NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Consideration of Comments

Project 2007-12 Frequency Response

The Frequency Response Drafting Team thanks all commenters who submitted comments on the first formal posting for Project 2007-12 Frequency Response. These standards were posted for a 45-day public comment period from October 25, 2011 through December 9, 2011. Stakeholders were asked to provide feedback on the standards and associated documents through a special electronic comment form. There were 43 sets of comments, including comments from approximately 133 different people from approximately 86 companies representing all 10 of the Industry Segments as shown in the table on the following pages.

All comments submitted may be reviewed in their original format on the standard's project page:

http://www.nerc.com/filez/standards/Frequency_Response.html

If you feel that your comment has been overlooked, please let us know immediately. Our goal is to give every comment serious consideration in this process! If you feel there has been an error or omission, you can contact the Vice President of Standards and Training, Herb Schrayshuen, at 404-446-2560 or at herb.schrayshuen@nerc.net. In addition, there is a NERC Reliability Standards Appeals Process.[1]

[1] The appeals process is in the Reliability Standards Development Procedures: http://www.nerc.com/standards/newstandardsprocess.html.

Index to Questions, Comments, and Responses

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The Industry Segments are:

1 — Transmission Owners
2 — RTOs, ISOs
3 — Load-serving Entities
4 — Transmission-dependent Utilities
5 — Electric Generators
6 — Electricity Brokers, Aggregators, and Marketers
7 — Large Electricity End Users
8 — Small Electricity End Users
9 — Federal, State, Provincial Regulatory or other Government Entities
10 — Regional Reliability Organizations, Regional Entities

Group/Individual		Commenter	Organization	Registered Ballot Body Segment									
				1	2	3	4	5	6	7	8	9	10
1.	Group	Chris Higgins	Bonneville Power Administration	X		X		X	X				

	Additional Member	Additional Organization	Region	Segment Selection
1.	James Murphey	BPA	WECC	1
2.	Bart McManus	BPA	WECC	1
3.	David Kirsch	BPA	WECC	1

2.	Group	Jesus Sammy Alcaraz	Imperial Irrigation District	X		X	X	X	X				

	Additional Member	Additional Organization	Region	Segment Selection
1.	Tino Zaragoza	IID	WECC	1
2.	Jesus Sammy Alcaraz	IID	WECC	3
3.	Diana Torres	IID	WECC	4
4.	Marcela Caballero	IID	WECC	5

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Group/Individual	Commenter	Organization	Registered Ballot Body Segment									
			1	2	3	4	5	6	7	8	9	10
5. Cathy Bretz	IID	WECC 6										
3. Group	Guy Zito	Northeast Power Coordinating Council										X

	Additional Member	Additional Organization	Region	Segment Selection
1.	Alan Adamson	New York State Reliability Council, LLC	NPCC	10
2.	Greg Campoli	New York Independent System Operator	NPCC	2
3.	Sylvain Clermont	Hydro-Quebec TransEnergie	NPCC	1
4.	Chris de Graffenried	Consolidated Edison Co. of New York, Inc.	NPCC	1
5.	Gerry Dunbar	Northeast Power Coordinating Council	NPCC	10
6.	Brian Evans-Mongeon	Utility Services	NPCC	8
7.	Mike Garton	Dominion Resources Services, Inc.	NPCC	5
8.	Kathleen Goodman	ISO - New England	NPCC	2
9.	Chantel Haswell	FPL Group, Inc.	NPCC	5
10.	David Kiguel	Nydro One Networks Inc.	NPCC	1
11.	Michael R. Lombardi	Northeast Utilities	NPCC	1
12.	Randy MacDonald	New Brunswick Power Transmission	NPCC	9
13.	Bruce Metruck	New York Power Authority	NPCC	6
14.	Lee Pedowicz	Northeast Power Coordinating Council	NPCC	10
15.	Robert Pellegrini	The United Illuminating Company	NPCC	1
16.	Si-Truc Phan	Hydro-Quebec TransEnergie	NPCC	1
17.	David Ramkalawan	Ontario Power Generation, Inc.	NPCC	5
18.	Saurabh Saksena	National Grid	NPCC	1
19.	Michael Schiavone	National Grid	NPCC	1
20.	Wayne Sipperly	New York Power Authority	NPCC	5
21.	Tina Teng	Independent Electricity System Operator	NPCC	2
22.	Donald Weaver	Neqw Brunswick System Operator	NPCC	2
23.	Ben Wu	Orange and Rockland Utilities	NPCC	1
24.	Peter Yost	Consolidated Edison Co. of New York, Inc.	NPCC	3

4. Group	Will Smith	MRO NSRF										X

	Additional Member	Additional Organization	Region	Segment Selection
1.	MAHMOOD SAFI	OPPD	MRO	1, 3, 5, 6
2.	CHUCK LAWRENCE	ATC	MRO	1

Group/Individual	Commenter	Organization	Registered Ballot Body Segment									
			1	2	3	4	5	6	7	8	9	10

