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Individual
Robert Blohm
Keen Resources Asia Ltd.
No
The definition of "Pre-Reportable Contingency Event ACE Value" is written in convoluted English. It can be written simply as: "The value of ACE immediately prior to the earliest Reportable Contingency Event that occurred after the last time all previous Reportable Contingency Events' recovery periods had expired."
Yes
Yes
Yes
Yes
Individual
Joe Tarantino
Sacramento Municipal Utility Disrtict
Yes
Yes
Yes
Yes
Yes

Individual
Brendan Kirby
Consult Kirby
No
The language in the definition of "Balancing Contingency Event" under C. a. i. and ii. appears to allow deployment of contingency reserves in the case when a generator fails to come back from a maintenance outage. Or contingency reserves could be deployed if a generator is forced off line early in the day. If either of these generators was being counted on to provide energy during the upcoming peak period the system operator might conclude that this will "leave the responsible entity unable to maintain its ACE following the failure, unless it deploys Contingency Reserve." My concern is that the contingency reserves can be deployed before there is any ACE deviation ("...not an immediate cause of an unexpected change to the responsible entity's ACE..."). Since there is no ACE deviation there is no DCS event start time and consequently no requirement to restore reserves. There is no Contingency Event Recovery Period and no Contingency Reserve Restoration Period. Further, simply declaring that a generator has unexpectedly become unavailable and the system operator feels the system will be unable to maintain ACE without deploying contingency reserves now exempts the system from DCS accountability indefinitely because any further contingency will be greater than the Balancing Authority's Most Severe Single Contingency. The language in the second bullet under R1 appears to grant this exemption because the first generator failure, which did not result in an ACE deviation, never started the clock that would end the Contingency Reserve Restoration Period.
Yes
No
If the Balancing Contingency Event definition is not changed to eliminate the use of contingency reserves prior to an actual event then that must be addressed here.
Yes
Individual
Anthony Jablonski
ReliabilityFirst
No
ReliabilityFirst offers the following comments for consideration related to the proposed definitions: 1. Definition of Balancing Contingency Event a. RFC seeks further clarification on section C of the definition of Balancing Contingency Event. Based on the language, RFC believes this section is already covered in section A. The "Inability to start a unit..." and "Internal plant equipment problems that force the generator to be ramped down or taken offline" seems to be very similar as a "unit tripping" or a "Loss of generator Interconnection Facilities resulting in isolation of the generator from the Bulk Electric System" which is covered in section A. RFC recommends removing section C. 2. Definition of Reportable Contingency Event: a. RFC questions how the 80 percent value was determined. Is there an associated technical justification for this value? If so, can the SDT explain?
Group
PacifiCorp

Sandra Shaffer
Yes
Yes
Yes
Yes
PacifiCorp is concerned about the deletion of the highlighted language from the Applicability section of BAL-002-2. Without this language, it could be interpreted to mean that both Balancing Authorities and Reserve Sharing Groups must comply with the standard. Under BAL-002-1, Balancing Authorities may meet the requirements through participation in a Reserve Sharing Group. While this information is set forth in the Additional Compliance Section 1.4, the Federal Energy Regulatory Commission has taken the position that information set forth in the Additional Compliance Section is not part of the requirements of the standard and thus, may not be used to interpret the standard. As a result, PacifiCorp suggests including this explicitly in the Applicability or Requirements section of the standard. PacifiCorp would also propose including the other language contained in the Additional Compliance Section in the Requirements portion of the standard to ensure that it will be interpreted as part of the standard. 4. Applicability 4.1 Balancing Authority 4.2 Reserve Sharing Group (Balancing Authorities may meet the requirements of Standard 002 through participation in a Reserve Sharing Group.)
Individual
Greg Travis
Idaho Power Company
Yes
Yes
Yes
Yes
Yes
None
No
Individual
Michael Falvo
Independent Electricity System Operator
No
1. The term Balancing Contingency Event, Category B: we suggest changing "non-interruptible import" to "import" since a BA must be able to meet DCS requirement and recover ACE regardless of the type of import that gets curtailed or interrupted. A sudden loss to an interruptible import has the same resource deficiency impact on the importing BA. 2. The term Most Severe Single Contingency: The wording "or the greatest loss of activated Direct Control Load Management used by the Balancing Authority" gives the misconception that it is the loss of the load under the Direct Control Load Management program. Such a loss will actual result in increasing available resource in the BA area, which enhance the BA's capability to meet firm system load and non-interruptible export obligation. We suggest to revise the wording to "or the greatest loss of capability of Direct Control Load

Management used by the Balancing Authority..." 3. Contingency Event Recovery Period: We do not agree with the proposed start time. The period should start when tie deviation exceeds the reporting threshold. Operators do not normally start implementing remedies until the threshold level is exceeded. It is not clear when the recovery period begins for Balancing Contingency Event Category C, as it may not be an immediate cause of an unexpected change to ACE with the responsible entity's judgment also a factor. 4. Balancing Contingency Event: Category C requires clarification in order to determine the magnitude of the contingency event. For example, if a 900 MW generating unit failed to start that was to ramp to full output in 45 minutes and in the Entity's judgment, contingency reserve is required to restore ACE, what is the magnitude of the contingency? Categories A and B are straight forward as they both relate to sudden losses, however it is unclear on how to determine magnitude for reporting purposes.

Yes

No

1. The requirement states that the BA or RSG experiencing a Reportable Contingency Event shall implement its Contingency Reserve Plan, which implies that it must be done. There could be occurrences where a Reportable Contingency Event has occurred, where ACE is restored without the need for activating contingency reserve. For example, pre-contingency ACE is positive and demand is reducing just prior to event and following the event, ACE meets requirements. Must a BA or RSG activate contingency reserve if not required? BAL-002-1 states that each BA or RSG shall activate sufficient Contingency Reserve to comply with the DCS, which implies that it is activated as required. Suggest revising to provide clarification.

Yes

Yes

There is no technical basis provided for the 500 MW reporting threshold, and its universal application across all Interconnections is not explained in the standard or the background document.

Individual

Michael Goggin

American Wind Energy Association

No

It may be efficient and desirable from a reliability standpoint to use contingency reserves under some circumstances to help accommodate the initial phase of extreme ramps in wind energy output, which would not be allowed under the standard as currently drafted. Since extreme wind events would be extremely rare (a few times per year) and short-lived (typically shorter than an hour or two in duration), such events would be highly unlikely to coincide with other demands for contingency reserves. For equity reasons it may also make sense to expand access to contingency reserves to wind plants, since contingency reserves are maintained for all users of the power system, yet under current rules wind plants use far fewer contingency reserves than other types of generation.

Yes

Yes

Yes

Yes

Group

Progress Energy
Jim Eckelkamp
No
Reportable Contingency Event should be changed to read "Any Balancing Contingency Event greater than or equal to 80 percent of the Balancing Authority's Most Severe Single Contingency." The 500 MW amount in the proposed definition is not necessary and will not improve Reliability of the BES. The basis or rationale for the 500 MW amount is not discussed in the background document. The proposed Pre-Reportable Contingency Event ACE Value needs to provide a specific time frame for calculating pre-event ACE instead of "immediately prior."
No
This Standard should be combined with the proposed BAL-013 to cover all sudden ACE deviations greater than a certain magnitude occurring in one minute or less, regardless of if the event is a loss of generation, resources, or load.
No
The fourth bulleted item "Provided...." is not clearly worded in a manner that would allow for easy understanding of what is required. It is not clear when the "clock" starts and ends for a series of contingency events that exceeds the MSSC. PEC agrees with the concept that timely restoration of ACE needs to take place, even when the event exceeds the MSSC, however the required time frames must be clearly defined and understandable to System Operators and Resource Planners.
No
There is no background or rationale given for the 500 MW threshold required for a "Reportable Contingency Event."
Should "Reporting ACE" that is a newly defined proposed term be used in place of just "ACE" in order to achieve consistency across this set of Standards proposed in this Operating Reserves project?
Individual
Thad Ness
American Electric Power
Yes
Yes
Yes
Yes
Yes
Yes
Group
Northeast Power Coordinating Council
Guy Zito
No
In order to address the proper treatment of slowly evolving generation losses, the second sentence of the definition of Contingency Event Recovery Period should be revised to read: "...The start of the Balancing Contingency Event is the point in time where the first change in MW is observed due to the event that occurs within the first minute in which the change in MW output exceeds the size of the applicable Reportable Contingency Event." For the Reportable Contingency Event, the 500MW reporting threshold would be a reduction in the DCS threshold for some Balancing Authorities. This

could present a double jeopardy situation with the NPCC spinning reserve requirement determination.
No
Requirement R1 has the proper concepts, but the bullets should be rewritten for clarity. Suggested rewording: o The Balancing Authority or Reserve Sharing Group: o If its ACE was positive or equal to zero just prior to the Reportable Contingency Event returned its ACE to zero less the sum of the magnitudes of all subsequent Balancing Contingency Events that occur within the Contingency Event Recovery Period, Or o If its ACE was negative just prior to the Reportable Contingency Event returned its ACE to its Pre-Reportable Contingency Value less the sum of the magnitudes of all subsequent Balancing Contingency Events that occur within the Contingency Event Recovery Period.
Violation Severity Levels have not been provided. The Standard does not address whether load shedding should be used if necessary to be compliant.
Individual
John Tolo
Tucson Electric Power
No
While the definitions provide some clarity, there have been no reliability issues related to the declaration of reportable events. Therefore leave the threshold at 80% of MSSC.
Yes
No
I agree with the 4th bullet, bullets 2 and 3 have verbage added that may be confusing. I prefer the existing R4.1 language. Currently there is no requirement for an Contingency Reserve Plan. If this Standard passes on its own, then that implies another compliance requirement for which there is no guidance.
No
With some modifications to R1, this Measure is acceptable.
No
Overall, the document provides clarity. However, the purpose of BAL-002-2 should be to recover from contingencies, not measure the success of a plan.
no
Individual
Kathleen Goodman
ISO New England Inc.
No

Although generally supportive of the modified Standard, we know of no known reliability concerns with the existing 80% FCL threshold on DCS and, therefore, do not understand or support the lowering to 500 MW. We would support, however, development of a Reliability Guideline, similar to what is being done for System Operator Verbal Communications, to enable reporting of smaller events (i.e. greater than 500 MW) to achieve more granular data and a larger sample set for potential future use, if deemed necessary by analysis. We would also provide a comment for the SDT to consider: although DCS compliance is important from a standpoint of ensuring adequate reserves are available and able to respond to contingencies, we do not believe that extraordinary actions (i.e. shedding of firm customer load) should be taken to comply with the DCS 15-minute recovery when the frequency and transmission system are in a secure operating space. Somehow we would appreciate it documented within BAL-002 that contingency recovery should not only place second from frequency and transmission security, but would note that striving for compliance with the DCS 15-minute recovery in some instances may actually create more harm on the system from an operating reliability perspective by having negative impact on limits or frequency.

