' Insert a 'the' in front of Consortium in the first line of the last paragraph on Page 6. Rewrite the third line of the paragraph under Violation Severity Levels on Page 7 to read: 'Contingency Reserve available and whether it has sufficient...' Insert a 'that' in front of BAL-002 in the first line of the second paragraph under Background and Rationale on Page 10.

Group

Duke Energy

Michael Lowman

Duke Energy's position is summarized as follows: a) This standard should not require 15-minute recovery for events greater than the MSSC, b) The standard should allow responsible entities to choose a lower reportable threshold and measure performance on a quarterly basis, and c) Tracking hourly amounts of Contingency Reserves maintained should be removed from this draft Standard and added to the guideline document. Regarding Requirement R1, Duke Energy would like to reiterate that no technical justification has been provided for requiring a 15-minute recovery from a Balancing Contingency Event. We believe those on the Standard Drafting Team also active in the development BAL-001-2 would acknowledge that the risk of any other significant event on the Interconnection occurring within the first event's Contingency Event Recovery Period or Contingency Reserve Restoration Period is so negligible that the risk does not on its own warrant such immediate action or compliance assessed on an event-by-event basis. It is our opinion that the recently-approved Balancing Authority ACE Limit (BAAL) in BAL-001-2 will drive the actions necessary to maintain Interconnection frequency within acceptable limits, as any event causing a large change in ACE and impacting frequency will be under that Standard's scrutiny. However, Duke Energy believes there is value in having a Reliability Standard that requires retaining contingency reserves capable of such immediate response and periodically testing the Balancing Authority's ability under DCS to implement its reserves. When DCS is viewed as a test of reserves maintained, one can understand the position that: a) For consistency across all Balancing Authorities, testing such capability for losses 80% and greater of the MSSC should typically cover each Balancing Authority reporting at least one event per quarter, b) Such tests should not include unplanned events above the MSSC, c) There shouldn't be an attempt to measure that reserves are maintained hourly, the proof is in the results, d) As a test to demonstrate reserves are maintained, the industry accepts that recovery at times may move Interconnection frequency further from scheduled frequency, such as during certain off-peak periods of high frequency, e) There is no need to capture every possible event under the scope of what's tested – it is more important that the criteria be clear to the operator (generation trip) on what's being tested, f) Recovery within 15 minutes is a reasonable expectation, as we don't want the contingent Balancing Authority leaning on the Interconnection support others provide too long, and g) Recovery within 15 minutes is a reasonable expectation, as the loss may be causing unanticipated flows (good or bad) that the contingent Balancing Authority should be first to correct It is our opinion that the points above all factored into the original approval of DCS, along with the industry acceptance that if the DCS was not met over a calendar quarter, that additional contingency reserves would be carried until Balancing Authority demonstrated its capability to meet those expectations. The quarterly reporting allowed for recognition that performance for every event may not be perfect, and that measuring compliance over the quarter is a better measure of the entity's overall performance and reserves maintained. Our points above are made as we believe that upon implementation of the BAAL, the value in retaining BAL-002 is in having a simple, results-based Standard to measure that reserves are adequately being maintained. We believe that this draft Standard goes beyond what is needed for reliable operations. It is our opinion that not all Regions share the concern that the 15-minute recovery is needed to mitigate transmission congestion problems, and we would suggest that perhaps such concerns should be addressed at the regional level. Duke Energy supports the comments of Xcel Energy regarding the proposed Requirement R1. It is our opinion that events greater than the MSSC should not be held to the 15-minute recovery criteria required under the revised BAL-002-2. Events greater than MSSC, typically driven by multiple unforeseen contingencies on the system, may require the Balancing Authority to coordinate its activities with the Transmission Operator for consideration of the transmission impact