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

5.	Group	Gerald Beckerle	SERC OC Standards Review Group	X		X						

	Additional Member	Additional Organization	Region	Segment Selection
1.	Andy Burch	EEI	SERC	5
2.	Bob Dalrymple	TVA	SERC	1, 3, 5, 6
3.	Brad Gordon	PJM	SERC	2
4.	Vicky Budreau	SCPSA	SERC	1, 3, 5, 6
5.	Sam Holeman	Duke	SERC	6, 1, 3, 5
6.	Cindy Martin	Southern Co	SERC	1, 5
7.	Scott Brame	NCEMC	SERC	1, 3, 4, 5
8.	Wayne Van Liere	LGE-KU	SERC	3
9.	Larry Akens	TVA	SERC	1, 3, 5, 6
10.	John Troha	SERC Reliability Corp.	SERC	10

6.	Group	Robert Rhodes	SPP Standards Review Group		X							

	Additional Member	Additional Organization	Region	Segment Selection
1.	John Allen	City Utilities of Springfield	SPP	1, 3, 5
2.	David Dockery	Assocoated Electric Cooperative	SERC	1, 3, 5

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Group/Individual	Commenter	Organization	Registered Ballot Body Segment									
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3. Lisa Duffey	Cleco Power	SPP, 1, 3, 5										
4. Jonathan Hayes	SPP	SPP, 2										
5. Steve Haun	Lincoln Electric System	MRO, 1, 3, 5										
6. Tony McMurtry	Lafayette Utilities System	SPP, NA										
7. Dave Milliam	Kansas City Power & Light	SPP, 1, 3, 5, 6										
8. Terri Pyle	Oklahoma Gas & Electric	SPP, 1, 3, 5										
9. Katie Shea	Westar Energy	SPP, 1, 3, 5, 6										
7. Group	Steve Rueckert	Western Electricity Coordinating Council										X
No additional members listed.												
8. Group	Frank Gaffney	Florida Municipal Power Agency	X		X	X	X	X	X			
Additional Member	**Additional Organization**	**Region**	**Segment Selection**									
1. Timothy Beyrle	City of New Smyrna Beach	FRCC	4									
2. Greg Woessner	Kissimmee Utility Authority	FRCC	3									
3. Jim Howard	Lakeland Electric	FRCC	3									
4. Lynne Mila	City of Clewiston	FRCC	3									
5. Joe Stonecipher	Beaches Energy Services	FRCC	1									
6. Cairo Vanegas	Fort Pierce Utility Authority	FRCC	4									
7. Randy Hahn	Ocala Utility Services	FRCC	3									
9. Group	Thomas McElhinney	JEA Electric Compliance	X		X		X					
Additional Member	**Additional Organization**	**Region**	**Segment Selection**									
1. John Babik	JEA Electric Compliance	FRCC	5									
2. Ted Hobson	JEA Electric Compliance	FRCC	1									
3. Garry Baker	JEA System Operations	FRCC	3									
10. Group	Al DiCaprio	ISO/RTO Council Standards Review Committee		X								
Additional Member	**Additional Organization**	**Region**	**Segment Selection**									
1. Charles Yeung	SPP	SPP	2									
2. Kathleen Goodman	ISO-NE	NPCC	2									
3. Gary DeShazo	CAISO	WECC	2									
4. Greg Campoli	NYISO	NPCC	2									
5. Steve Myers	ERCOT	ERCOT	2									

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Group/Individual		Commenter	Organization	Registered Ballot Body Segment									
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6.	Don Weaver	NBSO	NPCC 2										
7.	Mark Thompson	AESO	WECC 2										
8.	Ben Li	IESO	NPCC 2										
11.	Group	Jason L. Marshall	ACES Power Marketing Standards Collaborators						X				
	Additional Member	**Additional Organization**	**Region**	**Segment Selection**									
1.	Mark Ringhausen	Old Dominion Electric Cooperative	RFC	3, 5, 6									
2.	James Jones	Arizona Electric Power Cooperative/Southwest Transmission Cooperative	WECC	1, 5, 6									
3.	Erin Woods	East Kentucky Power Cooperative	SERC	1, 3, 5, 6									
12.	Group	Joe Tarantino	Sacramento Municipal Utility District (SMUD)	X		X	X	X	X				
	Additional Member	**Additional Organization**	**Region**	**Segment Selection**									
1.	Kevin Smith	Balancing Authority of Northern California (BANC)	WECC	1									
13.	Individual	Emily Pennel	Southwest Power Pool Regional Entity										X
14.	Individual	Cindy Oder	Salt River Project	X		X		X	X				
15.	Individual	Jim Eckelkamp	Progress Energy	X		X		X	X				
16.	Individual	Janet Smith, Regulatory Affairs Supervisor	Arizona Public Service Company	X		X		X	X				
17.	Individual	Antonio Grayson	Southern Company	X		X		X	X				
18.	Individual	Howard F. Illian	Energy Mark, Inc.								X		
19.	Individual	Don McInnis	Florida Power & Light Company	X		X		X					
20.	Individual	Carlos J. Macias	FPL	X		X		X	X				
21.	Individual	Mauricio Guardado	Los Angeles Department of Water and Power	X		X		X	X				
22.	Individual	Thomas Washburn	FMPP						X				
23.	Individual	Alice Ireland	Xcel Energy	X		X		X	X				
24.	Individual	Kathleen Goodman	ISO New England Inc		X								
25.	Individual	John Tolo	Tucson Electric Power	X									

