Comment Form: Project 2007-12 Frequency Response

IMPORTANT NOTE: *Please make sure to hit the FINISH button at the bottom of this screen to submit your comments to NERC. A verification code will be provided on the next screen.

Survey Response: Comment Form: Project 2007-12 Frequency Response
Comment Request - Project 2007-12 Frequency Response
Response GUID: c1aa9478-5065-4d28-a478-e894e7b2b197
Started: 12/8/2011 8:39:23 AM
Completed: 12/8/2011 9:36:50 AM

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1) **Individual or group.**
Group

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2) **Group Name**
MRO NSRF

3) **Lead Contact**
Will Smith

4) **Contact Organization**
Midwest Reliability Organization

5) **Registered Ballot body segment (check all applicable industry segments)**
10 - Regional Reliability Organizations/Regional Entities

6) **Contact Telephone**
###-###-####
651-855-1718

7) **Contact E-mail**
ws.smith@midwestreliability.org

8) **Please complete the following information.**

	Additional Member	Additional Organization	Region	Segment Selection
1.	MAHMOOD SAFI	OPPD	MRO	1, 3, 5, 6
2.	CHUCK LAWRENCE	ATC	MRO	1
3.	TOM WEBB	WPS	MRO	3, 4, 5, 6
4.	JODI JENSON	WAPA	MRO	6
5.	KEN GOLDSMITH	ALTW	MRO	4
6.	ALICE IRELAND	NSP (XCEL)	MRO	1, 3, 5, 6
7.	DAVE RUDOLPH	BEPC	MRO	1, 3, 5, 6
8.	ERIC RUSKAMP	LES	MRO	1, 3, 5, 6
9.	JOE DEPOORTER	MGE	MRO	3, 4, 5, 6

10.	SCOTT NICKELS	RPU	MRO	4
11.	TERRY HARBOUR	MEC	MRO	1, 3, 5, 6
12.	MARIE KNOX	MISO	MRO	2
13.	LEE KITTELSON	OTP	MRO	1, 3, 4, 5
14.	SCOTT BOS	MPW	MRO	1, 3, 5, 6
15.	TONY EDDLEMAN	NPPD	MRO	1, 3, 5
16.	MIKE BRYTOWSKI	GRE	MRO	1, 3, 5, 6
17.	RICHARD BURT	MPC	MRO	1, 3, 5, 6
18.				
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9) **Question 1**
1. The SDT has made minor modifications to the proposed definitions to provide additional clarity. Do you agree that these modifications provide sufficient clarity? If not, please explain in the comment area.
No

10) **Question 1 Comments:**
The FRM definition: “The median of all the Frequency Response observations reported annually on FRS Form 1” is problematic. It references an FRS Form 1 which is not included in the definition itself but is in fact an attachment to a standard. In the current NERC Glossary of Terms, there is no such precedence that a definition must rely on the requirements or details in a standard for completeness.

Additionally, the definition of Frequency Bias Setting should focus on what it is. Balancing Authorities do not supply energy. Suggest revising it to:

Frequency Bias Setting

A number, either fixed or variable, usually expressed in MW/0.1 Hz, included in a Balancing Authority’s Area Control Error equation to approximate the expected natural response provided by the assets within the respective Balancing Authority’s area.

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11) **Question 2**
2. The SDT has made minor modifications to the Requirements R1 through R4 to provide additional clarity. Do you agree that these modifications provide sufficient clarity to comply with the standard? If not, please explain in the comment area.
No

12) **Question 2 Comments:**
R1- It is not clear what is intended by "Reserve Sharing Group" in this context. As RSGs exist today, FRM performance by an RSG is not contemplated in the definition of FRM and appears to apply more towards 'secondary response'. Recommend clarifiying this concept and possibly include an example in the background document to help explain how this would work.

R2 - Please add the word “range” in-between the words “date” and “specified”. The

background document specifies that there is a 72-hour period to implement the FBS setting (See Background document Page 7). R2, as written, does not reflect the period for which an entity may implement the ERO validated Bias into ACE.

Also see our comment on #7 as to the length of the comment period. Question 7 comment is provided to assist the SDT; Note from question 7: (Page 7 (3rd paragraph) of the Background document states “Given the fact that BA’s can encounter staffing or EMS change issues coincident with the date the ERO sets for new Frequency Bias Setting implementation, the standard provides a 24 hour window on each side of the target date.