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No

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 – This is a long and potentially complicated requirement. There will definitely need to be a further explanation/examples included for clarification.
Yes
No
No - The current BAL-002-1 states that its purpose is to “to ensure the Balancing Authority is able to utilize its Contingency Reserve to balance resources and demand and return Interconnection frequency within defined limits following a Reportable Disturbance” while the draft states its purpose is “to ensure the Balancing Authority or Reserve Sharing Group utilizes its Contingency Reserve to balance resources and demand and return the Balancing Authority’s or Reserve Sharing Group’s Area Control Error to defined values”. The background document does not discuss the reasoning for the difference in purpose statements.
No conflicts
Utilities will start units earlier than required to ensure they are available when needed for reserve purposes. Balancing Contingency Event definition “C” would seem to allow for waiting until the unit is actually needed and then declare an event if the unit fails to start.
Group
Southern Company
Antonio Grayson
No
Southern Company does not agree with the 500MW specification in the definition of “Reportable Contingency Event”. It is unclear what the basis for this value is. The background document did not provide any technical basis for this value. Please explain why this value was chosen. Southern suggest that each interconnection have a distinctive reporting level based on frequency impact and do not agree with the 500MW value in the definition of ‘Reportable Contingency Event’. We propose that the definition of ‘Reportable Contingency Event’ be changed to ‘Reportable Balancing Contingency Event’. Southern recommends that the definition of ‘Balancing Contingency Event’ include Direct Control Load Management and be removed from the definition of MSSC. Also, as it relates to the definitions of ‘Balancing Contingency Event’ and ‘Most Severe Single Contingency’, it is unclear what constitutes an event and is ultimately considered the MSSC. To avoid any misinterpretation by the industry or compliance enforcement entities, the SDT needs to clarify what types of events should be considered a MSSC. Examples: • Would a tornado causing the trip of multiple units at a site that exceeds the loss of the most severe single generating unit contingency be considered a credible contingency? • Would common scrubber, common GSU, etc. type events be considered credible contingencies in the identification of the MSSC? In general, Southern is concerned that credible but unlikely events would be construed as an MSSC for an entity and suggest the SDT to create a technical document with more clarification on this. We also suggest that “Sudden Loss” be clarified to occur within a one (1) minute time frame. We suggest changing the verbiage of the first sentence of ‘Contingency Event Recovery Period’ to read ‘A period not exceeding 15 minutes following the start of the reportable Balancing Contingency Event’. We further suggest changing the verbiage of the first sentence of ‘Contingency Event Restoration Period’ to read, ‘A period not exceeding 15 minutes following the start of the reportable Balancing Contingency Event’.
Yes
No
R1 should not require the implementation of the Contingency Reserve Plan. ACE recovery is the goal, not the implementation of the plan.
No
The Measure for the proposed Requirement requires reporting for units >80% of the largest contingency; however, the Measure does not address units >=500MW as stated in the definition of ‘Reportable Contingency Event’. Southern Company does not agree with the 500MW specification in

the definition of "Reportable Contingency Event". It is unclear what the basis for this value is. The background document did not provide any technical basis for this value. Please explain why this value was chosen. Southern suggest that each interconnection have a distinctive reporting level based on frequency impact and do not agree with the 500MW value in the definition of 'Reportable Contingency Event'.

No

The background document addresses carrying reserves to recover from the most severe single contingency. There seems to be no rationale or explanation for reporting events less than 80% of the MSSC. Please explain why the rationale for reporting events greater than 500 MW.

Individual

Chris Mattson

Tacoma Power

No

Tacoma Power generally agrees with the definitions as proposed. However, the use of the term "Balancing Authority" should be clarified in the definitions of MSSC and Pre-Reportable Contingency Event ACE Value. Tacoma Power suggests that the term be replaced with "Reserve Sharing Group or a Balancing Authority not in a Reserve Sharing Group." These definitions should only apply to a Balancing Authority when the Balancing Authority is not a member of a Reserve Sharing Group.

No

Tacoma Power generally agrees with the purpose statement as proposed. 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 a Balancing Authority when the Balancing Authority is not a member of a Reserve Sharing Group.

No

Tacoma Power generally agrees with the Requirement as proposed. 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 Requirement should only apply to a Balancing Authority when the Balancing Authority is not a member of a Reserve Sharing Group.

No

Tacoma Power generally agrees with the Measure for the proposed Requirement as proposed. 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 Measure for the proposed Requirement should only apply to a Balancing Authority when the Balancing Authority is not a member of a Reserve Sharing Group.

Yes

Tacoma Power does not have any concerns with the document at this time.

Tacoma Power is concerned how the proposed standard can be interpreted for application to Balancing Authorities. The proposed standard should only apply to a Balancing Authority when the Balancing Authority is not a member of a Reserve Sharing Group.

Tacoma Power appreciates the opportunity to comment on the proposed standard and thanks you for your consideration of our comments.

Group

LG&E and KU Services

Brent Ingebrigtsen

No

Balancing Contingency Event B. Sudden Loss of Non-Interruptible Import LG&E and KU Services suggest striking the language "due to forced outage of transmission equipment." A reliability entity can cut a tag for reasons other than a forced outage of transmission equipment (equipment OLS, contingency/stability/voltage criteria, etc.) – the sink BA experiencing the loss of the import may not

know the reason and thus not know if the loss meets the definition of a Balancing Contingency Event. It is unclear whether "non-interruptible" means firm transmission or firm power. C. Unexpected Failure of Generation to Maintain or Increase It's wrong to assume that the failure of a generator to start or increase will negatively impact ACE or BES reliability – the start may be for testing, an early/preemptive/precautionary start or similar action that does not negatively impact ACE. Language under "C. b." is vague, overly broad, and is prone to interpretation or selective enforcement by CEAs. LKE suggests "C" be deleted. This language could be added to "A" to cover situations where lack of generator performance negatively impacts ACE. Most Severe Single Contingency (MSSC) NERC currently does not have a definition for MSSC so this is the first attempt to draft such a definition. But this does not need to be defined since Contingency is already a NERC Glossary term. Since Contingency is already defined and the terms "single" and "most severe" are clear and unambiguous in their meaning, it is unnecessary to define MSSC. A Balancing Contingency Event (BCE) is only recognized after it occurs but the MSSC is a forward-looking/planned/forecasted/predicted value. It is not possible for an entity to predict the largest BCE that could possibly occur. The MSSC definition as drafted is too broad. The loss of Direct Control Load Management should be included in the definition of Balancing Contingency Event and not thrown into any definition of MSSC (i.e. make loss of DCLM a type of BCE). For non-interruptible export obligations – it is unclear how the source BA should know that the sink BA carries CRs to cover the export. As written, it appears that if the sink BA carries CRs then the export will not be considered as a potential MSSC for the source BA but it could be the MSSC for the sink BA. Reportable Contingency Event The NERC Glossary currently defines a "Reportable Disturbance" (vs. the proposed Reportable Contingency Event). It is unclear whether the definition of Reportable Disturbance will be deleted. To be consistent, call it a "Reportable Balancing Contingency Event". There is no apparent reliability need to lower the reporting threshold below the current 80% of MSSC. Applying a "hard" reporting threshold like 500MW for all BAs does not seem efficient or realistic due to the wide range of BA sizes. If the SDT is aware of any reliability purpose for changing the threshold, it should make that available to the industry. Such transparency by the SDT will benefit discussions in building industry consensus. Contingency Event Recovery Period LG&E and KU Services suggest "A period not exceeding 15 minutes following the start of the Reportable Balancing Contingency Event. The start of the Reportable Balancing Contingency Event is the point in time where the first change in ACE is observed due to the event." Otherwise Contingency Event Recovery Period is applicable to all BCEs which is inconsistent with the Purpose statement of the standard. Also, it may be difficult to ascertain exactly "where the first change in MW is observed due to the event" – the first MW change could occur several seconds or minutes prior to recognition of the occurrence of a Reportable Contingency Event. Contingency Reserve Restoration Period LG&E and KU Services suggest "A period not exceeding 90 minutes following the end of the Contingency Event Recovery Period, during which the Amount of Contingency Reserve deployed to recover from a Reportable Balancing Contingency Event is to be restored." Otherwise Contingency Reserve Restoration Period is applicable to all BCEs which is inconsistent with the Purpose statement of the standard. Pre-Reportable Contingency Event ACE Value LG&E and KU Services suggest: The value of ACE immediately prior to a Reportable Balancing Contingency Event when there are no previous Reportable Balancing Contingency Events for which the Contingency Event Recovery Period is not yet completed, or The value of ACE that the Balancing Authority or Reserve Sharing Group must attain to fully meet its ACE recovery requirement with respect to the immediately previous Reportable Balancing Contingency Event for which the Contingency Event Recovery Period is not yet completed.

No

R1 should not require the implementation of the CR plan – ACE recovery is the goal, not implementation of the CR plan. Standards should be "results based". Requirements should focus on what is needed for reliability, not "how" it is achieved. Compliance with R1 should not be dependent on correct implementation of a plan. "Previous" should not be capitalized.