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Group/Individual		Commenter	Organization	Registered Ballot Body Segment									
				1	2	3	4	5	6	7	8	9	10
26.	Individual	Dennis Sismaet	Seattle City Light	X		X	X	X	X				
27.	Individual	Michael Falvo	Independent Electricity System Operator		X								
28.	Individual	John Bussman	Associated Electric Cooperative Inc	X		X		X	X				
29.	Individual	Rich Salgo	NV Energy	X		X		X					
30.	Individual	Thad Ness	American Electric Power	X		X		X	X				
31.	Individual	RoLynda Shumpert	South Carolina Electric and Gas	X		X		X	X				
32.	Individual	Louis C. Guidry	Cleco Corporation	X		X		X	X				
33.	Individual	H. Steven Myers	ERCOT		X								
34.	Individual	Kasia Mihalchuk	Manitoba Hydro	X		X		X	X				
35.	Individual	Curtis Crews	Texas Reliability Entity										X
36.	Individual	Mark B Thompson	Alberta Electric System Operator		X								
37.	Individual	Anthony Jablonski	ReliabilityFirst										X
38.	Individual	Brenda Powell	Constellation Energy Commodities Group						X				
39.	Individual	Kirit Shah	Ameren	X		X		X	X				
40.	Individual	Michael Brytowski	Great River Energy	X		X		X	X				
41.	Individual	Si Truc PHAN	Hydro-Quebec TransEnergie	X									
42.	Individual	Greg Rowland	Duke Energy	X		X		X	X				
43.	Individual	Robert Blohm	Keen Resources Asia Ltd.								X		

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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.

Summary Consideration:

Organization	Yes or No	Question 5 Comment
Seattle City Light	Negative	Answer: No. Comments: LADWP and SCL recommend that either the VSL for Requirement 3 reflects its comments to Question 2, or that these comments be addressed as an exception in the Measure for Requirement 3.
Response: Based on Industry comments and further review, the drafting team has deleted R3 as the requirement is duplicative with R6 and R7 in BAL-005-0.1b.		
Public Utility District No. 1 of Douglas County	Negative	1. The BA and interconnection meet the FRO differently. Suggest removing the interconnection performance from the VSL and develop additional levels of BA failure to meet its FRO.
Response: The drafting team does not agree, but believes an explanation would be helpful. VSLs are a starting point for the enforcement process. The combination of the VSL and VRF is intended to measure a violation's impact on reliability and thus levy an appropriate sanction. Frequency Response is an interconnection-wide resource. The proposed VSLs are intended to put multi-BA Interconnections on the same plain as single-BA Interconnections. Consider a small BA that whose performance is 70% of its FRO. If all other BAs in the Interconnection are compliant, the small BA's performance has negligible impact on reliability, yet would be sanctioned at the same level as a BA who was responsible for its entire Interconnection. It is not rational to sanction this BA the same as a single BA Interconnection that had insufficient Frequency Response. To do otherwise would treat multi-BA Interconnections tens of times more harshly than single BA Interconnections.		

Organization	Yes or No	Question 5 Comment
BrightSource Energy, Inc.	Negative	The negative vote from BrightSource is related to the proposed VSL only. 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 its FRO. Conforming changes to the VSLs would need to be made for any changes to the Requirements as suggested in the comments to the standard.
Response: The drafting team does not agree, but believes an explanation would be helpful. VSLs are a starting point for the enforcement process. The combination of the VSL and VRF is intended to measure a violation's impact on reliability and thus levy an appropriate sanction. Frequency Response is an interconnection-wide resource. The proposed VSLs are intended to put multi-BA Interconnections on the same plain as single-BA Interconnections. Consider a small BA that whose performance is 70% of its FRO. If all other BAs in the Interconnection are compliant, the small BA's performance has negligible impact on reliability, yet would be sanctioned at the same level as a BA who was responsible for its entire Interconnection. It is not rational to sanction this BA the same as a single BA Interconnection that had insufficient Frequency Response. To do otherwise would treat multi-BA Interconnections tens of times more harshly than single BA Interconnections.		
U.S. Army Corps of Engineers; Platte River Power Authority; Pacific Gas and Electric Company; Idaho Power Company; Colorado Springs Utilities; California Energy Commission; California ISO; Clark Public Utilities; Tucson Electric Power Co.; Tri-State G	Negative	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 its FRO. Conforming changes to the VSLs would need to be made for any changes to the Requirements as suggested in the comments to the standard.

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Organization	Yes or No	Question 5 Comment
& T Association, Inc.		

Response: The drafting team does not agree, but believes an explanation would be helpful.

VSLs are a starting point for the enforcement process. The combination of the VSL and VRF is intended to measure a violation's impact on reliability and thus levy an appropriate sanction. Frequency Response is an interconnection-wide resource. The proposed VSLs are intended to put multi-BA Interconnections on the same plain as single-BA Interconnections.

Consider a small BA that whose performance is 70% of its FRO. If all other BAs in the Interconnection are compliant, the small BA's performance has negligible impact on reliability, yet would be sanctioned at the same level as a BA who was responsible for its entire Interconnection. It is not rational to sanction this BA the same as a single BA Interconnection that had insufficient Frequency Response. To do otherwise would treat multi-BA Interconnections tens of times more harshly than single BA Interconnections.

Kansas City Power & Light Co.	Negative	The VSL for Requirement 3 does not sufficiently reflect a thoughtful range of violation severity of duration or number of instances by which AGC is not in Tie-Line Bias mode.

Response: Based on Industry comments and further review, the drafting team has deleted R3 as the requirement is duplicative with R6 and R7 in BAL-005-0.1b.