of any reserve deployment or Interchange options. Under such circumstances we believe that the recently approved BAL-001-2 Balancing Authority ACE Limit (BAAL) and current TOP-007-0 that sets the limits on exceeding the IROL or SOL should be the Reliability Standards guiding the response required. In addition, and as part of our rationale, if an entity does experience an event greater than its MSSC, it is possible that the entity will lose some if not all of the units carrying their reserves. If this occurs, the entity is unable to respond with all of its reserves as required by the proposed R1 in BAL-002-2. Therefore, Duke Energy supports the following modifications suggested by Xcel Energy: 1. Change the definition for Reportable Disturbances to state that only those events 80 percent of the MSSC (or the appropriate level of loss by Interconnection) up to the MSSC would be reportable; this would clarify that an event greater than the entity's MSSC is not a Reportable Event under the NERC Standards. 2. Simplify the language in R1 to address multiple events within the period and include the limit of MSSC in this process. 3. The drafting team should also modify the background document and other related documents to clearly state that events greater than the MSSC are not in scope of BAL-002-2 and document how these events are already addressed utilizing the BAAL and IROL limitations. Duke Energy disagrees with measuring performance on an event-by-event basis. We believe such a metric will have a detrimental impact on reliability as responsible entities will have no reason to bring more resource losses under the scope of required compliance. The current standard, which allows a lower reportable threshold to be used in quarterly reporting, benefits the Interconnection and results in demonstrated activity under DCS for events that this proposed standard will push under BAL-001. Duke Energy also supports the comments of the SERC OC Review Team and agrees with the current direction of the team to address the directive for the "continent-wide contingency reserve policy" is via the "Reserve Guidelines" document being developed. The document should provide guidance on how the BA assesses the necessary amount of reserves as well as provide simple definitions of the different types of reserves. Regarding Requirement R2: Duke Energy agrees with the language in this Standard that Contingency Reserves may be utilized to serve load during an Energy Emergency Alert Level 2 or 3. However, it is our opinion that this Standard should remain a results-based Standard and not burden responsible entities with such tracking of reserves maintained. Though an hourly average is proposed, it is not practical for a BA to track its Contingency Reserves in a manner where the System Operator would make the choice to increase its Contingency Reserves above the MSSC if it happened to drop below its MSSC for some time in the same hour – it is an unnecessary activity to bring into real-time operations. In addition, tracking reserves to this extent may result in Balancing Authorities not balancing their systems, to the extent allowed under BAL-001, in order to not dip into the Contingency Reserves which could, and should, be utilized as needed. Duke Energy recommends removing the hourly tracking of reserves from this standard and adding it to the guideline document. Though suggestions have been provided, Duke Energy does not support the adoption of Requirement R2 and agrees with the comments provided by MISO and SERC OC Review Team. Performance under the existing BAL-002 has been stellar without the need for an additional requirement to track Contingency Reserves to the extent prescribed. The current DCS is a very effective results-based standard. The existence of a requirement such as R2 will result in inefficient utilization of resources, increased costs, inaccurate representation of resource capability, and other negative consequences with no benefit to reliability. Finally, Duke Energy suggests the following changes to the definitions in this standard: Duke Energy believes that Item B of Balancing Contingency Event should be removed because it is already covered under Item A. If the SDT disagrees, then item B should retain "the change to the responsible entity's ACE." The proposed draft language in item B, "imbalance between generation and load to the interconnection", opens up the possibility that upon the loss of transmission, the source Balancing Authority may continue to generate and sink Balancing Authority may continue to receive the energy without sufficient remaining transmission in place for the transfer. This will in turn overload facilities but not be captured as an "imbalance between generation and load on the Interconnection". See comments on proposed definitions beginning on next page. Proposed by SDT: Balancing Contingency Event: Any single event described in Subsections (A), (B), or (C) below, or any series of such otherwise single events, with each separated from the next by less than one minute. A. Sudden Loss of generation: a. Due to i. Unit tripping, ii. Loss of generator Interconnection Facility resulting in isolation of the generator from the Bulk Electric System or from the responsible entity's electric system, or iii. Sudden unplanned outage of transmission Facility; b. And, that causes an unexpected change to the responsible entity's ACE; B. Sudden loss of an import, due to forced outage of transmission equipment that causes an unexpected imbalance between generation and load on the Interconnectionchange to the responsible entity's ACE. C. Sudden restorationloss of a known load that was used as a resource that causes an unexpected change to the responsible entity's ACE. Suggested: Balancing Contingency Event: Any single event described in Subsections (I) or (II) below, or any series of such otherwise single events, with each separated from the next by less than one minute. I. Sudden loss of generation that causes an unexpected change to the responsible entity's ACE due to: a. Unit tripping, b. Loss of generator Interconnection Facility resulting in isolation of the generator from the Bulk Electric System or from the responsible entity's electric system, or c. Sudden unplanned outage of transmission Facility II. Sudden restoration of a load that was used as a resource that causes an unexpected change to the responsible entity's ACE. NOTE: F Duke Energy took part A.a. and A.b. of the SDT proposed definition and incorporated it into "I"; Sudden loss of generation that causes an unexpected change to the responsible entity's ACE due to: F Changed the numbering from A. to I., B to II. and changed i., ii., iii. to a., b., c. Proposed by SDT: Most Severe Single Contingency (MSSC): The Balancing Contingency Event, due to a single contingency, that would result in the greatest loss (measured in MW) of resource output used by the Reserve Sharing Group (RSG) or a Balancing Authority that is not participating as a member of a RSG at the time of the event to meet firm system load and export obligation (excluding export obligation for which Contingency Reserve obligations are being met by the sink Balancing Authority). Suggested: Most Severe Single Contingency (MSSC): The magnitude of a single Balancing Contingency Event as a result of the greatest loss (measured in MW) of resource output used by a Reserve Serving Group (RSG) or a Balancing Authority that is not a member of an RSG. Proposed by SDT: Reportable Balancing Contingency Event: Any Balancing Contingency Event resulting in a loss of MW output greater than or equal to the lesser amount of 80 percent of the Most Severe Single Contingency or the amount listed below for the applicable Interconnection500 MW and occurring within a rolling one-minute interval based on EMS scan rate data. The 80% threshold may be reduced upon written notification to the Regional Entity. • Eastern Interconnection - 900 MW • Western Interconnection – 500 MW • ERCOT – 800 MW • Quebec – 500 MW Suggested: Reportable Balancing Contingency Event: Any Balancing Contingency Event resulting in a loss of MW output that causes an ACE change greater than or equal to 80% of a Balancing Authority's or