The language used in the definitions and the language used in R1 is confusing. The definitions and parts of R1 indicate the 15 minute ACE recovery and 90 minute CR recovery clocks are applicable to all BCEs – not just the reportables. But R1 is clearly applicable only to Reportable CEs. Consistency is needed between the terms and language used in the definitions and R1. What is the reliability

purpose for extending the data retention period out to current year plus 3 calendar years from the currently required 1 year minimum? LG&E and KU Service suggests that the SDT provide clarification on reporting requirements, and provide its reasoning for such reporting requirements

Individual

Ed Davis

Entergy Services

No

There is a concern with the definition regarding 'Contingency Event Recovery Period' and when the 15-minute clock starts if a unit is experiencing issues and has a drop in MW output but does not actually trip offline until sometime later. The way the definition is proposed is that 'The start of the Balancing Contingency Event is the point in time where the FIRST change in MW is observed due to the event'. In some instances, this may not be for some period before a unit actually trips offline (possibly after the 15 minute window) or is able to recover from another issue. Also, the EMO/SPO does not agree with the proposed definition of 'Reportable Contingency Event' as currently being drafted, particularly 'the LESSER amount of 80 percent of the Balancing Authority's Most Severe Single Contingency OR 500 MW'. We do not agree that any MW loss less than 80% of the MSSC should be considered a Reportable Contingency Event.

Group

Bonneville Power Administration

Chris Higgins

No

The definition doesn't contain the "Single" portion of MSSC. This describes any event (multiple contingencies) of any size. BPA would like to see the definition expanded to include the "Single" portion of MSSC.

Yes

No

BPA believes the first paragraph of R1 should be removed. The "shall implement its Contingency Reserve plan" is covered in another requirement, which is referring to another potential standard. What if an entity has a choice between implementing NERC's plan, or meeting DCS? BPA appreciated the addition of the last bullet.

No

BPA does not support the proposed Measure in the standard because BPA disagrees with the requirement.

No

The last sentence of the Introduction states: The primary objective of BAL-002-2 is to measure the success of implementing a Contingency Reserve plan. BPA believes the primary objective is to recover from contingency events for the reliability of the system, not to ensure a plan is followed.

Group

SPP Standards Review Group

Robert Rhodes

No

Balancing Contingency Event - This definition is extremely complicated and contains numerous intertwined components which make it difficult, at best, to ascertain compliance. Is there any way the

SDT could simplify or consolidate elements of this definition to make it more palatable? Further explanation could be included in the background document. In Section C., what is the generation expected to maintain or increase? Is it MW, MVAR, boiler pressure, etc.? Also in Section C.a.i., we would suggest that the item read: i. inability to start a unit (for reasons other than lack of fuel) the Responsible Entity planned to bring online at that time, or Reportable Contingency Event – We have some concern over the addition of the 500 MW reporting criteria in this definition. Within SPP this raises the risk level of the Reserve Sharing Group considerably. What was the basis for including this criteria? Such an explanation was missing in the background document. Could the SDT please share their thinking on this issue? Within SPP, we have an established criteria whereby contingencies of 600 MW or greater are reviewed for DCS compliance whereas our official DCS compliance reporting criteria is approximately 1,000 MW. If such a requirement is needed and the SDT can share the reasoning behind that requirement, we would propose to set the threshold at 600 MW.

Yes

No

We are unsure of exactly what the reporting requirements are for R1. In the existing BAL-002-1, it is pretty clearly laid out, although spread out throughout the standard, what the BA or RSG must report to demonstrate compliance. It's contained in M1 and Section D.1.5. The existing BAL-002-1 also offers two options for reporting compliance for an RSG – one from the RSG perspective and one from the RSG participants taken individually. R1 implies that only the RSG as a group is to be reported. If this is the case, the SDT could clarify this by including a term Reserve Sharing Group ACE, and its definition, in the standard.

No

Please see our comment regarding reporting requirements in Question 3.

No

The document only contains a brief introductory paragraph, the requirement itself 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 or the definitions used in the standard. Additional information on the definitions is disparately needed as some of the definitions are extremely complicated.

Not aware of conflicts.

No.

Group

ACES Power Marketing Standards Collaborators

Jason Marshall

No

The definition of Balancing Contingency event seems overly complicated and it is not clear it is even needed. It appears to be an attempt to provide more precision over what constitutes a contingency that may be subject to DCS. However, it does not address all situations and could actually result in confusion over whether a particular situation is included as a result. For example, would a run back of a generator over a two minute period constitute a Balancing Contingency Event? Traditionally, these would be considered contingencies and subject to DCS if they meet the reportable event threshold. However, because the definition is so precise and does not specifically mention run backs, we are left confused over whether or not they are considered. The definition of Most Severe Single Contingency (MSSC) is too complicated. We suggest it should be kept very simple. It should be no more complicated than: "MSSC: The single most credible contingency that would result in the greatest resource loss." Even though there is a FERC directive to include Demand Side Management (DSM), the definition does not specifically have to reference it as long as the generic "resource" is used. The ultimate filing to FERC could simply explain that resource is intended to cover any type of resource including DSM. This explanation could also be included in an application guidelines section along with an explanation of the MSSC. We disagree with the definition of Reportable Contingency Event. First, it is not clear why the current Reportable Event definition is not satisfactory and if it is not, it is not clear why it is not being revised rather than creating a new term. The implementation plan does not even consider retiring the Reportable Event definition. Second, no basis is provided for the 500 MW threshold. Without a sound technical basis, it appears to be arbitrary. This is particularly troubling

considering that a BA or RSG can reduce the 80 percent threshold per section 1.4 of the standard. We disagree with the definition of Contingency Event Recovery Period. It states that the period starts at the point in time where the first change in MW is observed. For a generation runback over a period of a few minutes, this is problematic and significantly shortens the time period to recover from the contingency. It should start immediately after the final MWs of the contingency are lost. The definition of Contingency Reserve Restoration Period is not needed and provides no additional clarity. It is used only once in the standard in the second bullet under Requirement R1. The bullet would be clearer if it directly stated that for any contingencies with an aggregate total that exceeds the MSSC that occur within 90 minutes of the first contingency, the BA or RSG only has to recover for the loss of the MSSC. The bullet correctly assumes that the BA or RSG will try to recover its contingency reserve in less than 90 minutes. However, it is not necessary to refer to the Contingency Reserve Restoration Period to cover this shorter period. The BA will either take the full 90 minutes to recover its contingency reserve or the BA will recover the contingency reserve in less than 90 minutes. If a contingency occurs before contingency reserve is fully recovered, the BA may have to use its emergency procedures which are required in the EOP standards. If the BA has recovered the full amount of its contingency reserve before the next contingency, it will be able to recover ACE. Thus, reliability is preserved either way and the requirement is simpler.

Yes

No

We disagree with the implied requirement to have a contingency reserve plan. No such plan was required in the existing standard and no justification has been provided for its need. There are enough resource contingencies that actual demonstration of implementation of contingency reserve should be sufficient.

No

It seems the only way to verify that ACE was recovered is to have ACE data available. Thus, we would expect to see ACE in the measurement.

No

There is essentially a single paragraph of explanation in the background document. The rest is either the requirement or an introduction. Significantly more background needs to be provided to explain such dramatic changes to this standard. For example, why does the document imply a requirement to have contingency reserve plan? No such requirement existed in the past. The existing standard was fairly clear. Only a few refinements were necessary to the existing standard to address outstanding issues.

In general, we do not understand the wholesale rewrite of this standard and the indirect and implicit requirement to have a contingency reserve plan. We further do not understand why some of the requirements were modified and moved to BAL-012-1 and BAL-013-1. One key issue really needed to be addressed in this standard regarding clarifying within the requirement that a BA or RSG could not be held in violation of the standard for a contingency that exceeds the MSSC. We disagree with the data retention requirements of up to four years. First, it raises the bar without justification from the current standard which only requires one year. Second, they are 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. Third, NERC already requires quarterly data reports for DCS and will likely continue to require similar reports even with this new standard. Thus, NERC can retain these reports for the four years if they need them. The implementation plan proposes to retire both BAL-002-0 and BAL-002-1. BAL-002-0 has already been retired on March 31, 2012.

Individual

Don Jones

Texas Reliability Entity

No

The MSSC should not be limited to the greatest loss of generation output; it may also be due to the loss of an import tie line. Even with the definition of “Balancing Contingency Event” including sudden

loss of non-interruptible import, the inclusion of "of generation output" phrase in the MSSC definition could be misinterpreted. Suggest referencing Subsection A, B, or C of the Balancing Contingency Event definition. Should there be any mention of Reserve Sharing Group obligations in the MSSC and Reportable Contingency Event definitions (implied in Requirement 1 but not explicit in the definitions)? Should the "Contingency Event Recovery Period" and "Contingency Reserve Restoration Period" apply to all Balancing Contingency Events or only to Reportable Contingency Events, in order to be consistent with Requirement R1? There is an existing definition for "Contingency Reserve" which may need to be modified (refers to DCS standard and RRO). There is an existing definition for "Disturbance Control Standard" which may need to be modified or deleted. There are existing definitions for "Operating Reserve-Spinning" and "Operating Reserve-Supplemental" which may need to be modified (refer to "contingency event" and "Disturbance Recovery Period").

No

The purpose statement does not match the title or the intent of the Standard. Need to ensure consistency between the use of "Reportable Contingency Event" and "Balancing Contingency Event."

Yes

We agree with the intent of last bulleted paragraph of R1 to require a BA or RSG to carry enough contingency reserves for its MSSC, however the wording is confusing.

Yes

There should also be a requirement for compliance with the Contingency Reserve Restoration Period. None is explicitly stated. R1 appears to only cover the Contingency Event Recovery Period as the BA/RSG implements its Contingency Reserve plan.