ACES Power Marketing; East Kentucky Power Coop.; Hoosier Energy Rural Electric Cooperative, Inc.	Negative	The VSLs on for Requirement R1 set a previously un-established precedent of relying on the performance of other registered entities to establish the severity level of the violation. This is not appropriate. The VSLs should be rewritten to provide further gradations of the violation severity based on the BA's own performance.

Response: The drafting team does not agree, but believes an explanation would be helpful.

VSLs are a starting point for the enforcement process. The combination of the VSL and VRF is intended to measure a violation's impact on reliability and thus levy an appropriate sanction. Frequency Response is an interconnection-wide resource. The proposed VSLs are intended to put multi-BA Interconnections on the same plain as single-BA Interconnections.

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Organization	Yes or No	Question 5 Comment
Consider a small BA that whose performance is 70% of its FRO. If all other BAs in the Interconnection are compliant, the small BA's performance has negligible impact on reliability, yet would be sanctioned at the same level as a BA who was responsible for its entire Interconnection. It is not rational to sanction this BA the same as a single BA Interconnection that had insufficient Frequency Response. To do otherwise would treat multi-BA Interconnections tens of times more harshly than single BA Interconnections.		
Southwest Transmission Cooperative, Inc.	Negative	The VSLs on for Requirement R1 set a previously un-established precedent of relying on the performance of other registered entities to establish the severity level of the violation. This is not appropriate. The VSLs should be rewritten to provide further gradations of the violation severity based on the BA's own performance. 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 its FRO. Conforming changes to the VSLs would need to be made for any changes to the Requirements as suggested in the comments to the standard.
Response: The drafting team does not agree, but believes an explanation would be helpful. VSLs are a starting point for the enforcement process. The combination of the VSL and VRF is intended to measure a violation's impact on reliability and thus levy an appropriate sanction. Frequency Response is an interconnection-wide resource. The proposed VSLs are intended to put multi-BA Interconnections on the same plain as single-BA Interconnections. Consider a small BA that whose performance is 70% of its FRO. If all other BAs in the Interconnection are compliant, the small BA's performance has negligible impact on reliability, yet would be sanctioned at the same level as a BA who was responsible for its entire Interconnection. It is not rational to sanction this BA the same as a single BA Interconnection that had insufficient Frequency Response. To do otherwise would treat multi-BA Interconnections tens of times more harshly than single BA Interconnections.		
Western Area Power	Negative	Under compliance for R1, there is a difference between VSL levels whether the

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Organization	Yes or No	Question 5 Comment
Administration		interconnection met is FRO or not. If the interconnection meets it's FRO but a single BA doesn't't meet its share of FRO the violation is considered low VSL, but, if the interconnection dosen't't meet it's FRO the same BA will have a High VSL. Obligation of the individual BA to meet its allocated FRO should always be applicable regardless of what other BAs are doing in the interconnection. This provision creates a disparity amongst BAs and creates a disparate treatment between the BAs who perform compared to those who don't.
Response: The drafting team does not agree, but believes an explanation would be helpful. VSLs are a starting point for the enforcement process. The combination of the VSL and VRF is intended to measure a violation's impact on reliability and thus levy an appropriate sanction. Frequency Response is an interconnection-wide resource. The proposed VSLs are intended to put multi-BA Interconnections on the same plain as single-BA Interconnections. Consider a small BA that whose performance is 70% of its FRO. If all other BAs in the Interconnection are compliant, the small BA's performance has negligible impact on reliability, yet would be sanctioned at the same level as a BA who was responsible for its entire Interconnection. It is not rational to sanction this BA the same as a single BA Interconnection that had insufficient Frequency Response. To do otherwise would treat multi-BA Interconnections tens of times more harshly than single BA Interconnections.		
Ameren Services; Ameren Energy Marketing Co./Ameren	Negative/No	It is not clear how the VSL for R1 uses the "Summation of the BA's FRM", when the requirement is BA or RSG specific.
Response: Based on comments, the drafting team has created a new definition for an entity called a Frequency Response Reserve Sharing Group (FRRSG). FRRSG performance may be calculated on one of two ways: • Calculate a group NIa and measure the group response to all events in the reporting year on a single FRS Form 1, or • Jointly submit the individual BAs' Form 1s, with a summary spreadsheet that sums each participant's individual annual performance.		
Manitoba Hydro	Negative/No	The Violation Severity Levels for R1 penalize entities more severely depending on how the interconnection as a whole has performed. MH believes that BAs should only be held accountable for issues within their control and that the VSLs for R1

Organization	Yes or No	Question 5 Comment
		should be revised accordingly.

Response: The drafting team does not agree, but believes an explanation would be helpful.

VSLs are a starting point for the enforcement process. The combination of the VSL and VRF is intended to measure a violation's impact on reliability and thus levy an appropriate sanction. Frequency Response is an interconnection-wide resource. The proposed VSLs are intended to put multi-BA Interconnections on the same plain as single-BA Interconnections.

Consider a small BA that whose performance is 70% of its FRO. If all other BAs in the Interconnection are compliant, the small BA's performance has negligible impact on reliability, yet would be sanctioned at the same level as a BA who was responsible for its entire Interconnection. It is not rational to sanction this BA the same as a single BA Interconnection that had insufficient Frequency Response. To do otherwise would treat multi-BA Interconnections tens of times more harshly than single BA Interconnections.

