

Consideration of Comments on 2nd Draft of EOP-008-1 — Backup Facilities (Project 2006-04)

The Backup Facilities Standards Drafting Team thanks all commenters who submitted comments on the 2nd draft of reliability standard EOP-008-1 — Loss of Control Center Functionality. The proposed standard was posted for a 45-day public comment period from August 26, 2008 through October 9, 2008. The stakeholders were asked to provide feedback on the proposed metrics through a special electronic Standard Comment Form. There were more than 38 sets of comments, including comments from more than 95 different people from approximately 50 companies representing 8 of the 10 Industry Segments as shown in the table on the following pages.

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

Due to the large number of comments received, the SDT is recommending a third posting for this project.

Based on industry comments, the applicability exclusion for certain Transmission Operators has been deleted (Section 4.1.2) and the following requirements have been changed due to industry comments: R1, R1.2, R1.5, R1.6, R1.6.2, R2, R3, R4, R4.1, R4.2, R5, R5.1, R5.2, R6.1, R7, R8.1, and R8.3. In addition, the following measures were changed due to industry comments: M1, M2, M3, M4, M5, M6, M7, and M8. Also, VSL for the following requirements were changed based on comments: R1, R2, R3, R4, R5, R6, R7, and R8.

The SDT has also changed the entity cited in Requirement R9 from 'Regional Entity' to 'Reliability Assurer' in line with version 4 of the Functional Model.

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 and Director of Standards, Gerry Adamski, at 609-452-8060 or at gerry.adamski@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

1.	The SDT has made a change in the applicability of the Transmission Operator (see Section 4.1.2). Do you agree with the change that was made? If not, please provide specific suggestions for improvement
2.	The SDT has made the transition timeframes equivalent for all applicable entities as shown in Requirement R1.5. Do you agree with this change? If not, please provide specific suggestions for improvement
3.	The SDT has included VRFs and Time Horizons with this posting. Do you agree with the assignments that have been made? If not, please make specific suggestions for improvement.
4.	The SDT has included Measures and Data Retention with this posting. Do you agree with the assignments that have been made? If not, please make specific suggestions for improvement
5.	The SDT has included compliance elements including VSLs for this posting. Do you agree with the assignments that have been made? If not, please provide specific suggestions for change
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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

	Commenter	Organization	Industry Segment									
			1	2	3	4	5	6	7	8	9	10
1.	Thad Ness	AEP	Х		х		х	Х				
2.	Jeff Hackman	Ameren	Х		Х		х	Х				
3.	Denise Koehn	Bonneville Power Administration	Х		Х		х	Х				
Addit	ional Member Additional Organization Reg	jon Segment Selection										
1.	James Burns Transmission Tecl	hnical Operations WECC 1										
4.	David Carpenter	Brazos Electric Power Cooperative, Inc.	х		х		х					
5.	H. Deon Murphy	Bureau of Reclamation x										

		Commenter				Organization				Indu	ustry	Segn	nent			
							1	2	3	4	5	6	7	8	9	10
6.	Paul Ro	ocha		CenterP	oint	Energy	х									
7.	Dan Bro	otzman		ComEd	/ Ex	elon	х		х							
8.	Jianmei	Chai		Consum	ners	Energy Company			х	х	х					
9.	Greg Ro	owland		Duke Er	nerg	/	х		х		х	х				
10.	Greg M	ason		Dynegy							х					
11.	1. Vann Weldon			Electric Inc.	Reli	ability Council of Texas,		х								х
12.	Edward	J Davis		Entergy	Ser	vices, Inc	х									
13.	Will Fra	nklin (Entergy)		Entergy Operation	Sys	tem Planning & Generation & Marketing)						х				
Additi	onal Member	Additional Organization	on Region	Segment Selection			•						•	•		•
1.		Joel Plessinger	Entergy SPO	SERC	6											
2.		Terri Benoit	Entergy SPO	SERC	6											
3.	Margaret Hebert Entergy SPO St		SERC	6												
4.	George Raesis Entergy SPO St		SERC	6												
14.	4. Doug Hohlbaugh			FirstEne	ergy	Corp.	х		х	х	х	х				
Additi	onal Member	Additional Organization	on Region	Segmen	ıt											