Reserve Sharing Group's Most Severe Single Contingency or applicable amount listed below for each Interconnection, that occurs within a rolling one-minute interval of EMS scan rate data. The 80% threshold may be reduced upon written notification to the Regional Entity. • Eastern Interconnection - 900 MW • Western Interconnection – 500 MW • ERCOT – 800 MW • Quebec – 500 MW Proposed by SDT: Contingency Reserve: The provision of capacity that may be deployed by the Balancing Authority to respond to a Balancing Contingency Event and other contingency requirements (such as Energy Emergency Alerts Level 2 or Level 3) as specified in the associated EOP standard). The capacity may be provided by resources such as Demand Side Management (DSM), Interruptible Load and unloaded generation. Suggested: Contingency Reserve: The provision of capacity that may be deployed by the Balancing Authority to respond to a Balancing Contingency Event or contingency requirements such as an Energy Emergency Alert Level 1 or Level 2 as specified in the associated EOP Reliability Standard. The capacity may be provided by resources such as Demand Side Management (DSM), Interruptible Load and unloaded generation. NOTE: Replaced EEA Level 2 or 3 with EEA Level 1 or 2 in the definition. Contingency Reserve is already being utilized at EEA Level 3. I kept EEA Level 2 in the definition since Demand-side Management and Interruption of non-firm end use loads can be used, which both are resources of capacity used for Contingency Reserve. I've provided some detail below for EEA 2 and 3: • EEA 2 – Load management procedures in effect if the entity is no longer able to provide its customers' expected energy requirements and is designated an Energy Deficient Entity. F Energy Deficient Entity has implemented procedures up to, but excluding interruption of firm load commitments...DSM, Interruptible Load, etc. can be used time permitting • EEA 3 – Firm load interruption imminent or in progress (Contingency Reserve is already being used) Proposed by SDT: Refer to project page or NERC Glossary of Terms Suggested: Reporting ACE: Duke Energy is unsure why the SDT needs to include Reporting ACE as a revised definition in the proposed BAL-002-2 standard. This same definition has already been approved by the BOT and is in the NERC Glossary of Terms with no FERC Approval Date.

Group

Kansas City Power & Light

Brett Holland

Agree

SPP - Robert Rhodes

Individual

Texas Reliability Entity

Texas Reliability Entity

In R2, we feel that the five hours grace period for failing to maintain sufficient Contingency Reserves is too long, especially since Contingency Event Recovery Periods and EEAs are excluded. We recommend that there should be no grace period, and that the VSLs can be used to apply higher penalties for longer violations: 0-3 hours for lower VSL, 3-5 for moderate VSL, 5-10 for high VSL, and >10 for severe VSL.

Group

PPL NERC Registered Affiliates

Brent Ingebrigtsen

These comments are submitted on behalf of the following PPL NERC Registered Affiliates (PPL): Louisville Gas and Electric Company and Kentucky Utilities Company; PPL Electric Utilities Corporation, PPL EnergyPlus, LLC; and PPL Generation, LLC, PPL; Susquehanna, LLC; and PPL Montana, LLC. The PPL NERC Registered Affiliates are registered in six regions (MRO, NPCC, RFC, SERC, SPP, and WECC) for one or more of the following NERC functions: BA, DP, GO, GOP, IA, LSE, PA, PSE, RP, TO, TOP, TP, and TSP. Applicability Section: 4.1.1 needs clarification. It is unclear what "not in active status" means. Specifically, it is unclear whether a BA may be in "active status" by simply being under an RSG agreement and governing rules. It is unclear whether a BA not choosing to call on RSG assistance for any single Balancing Contingency Event (whether Reportable or not) would be considered "not in active status." This makes R2 unclear as to whether and when the BA is the Responsible Entity, what MSSC and reporting threshold would apply, or whether the 5-hour quarterly clock applies to the BA but not the RSG. Suggested language: A Balancing Authority that is a member of a Reserve Sharing Group is the Responsible Entity only in periods during which the Balancing Authority cannot rely upon the Reserve Sharing Group under the applicable agreement or governing rules for the Reserve Sharing Group. Rather than prescribe the commercial arrangements between members of a RSG, the above language respects whatever arrangements RSG members have put in place recognizing that these arrangements must enable the group and its members to remain in compliance with all applicable requirements. In R1, the added language "prior to that value of Reporting ACE" is confusing. It is unclear how a Balancing Contingency Event can be both subsequent and prior to a value of Reporting Ace. PPL cannot suggest a solution as we don't understand the intent of the added language. In R2, the calculation/evaluation of the 5 hour/quarter "exception clock" needs explanation. It is unclear whether a single EMS scan, where Contingency Reserve is calculated at less than MSSC, counts as an hour. It is unclear whether it is evaluated as the average, mean or median of the Contingency Reserves held for a Clock Hour. M2 specifies a Clock Hour as the time increment to be used – Clock Hour should also be stated in R2. PPL suggests that the 5-hour exception clock be based on the Clock Hour average amount of Contingency Reserves held by the Responsible Entity (BA or RSG) for the calendar quarter. As the proposed standard is significantly different from the historical/existing DCS, a draft RSAW should be provided so Responsible Entities can have an indication of how compliance will be evaluated.