Constellation Energy Commodities Group	No	The language in the VSLs for R1 should be revisited based on the proposed language modifications above and should also clearly look to the FRM of a BA, group of BAs or RSG against the BA FRO not an Interconnection FRO.

Response: The drafting team will make conforming changes to VSLs based on wording changes to the Requirements.

Regarding the evaluation of the Interconnection, the drafting team does not agree, but believes an explanation would be helpful.

VSLs are a starting point for the enforcement process. The combination of the VSL and VRF is intended to measure a violation's impact on reliability and thus levy an appropriate sanction. Frequency Response is an interconnection-wide resource. The proposed VSLs are intended to put multi-BA Interconnections on the same plain as single-BA Interconnections.

Consider a small BA that whose performance is 70% of its FRO. If all other BAs in the Interconnection are compliant, the small BA's performance has negligible impact on reliability, yet would be sanctioned at the same level as a BA who was responsible for its entire Interconnection. It is not rational to sanction this BA the same as a single BA Interconnection that had insufficient Frequency Response. To do otherwise would treat multi-BA Interconnections tens of times more harshly than single BA Interconnections.

The "Lower" and "Medium" VSLs say that the Interconnection has sufficient Frequency Response but individual BAs are deficient by small or larger amounts respectively. The High and Severe VSLs say the Interconnection does not meet the FRO and assesses sanctions based on whether the BA is deficient by a small or larger amount respectively.

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Organization	Yes or No	Question 5 Comment
Based on comments, the drafting team has created a new definition for an entity called a Frequency Response Reserve Sharing Group (FRRSG). FRRSG performance may be calculated on one of two ways: • Calculate a group NIa and measure the group response to all events in the reporting year on a single FRS Form 1, or • Jointly submit the individual BAs' Form 1s, with a summary spreadsheet that sums each participant's individual annual performance.		
Bonneville Power Administration	No	BPA believes that R1 needs to be more clear and concise as to what is being conveyed in the requirement. It is difficult to understand. 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 its FRO.BPA believes that conforming changes to the VSLs would need to be made for any changes to the Requirements as suggested in the comments to the standard.
Response: The "Lower" and "Medium" VSLs say that the Interconnection has sufficient Frequency Response but individual BAs are deficient by small or larger amounts respectively. The High and Severe VSLs say the Interconnection does not meet the FRO and assesses sanctions based on whether the BA is deficient by a small or larger amount respectively. We would welcome suggested wording changes that relay this concept more clearly. With regard to removing a view of Interconnection performance, the drafting team does not agree, but believes an explanation would be helpful. VSLs are a starting point for the enforcement process. The combination of the VSL and VRF is intended to measure a violation's impact on reliability and thus levy an appropriate sanction. Frequency Response is an interconnection-wide resource. The proposed VSLs are intended to put multi-BA Interconnections on the same plain as single-BA Interconnections.		

Organization	Yes or No	Question 5 Comment
Consider a small BA that whose performance is 70% of its FRO. If all other BAs in the Interconnection are compliant, the small BA's performance has negligible impact on reliability, yet would be sanctioned at the same level as a BA who was responsible for its entire Interconnection. It is not rational to sanction this BA the same as a single BA Interconnection that had insufficient Frequency Response. To do otherwise would treat multi-BA Interconnections tens of times more harshly than single BA Interconnections.		
Florida Power & Light Company	No	For R1 the low and high level descriptions appear to be identical and the high level is less than the medium risk level. For R3 there should be low, medium, and high levels. One BA not operating to TLB does not jepordize the Interconnection. Additionally, computer failures, database loads etc may require some period where TLB is not in service. Suggestion would be Lower VSL operation off of TLB for more than 5 but < 8 continuous hours or accumlative during the year of more than 8 < 16 hours. Medium VSL would be operation off of TLB for more than 8 but <16 continuous hours or accumlative during the year of more than 16 <24 hours. High VSL would be operation off of TLB for more than 16 <24 continuous hours or accumlative during the year of more than 36 <48 hours. Severe VLS would be >24 continuous hours off of TLB or accumlative of > 48.
Response: The "Lower" and "Medium" VSLs say that the Interconnection has sufficient Frequency Response but individual BAs are deficient by small or larger amounts respectively. The High and Severe VSLs say the Interconnection does not meet the FRO and assesses sanctions based on whether the BA is deficient by a small or larger amount respectively. Based on Industry comments and further review, the drafting team has deleted R3 as the requirement is duplicative with R6 and R7 in BAL-005-0.1b.		
NV Energy	No	For R1, suggest that the VSL's not be dependent upon the aggregate performance of the BA's within an interconnection.
Response: The drafting team does not agree, but believes an explanation would be helpful.		

