Comment Form
Project 2010-14.1 Balancing Authority Reliability-based Control
BAL-002-2 - Disturbance Control Performance - Contingency Reserve for Recovery from a Balancing Contingency Event

Please do not use this form to submit comments on the proposed revisions to BAL-002-2 Disturbance Control Performance - Contingency Reserve for Recovery from a Balancing Contingency Event. Comments must be submitted using the electronic comment form by 8 p.m. March 16, 2015. 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 recovering from contingency events.

Based on comments received from industry stakeholders the drafting team made the following modifications to the draft standard.

- Modified Requirement R1 to provide additional clarity.
- Modified Requirement R2 and Measure M2 to provide additional clarity and allow for the use of Contingency Reserve for other than a Balancing Contingency Event. Also, defined other uses for Contingency Reserves.
- Added rationale supporting Requirements R1 and R2.
- Modified the BAL-002-2 Background Document.
  - Modified the body of the document to provide additional clarity.
  - Modified the charts in Attachment 1 to use only loss of resource events and added events for 2014.
  - Added examples for compliance to Requirement R1.
  - Added Attachment 3 which discusses use of Contingency Reserves during an Energy Emergency Alert.
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. Please provide any issues you have on this draft of the BAL-002-2 standard and a proposed solution.

Comments: There is a possible inconsistency in the terms Balancing Contingency Event, and Reportable Balancing Contingency Event. Balancing Contingency Event is defined 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...” Reportable Balancing Contingency Event is defined as “...(ii) the amount listed below for the applicable Interconnection, and occurring within a one-minute interval of the initial sudden decline in ACE...” By its definition, the Balancing Contingency Event, in the extreme, is an unlimited number of single events, as long as they are separated by less than one minute. Is it intended for a Reportable Balancing Contingency Event to only encompass what happens in the first minute as it is worded?

In the NERC Glossary, Reportable Disturbance is defined as “Any event that causes an ACE change greater than or equal to 80% of a Balancing Authority’s or reserve sharing group’s most severe contingency. The definition of a reportable disturbance is specified by each Regional Reliability Organization. This definition may not be retroactively adjusted in response to observed performance.” The definition of Reportable Balancing Contingency Event should be revised to incorporate this definition, and should be made to read“...(i) Reportable Disturbance, or...”. With this revision, when BAL-002-1 is retired the definition of Reportable Disturbance can be retired as well.

Regarding the Rationale for Requirement R1, should Reportable Area Control Error be Reporting ACE? Reporting ACE is in the NERC Glossary, Reportable Area Control Error is not.

In the second paragraph of the Rationale for Requirement R1 that reads”...as described in R1.3 below...” should be revised to read “as described in Part 1.3...”.

Measure M1 should be revised to read “...that demonstrates compliance with Parts 1.2 and 1.3.”.

In Requirement R2, and Measure M2 “Firm” should not be capitalized. “Firm Load” is not in the NERC Glossary. It should be revised to read firm Load.

Additional comments:

1) The proposed standard continues with several “compliance traps” which will hamper operators’ effective use of Contingency Reserves to mitigate reliability problems, and then could cause compliance exposure due to auditor interpretation. For example, R1 would require a BA to deploy at least some of its reserves in order to declare an EEA exemption even if there may not be an immediate need to do so.
2) There are contradictory portions of the standard which would leave operators confused and again lead to compliance exposure.

   a. For example, Part 1.3 (ii) does not include an exemption for deploying Contingency Reserve for a Contingency that is not a NERC defined Balancing Contingency Event. R2 does have an exemption for this and other scenarios. The term "sudden" being included in the definition of a Balancing Contingency Event is the source of the problem. See the second scenario of Attachment A (sent by E-mail to Darrel Richardson).

   b. R1 does not treat subsequent Contingencies in a consistent manner, again related to the term "sudden" being included in the definition of a Balancing Contingency Event. See the first scenario in Attachment A (sent by E-mail to Darrel Richardson).

3) There are several problems with the definitions including definitions of Most Severe Single Contingency (MSSC), Contingency Event Recovery Period (CERP), and Balancing Contingency Event (BCE).

   a. MSSC does not include concurrently dropped load which may cause a Balancing Authority to carry extra Contingency Reserve beyond its actual MSSC.

   b. BCE is unclear with regard to both generation and transmission events. (Also consider if A. Item b within the BCE definition instead referred to an unplanned change in ACE as opposed to an unexpected change in ACE.)

4) Regarding R2:

   a. R2 is far more complex than necessary, is unclear, and contains potential for gaming.

   b. Much less complicated language is proposed here, based on the original NERC Policy 1. Suggest the revision of R2 to read:

"R2. The Responsible Entity, if deficient in Contingency Reserves, has 90 minutes to restore. If the Responsible Entity experiences a Reportable Balancing Contingency Event during this time an additional 15 minutes are allotted."
An alternative suggested rewording of R2:

R2. The Responsible Entity shall develop operational plans that provide sufficient Contingency Reserve considering all other events that may reduce this amount.