Individual

Si Truc PHAN

Hydro-Québec TransÉnergie

We believe that this new draft is an improvement to the actual standard. However, there are three comments that we think should be considered in order to improve the actual. First, the Balancing Contingency Event definition uses the terminology "Any single event..." where the Most Severe Single Contingency definition uses the terminology "...due to a single contingency..." Hydro-Quebec TransÉnergie believes there is no difference between these two terminologies. In order to reduce the risk of misinterpretation, we recommend to be consistent in the definitions. Second, some contingencies occur within the Quebec Interconnection where generation is loss as well as load at the same time. For example, there are contingencies where 1900 MW of generation is loss and 1600 MW of DC converters at the same time which result in the net loss for the BA/Interconnection of 300 MW. The result causes only a small ACE change under the Reportable Balancing Contingency Event threshold. In addition, the 1600 MW of DC converter loss would probably be reported by another entity as a DCS due to a loss of an import. For this reason, Hydro-Quebec TransÉnergie suggests that the Balancing Contingency Event and the Reportable Balancing Contingency Event definitions would be more accurate if they would include the notion of net loss for the BA instead of only the generator MW output. Finally, as for the Reportable Balancing Contingency Event threshold, we feel that the 500 MW threshold for the Quebec Interconnection should be revised to 800MW. The actual threshold is set at 80% of MSSC which corresponds generally around 800 MW. This value already traps events that are significant for the Interconnection and truly measures events where contingency reserve is being deployed by operator actions. A too low threshold might capture events that are recovered with frequency response and AGC action, which are deployed quickly after the event since we are in a single BA Interconnection. We believe that the proposed threshold in the draft will increase the reporting without any improvement in measuring contingency reserve deployment. We would like to thank the SDT in advance for considering these comments.

Individual

Robert Blohm

Keen Resources Ltd.

Per my comments in the prior round, "Contingency Reserve" as here defined is a muddle because it includes the Frequency Responsive reserve deployed to first-respond to a Contingency Event. In fact, proper operation requires that properly-defined Contingency Reserve ultimately replace that Frequency Responsive Reserve deployed, as well as replace Regulating Reserve deployed in the interim, so that Regulating Reserve may be freed to respond to normal operating variability. Reserve needs to be defined by the physical nature of the reserve, not by any temporary use to which the reserve may be put. A more immediate solution to the unclarity is to rename the term here defined as "Reserve Used for Contingencies" rather than "Contingency Reserve" whose meaning would be more like reserve "assigned" to contingencies, just like Frequency Responsive Reserve is assigned to quickly arresting and holding frequency change. Replace in R1, in 2 places, "prior to THAT value of Reporting ACE" by "prior to, OR WHEN, ATTAINING THE MOST POSITIVE value of reporting ACE" These changes also need to be made in the Background Document's restatement of R1. In R2 VSLs, in 3 places, "less than or equal to" violates the rules of grammar and should be replaced by "no more than". In the first two bullets on page 7 of the Background Document, to be consistent with the Standard's R1, 1. the words "occurring before or when attaining the most positive Recording ACE" need to be inserted after the words "subsequent event, if any," and 2. the words "before or when attaining the most positive Recording ACE" need to be inserted after the words "subsequent events occurring". In the Background Document formulas the definition of SUM\_SUBSQ requires appending "and before or when attaining the most positive Reporting ACE during that period" to make it consistent with the standard's R1. The formulas in the Background document are not in the standard mathematical form used in all other NERC standards and documents just because the CR Form 1 in which they are also entered is in Excel format that does not allow for entry of standard mathematical notation. This technical shortcoming in a spreadsheet calculation form should not impair the explanatory clarity of the Background Document where standard uniform mathematical notation should be the governing form of the standard, even if the CR Form 1 needs to convert it into machine-language computerese in order to repeat the explanation already given in the Background document. For replacement in the Background Document I provide at this link <http://www.blohm.cnc.net/BAL002formulas> the standard mathematical form of these formulas because this comment form does not allow the entry of mathematical notation (in particular, subscripting). Grammar: on page 7 of the Background Document, paragraph 2, "entity(s)" should be "entity's". Formatting: at the bottom of page 7, 1st paragraph of the "Compliance Calculation" section, two of the three lines should not be indented. Replacement in the current CR Form 1 spreadsheet of the word "claimed" by the word "included" on lines 40 and 41 of the Instructions tab is intended presumably to remove the optionality of recognizing subsequent events during the recovery period, and to be consistent with the requirement in the Standard's R1 of recognizing "all" the events before the most positive ACE and none after, for purposes of discounting the recovery requirement. If so, I support the consistency.