Individual

RoLynda Shumpert

South Carolina Electric and Gas

No

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

Yes

No

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

Yes

No

No

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

Individual

Karen Webb

City of Tallahassee

No

1. The City of Tallahassee (TAL) disagrees with the definition for Reportable Contingency Event, as it does not provide the latitude to modify the minimum threshold as is discussed in section D.1.4., Additional Compliance Information, which states a BA or RSG can reduce the 80% threshold. 2. TAL seeks clarification on the end-time for the Contingency Event Recovery Period. Without a defined end-time, entities would presumably define the end-time individually, including up to the maximum 15 minute period to restore ACE to the Pre-Contingency Event ACE Value. 3. TAL disagrees with the

proposed definition of the Most Severe Single Contingency, due to the inclusion of the loss of load scenario. TAL believes loss of load can be measured in the proposed BAL-001-1, R2 30-minute criterion.
Yes
Yes
Yes
No
TAL seeks additional information or examples in the background document to understand what events require evidence of what level of recovery when combined with the Disturbance Recovery Periods.
1. 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. 2. Additional Compliance Information: This section states that a BA or RSG may optionally reduce the 80% threshold, but does not address reduction of the 500MW threshold. TAL is unclear as to whether this was an intentional omission or if there is justification to only having the minimum threshold of 500MW.
Group
Associated Electric Cooperative, Inc., JRO00088
David Dockery
No
Reportable Contingency Event definition, and others as noted below: Remove: "or 500 MW" then realign all other definitions accordingly, to remove loss of load contingency references Rationale: AECI was encouraged to see that our industry cited a load-loss value other than the too-often cited 300 MW "tell DOE, so they won't get caught flat-footed before our President or Congress?", but we were equally disappointed to discover there was no technical reliability-related justification for the 500 MW value drafted within the supporting "BAL-002-2_Background_Document_Clean_20120601" document. Because this 500 MW threshold is not technically supported and it stands in confusing conflict with the 300 MW DOE reporting threshold, it should be removed. (SEE AECI rationale posted with BAL-013-1 Question 1, regarding Large Loss of Load Event definition, pertaining to a PNNL technical study of the Western Interconnection system.)
Yes
No
BAL-002-2 R1 changes: Remove: "so that the Balancing Authority or...", ie remove everything that follows within this requirement's wording. Rationale: While Contingency Reserve plans are designed to accomplish the bulleted items within this Requirement 1, there is no guarantee of their success in every possible circumstance. Having these extra words assuring each plan's achievement of other requirements, only serves to expose the industry to double-jeopardy where a plan failed to cover unimagined circumstances.
Yes
Wisely worded.
No
The SDT failed to technically justify their 500 MW load-related threshold.
No
Since the SDT changed data-retention from 1 to 3 years, the background document should provide insight into that change. If the change is for audit-period, then those could become longer and so a wording change should provide the necessary flexibility to cover that possibility.
Group

ISOs Standards Review Committee
Terry Bilke
No
1) The term Balancing Contingency Event is overly complex and pulls in things never intended in DCS (failure of a generator to start or move). The only problem with today's definition is that due to differences between beta and Bias Setting, ACE magnitude does not equate to contingency size. 2) The term Most Severe Single Contingency (MSSC) is now complicated in that it is nested with the Contingency Event term. There is no need to change the existing definition. 3) We disagree with the definition of Contingency Event Recovery Period. The period should start when tie deviation exceeds the reporting threshold. Operators aren't psychic and don't know if a runback or other partial event will turn into a reportable event. 4) The term Balancing Contingency Event, Category B: we suggest changing "non-interruptible import" to "import" since a BA must be able to meet DCS requirement and recover ACE regardless of the type of import that gets curtailed or interrupted. A sudden loss to an interruptible import has the same resource deficiency impact on the importing BA. 5) The term Most Severe Single Contingency: The wording "or the greatest loss of activated Direct Control Load Management used by the Balancing Authority" gives the misconception that it is the loss of the load under the Direct Control Load Management program. Such a loss will actual result in increasing available resource in the BA area, which enhance the BA's capability to meet firm system load and non-interruptible export obligation. We suggest to revise the wording to "or the greatest loss of capability of Direct Control Load Management used by the Balancing Authority..."
No
1) If the proposed BAL-001 BAAL requirement is approved, there is no need for BAL-002. 2) It should be noted that BAs do not always use their Contingency Reserve service to respond to events. The purpose would be better stated if it stated "To ensure the Balancing Authority or Reserve Sharing Group balance resources and demand to be within defined values (subject to applicable limits) following a Reportable Contingency Event.."
No
1) The requirement is fine when looking at BAL-002 in isolation. If the proposed BAL-001 BAAL requirement is approved, there is no need for BAL-002. 2) While avoiding defining what constitutes a contingency reserve policy, the drafting team has created a second issue as exactly what constitutes a Contingency Reserve Plan? Since it is not defined the Industry is at risk to subjective evaluations of any developed plan. 3) The compliance section of the standard should provide guidance on evaluating fixed RSGs and dynamically allocated RSGs.
Yes
Yes
1) The 500 MW reporting threshold appears arbitrary, particularly when you're using the same size for all Interconnections. 2) Ultimately, if the BAL-001 BAAL requirement were approved, BAL-002 is a redundant standard and should be retired. While the FERC made directives on BAL-002, BAAL is an equally effective alternative standard that is easier to administer and does not need all the specially proposed definitions.
Group
MISO Standards Collaborators
Marie Knox
No
<ul style="list-style-type: none"> The term Balancing Contingency Event is overly complex, overly broad, and ambiguous. MISO notes that, as written, the proposed term would require reporting for Bulk Electric System (BES) issues never intended to be tracked as reportable events, i.e., failure of a generator to start or move. Further, MISO notes that the currently used term Disturbance and its definition could easily be modified to address the fact that ACE magnitude is not easily correlated to contingency size. MISO also notes that, as Balancing Contingency Event is replacing Disturbance and Reportable Contingency Event is replacing Reportable Disturbance, the introduction of these terms could result in

inconsistencies and ambiguities with Registered Entities' obligations under other Reliability Standards where these terms are utilized, e.g., BAL-003, EOP-004, EOP-005, EOP-006, IRO-005, etc. • The determination of a Balancing Authority's Most Severe Single Contingency (MSSC) is now complicated by the nesting of the term Balancing Contingency Event. The nesting of the Balancing Contingency Event into the definition and determination of a Balancing Authority's MSSC limits a Balancing Authority's ability to utilize its Subject Matter Expertise and Engineering Judgment to determine its MSSC. This appears unnecessary and would likely not result in any benefit to the reliability of the Bulk Electric System as Balancing Authorities should be free to utilize its Subject Matter Expertise and Engineering Judgment to determine its MSSC. The 500 MW reporting threshold appears arbitrary considering that each Interconnection has different and variable characteristics that determine the threshold of impact at which a Disturbance would be sufficient to necessitate reporting. Furthermore, for large BAs or organized markets, this requirement doesn't add any reliability enhancement or benefit. Specifically, MISO calculates a set of Security Constrained Economic Dispatch (SCED) generator setpoints every 5 minutes. If a 500 - 600 MW generator trips, MISO can, under most circumstances, simply calculate and distribute a new set of generator setpoints. This system allows the entire fleet of generation resources within the MISO BA to respond to generation losses and events using normal operating procedures, replacing the lost generation within 5 - 10 minutes from the time of the initial loss without requiring the initiation of emergency or abnormal operating procedures or processes. Further, the MISO BA is able to respond to such generation losses while retaining its ability to respond to major disturbances using its contingency reserves, i.e., the use of the SCED system will, under most circumstances, preempt the need to tap into contingency reserves. Accordingly, to treat these relatively small generation losses as Disturbance Control Standard (DCS) events requiring the deployment of contingency reserves may actually pose additional risk to the BES as contingency reserves would be deployed more often and unnecessarily. Further, such treatment would also require the use of abnormal or emergency operating procedures rather than utilizing the normal dispatch functions available to many system operators. Finally, MISO respectfully suggests that the administrative efforts associated with the DCS reporting required could require large BAs or organized markets to hire additional personnel simply to track these relatively small losses with no attendant or associated benefit to the reliability of the BES.

No

MISO reiterates that, if the proposed BAL-001 BAAL requirement is approved, there is no need for BAL-002. IF the BARC SDT disagrees, MISO proposes that the purpose should be revised to remove the new term, Reportable Contingency Event.

No

MISO reiterates that, if the proposed BAL-001 BAAL requirement is approved, there is no need for BAL-002. IF the BARC SDT disagrees, MISO proposes that R1 should be revised to remove the new terms upon which MISO provided comment above, specifically Balancing Contingency Event, Reportable Contingency Event, MSSC, Contingency Event Recovery Period, and Pre-Reportable Contingency Event ACE Value.

Yes

Yes

MISO notes the use of cross-references and similar terms among and between Reliability Standards. Accordingly, terms and concepts previously utilized in BAL-002-1 that have been replaced, modified, or re-defined in BAL-002-2 may impact other Reliability Standards such as BAL-003, EOP-004, EOP-005, EOP-006, IRO-005, etc. MISO notes that the use of cross-references and similar terms should be evaluated to ensure consistency amongst the Reliability Standards and requirements. In particular, where terms and requirements have been redefined, modified, or replaced in BAL-002-2, a cross-referenced or closely related standard or requirement could be impacted by the modification to BAL-002-2. For example, EOP-004 governs Disturbance Reporting. The term Disturbance was once utilized in BAL-002-2 and is now replaced with Balancing Contingency Event. Do these reliability standards correlate? Should they? Hence, MISO notes to the BARC SDT that the creation of a new glossary definition could result in ambiguity regarding required performance outcomes and obligations where a previously defined term had been used and is maintained in cross-referenced or closely related standards. For example, several Reliability Standards refer to and use Disturbance. It is unclear

whether this performance obligation remains tied only to events meeting the definition of a Disturbance or whether they should now also apply to a Balancing Contingency Event. MISO respectfully suggests that the BARC SDT perform a comprehensive review of BAL-002-2's impact on cross-referenced or closely related Reliability Standards prior to implementation.