This, together with the recovery provision in R1 (results-based requirement) and the provision in Requirement R6 and Attachment 1 of EOP-011-1 (which defines EEA levels) would collectively take care of many of the conditions listed in the proposed Requirement R2 including active monitoring of the amount of reserve to meet the Contingency Reserve requirement.

R2 as presented in this draft requires a BA to demonstrate that it maintains Contingency Reserve, averaged over each Clock Hour, greater than or equal to its average Clock Hour Most Severe Single Contingency, except under certain circumstances. If the SDT’s intent is to ensure that a BA consider events other than MSSC that could reduce the amount of reserve, then to meet this intent we suggest replacing R2 as shown preceding.

We believe this together with the recovery provision in R1 would take care of many of the conditions listed in the proposed Requirement R2.

c. The language in Part 2.2 regarding Operating Instruction appears to allow operating personnel to create exemptions from R2 at will.

d. Requirement R2 continues to not include a number of “grace hours” per quarter, as requested in some industry comments. It may have a net effect of increasing the amount of available contingency reserve to some BAs which may marginally increase reliability. However, this needs to be balanced against increased operating costs due to carrying more reserve.

e. Requirement R2 may produce a perverse incentive. A BA may let its ACE remain negative to keep the reserve monitor numbers above MSSC. Also, without a number of “grace hours” per quarter, there may be a susceptibility to loads running unexpectedly high near the end of a Clock Hour, causing a miniscule shortfall that results in an occasional "nuisance" compliance violation.

f. R2 also causes BAs to carry much higher Contingency Reserves than necessary during the latter portions of the hour in order to “make the numbers come out right” if they are below MSSC in the beginning of the hour.
g. Requirement R2 creates an artificial increase in reserves in order to maintain an amount over-and-above that required by the standard to meet non-DCS operational events, thereby increasing costs to ratepayers for no increase in reliability.

h. R2 will encourage operators to not deploy reserves when needed for reliability in order to meet compliance with this requirement, which could be detrimental to reliability.

i. Entities that have to shed firm customer load (because load cannot be shed fast enough) to maintain reserves to meet compliance with this requirement is not an action that should be taken for reliability.

In our previous comments, we found Requirement R2 confusing and that the requirement itself was unnecessary for so long as the BA met requirement R1. Having R1 that requires a BA to meet the ACE recovery requirement following an MSSC event would suffice to drive the proper behavior of securing adequate reserve around the clock (except those conditions listed in R1). If and when a contingency occurs and the affected BA does not have sufficient reserve to recover ACE, then it will fail R1 whereas if R2 as presented is retained, then a BA could fail both requirements. There is no need for having R2 to support R1, which can result in double jeopardy.

k. To include the remaining conditions that are not already accounted for under which a BA may not be able to maintain the required amount AND during which an MSSC event occurs thereby rendering a BA unable to meet requirement R1, then the following bulleted item may be added under Part 1.3 in R1:

- When the Responsible Entity is using its Contingency Reserve for a period not to exceed 90 minutes, to resolve the excedance of a System Operating Limit (SOL) or Interconnection Reliability Operation Limit (IROL).

5) The last sentence of metric M2 which splits a Clock Hour into sub-periods is difficult to follow and seems to add unnecessary complexity in determining compliance.

6) When the exemption in Part 2.6 becomes relevant, it most likely will occur within the middle of a Clock Hour. It is not clear if "instantaneous values showing reserves" refers to the sum of Contingency Reserve available plus Firm Load that can be shed.

7) Part 1.3 and R2 should be cognizant of unexpected loss of reserve without it being accompanied by a loss of power being delivered.
In the last posting, we expressed a concern with the term “sudden loss” (see below). We are unable to find any response in the Summary Consideration report that addresses this comment. Please consider these comments and provide a response.

A Balancing Contingency Event is vaguely defined as a “Sudden loss of generation...” or “sudden decline in ACE...”. The word “sudden” is imprecise, and should be clarified. We suggest that the standard be clearer about defining the start time for a Reportable BCE. We support definitions like that used in NPCC Directory 5 section 5.17 where it says that the start of an event has occurred when a specific X amount of MWs are lost in a specific Y amount of time. Therefore, we suggest that the drafting team add precision in determining minute T+0 for an event by adding the following sentence (or something like it) to the Reportable BCE definition: “Following the resource failure, the Reportable BCE starting time is defined as the first chronological rolling one minute interval that meets the reduction in resource output(s) criteria stated herein.” The SDT’s response to comment does not appear to address this particular comment. We ask the SDT to please provide the rationale as to why this suggestion was not adopted.

To summarize, the January 2015 version of BAL-002-2 could be improved by providing better clarity within the definitions and making simplifications that yield a more “operator-friendly” standard. There is a concern that the complexity and nuances of the proposed standard in some circumstances could be a distraction to the operator when more important reliability tasks need to be performed.