Individual

Brian Shanahan

National Grid Transmission Operations

Agree

We support the NPCC RSC's comments on this Standard.

Individual

Howard Illian

Energy Mark, Inc.

None

Individual

David Jendras
Ameren
Agree
We are generally supportive of the SERC OC Review Group Comments for BAL-002-2.
Individual
Catherine Wesley1
PJM Interconnection
General Comments We appreciate the opportunity to comment and the work the drafting team has contributed to this effort. We have concerns with some of the changes proposed to BAL-002 absent demonstrated need, particularly when the changes were not proposed in the team's SAR nor directed in Order No. 693. The SAR for the drafting team was basically to clean up the clutter in the standard and address Order No 693 directives. The only two true requirements in the standard are to recover from reportable events in 15 minutes and replenish reserves 90 minutes thereafter. Beyond this, we recommend focusing on the intent of the 693 directives. The NERC Resources Subcommittee performed analysis when DCS was first developed and found that the average time to recover from large unit trips was roughly 15 minutes. Recent analysis for BAL-003 has found that all four Interconnections recover from large unit trips in about 5 minutes. Compared to where we were 10 years ago, performance has been stellar. BAL-002 is working quite well today. If the definition for a Reportable Balancing Contingency Event is approved, what happens to the current definition for a Reportable Disturbance in the NERC Glossary? Does the existence of these two definitions create confusion or ambiguity? Comments on R1 Complexity. There is no reasoning provided for the complexity added to the calculation. The current approach is well understood by the industry. The SAR does not discuss changing the measurement approach. Events > MSSC. We have concerns with the new performance calculation for events greater than the Most Severe Single Contingency (MSSC). First, it appears the calculation would not work if the generators that were lost were the units carrying the Balancing Authority's reserves. Our second concern is that this proposed change may likely negatively impact reliability. It appears that the drafting team is attempting to put a measure on events > MSSC to ensure a Balancing Authority responds quickly to large events. While laudable in concept, multi-contingent events are typically associated with something wider happening on the transmission system. The priority for operators when something major occurs is transmission security rather than rushing to achieve a zero ACE. It should be remembered there are protective backstops in place absent this proposed change: • The IROL standards still require operators to take whatever action is necessary to prevent cascading with the next contingency, to include shedding load or redispatch. • The new BAL-001 standard will require the Balancing Authority to take action within 30 minutes to get frequency back within acceptable bounds. • The Energy Emergency Alert process still exists to address any reserve shortfall. Implementing a requirement that causes a knee-jerk ramping of all generation following a multi-contingent event may likely exacerbate congestion. With the recent approval of BAL-001-2 and future implementation of BAAL we question the appropriateness of requiring a BA to continue to drive their individual ACE higher under this standard after Interconnection frequency has already returned to schedule. This scenario would not be in the best interest of Interconnection reliability and respectfully suggest the SDT consider language that considers the contingent BA's recovery period satisfied when Interconnection frequency returns to scheduled frequency. Reporting. We support the current process whereby events > MSSC are reported. We have no problem with the report form asking for additional data for events > MSSC that are used in the Events Analysis and Reliability Assessment and Performance Analysis (RAPA) processes, but believe it is a mistake to add a performance expectation for events > MSSC. The preamble of the original Operating Manual on which we have built our standards outlined a premise that we operate to N-1 and make best efforts to protect the system for events greater than this. All CONTROL AREAS shall operate so that instability, uncontrolled separation, or cascading outages will not occur as a result of the most severe single contingency. Multiple outages of a credible nature shall also be examined and, when practical, the CONTROL AREAS shall operate to protect against instability, uncontrolled separation, or cascading outages resulting from these multiple outages. DCS performance is calculated and reported to the RRO on a quarterly basis. R1.1 states that CR Form 1 is the exclusive 'reporting form' but Measure 1 states it is to be maintained and provided upon request. R1.1 adds complexity and confusion to the reporting process. If CR Form 1 is to be used only for reporting a violation to NERC then this needs to be clarified in the requirement to avoid misinterpretation and confusion regarding NERC reporting versus RRO reporting. Comments on R2 This requirement proposes another major change to what is a superior approach of performance-based standards. This requirement will also likely have significant negative unintended consequences. Reserves are an inventory intended to be used when there is a reliability need. The original Policy 1 listed multiple reasons for carrying operating reserves (errors in forecasting, generation and transmission equipment unavailability, number and size of generating units, system equipment forced outage rates, maintenance schedules, regulating requirements, and Regional and system load diversity). We believe the addition of a commodity measure will have unintended consequences. BAs are encouraged by this requirement never to deploy their contingency reserves except for DCS-reportable events. BAs whose ACE is extremely negative for other reasons would be reluctant to deploy their contingency reserves because the timer would start ticking on the "available hours" clock. Reserves should be used when there is a reliability need that may or may not be caused by the loss of a resource. This requirement encourages BA's to withhold deployment of contingency reserves except for DCS reportable disturbances. For example: • If a BA's ACE is dragging into the top of the hour, along with Interconnection frequency, due to schedule changes and slow unit response, this requirement incentivizes the BA to withhold deploying reserves. • If a BA is approaching an IROL that could be mitigated by deploying contingency reserves, this requirement penalizes the BA for doing so, even though the result would benefit Interconnection reliability. • A BA would be penalized for using its contingency reserves to provide assistance to a neighboring BA(s) if no reserve sharing agreement exists. This will likely have an adverse impact on Interconnection cooperation and reliability. • R2 does not take into account the comingled relationship between contingency reserves and frequency responsive reserves. For example, a BA could maintain additional synchronized reserves to cover both the MSSC and FRO requirements set forth in BAL-002 & BAL-003 as long as sufficient generating units have governors in service with proper control settings. During a frequency event