Individual

Nicholas L. Hall

Constellation Energy Control and Dispatch, LLC

No

The term "Sudden Loss" has no time-reference, which creates confusion and potentially broad interpretation when discussing Non-Interruptible Imports. Would a "Sudden Loss" of a schedule be one that is curtailed 10 minutes ahead of its scheduled start, five minutes from the current time, or instantaneously? Without a defined measurement for "Sudden Loss," Balancing Authorities are subject to a recovery standard which cannot be known ahead of time, creating an unreasonable burden for recovery. Part c of the definition for a Sudden Loss of Generation needs further clarification on when normal, recurring operating characteristics of a unit do not constitute sudden or unanticipated losses, and whether they are not for consideration under this definition. The phrase "may not be subject" creates significant uncertainty for determining when, and if, a loss of generation that is the result of the normal, recurring characteristics of a unit would be considered under the definition, and therefore held to recovery under the requirements contained in this standard. The definition for Unexpected Failure of Generation to Maintain or Increase brings significant uncertainty to the process of Contingency Event Recovery, as it fails to clarify the timeframe in which a failure of a unit to start would impact a responsible entity such that it is unable to maintain its ACE. If, for example, a unit slated for startup several hours in the future fails to start, well ahead of the timeframe in which it would be needed for maintaining ACE, does that constitute a Reportable Event under this definition? If so, does the event timing (i.e. 15 minute recovery period) begin with the discovery of the unit's inability to startup, or does it begin when the lack of that unit impacts the entities ACE equal to or greater than 80% of its MSSC? Also, the reference to the inability to maintain ACE following failure does not provide any boundaries, indicating that an inability to maintain ACE at zero could result in the consideration of a failed startup as a balancing contingency event. The definition of MSSC seems to exclude consideration of non-interruptible imports, which are clearly considered in other portions of the standard. If loss of firm imports can be counted as Balancing Contingency Event in certain circumstances, what would this imply for Load Only Balancing Authorities with no internal generation? Since they cannot experience a loss of generation, how would the MSSC determination be applied to determine if a Balancing Contingency Event qualifies as a Reportable Contingency Event? The Contingency Event Recovery Period needs to include clarification on the "Start of the Balancing Contingency Event," particularly for instances in which the event is triggered either by interruption of a firm schedule, or by an Unexpected Failure of Generation to Maintain or Increase that does not have immediate or unexpected impact on an entity's ACE. Given that both of the events mentioned in this comment can play out over significant time periods (ramp time of a curtailment may be well into the future, and impact of a failed start may not be seen in actual ACE for a similarly lengthy period of time), would the start of the 15 minute recovery period be triggered from the actual event, or the point at which it impacted the entity's ACE by the lesser of 80% of MSSC or 500 MW? Similar concerns on timing, as indicated above, exist for Contingency Reserve Restoration Period and Pre-Reportable Contingency Event ACE Value. Both of these measures rely on a clear understanding of the start of the event, and the definitions as written are vague in certain instances, as mentioned. Also, clarity needs to be provided on what is meant by "ACE immediately prior," in general. Does this intend that the individual scan of ACE immediately preceding the start of the event be used, or the clock minute average ACE prior? This has been an ongoing source of vagary in DCS standards, and warrants clarification.

No

Given that the standard proposes the inclusion of events with the expectation of future impact to ACE, not actual current impact, this purpose statement seems incomplete and misleading.

No

The precedent of exclusion of simultaneous events that exceed the MSSC has long acknowledged that industry planning for N-1 contingencies is adequate and reasonable. The extension of compliance

obligations under this standard to events in excess of MSSC represents an unreasonable burden. While we acknowledge that there is also a precedent of compliance burden to carry reserves sufficient to replace MSSC, the specific extension of compliance obligation to recover within 15 minutes from such events does not allow for the understanding that unforeseen and extreme circumstances can impact an entity's ability to recover even to within its MSSC. As a simple example, take a complete failure of the BES into consideration, and it is clear that an obligation to recover MSSC for a loss in excess can represent an unreasonable burden.

Yes

No

As indicated in comments related to definitions, the standard as drafted inserts significant uncertainty as to evaluation and timing of Balancing Contingency Events.

Individual

Patricia Robertson

BC Hydro

No

1. Balancing Contingency Event: a. Point A.c. is not clear and can be subject to interpretation; b. The change to ACE is not required to be "immediate" but point C.b. implies that it should be in all cases except C.b.; 2. MSSC: The "Single" portion of this term is not clearly defined here. The definition implies this is the "Most Severe Balancing Contingency Event" which can be any event whether it's cause by the loss of a single element or multiple elements simultaneously? 3. Reportable Contingency Event: a. This is defined only for Balancing Authority, not for Reserve Sharing Group; b. Why 500 MW for all Interconnections which are of different sizes? Is there a technical basis for this amount?

Yes

No

a. This is a 2-in-1 Requirement. The implementation of the CR plan should not be included here as it is referred to another standard; b. The "sum of the magnitudes" is not clearly defined. Is it measured by the change in ACE or by the MW loss? c. BCH appreciates the clarification provided in the last bullet (MSSC).

No

BCH does not agree with the Requirement R1 as written and therefore does not agree with the Measure.

No

The Introduction of the Background Document states: The primary objective of BAL-002-2 is to measure the success of implementing a Contingency Reserve plan. BC Hydro believes the primary objective is to ensure the deployment of sufficient Contingency Reserve to recover from Generation loss events.

BC Hydro is not aware of any conflicts.

The unique situation where the output of a Jointly Owned Unit can be divided among multiple Balancing Authorities such that the ACE change per individual BA may not be significant but the impact of the loss of the unit may be significant to the BES should be recognized and addressed in this standard. Currently, there is no requirement for each BA to recover its ACE in such situation.

Individual

Jay Campbell

NV Energy

Yes

Yes

Yes
Yes
Yes
The background document mainly re-states the standard and adds little to understanding.
No.
No.
Individual
Laura Lee
Duke Energy
No
Duke Energy does not agree with including "or 500 MW" within the definition of "Reportable Contingency Event". The impact of that amount of loss on the Eastern Interconnection frequency is negligible and not a reliability issue. The definition of "Balancing Contingency Event" is too broad and long. It is stated as 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. Using the phrase "or any series of such otherwise single events" leaves too much room for interpretation as to what is applicable and what is not. For many of the circumstances described, there may not be a clear threshold at times where the operator would recognize that the 15-minute clock has been triggered similar to a traditional unit loss. Upon implementation of the Balancing Authority ACE Limit ("BAAL"), the Interconnections will be operating to a real-time Standard designed to support the reliability operation of the Interconnection in consideration of the Interconnection frequency, which will catch all of the circumstances described if the resulting imbalance causes the Balancing Authority to exceed its BAAL. Duke Energy believes that the DCS should be focused upon a specific set of contingencies, similar to today, that clearly define for the operator when the measure is applicable. Please see other comments provided under Question 7. SDT may consider two separate definitions for "Pre-Reportable Contingency Event ACE Value" to avoid confusion. Having two definitions for one term creates ambiguity. The SDT could consider having a separate definition for Balancing Contingency Event and for each event. For example, "Sudden Loss of Generation" could state something like: A balancing contingency event characterized by unit tripping, loss of generator interconnection Facilities... etc.
No
As it is possible that restoring ACE to a pre-contingency state may not require implementation of Contingency Reserves, Duke Energy would suggest striking "utilizes its Contingency Reserves", as the standard should not dictate what resources are utilized by the Balancing Authority to be compliant.
Yes
It could be interpreted from the language in R6 of EOP-002-3, that a Balancing Authority is considered in an emergency condition and should be implementing its emergency plan if it is not capable of complying at any time to the DCS measure. In Duke Energy's opinion, the inability of Balancing Authority to meet the 15-minute DCS compliance threshold does not in itself represent a reliability issue. Under what circumstances, if any, should the Balancing Authority shed firm load as a last resort to ensure that it remains compliant to the Disturbance Control Standard? We would appreciate the drafting team's perspective on this point.
Upon implementation of the Balancing Authority ACE Limit ("BAAL"), the Interconnections will be operating to a real-time Standard designed to support reliable operation and maintain Interconnection frequency within predefined limits. The merit in also having DCS in place is that it will continue to reinforce the discipline and situational awareness provided by having a Standard focused upon the Balancing Authority with the contingent loss of a resource (based on a clear and well-established criteria) being the "first responder" to that event while other Balancing Authorities at that time may be assessing their own impact on Interconnection frequency under the BAAL. However, Duke Energy is concerned with some of the revisions proposed in BAL-002-2. The clear and well-established criteria

of what triggers the DCS event has been blurred in the proposed revisions which leave far too much up to the interpretation of after-the-fact compliance scrutiny. The criteria for what applies as a DCS event must be clear – our operators have to have unquestionable guidance on this matter. BAAL will catch all load and generation nuances on the system affecting operation as reflected in the ACE; in our opinion, the criteria for DCS can remain focused on what’s needed to test the Balancing Authority’s capability to respond to the loss of a resource – setting a reporting threshold at 80% or greater of the MSSC in most cases has worked well for that purpose and Duke Energy would support maintaining that criteria. Duke Energy is also concerned that the current treatment of DCS non-compliance appears to be driving some Balancing Authorities to consider actions up to and including the shedding of firm load in order to be compliant. Is it the intent of the standard drafting team that the Balancing Authority take all action, up to and including the shedding of firm load, in order to never exceed the 15-minute DCS compliance limit? According to the the background document, R1 “is intended to eliminate the ambiguities and questions associated with the existing standard. In addition it allows BAs and RSGs to have [a] clear way to show compliance and support the Interconnections to full extent of MSSC” but there is no explanation as to what the ambiguities are in the background document or in the mapping document. There is a typo: “a” is missing in sentence above from background document. Also, according to the Background Information for Quality Reviews, the applicability section of the standard should indentify all of the functional entities assigned responsibility for one or more requirements in the standard. However, according the functional model the Reserve Sharing Group is not a functional entity. The glossary defines it as, “a group whose members consist of two or more Balancing Authorities that collectively maintain, allocate, and supply operating reserves required for each Balancing Authority’s use in recovering from contingencies within the group...”If the Functional Model is followed strictly, the Reserve Sharing Group should not be in the applicability section. There are no VRFs, Time Horizons, or VSLs for R1 in the standard and no explanation as to why they are missing. The Additional Compliance Information section in the standard, does not match up with the language in the Mapping Document. The standard has a chart for four Requirements but there is only one requirement (R1) in the standard. Also the mapping document indicates that the standard should have two requirements (R1 and R2). In the Compliance Enforcement Authority Section the language does not mirror the default language Background Information for Quality Reviews.