1. The Standard itself does not state this provision (24 hour window on each side of target date) as indicated.

2. The SDT accurately addresses the fact that BA’s could have EMS or staffing issues during implementation of the ERO validated FBS. The current stated 72-hour window is not long enough for implementation of the FBS as there may be a host of issues that could impact implementation. We suggest that a seven day window be used for implementation of the FBS.)

R3 – Recommend the term “Adverse Reliability Impact” be removed from Requirement 3. Based on the NERC definition of the term, a smaller entity could never operate its AGC outside of TLB mode due to their impact on the BES not likely to result in “instability or Cascading”. To ensure a more consistent and equitable approach when applying this Requirement, recommend the drafting team incorporate the reliability reasons listed within the Background Document into the actual Requirement. Additionally, the phrase “effectively coordinated control” should be removed as this is not essential to the Requirement and introduces ambiguity in its application. To this end, the following revisions are proposed:

R3. Each Balancing Authority not receiving Overlap Regulation Service shall operate its Automatic Generation Control (AGC) in Tie Line Bias mode to ensure effectively coordinated control, unless such operation would have an Adverse Reliability Impact on the Balancing Authority’s Area meets one or more of the following conditions.
- Telemetry problems that lead the operator to believe ACE is significantly in error.
- The frequency input to AGC is not reflective of the BA’s true frequency (such as if the control center were operating a local generator and disconnected from the Interconnection).
- During restoration (where one BA might be controlling frequency while another to which it is connected is managing interchange between them).
- For training purposes.
- Many AGC systems will automatically switch to an alternative mode if the EMS determines Tie Line Bias control could lead to problems.
- For single BA Interconnections, Flat Frequency and Tie Line Bias are equivalent.
- The Reliability Coordinator has been informed and the duration is [insert time constraint language here].

R5 – Recommend to delete the phrase “In order to ensure control response”. Such phrases can be needless causes of debate. If a BA uses one of the bulleted methods but does not get “adequate response” then is the BA non-compliant? What is “adequate response”? Who decides if the response is adequate? Please clarify.

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13) **Question 3**
3. The SDT has developed VRFs for the proposed Requirements within this standard. Do you agree that these VRFs are appropriately set? If not, please explain in the comment area.
Yes

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14) **Question 4**
4. The SDT has developed Measures for the proposed Requirements within this standard. Do you agree with the proposed Measures in this standard? If not, please explain in the comment area.
No

15) **Question 4 Comments:**
Based on suggested changes to R3 in response to Question 2, the drafting team should modify M3 to be consistent with the proposed language. Additionally, M1 should be revised to not reference a specific Form. The Form may be the format of choice but it should not be an implied requirement.

Measures 3 and 4 identify the use of “operating logs” as evidence. Measure 2 identifies hard copy and electronic evidence, “or other evidence”. We suggest calling out specifically “operator logs” for M2 also, in case there are system problems in capturing hard copy or electronic evidence during the short time window for implementation.

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16) **Question 5**
5. The SDT has developed VSLs for the proposed Requirements within this standard. Do you agree with these VSLs? If not, please explain in the comment area.
No

17) **Question 5 Comments:**
The proposed VSLs for Requirement R1 treats a BA that did not meet the FRO requirement differently depending on whether or not the Interconnection met the FRO requirement. The obligation of the BA to meet its allocated FRO should be consistent regardless of what the other entities within the interconnection are doing. Suggest removing the interconnection performance from the VSLs and developing four increasing levels of BA failure to meet the FRO.

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18) **Question 6**
6. The SDT divided the previously posted “Attachment A – Background Document” into two documents to provide additional clarity. The first document “Attachment A- Supporting Document” which details the methods used to develop the events to be analyzed, the FRO, FRM and Frequency Bias Setting. Do you agree that the revised Attachment A – Supporting Document provides sufficient clarity on the methodologies to be used? If not, please explain in the comment area.
No

19) **Question 6 Comments:**
Confusion exists around the “peak load” in that Attachment A states the allocation is based on Projected Peak Loads and Generation but the Background Document states it will use a historical Peak and Generation to make the allocation.

Also, for the BA installed capacity, where is that value derived from and does NERC obtain that from FERC form data or does the BA provide that information somewhere specific to this effort? Additionally, there appears to be a difference in how FRO is calculated in Attachment A and what is described in the Background Document. These differences should be reconciled such that both documents address the same approach.