Organization	Yes or No	Question 5 Comment
VSLs are a starting point for the enforcement process. The combination of the VSL and VRF is intended to measure a violation's impact on reliability and thus levy an appropriate sanction. Frequency Response is an interconnection-wide resource. The proposed VSLs are intended to put multi-BA Interconnections on the same plain as single-BA Interconnections. Consider a small BA that whose performance is 70% of its FRO. If all other BAs in the Interconnection are compliant, the small BA's performance has negligible impact on reliability, yet would be sanctioned at the same level as a BA who was responsible for its entire Interconnection. It is not rational to sanction this BA the same as a single BA Interconnection that had insufficient Frequency Response. To do otherwise would treat multi-BA Interconnections tens of times more harshly than single BA Interconnections.		
American Electric Power	No	It is not clear for R1 what the exact delineations are among Lower, Medium, High, and Severe VSL's.
Response: The "Lower" and "Medium" VSLs say that the Interconnection has sufficient Frequency Response but individual BAs are deficient by small or larger amounts respectively. The High and Severe VSLs say the Interconnection does not meet the FRO and assesses sanctions based on whether the BA is deficient by a small or larger amount respectively.		
Seattle City Light	No	LADWP and SCL recommend that either the VSL for Requirement 3 reflects its comments to Question 2, or that these comments be addressed as an exception in the Measure for Requirement 3.
Response: Based on Industry comments and further review, the drafting team has deleted R3 as the requirement is duplicative with R6 andR7 in BAL-005-0.1b.		
Los Angeles Department of Water and Power	No	LADWP recommends that either the VSL for Requirement 3 reflects its comments to Question 2, or that these comments be addressed as an exception in the Measure for Requirement 3.
Response: Based on Industry comments and further review, the drafting team has deleted R3 as the requirement is duplicative with R6 and R7 in BAL-005-0.1b.		

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Organization	Yes or No	Question 5 Comment
ReliabilityFirst	No	ReliabilityFirst thanks the SDT for their effort on this project. ReliabilityFirst has a number of concerns/questions related to the draft BAL-003-1 VSLs which include the following:1. General VSL Comment - For consistency with other standards, each VSL should begin with the phrase "The Responsible Entity..." or "The Balancing Authority". This is consistent with the language of the requirement and correctly pinpoints the appropriate responsible entity. 2. VSL R1 Comment - Based on the FERC Guideline #3 "Violation Severity Level Assignment Should Be Consistent with the Corresponding Requirement". ReliabilityFirst suggests the following modification:a. Lower VSL - The Responsible Entity achieved an annual FRM within an Interconnection that was equal to or more negative than the Interconnection's FRO and the Responsible Entity's FRM was less negative than its FRO by more than 1% but by at most 30% or 15 MW/0.1 Hz, whichever one is the greater deviation from its FROb. Medium VSL - The Responsible Entity achieved an annual FRM within an Interconnection that was equal to or more negative than the Interconnection's FRO and the Responsible Entity's FRM was less negative than its FRO by more than 30% or by more than 15 MW/0.1 Hz, whichever one is the greater deviation from its FROc. High VSL - The responsible entity failed to achieve an annual FRM that is equal to or more negative than its FRO and the Responsible Entity's, FRM was less negative than its FRO by more than 1% but by at most 30% or 15 MW/0.1 Hz, whichever one is the greater deviation from its FROd. Severe VSL - The responsible entity failed to achieve an annual FRM that is equal to or more negative than its FRO and the Responsible Entity's FRM was less negative than its FRO by more than 30% or by more than 15 MW/0.1 Hz, whichever one is the greater deviation from its FRO3. VSL R4 Comment - Based on the FERC Guideline #3 "Violation Severity Level Assignment Should Be Consistent with the Corresponding Requirement". ReliabilityFirst suggests the following modification:a. Example for Lower VSL which should be carried throughout all four VSLs - The Balancing Authority incorrectly modified the Frequency Bias Setting value used in its ACE calculation when providing Overlap Regulation Services with combined footprint setting-error less than 5% of the validated or calculated value4. VSL R5 Comment - Based on the FERC

Organization	Yes or No	Question 5 Comment
		Guideline #3 "Violation Severity Level Assignment Should Be Consistent with the Corresponding Requirement". ReliabilityFirst suggests the following modification: a. Example for Lower VSL which should be carried throughout all four VSLs - The Balancing Authority used a monthly average Frequency Bias Setting whose absolute value was less than or equal to 5% below the minimum specified by the ERO.
Response: While there may be a better way to lay out the VSL, the VSL for R1 is consistent with R1 in that performance can be reported either as a single BA or as an RSG. The "Lower" and "Medium" VSLs say that the Interconnection has sufficient Frequency Response but individual BAs are deficient by small or larger amounts respectively. The High and Severe VSLs say the Interconnection does not meet the FRO and assesses sanctions based on whether the BA is deficient by a small or larger amount respectively. The drafting team has modified the VSLs for R4 and R5 based on your comments.		
Progress Energy / South Carolina Electric and Gas/Duke Energy	No	See comments in Question 2 regarding utilization of the term "Reserve Sharing Group".
Response: Based on comments, the drafting team has created a new definition for an entity called a Frequency Response Reserve Sharing Group (FRRSG). Similar to traditional Reserve Sharing Groups for Contingency Reserves, FRRSGs as proposed in this standard , are voluntary organizations whose members determines the terms and conditions of participation. The members of the FRRSG would determine how to allocate sanctions among its members. This standard does not mandate the formation of FRFSGs, but allows them as a means to meet one of the FERC's Order No. 693 directives. FRRSG performance may be calculated on one of two ways: • Calculate a group NIa and measure the group response to all events in the reporting year on a single FRS Form 1, or • Jointly submit the individual BAs' Form 1s, with a summary spreadsheet that sums each participant's individual annual performance.		