Individual

Alice Ireland

Xcel Energy

No

There are six terms defined here although the first term is not in bold. Xcel Energy assumes that the six definitions presented above are part of the drafting team’s effort and is commenting on all six. The definitions and requirement needs clarity as to which entity, the BA or RSG, is required to do something. In the definition of MSSC, it states the BA but the Requirement states it is the BA or RSG. If the MSSC is defined only for the BA, what is the MSSC for a RSG and what is a Balancing Contingency Event for the RSG since by definition it has not MSSC? Xcel Energy recommends that the definition for MSSC be expanded to address the RSG MSSC. Xcel Energy feels that several of these definitions need further clarification, especially Reportable Contingency Event, Contingency Event Recovery Period, Contingency Reserve Restoration Period, Balancing Contingency Event and Pre-Reportable Contingency Event ACE Value. More detail follows. In the definition of Contingency Reserve Restoration Period there is an error. An entity need only recover to the level of its MSSC at that time, not recover the amount used. As an example, an entity has two units, its MSSC of 1,000 MWs and an 800 MW unit. During an event where the 1,000 MW unit is lost, the BA/RSG would have to restore 1,000 MWs of reserve under the proposed definition even though its MSSC at this point is only 800 MWS. The drafting team must address this discrepancy. Balancing Contingency Event It is unclear whether the drafting team believes that this definition would prohibit the activation of contingency reserves due to the unexpected loss of wind generation. The wording of the definition “Balancing Contingency Event” could be interpreted to prohibit the activation of contingency reserves due to the unexpected loss or an unexpected increase of the wind driving wind generators. With the increased levels of wind generation seen in the industry today, it is unreasonable to prohibit activation of contingency reserves for what at times may constitute over 50 percent of a Balancing Authority’s generation resources serving its loads. The drafting team must either clarify that activations may be for any resource or justify a position to the contrary. Additionally, the drafting team must justify why

there is a limit on activations for the loss of an import only in the event that the transmission system experiences a forced outage. It has been Xcel Energy's experience that the underlying cause of most curtailments of transactions is unknown to the sink Balancing Authority until after the fact if the curtailment is initiated by another entity. It also appears under this definition that the drafting team is using a defined term "Non-Interruptible Import" which is not found in the current version of the NERC Glossary. If the drafting team continues with this unsupported position, it must at least define what it means by "Non-Interruptible Import" since under the standards, a BA or TOP can take action to address a reliability problem, which can include curtailing any schedule for any reason, not just the forced outage of a transmission system element. As currently drafted, it is unclear when a receiving BA can or cannot activate reserves. Finally, under this definition, it would appear that the drafting team is intending to limit the activation of contingency reserves only for the loss of resources considered "firm" without defining what is or is not "firm". As an example, if a PSE associated with a Balancing Authority is buying the output of a 600 MW generator facility located in a different BA under WSPP Schedule B (Unit Commitment) and that interchange transaction is cut, is that a Balancing Contingency Event? As currently structured, only the loss of some resources would be events under this standard. That would appear to leave a very large hole that could be exploited by industry participants if the structure is not significantly improved. The drafting team must provide support for the concept that only "firm" resources can be supported by contingency reserves since the loss of any resource can cause an entity's ACE to change unexpectedly. Reportable Contingency Event The term Reportable Contingency Event should be limited to an entity's Most Severe Single Contingency. The recommended definition would be "Any Balancing Contingency Event between the lesser amount of 80 percent of the Balancing Authority's Most Severe Single Contingency or 500 MW and the Balancing Authority's Most Severe Single Contingency. An Event greater than the Balancing Authority's Most Severe Single Contingency is not a Reportable Contingency Event." This definition would provide clarity on the size of event that is intended to be addressed by the standard and will allow for reasonable planning on the part of industry participants for issues considered part of normal operations of a Balancing Authority. Additionally, the drafting team needs to further justify the use of 500 MW loss or try to set this up in relation to the size of the BA/RSG. The term Most Severe Single Contingency is not linked to a single point of failure/element. This needs to be addressed. As written, it could be argued that the loss of two units within a short time period is by definition the MSSC, rather than a double contingency. It is also not clear why the drafting team has included the loss of Direct Load Control Management in the definition. The drafting team needs to provide justification for including only this portion of load side resources and excluding others such as Demand Response, Demand Side Management, Interruptible Load, include all forms of loss of control of any activated or preferably remove this concept from the definition.

No

The language of the requirement states that the BA/RSG must implement its plan. However, implementation of a Contingency Reserve plan does not mean that an entity will meet the performance requirement to restore ACE to any level. As currently worded, it is unclear if an entity were to meet the performance requirement by utilizing a resource not shown in the plan has met the requirement or not. If there is a requirement to implement a plan, it should be separated from the requirement to perform any other action as well as address the issue of use of a resource not included in the plan. It is unclear why ACE must be returned to zero (or the pre-disturbance ACE if less than zero) when the proposed BAL-001 standard states that operation within a wide range is reasonable assuming frequency is near 60 Hz. In other words, if a BA is within the allowed operating range with an ACE of -300 under BAL-001-1, why is recovery required to be to zero? As an example, a moderate-sized BA is operating with a positive 200 ACE prior to the event when it experiences the loss of a 500 MW unit, causing its ACE to drop to a negative 300. Assuming frequency is near 60 hertz, a negative 300 ACE may be well within the boundaries established by the proposed BAL-001-1. Why does an entity need to activate reserves to drive its ACE back to zero when its ACE is within the acceptable operating range established under BAL-001-1? As currently structured, the operator must call on the contingency reserves to drive the ACE up and then would make a reasonable decision to end the use of the contingency reserves as soon as the ACE hits zero, allowing the reserves to back off and therefore be restored while the ACE drops back to negative 300. It appears that the drafting team needs to more clearly align the requirements in these two standards. To be clear, Xcel Energy support moving from CPS2 to the RBC and believes this standard needs to recognize the changes

brought about by that modification. A more appropriate level of requirement would be that the BA move back within the RBC limits within a specified time frame, such as 15 minutes. Finally, Xcel Energy believes this requirement would be better within a single standard with the requirements of BAL-001 and BAL-013. Finally, a requirement to get ACE to a specific level, regardless of any BES limit being exceeded is unreasonable and illadvised. Also there needs to be a descriptor of how the RSG can demonstrate recovery (i.e. a combined ACE, or can each BA in the RSG show non-coincidental recovery)?
No
The wording of the measure is reasonable but the result is not due to the wording in the requirement. If the drafting team addresses our concerns with the requirement, the language in the measurement is reasonable. If the drafting team does not change the requirement to address Xcel Energy's concerns, then the measurement needs to be clearer as to what constitutes implementation of the plan and not just performance.
No
There is no discussion related to the proposed definitions. Without any discussion of these very important items, the background document fails to provide sufficient support for the standard.
None known at this time.
It is unclear why the Implementation plan mentions retiring BAL-002-0. That standard is no longer included in the NERC standards documentation and is shown as inactive effective 3/31/2012. Xcel Energy also reiterates its concern with the concept of multiple standards with requirements that have a high level of interaction. It is better to have multiple requirements under a single standard and for that reason, Xcel Energy recommends that the drafting team move all requirements in BAL-001, 002 and 013 (to the extent they move forward) into a single standard.
Group
Western Electricity Coordinating Council
Steve Rueckert
No
1. Balancing Contingency Event – Item C is part of regulating reserve; the definition is very wordy. 2. Most Severe Single Contingency a) this definition should be applicable to both BA and RSG. b) The phrase "greatest loss of activated DCLM" is confusing. If the intent is to refer to the return of DCLM then WECC recommends that it be changed to "unexpected reactivation of DCLM". If it is intended to refer to an amount of DCLM no longer being available to activate, did the SDT consider "Loss of or sudden reactivation of DCLM?" c) The definition of MSSC does not refer to a single event. As written multiple Balancing Contingency Events could be MSSC. 3. Reportable Contingency Event: The definition should include RSG. Is a BA's RCE for the Reserve Sharing Group in which the BA resides? Is 80% of a BA's MSSC reportable if it is less than 80% of the RSG's MSSC? 4. Contingency Reserve Restoration Period: the proposed standard removes the requirement to restore the reserves. The last part of the definition should be deleted, "during which the amount of Contingency Reserve deployed to recover from a Balancing Contingency Event is to be restored", otherwise, it appears to be an attempt to put a requirement into a definition.
No
1. As written the requirement is not easy to comprehend. The requirement needs to be simplified in language and maybe provide some examples in an attachment or background document 2. The requirement should be to meet the ACE recovery within 15 minute not to implement the Contingency Reserve (CR) plan or the two should be separate requirements. As written, if a BA met the 15 minute recovery requirement but used a resource not in its CR plan it could be a violation of the requirement. 3. The SDT needs to clarify how a RSG can demonstrate ACE recovery whether its recovery of combined ACE of all BAs in the RSG or if its recovery of individual ACEs for BAs in the RSG.
No

There is no discussion related to the proposed definitions. Without any discussion of these very important items, the background document fails to provide sufficient support for the standard. The document also states it establishes a ceiling for the Contingency Reserve . It's not clear where the ceiling is established in the standard.

Order 693 directed NERC to include a requirement that explicitly allows demand-side management (DSM) to be used as a resource for contingency reserves. This does not appear to have been included in the proposed standard or definitions.