If installed capacity is used in the equation, how are variable/intermittent resources (e.g. wind, solar) accounted for? At full capacity? Please clarify.

We suggest the SDT clarify if the materials in the revised Attachment A (and Attachment B) are “Guideline” or “Technical Background”, or “requirements

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20) **Question 7**
7. The second document “BAL-003-1 Background Document” 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.

No

21) **Question 7 Comments:**
the MRO NSRF has restated the same answer as in question 6 on purpose. Confusion exists around the “peak load” in that Attachment A states the allocation is based on Projected Peak Loads and Generation but the Background Document states it will use a historical Peak and Generation to make the allocation.

Also, for the BA installed capacity, where is that value derived from and does NERC obtain that from FERC form data or does the BA provide that information somewhere specific to this effort? Additionally, there appears to be a difference in how FRO is calculated in Attachment A and what is described in the Background Document. These differences should be reconciled such that both documents address the same approach.

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Page 7 (3rd paragraph) of the Background document states “Given the fact that BA’s can encounter staffing or EMS change issues coincident with the date the ERO sets for new Frequency Bias Setting implementation, the standard provides a 24 hour window on each side of the target date.

1) The Standard itself does not state this provision (24 hour window on each side of target date) as indicated.
2) The SDT accurately addresses the fact that BA’s could have EMS or staffing issues during implementation of the ERO validated FBS. The current stated 72-hour window is not long enough for implementation of the FBS as there may be a host of issues that could impact implementation. We suggest that a seven day window be used for implementation of the FBS.

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22) **Question 8**
8. The SDT has developed a new document titled Attachment B – Process for Adjusting Bias Setting Floor. This document is intended to provide the methodology the ERO will use to reduce the minimum Frequency Bias Setting to become closer to natural Frequency Response. Do you agree that this document provides clear and concise instructions for the ERO to follow? If not, please explain in the comment area.
No

23) **Question 8 Comments:**
: There could be some confusion caused by the Attachment B due to the use of the word “initially” when the reference is made to the current standard. The drafting team should change the word “initially” to “currently” or strike it to avoid the potential confusion.

The second paragraph of Attachment B (which contains the two bullets):
The words “initially 1%” in the second bullet contradict with the Table 1 on Attachment B, which states “Initial” and “0.8%”. Suggest deleting the parenthetical in the second bullet as when BAL-003-1 is effective it would be referencing an old Standard version. If the initial minimum is intended to be 1% say so in the Table 1.

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24) **Question 9**
9. The SDT has provided an additional spreadsheet, FRS Form 2, to assist the Balancing Authority in providing the data needed to comply with the proposed standard. Do you agree that this spreadsheet is useful and the instructions are meaningful? If not, please explain in the comment area.
Yes

25) **Question 9 Comments:**
: It would be useful if the drafting team could develop a completed form as an example to help entities better understand the methodologies used in the form

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26) **Question 10 Comments:**

It is not clear if there is an upper limit to the amount of frequency response expected of the Balancing Authorities under this standard. Except for Table 2 in Attachment A, there is no discussion of an amount of FR expected on a total basis. Balancing Authorities need to know for how many tenths of a hertz they are to respond so they can determine how to plan to meet this requirement. The documents do not appear to provide any boundary on the maximum amount of FR that a BA will provide, i.e. it is not clear what will happen if an event occurs in the Eastern Interconnection that causes the frequency to drop to less than 59.6 Hz (e.g. what if freq dips to 59.0? Is the BA expected to provide a limitless amount of frequency response?). Also, is that event excluded from the list used to calculate the Balancing Authorities' response or is it included with an expectation that it counts the same as any other event. Without a clear statement of what is expected, including whether there is a limit on that expectation or not, the Balancing Authorities cannot know what is expected of them and therefore cannot plan appropriately.

In the first paragraph of R5 delete "at least" and replace with "greater than or". This phrase would now read "…absolute value is greater than or equal to one of the following:"

"Equal to or greater than" accurately identifies the expectation, the current phrasing will lead to confusion and mis-interpretation.

Bullet #1 of R5: The minimum % is based upon the "estimated yearly Peak Demand". During the NERC webinar it was mentioned that this minimum would move to being based on historical reporting of Peak Demand. Where does the SDT stand on this item? Please provide clarification.

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