outside their balancing area, a BA could be penalized under the hourly average terms of BAL-002 R2 if they provide frequency response above & beyond their FRO that causes contingency reserves to go below MSSC. Essentially, this requirement could encourage BA's to limit frequency responsive reserves. BAs that don't withhold contingency reserves for non-DCS events will be obliged to increase the amount of contingency reserves they carry so they always have more contingency reserves than their MSSC. This will increase costs to our customers without a demonstrated need. DCS performance in North America has been stellar compared to what was considered adequate performance under Policy 1. The standard provides no clear definition on how contingency reserves are measured. Does it include all generation headroom available in 10 minutes? In 15 minutes? What about resources that are also providing AGC? Does their instantaneous headroom count? Are load resources available in 15 minutes or 10 minutes counted? What about demand response resources that aren't directly measured? Finally, are the hours referenced in the standard clock-hours, any contiguous 60 minute period, or the total minutes in a quarter divided by 60? If we agreed with R2, which we do not, we believe that this 'quarterly forgiveness' is confusing, has not been adequately defined, and could easily be misinterpreted. Proposed Solutions The SAR for the drafting team was basically to clean up the clutter in the standard and address Order No 693 directives. The only two true requirements in the standard are to recover from reportable events in 15 minutes and replenish reserves 90 minutes thereafter. These should be the basis of this standard. We recommend the two core requirements be: R1. Except when experiencing an Energy Emergency Alert Level 2 or Level 3, a Balancing Authority or Reserve Sharing Group experiencing a Reportable Event less than or equal to its MSSC shall activate sufficient Contingency Reserve to comply with the DCS. Events > than MSSC are reported, but do not factor into the compliance calculation. R2. Except when experiencing an Energy Emergency Alert Level 2 or Level 3, a Balancing Authority or Reserve Sharing Group experiencing a Reportable Event less than or equal to its MSSC shall replenish its reserves within 105 minutes of the onset of the Reportable Event. To provide clarity, the compliance section of the standard should describe the reporting approach for events > MSSC. The "Reserve Guidelines" document should be expanded to explain that BAs are expected to make best efforts to recover from events > MSSC, but that transmission security takes precedence. Either the Reserve Guidelines document, the compliance section of the standard, or an appendix to the standard should include the reporting form for DCS. Alternatively, the drafting team could create the report in spreadsheet form. The form should include the basis of the MSSC and clarify that the form is to be used for NERC reporting and under what conditions: periodic or only upon non-compliance. The sizes of the Reportable Events for the Interconnections proposed by the drafting team are acceptable and meet the intent of one of the 693 directives.

Individual

Denise M. Lietz

Puget Sound Energy

In section A of the definition of Balancing Contingency Event, the word "Loss" should not be capitalized since it is not a defined term. In the definition of Most Severe Single Contingency, the drafting team should capitalize "contingency" where it is used in the phrase "due to a single contingency". "Contingency" is defined in the NERC Glossary and it is confusing to use an undefined version of a defined term, because that use leads to the question about how this version of "contingency" differs from the defined version. In addition, the defined term looks appropriate to use in this context. The last full sentence of the definition of "Reportable Balancing Contingency Event" does not indicate who can reduce the 80% threshold. It should instead read "A Responsible Entity may reduce the 80% threshold upon written notification to the Regional Entity." The first sentence of R1 should require recovery of "Reporting ACE" (right now it just applies to "ACE"). The use of the phrase "prior to that value of Reporting ACE" in the two bullets of R1 that address subsequent events is confusing and ambiguous. It is difficult to suggest alternative language without understanding the phrase's intended purpose. Including the language about energy emergencies in the applicability section and in the requirements has the potential to create ambiguity in the application of the standard. The better approach is to deal with this matter in the applicability section alone. The Severe VSL for requirement R1 leaves a situation where there was no recovery at all out of the equation entirely. This VSL could instead read "The Responsible Entity failed to provide any of the required recovery or recovered partially ... but recovered 70% or less of required recovery."