Rather than a separate standard, BAL-013, did the SDT consider including the single requirement of BAL-013 in BAL-002?

Comment Form

Project 2010-14.1 Balancing Authority Reliability-based Control BAL-002-2 – Contingency Reserve for Recovery from a Contingency Event

Please do not use this form to submit comments on the proposed revisions to BAL-002-2 Contingency Reserve for Recovery from a Contingency Event. Comments must be submitted using the [electronic comment form](#) by 8 p.m. **July 3, 2012**. If you have questions please contact [Darrel Richardson](#) (email) or by telephone at (609) 613-1848.

Background Information:

Since loss of generation occurrences so often impacts all Balancing Authorities throughout an Interconnection, BAL-002 was created to specify recovery actions and time frames. The original Standards Authorization Request (SAR) approved by the Industry presumes there is presently sufficient contingency reserve in all the North American Interconnections. The underlying goal of the SAR was to update the Standard to make the measurement process more objective and to provide information to the Balancing Authority or Reserve Sharing Group such that the parties would better understand the use of contingency reserve to balance resources and demand following a Reportable Contingency Event. The primary objective of BAL-002-2 is to measure the success of implementing a Contingency Reserve Plan.

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 five new terms to be used with this standard.

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 facilities 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 facilities;

b. And, that causes an unexpected change to the Responsible Entity's ACE;

c. Provided, however, that normal, recurring operating characteristics of a unit do not constitute sudden or unanticipated losses and may not be subject to this definition.

B. Sudden Loss of Non-Interruptible Import:

a. A sudden loss of a non-interruptible import, due to forced outage of transmission equipment, that causes an unexpected change to the Responsible Entity's ACE.

C. Unexpected Failure of Generation to Maintain or Increase:

a. Due to

i. inability to start a unit the Responsible Entity planned to bring online at that time (for reasons other than lack of fuel), or

ii. internal plant equipment problems that force the generator to be ramped down or taken offline;

b. And that, even if not an immediate cause of an unexpected change to the Responsible Entity's ACE, will, in the Responsible Entity's judgment, leave the Responsible Entity unable to maintain its ACE following the failure unless it deploys contingency reserve.

Most Severe Single Contingency (MSSC):

The Balancing Contingency Event that would result in the greatest loss (measured in MW) of generation output used by the Balancing Authority, or the greatest loss of activated Direct Control Load Management used by the Balancing Authority, to meet firm system load and non-interruptible export obligation (excluding export obligation for which contingency reserve obligations are being met by the sink Balancing Authority).

Reportable Contingency Event:

Any Balancing Contingency Event greater than or equal to the lesser amount of 80 percent of the Balancing Authority's Most Severe Single Contingency or 500 MW.

Contingency Event Recovery Period:

A period not exceeding 15 minutes following the start of the Balancing Contingency Event. The start of the Balancing Contingency Event is the point in time where the first change in MW is observed due to the event.

Contingency Reserve Restoration Period:

A period not exceeding 90 minutes following the end of the Contingency Event Recovery Period, during which the Amount of Contingency Reserve deployed to recover from a Balancing Contingency Event is to be restored.

Pre-Reportable Contingency Event ACE Value:

The value of ACE immediately prior to a Reportable Contingency Event when there are no previous Reportable Contingency Events for which the Contingency Event Recovery Period is not yet completed,

or

The value of ACE that the Balancing Authority or Reserve Sharing Group must attain to fully meet its ACE recovery requirement with respect to the immediately previous Reportable Contingency Event for which the Contingency Event Recovery Period is not yet completed.

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

Yes

No

Comments: The *Balancing Contingency Event* definition should explicit state that generation rejection due to special protection systems (SPS) operation should not be considered as a Balancing Contingency Event since it is an anticipated and voluntary action.

Also if energy is being wheeled from BA1 to BA3 through BA2 and a contingency occurs resulting generation in BA1 being isolated from the Bulk Electric System, it is not explicit if it is the sinking Balancing Authority (BA3) or the wheeling Balancing Authority (BA2) that is experiencing the resource loss.

Finally, the *Most Single Severe Contingency* definition does not put any guidelines in how frequent it needs to be evaluated. For example, the MSSC evaluated on a complete system could be quite

higher from a MSSC evaluated when transmission outages are occurring. There is a risk that a BA would not carry enough reserves to cover that contingency.

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

To ensure the Balancing Authority or Reserve Sharing Group utilizes its Contingency Reserve to balance resources and demand and return the Balancing Authority's or Reserve Sharing Group's Area Control Error to defined values (subject to applicable limits) following a Reportable Contingency Event.

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 determine whether a Balancing Authority (BA) or Reserve Sharing Group (RSG) has implemented its Contingency Reserve plan and determine whether a BA or RSG met ACE recovery equal to the BA's or RSG's Most Severe Single Contingency.

R1. Each Balancing Authority or Reserve Sharing Group experiencing a Reportable Contingency Event shall implement its Contingency Reserve plan so that the Balancing Authority or Reserve Sharing Group can demonstrate that, within the Contingency Event Recovery Period:

- The Balancing authority or Reserve Sharing Group returned its ACE to
 - Zero, less the sum of the magnitudes of all subsequent Balancing Contingency Events that occur within the Contingency Event Recovery Period, if its ACE just prior to the Reportable Contingency Event was positive or equal to zero, or
 - Its Pre-Reportable Contingency Event ACE Value, less the sum of the magnitudes of all subsequent Balancing Contingency Events that occur within the Contingency Event Recovery Period, if its ACE just prior to the Reportable Contingency Event was negative.
- Provided, however, that in either of the foregoing cases, if the Reportable Contingency Event (individually or when combined with any previous Balancing Contingency Events that have not completed their Contingency Reserve Restoration Periods) exceeded the Balancing Authority's or Reserve Sharing Group's Most Severe Single Contingency (MSSC), then the Balancing Authority or Reserve Sharing Group need only demonstrate ACE recovery of at least equal to its MSSC, less the sum of the magnitudes of all Previous Balancing Contingency Events that have not completed their Contingency Reserve Restoration Periods.

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

Yes

No

Comments: When a BA experiences a Reportable Contingency Event that is larger than it's MSSC, it only needs to demonstrate that it activated reserves equal to it's MSSC. However, there is no requirement or other mechanism to validate if the MSSC was correctly evaluated at first. Based on the definitions above, the only reason why a MSSC could be greater than a Reportable Contingency Event is if non firm load or non firm exports were supported by the resource that was lost.

4. The BARC SDT has developed a Measure for the proposed Requirement within this standard. Do you agree with the proposed Measure in this standard? If not, please explain in the comment area.

Yes

No

Comments:

5. The BARC SDT has developed a document "BAL-002-2 Contingency Reserve for Recovery from a Balancing Contingency Event 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:

6. 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:

7. Do you have any other comment on BAL-002-2, not expressed in the questions above, for the BARC SDT?

Comments:

Comment Form

Project 2010-14.1 Balancing Authority Reliability-based Control BAL-002-2 – Contingency Reserve for Recovery from a Contingency Event

Please do not use this form to submit comments on the proposed revisions to BAL-002-2 Contingency Reserve for Recovery from a Contingency Event. Comments must be submitted using the [electronic comment form](#) by 8 p.m. **July 3, 2012**. If you have questions please contact [Darrel Richardson](#) (email) or by telephone at (609) 613-1848.

Background Information:

Since loss of generation occurrences so often impacts all Balancing Authorities throughout an Interconnection, BAL-002 was created to specify recovery actions and time frames. The original Standards Authorization Request (SAR) approved by the Industry presumes there is presently sufficient contingency reserve in all the North American Interconnections. The underlying goal of the SAR was to update the Standard to make the measurement process more objective and to provide information to the Balancing Authority or Reserve Sharing Group such that the parties would better understand the use of contingency reserve to balance resources and demand following a Reportable Contingency Event. The primary objective of BAL-002-2 is to measure the success of implementing a Contingency Reserve Plan.

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 five new terms to be used with this standard.

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 facilities 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 facilities;

b. And, that causes an unexpected change to the Responsible Entity’s ACE;

c. Provided, however, that normal, recurring operating characteristics of a unit do not constitute sudden or unanticipated losses and may not be subject to this definition.

B. Sudden Loss of Non-Interruptible Import:

a. A sudden loss of a non-interruptible import, due to forced outage of transmission equipment, that causes an unexpected change to the Responsible Entity’s ACE.

C. Unexpected Failure of Generation to Maintain or Increase:

a. Due to

i. inability to start a unit the Responsible Entity planned to bring online at that time (for reasons other than lack of fuel), or

ii. internal plant equipment problems that force the generator to be ramped down or taken offline;

b. And that, even if not an immediate cause of an unexpected change to the Responsible Entity’s ACE, will, in the Responsible Entity’s judgment, leave the Responsible Entity unable to maintain its ACE following the failure unless it deploys contingency reserve.

Most Severe Single Contingency (MSSC):

The Balancing Contingency Event that would result in the greatest loss (measured in MW) of generation output used by the Balancing Authority, or the greatest loss of activated Direct Control Load Management used by the Balancing Authority, to meet firm system load and non-interruptible export obligation (excluding export obligation for which contingency reserve obligations are being met by the sink Balancing Authority).

Reportable Contingency Event:

Any Balancing Contingency Event greater than or equal to the lesser amount of 80 percent of the Balancing Authority's Most Severe Single Contingency or 500 MW.

Contingency Event Recovery Period:

A period not exceeding 15 minutes following the start of the Balancing Contingency Event. The start of the Balancing Contingency Event is the point in time where the first change in MW is observed due to the event.

Contingency Reserve Restoration Period:

A period not exceeding 90 minutes following the end of the Contingency Event Recovery Period, during which the Amount of Contingency Reserve deployed to recover from a Balancing Contingency Event is to be restored.