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Organization	Yes or No	Question 5 Comment
SERC OC Standards Review Group	No	See comments in Question 2 regarding utilization of the term "Reserve Sharing Group".VSL for R1:The draft VSLs for R1 uses the summation of FRM for all BAs within an Interconnection as a factor in determining the applicable VSL. This does not seem consistent with R1. R1 is about a single BA and the individual BA's frequency response performance as measured by the FRM for that specific BA. Including the FRM summation of the Interconnection expands R1. It appears that a BA that is non-compliant with R1 could end up with either a Low/Medium or High/Severe VSL based upon the FRO performance of the Interconnection. The FRM performance of the Interconnection is beyond the knowledge and control of a single BA and should not be a determinate of the applicable VSL.Is there a technical basis for selection of the 1%, 30% and 15MW/.1 Hz VSL breakpoints? Does the Lower VSL give a 1% dead band to a BA's FRO? If so, will this be acceptable to NERC/FERC?VSL for R2:The VSL should reflect the language used in the requirement. R2 says a BA "not participating in Overlap Regulation service shall ....", while the VSL says a BA "not receiving Overlap Regulation Service....." The VSL language is not consistent with the requirement. VSLs for R5:Since Frequency Bias Setting is expressed as a negative value, the terms "absolute value" and "less than" must be used carefully. Wouldn't the "absolute value" of a BA's Frequency Bias Setting always be positive and thus it could never be less than the minimum specified by the ERO (a negative value)?

Response: With regard to R1, VSLs are a starting point for the enforcement process. The combination of the VSL and VRF is intended to measure a violation's impact on reliability and thus levy an appropriate sanction. Frequency Response is an interconnection-wide resource. The proposed VSLs are intended to put multi-BA Interconnections on the same plain as single-BA Interconnections.

The "Lower" and "Medium" VSLs say that the Interconnection has sufficient Frequency Response but individual BAs are deficient by small or larger amounts respectively. The High and Severe VSLs say the Interconnection does not meet the FRO and assesses sanctions based on whether the BA is deficient by a small or larger amount respectively.

Regarding the 1%, 30% and 15MW breakpoints, the 1% value accommodates rounding error. The 30% or 15MW/0.1Hz is intended to

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comparably address both large and small BAs. The drafting team used its judgment in selecting these values and cannot predict what the FERC might accept. With regard to R5, the VSL wording is consistent with the requirement in that minimum Bias Setting (absolute value) is based on peak load or peak generation (which are positive values).		
Western Electricity Coordinating Council	No	The proposed VSLs for Requirement R1 treat 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 its FRO.
Response: The drafting team does not agree, but believes an explanation would be helpful. VSLs are a starting point for the enforcement process. The combination of the VSL and VRF is intended to measure a violation's impact on reliability and thus levy an appropriate sanction. Frequency Response is an interconnection-wide resource. The proposed VSLs are intended to put multi-BA Interconnections on the same plain as single-BA Interconnections. Consider a small BA that whose performance is 70% of its FRO. If all other BAs in the Interconnection are compliant, the small BA's performance has negligible impact on reliability, yet would be sanctioned at the same level as a BA who was responsible for its entire Interconnection. It is not rational to sanction this BA the same as a single BA Interconnection that had insufficient Frequency Response. To do otherwise would treat multi-BA Interconnections tens of times more harshly than single BA Interconnections. The "Lower" and "Medium" VSLs say that the Interconnection has sufficient Frequency Response but individual BAs are deficient by small or larger amounts respectively. The High and Severe VSLs say the Interconnection does not meet the FRO and assesses sanctions based on whether the BA is deficient by a small or larger amount respectively.		

Organization	Yes or No	Question 5 Comment
JEA Electric Compliance/ MRO NSRF	No	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 its FRO.
Response: The drafting team does not agree, but believes an explanation would be helpful. VSLs are a starting point for the enforcement process. The combination of the VSL and VRF is intended to measure a violation's impact on reliability and thus levy an appropriate sanction. Frequency Response is an interconnection-wide resource. The proposed VSLs are intended to put multi-BA Interconnections on the same plain as single-BA Interconnections. Consider a small BA that whose performance is 70% of its FRO. If all other BAs in the Interconnection are compliant, the small BA's performance has negligible impact on reliability, yet would be sanctioned at the same level as a BA who was responsible for its entire Interconnection. It is not rational to sanction this BA the same as a single BA Interconnection that had insufficient Frequency Response. To do otherwise would treat multi-BA Interconnections tens of times more harshly than single BA Interconnections. The "Lower" and "Medium" VSLs say that the Interconnection has sufficient Frequency Response but individual BAs are deficient by small or larger amounts respectively. The High and Severe VSLs say the Interconnection does not meet the FRO and assesses sanctions based on whether the BA is deficient by a small or larger amount respectively.		
Northeast Power Coordinating Council	No	The violation severity levels for R1 are reasonable. The technical writing needs to be enhanced for clarity.
Response: Thank you for the comment. The drafting team will look at ways to clarify the wording or provide an explanation in the Background Document.		
ISO New England Inc	No	The violation severity levels for R1 seem to be reasonable. However, the technical