Group

ISO-RTO Council Standards Review Committee

Terry Bilke

General Comments We appreciate the opportunity to comment and the work the drafting team has contributed to this effort. We have concerns with some of the changes proposed to BAL-002 absent demonstrated need, particularly when the changes were not proposed in the team's SAR nor directed in Order No. 693. The SAR for the drafting team was basically to clean up the V0 clutter in the standard and address Order No 693 directives. The only two true requirements in the V0 standard are to recover from reportable events in 15 minutes and replenish reserves 90 minutes thereafter. Beyond this, we recommend focusing on the intent of the 693 directives. The NERC Resources Subcommittee performed analysis when DCS was first developed and found that the average time to recover from large unit trips was roughly 15 minutes. Recent analysis for BAL-003 has found that all four Interconnections recover from large unit trips in about 5 minutes. Compared to where we were 10 years ago, performance has been stellar. BAL-002 is working quite well today. We don't agree with the use of this standard to define terms not directly needed in the standard (e.g. Reporting ACE). We disagree with the new definition of Contingency Reserve as it provides no guidance on how to objectively measure reserves. Definitions Reserve Sharing Reporting ACE. The proposed term Reserve Sharing Group Reporting ACE is not needed as it is not referenced in the standard and serves no purpose. Pre-Reporting Contingency Event ACE Value. The measurement process used to date has been effective. We see no reason to add this level of complexity. Comments on R1 Complexity. There is no reasoning provided for the complexity added to the calculation. The current approach is well understood by the industry. The SAR does not discuss changing the measurement approach. Events > MSSC. We have concerns with the

new performance calculation for events greater than the Most Severe Single Contingency (MSSC). First, it appears the calculation would not work if the generators that were lost were the units carrying the Balancing Authority's reserves. Our second concern is that this proposed change may likely negatively impact reliability. It appears that the drafting team is attempting to put a measure on events > MSSC to ensure a Balancing Authority responds quickly to large events. While laudable in concept, multi-contingent events are typically associated with something wider happening on the transmission system. The priority for operators when something major occurs is transmission security rather than rushing to achieve a zero ACE. It should be remembered there are protective backstops in place absent this proposed change:

- The IROL standards still require operators to take whatever action is necessary to prevent cascading with the next contingency, to include shedding load or redispatch.
- The new BAL-001 standard will require the Balancing Authority to take action within 30 minutes to get frequency back within acceptable bounds.
- The Energy Emergency Alert process still exists to address any reserve shortfall. Implementing a requirement that causes a knee-jerk ramping of all generation following a multi-contingent event may likely exacerbate congestion. We support the current process whereby events > MSSC are reported.