Pre-Reportable Contingency Event ACE Value:

The value of ACE immediately prior to a Reportable Contingency Event when there are no previous Reportable Contingency Events for which the Contingency Event Recovery Period is not yet completed,

or

The value of ACE that the Balancing Authority or Reserve Sharing Group must attain to fully meet its ACE recovery requirement with respect to the immediately previous Reportable Contingency Event for which the Contingency Event Recovery Period is not yet completed.

Do you agree with the proposed definitions 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 ensure the Balancing Authority or Reserve Sharing Group utilizes its Contingency Reserve to balance resources and demand and return the Balancing Authority's or Reserve Sharing Group's Area Control Error to defined values (subject to applicable limits) following a Reportable Contingency Event.

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 determine whether a Balancing Authority (BA) or Reserve Sharing Group (RSG) has implemented its Contingency Reserve plan and determine whether a BA or RSG met ACE recovery equal to the BA's or RSG's Most Severe Single Contingency.

R1. Each Balancing Authority or Reserve Sharing Group experiencing a Reportable Contingency Event shall implement its Contingency Reserve plan so that the Balancing Authority or Reserve Sharing Group can demonstrate that, within the Contingency Event Recovery Period:

- The Balancing authority or Reserve Sharing Group returned its ACE to
 - Zero, less the sum of the magnitudes of all subsequent Balancing Contingency Events that occur within the Contingency Event Recovery Period, if its ACE just prior to the Reportable Contingency Event was positive or equal to zero, or
 - Its Pre-Reportable Contingency Event ACE Value, less the sum of the magnitudes of all subsequent Balancing Contingency Events that occur within the Contingency Event Recovery Period, if its ACE just prior to the Reportable Contingency Event was negative.
- Provided, however, that in either of the foregoing cases, if the Reportable Contingency Event (individually or when combined with any previous Balancing Contingency Events that have not completed their Contingency Reserve Restoration Periods) exceeded the Balancing Authority's or Reserve Sharing Group's Most Severe Single Contingency (MSSC), then the Balancing Authority or Reserve Sharing Group need only demonstrate ACE recovery of at least equal to its MSSC, less the sum of the magnitudes of all Previous Balancing Contingency Events that have not completed their Contingency Reserve Restoration Periods.

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

Yes

No

Comments:

The requirement appears to be missing an element. The requirement is obligating the entity to implement its Contingency Reserve plan but there is no requirement to establish/put a plan in place.

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

- 4. The BARC SDT has developed a Measure for the proposed Requirement within this standard. Do you agree with the proposed Measure in this standard? If not, please explain in the comment area.**

Yes

No

Comments:

The semi colon in the second line should be deleted.

- 5. The BARC SDT has developed a document “BAL-002-2 Contingency Reserve for Recovery from a Balancing Contingency Event 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:

This document restates the Requirement and only has a brief paragraph at the end describing the background and rationale. This does not provide any significant support to the Requirement.

- 6. 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:

- 7. Do you have any other comment on BAL-002-2, not expressed in the questions above, for the BARC SDT?**

Comments:

Compliance, 1.2. Data Retention – the word ‘previous’ should be added before the words ‘three calendar years’.

Compliance, 1.4. Additional Compliance Information – the third paragraph under this section seems to need more context and more detail. Perhaps add a cross reference to the definition of Reportable Contingency Event which mentions the 80% threshold.

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

Comment Form

Project 2010-14.1 Balancing Authority Reliability-based Control BAL-002-2 – Contingency Reserve for Recovery from a Contingency Event

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Background Information:

Since loss of generation occurrences so often impacts all Balancing Authorities throughout an Interconnection, BAL-002 was created to specify recovery actions and time frames. The original Standards Authorization Request (SAR) approved by the Industry presumes there is presently sufficient contingency reserve in all the North American Interconnections. The underlying goal of the SAR was to update the Standard to make the measurement process more objective and to provide information to the Balancing Authority or Reserve Sharing Group such that the parties would better understand the use of contingency reserve to balance resources and demand following a Reportable Contingency Event. The primary objective of BAL-002-2 is to measure the success of implementing a Contingency Reserve Plan.

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 five new terms to be used with this standard.

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 facilities 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 facilities;
 - b. And, that causes an unexpected change to the Responsible Entity’s ACE;
 - c. Provided, however, that normal, recurring operating characteristics of a unit do not constitute sudden or unanticipated losses and may not be subject to this definition.
- B. Sudden Loss of Non-Interruptible Import:
 - a. A sudden loss of a non-interruptible import, due to forced outage of transmission equipment, that causes an unexpected change to the Responsible Entity’s ACE.
- C. Unexpected Failure of Generation to Maintain or Increase:
 - a. Due to
 - i. inability to start a unit the Responsible Entity planned to bring online at that time (for reasons other than lack of fuel), or
 - ii. internal plant equipment problems that force the generator to be ramped down or taken offline;
 - b. And that, even if not an immediate cause of an unexpected change to the Responsible Entity’s ACE, will, in the Responsible Entity’s judgment, leave the Responsible Entity unable to maintain its ACE following the failure unless it deploys contingency reserve.

Most Severe Single Contingency (MSSC):

The Balancing Contingency Event that would result in the greatest loss (measured in MW) of generation output used by the Balancing Authority, or the greatest loss of activated Direct Control Load Management used by the Balancing Authority, to meet firm system load and

non-interruptible export obligation (excluding export obligation for which contingency reserve obligations are being met by the sink Balancing Authority).

Reportable Contingency Event:

Any Balancing Contingency Event greater than or equal to the lesser amount of 80 percent of the Balancing Authority's Most Severe Single Contingency or 500 MW.

Contingency Event Recovery Period:

A period not exceeding 15 minutes following the start of the Balancing Contingency Event. The start of the Balancing Contingency Event is the point in time where the first change in MW is observed due to the event.

Contingency Reserve Restoration Period:

A period not exceeding 90 minutes following the end of the Contingency Event Recovery Period, during which the Amount of Contingency Reserve deployed to recover from a Balancing Contingency Event is to be restored.

Pre-Reportable Contingency Event ACE Value:

The value of ACE immediately prior to a Reportable Contingency Event when there are no previous Reportable Contingency Events for which the Contingency Event Recovery Period is not yet completed,

or

The value of ACE that the Balancing Authority or Reserve Sharing Group must attain to fully meet its ACE recovery requirement with respect to the immediately previous Reportable Contingency Event for which the Contingency Event Recovery Period is not yet completed.

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

Yes

No

Comments: **We do not agree with the 500MW specification in the definition of "Reportable Contingency Event". We suggest that each Interconnection should have a unique reporting level based on frequency impact. For example, the reporting threshold could be a MW value that has an impact to frequency in that interconnection. This should result in a table with four (4) MW values, one for reporting in each Interconnection.**

We suggest changing the definition of "Reportable Contingency Event" to "Reportable Balancing Contingency Event". Will this replace the existing glossary item "Reportable Disturbance"?

We suggest that Direct Control Load Management should be taken out of the MSSC definition and rolled into the definition of Balancing Contingency Event. We are concerned that an event that is not considered as a credible event can be construed as an MSCC for an entity.

We suggest the “Contingency Reserves” definition needs to be addressed. The current NERC Glossary references BAL-002-1 for definition and this may need to be changed to BAL-012-1?

We suggest deleting Paragraph C of “Balancing Contingency Event”.

We suggest the word “Reportable” be inserted before “Balancing Contingency Event” in both the Contingency Event Recovery Period and the Contingency Event Restoration Period definitions. We also suggest that “Sudden Loss” be clarified to occur within a one (1) minute time frame.

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

To ensure the Balancing Authority or Reserve Sharing Group utilizes its Contingency Reserve to balance resources and demand and return the Balancing Authority’s or Reserve Sharing Group’s Area Control Error to defined values (subject to applicable limits) following a Reportable Contingency Event.

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 determine whether a Balancing Authority (BA) or Reserve Sharing Group (RSG) has implemented its Contingency Reserve plan and determine whether a BA or RSG met ACE recovery equal to the BA’s or RSG’s Most Severe Single Contingency.

R1. Each Balancing Authority or Reserve Sharing Group experiencing a Reportable Contingency Event shall implement its Contingency Reserve plan so that the Balancing Authority or Reserve Sharing Group can demonstrate that, within the Contingency Event Recovery Period:

- The Balancing authority or Reserve Sharing Group returned its ACE to
 - Zero, less the sum of the magnitudes of all subsequent Balancing Contingency Events that occur within the Contingency Event Recovery Period, if its ACE just prior to the Reportable Contingency Event was positive or equal to zero, or
 - Its Pre-Reportable Contingency Event ACE Value, less the sum of the magnitudes of all subsequent Balancing Contingency Events that occur within

the Contingency Event Recovery Period, if its ACE just prior to the Reportable Contingency Event was negative.

- Provided, however, that in either of the foregoing cases, if the Reportable Contingency Event (individually or when combined with any previous Balancing Contingency Events that have not completed their Contingency Reserve Restoration Periods) exceeded the Balancing Authority's or Reserve Sharing Group's Most Severe Single Contingency (MSSC), then the Balancing Authority or Reserve Sharing Group need only demonstrate ACE recovery of at least equal to its MSSC, less the sum of the magnitudes of all Previous Balancing Contingency Events that have not completed their Contingency Reserve Restoration Periods.

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

Yes

No

Comments: **R1 should not require the implementation of the Contingency Reserve Plan. ACE recovery is the goal, not the implementation of the plan.**

- 4. The BARC SDT has developed a Measure for the proposed Requirement within this standard. Do you agree with the proposed Measure in this standard? If not, please explain in the comment area.**

Yes

No

Comments:

- 5. The BARC SDT has developed a document "BAL-002-2 Contingency Reserve for Recovery from a Balancing Contingency Event 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: **See comments in question 1.**

- 6. 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**

7. Do you have any other comment on BAL-002-2, not expressed in the questions above, for the BARC SDT?

Comments: **We suggest the SDT explain the absence of reporting requirements. Also explain why the data retention period was extended to 3 years from the current 1 year requirement.**

“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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