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Organization	Yes or No	Question 5 Comment
		writing needs to be enhanced for clarity
Response: Thank you for the comment. The drafting team will look at ways to clarify the wording or provide an explanation in the Background Document.		
SPP Standards Review Group/Cleco Corporation	No	The VSLs for R2 are based on 5, 15 and 25 days. What was the justification for these values? Could we just as well use 10, 20 and 30 or some other set of values? In R3, we understand that brief periods of operation outside of TLB control are allowable providing 1) continued operation in TLB control would create ARI on the Interconnection or 2) that justification is provided for the periods when TLB is not used. For example, if something happens within our EMS that disables TLB control are we compliant if we document the period as an EMS malfunction?
Response: Regarding R2, the time windows were based on judgment of the drafting team. Similar to the commenters' question, the team could have chosen 1, 7, 14 and 28 days or 1, 2, 3 or 4 days to frame the four levels of VSLs. **Do we want to change R1/M1/VSL1 to within +/1 day of the targeted date to allow some grace? With regard to R3, the drafting team has deleted R3 as the requirement is duplicative with R6 and R7 in BAL-005-0.1b.		
ACES Power Marketing Standards Collaborators/Great River Energy	No	The VSLs on for Requirement R1 set a previously un-established precedent of relying on the performance of other registered entities to establish the severity level of the violation. This is not appropriate. The VSLs should be rewritten to provide further gradations of the violation severity based on the BA's own performance.
Response: The drafting team does not agree, but believes an explanation would be helpful. VSLs are a starting point for the enforcement process. The combination of the VSL and VRF is intended to measure a violation's impact on reliability and thus levy an appropriate sanction. Frequency Response is an interconnection-wide resource. The proposed VSLs are intended to put multi-BA Interconnections on the same plain as single-BA Interconnections. Consider a small BA that whose performance is 70% of its FRO. If all other BAs in the Interconnection are compliant, the small BA's		

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performance has negligible impact on reliability, yet would be sanctioned at the same level as a BA who was responsible for its entire Interconnection. It is not rational to sanction this BA the same as a single BA Interconnection that had insufficient Frequency Response. To do otherwise would treat multi-BA Interconnections tens of times more harshly than single BA Interconnections. The "Lower" and "Medium" VSLs say that the Interconnection has sufficient Frequency Response but individual BAs are deficient by small or larger amounts respectively. The High and Severe VSLs say the Interconnection does not meet the FRO and assesses sanctions based on whether the BA is deficient by a small or larger amount respectively.		
Southern Company	No	VSL for R2:We suggest the language in the VSL be consistent with the language used in the Requirement. The VSL for R2 says a BA 'not receiving Overlap Regulation Service.....' R2 says a BA 'not participating in Overlap Regulation service shall .....'VSLs for R5:Since Frequency Bias Setting is expressed as a negative value, the terms "absolute value" and "less than" must be used carefully. This VSL uses "absolute value" when referring to the BA's Frequency Bias Setting, but does not use "absolute value" when referring to the Frequency Response Obligation, or minimum value specified by the ERO. Consider revising this VSL so that a true comparison can be made.
Response: We agree with your suggested change for the VSL for R2 and will correct the mismatch between the requirement and the VSL. With regard to R5, the VSL wording is consistent with the requirement in that minimum Bias Setting (absolute value) is based on peak load or peak generation (which are positive values).		
Tucson Electric Power	No	VSL's could be clearer and simpler. Allowance for the testing of other AGC modes should be considered.
Response: The drafting team has made changes to VSLs based on specific suggestions. Regarding AGC operation, the drafting team has deleted R3 as the requirement is duplicative with R6 and R7 in BAL-005-0.1b.		

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Organization	Yes or No	Question 5 Comment
Southwest Power Pool Regional Entity	Yes	Hard to follow the language for the VSL for R1. Suggest using formulas for ease of interpretation or provide an example in the Supporting Documentation.
Response: The drafting team will provide an explanation in the Background Document.		
Associated Electric Cooperative Inc	Yes	The VSLs appear reasonable for the risk and particularly where they assess higher severity when the BA or RSG Interconnection's performance was sub-standard as well.
Response: Thank you for your comment.		
ISO/RTO Council Standards Review Committee	Yes	We do not have any issues with the VSLs, but wonder if the wording for R1 should have been "...Reserve Sharing Group's...". Alternatively, the wording after "interconnection's FRO" could be revised to: "...and the Balancing Authority's or the Reserve Sharing Group's FRM was..."
Response: The drafting team agrees and will make this change.		
Independent Electricity System Operator	Yes	We do not have any issues with the VSLs, but wonder if the wording for R1 should have been "...Reserve Sharing Group's...". Alternatively, the wording after "interconnection's FRO" could be revised to: "...and the Balancing Authority's or the Reserve Sharing Group's FRM was..."
Response: The drafting team agrees and will make this change.		
Texas Reliability Entity	Yes	We suggest that the Severe VSL for R3 is confusing and should be clarified as follows: "A Balancing Authority not receiving Overlap Regulation service failed to operate AGC in Tie Line Bias mode, when operation in Tie Line Bias mode would not have had an Adverse Reliability Impact on the Balancing Authority's Area."
Response: Regarding AGC operation, the drafting team has deleted R3 as the requirement is duplicative with R6 and R7 in BAL-005-		

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Organization	Yes or No	Question 5 Comment
0.1b.		
Imperial Irrigation District	Yes	
Salt River Project	Yes	
Energy Mark, Inc.	Yes	
FMPP	Yes	
Xcel Energy	Yes	
Hydro-Quebec TransEnergie	Yes	
Keen Resources Asia Ltd.	Yes	
Florida Municipal Power Agency		
Sacramento Municipal Utility District (SMUD)		
Arizona Public Service Company		
FPL		
ERCOT		
Alberta Electric System Operator		

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