We have no problem with the report form asking for additional data for events > MSSC that are used in the Events Analysis and Reliability Assessment and Performance Analysis (RAPA) processes, but believe it is a mistake to add a performance expectation for events > MSSC. The preamble of the original Operating Manual on which we have built our standards outlined a premise that we operate to N-1 and make best efforts to protect the system for events greater than this. Here is the text from the Operating Manual. All CONTROL AREAS shall operate so that instability, uncontrolled separation, or cascading outages will not occur as a result of the most severe single contingency. Multiple outages of a credible nature shall also be examined and, when practical, the CONTROL AREAS shall operate to protect against instability, uncontrolled separation, or cascading outages resulting from these multiple outages. Change from Quarterly Metric. DCS performance has always been calculated and reported on a quarterly basis. This is no different than CPS1 and CPS2 whose performance is based on annual and monthly calculations. There have been no reliability issues that point to the need for making the DCS an event-by-event standard as is now proposed. We believe this proposed change will lead to changes in how Reserve Sharing Groups will select events, only reporting those very large events rather than allowing members to call for reserves for smaller contingencies. This is a step backward for no defined need. ACE Definition. R1 requires the Responsible Entity experiencing a Reportable Balancing Contingency Event shall, within the Contingency Event Recovery Period, return its ACE to at least:..... ACE is currently defined as: "The instantaneous difference between a Balancing Authority's net actual and scheduled interchange, taking into account the effects of Frequency Bias, correction for meter error, and Automatic Time Error Correction (ATEC), if operating in the ATEC mode. ATEC is only applicable to Balancing Authorities in the Western Interconnection." We thus interpret "its ACE" in Requirement R1 to mean a BA's ACE unless the RSG is explicitly mentioned in the requirement. If this is to be interpreted as the Responsible Entity's ACE which also includes the RSG since it is included in the Applicability Section, then a term Reserve Sharing Group ACE will need to be defined, or some explicit language be added to R1 to achieve the purpose that the SDT suggests in its response to our comments. Comments on R2 This requirement proposes another major change to what is a superior approach of performance-based standards. This requirement will also likely have significant negative unintended consequences. Reserves are an inventory intended to be used when there is a reliability need. The original Policy 1 listed multiple reasons for carrying operating reserves (errors in forecasting, generation and transmission equipment unavailability, number and size of generating units, system equipment forced outage rates, maintenance schedules, regulating requirements, and Regional and system load diversity). We believe the addition of a commodity measure will have unintended consequences. The first unintended consequence is that BAs are encouraged by this requirement never to deploy their contingency reserves except for DCS-reportable events. BAs whose ACE is extremely negative for other reasons would be reluctant to deploy their contingency reserves because the timer would start ticking on the "available hours" clock. The second unintended consequence for those BAs that don't withhold contingency reserves for non-DCS events is that they will be obliged to increase the amount of contingency reserves they carry so they always have more contingency reserves than their MSSC. This will increase costs to our customers without a demonstrated need. DCS performance in North America has been stellar compared to what was considered adequate performance under Policy 1. The standard provides no clear definition on how contingency reserves are measured. Does it include all generation headroom available in 10 minutes? In 15 minutes? What about resources that are also providing AGC? Does their instantaneous headroom count? Are load resources available in 15 minutes or 10 minutes counted? What about demand response resources that aren't directly measured? Finally, are the hours referenced in the standard clock-hours, any contiguous 60 minute period, or the total minutes in a quarter divided by 60? Proposed Solutions We recommend the two core requirements in the existing BAL-002 be retained with modification: R1. Except when experiencing an Energy Emergency Alert Level 2 or Level 3, a Balancing Authority or Reserve Sharing Group experiencing a Reportable Event less than or equal to its MSSC shall activate sufficient Contingency Reserve to comply with the DCS. Events > than MSSC are reported, but do not factor into the compliance calculation. R2. Except when experiencing an Energy Emergency Alert Level 2 or Level 3, a Balancing Authority or Reserve Sharing Group experiencing a Reportable Event less than or equal to its MSSC shall replenish its reserves within 105 minutes of the onset of the Reportable Event. We would be OK with an addition requirement that asks the BA to perform an assessment of its next day and real time reserve targets and the basis of its MSSC and that the BA provide this assessment to its Operators and its Reliability Coordinator. The assessment should be done each calendar year or within a month following an event > MSSC. To provide clarity, the compliance section of the standard should describe the reporting approach for events > MSSC. The "Reserve Guidelines" document should be expanded to explain that BAs are expected to make best efforts to recover from events > MSSC, but that transmission security takes precedence. Either the Reserve Guidelines document, the compliance section of the standard, or an appendix to the standard should include the reporting form for DCS. Alternatively, the drafting team could create the report in spreadsheet form. The reporting form should be similar to what is used today. The form should include the basis of the MSSC. The sizes of the Reportable Events for the Interconnections proposed by the drafting team are acceptable and meet the intent of one of the 693 directives. We believe it is acceptable to put something in the compliance section of the standard that notes if the same event > than MSSC occurs within 3 years, the BA should be held to the DCS for that contingency until it demonstrates the triggering mechanism has been mitigated. We agree with the current direction of the team to address the 693 directive to develop a "continent-wide contingency reserve policy" via the "Reserve Guidelines" document. Beyond what is mentioned above, the

document should provide guidance on how the BA assesses the necessary amount of reserves as well as provide simple definitions of the different types of reserves (in particular for this standard, contingency reserves and replacement reserves). Once these terms are defined and commented on by the Industry in the document, NERC should add these types of reserves to "Attachment 1-TOP-005 Electric System Reliability Data" with the expectation in the policy that Reliability Coordinators collect this information in real time for use in the EEA process. We believe there would be significant reliability value in giving RCs visibility of the current state of Contingency Reserves (something callable in 10 minutes, fully deployed in 15 minutes and sustainable for at least 90 minutes) and Replacement Reserves (something callable in 90 minutes and sustainable for say 4 hours). This would directly contribute to reliability by providing objective information to BAs and RCs in managing Energy Emergency Alerts.

Individual

Richard Vine

California Independent System Operator

The proposed standard would require the California ISO to treat a loss of MW output greater than or equal to 500 MW as a Reportable Balancing Contingency Event resulting in dispatch of reserves to meet DCS recovery time limits. Currently, the ISO is only required to dispatch reserves for DCS events greater than 80 percent of the Most Severe Single Contingency, or about 900 MW. There does not appear to be any technical justification for this significant reduction in reporting/action threshold which will result in the unnecessary deployment of contingency reserves on a more frequent basis.

Group

Southern Company; Alabama Power Company; Georgia Power Company; Gulf Power Company; Mississippi Power Company; Southern Company Generation; Southern Company Generation and Energy Marketing

Pamela Hunter

Agree

SERC OC Standards Review Group

Group

Bureau of Reclamation

Erika Doot

The Bureau of Reclamation supports the proposed standard.

Group

Bonneville Power Administration

Jamison Dye

BPA concurs with the current draft of BAL-002-2 with no comments or concerns.

Individual

Kathleen Goodman

ISO New England Inc.

Agree

IRC SRC