		Commenter			Organiza	ation				Indi	ustry	Segn	nent			
							1	2	3	4	5	6	7	8	9	10
				Selection				ı								
1.		Doug Hohlbaugh	FirstEnergy Corp	RFC	1, 3, 4, 5, 6											
2.		David Folk	FirstEnergy Corp	RFC	1, 3, 4, 5, 6											
3.		Sam Ciccone	FirstEnergy Corp	RFC	1, 3, 4, 5, 6											
4.		John Martinez	FirstEnergy Corp	RFC	1, 3, 4, 5, 6											
15.	S. Roger Champagne			Hydro-Qı	х											
16.	Dan Ro	chester		Independ Operator	lent Electrici	ty System		х								
17.	Kathlee	n Goodman		ISO New	England Ind	;		х								
18.	Charles	Yeung (SPP)		ISO/RTC		indards Review		х								
Additi	ional Member	Additional Organization	Regi	on	Segment Selection											
1.		Anita Lee	Alberta Electric S	ystem Operator	WECC	2										
2.		Lourdes Estrada-Salinero	California ISO		WECC	2										
3.		H. Steven Myers	ERCOT	ERCOT		2										
4.		Ben Li	IESO	NPCC		2										
5.		Matt Goldberg	ISO New England NPCC			2										

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		Commenter			Org	janizat	ion				Ind	ustry	Segr	nent			
								1	2	3	4	5	6	7	8	9	10
6.		Bill Phillips	Midwest ISO		RFC		2	•			•	•	•	•	•	•	
7.		Jim Castle	New York ISO		NPCC		2										
19.	Debra Y	'inger		ITC				х									
Additi	ional Member	Additional Organization		gment ection				l			<u> </u>	-1	I				
1.		Elizabeth Howell	RFC	1													
2.		Michael Ayotte	RFC	1													
20.	0. Kris Manchur			Manitoba	х		х		х	х							
21.	Jason N	Marshall		Midwest	t ISO				х								
Additi	ional Member	Additional Organization	on Region	Segme Selecti					•	•	•		•	•	•		
1.		Kirit Shah	Ameren	SERC	1												
2.		Joe Knight	Great River Ener	gy MRO	1,	3, 5											
3.		Jim Cyrulewski, P.E.	JDRJC Associate	s RFC	8												
22.	Joe Del	Poorter (MGE)		MRO NE Subcom		andard	s Review			х	х	х	х				
Additi	ional Member	Additional Organization	on Region Se	gment ection					_								
1.		Neal Balu	WPS MRO	3,	4, 5, 6												

	Commenter					(Organization				Indi	ustry	Segn	nent			
								1	2	3	4	5	6	7	8	9	10
2.	Terry E	Bilke	MISO	MRO		2											
3.	Carol C	Gerou	MP	MRO		1, 3, 5, 6											
4.	Jim Ha	iigh	WAPA	MRO		1, 6											
5.	Charle	s Lawrence	ATC	MRO		1											
6.	Ken Go	oldsmith	ALTW	MRO		4											
7.	Tom M	lielnik	MEC	MRO		1, 3, 5, 6											
8.	Pam S	ordet	XCEL	MRO		1, 3, 5, 6											
9.	Dave F	Rudolph	BEPC	MRO		1, 3, 5, 6											
10.	Eric Ru	uskamp	BEPC	MRO		1, 3, 5, 6											
11.	Joseph	n Knight	GRE	MRO		1, 3, 5, 6											
12.	LArry E	Brusseau	MRO	MRO		10											
13.	Michae	el Brytowski	MRO	MRO		10											
23.	Rick White				Northe	east Uti	lities	х									
24.	4. Guy Zito			NPCC	}											х	
Additi	onal Member Addition	onal Organization		ı	Region		Segment Selection		1	ı	1	1	1			ı	ı
1.	1. Ralph Rufrano New York Power A				Authority		NPCC 5										

	Commenter		Or	ganizatio	n				Indu	ustry	Segn	nent			
						1	2	3	4	5	6	7	8	9	10
2.	Roger Champagne	Hydro-Quebec T	ransEnergie	NPCC	2	•									
3.	Rick White	Northeast Utilitie	s	NPCC	1										
4.	Greg Campoli	New York Indepe	endent System Operator	NPCC	2										
5.	Kathleen Goodman	ISO - New Engla	nd	NPCC	2										
6.	Chris De Graffenried	Consolidated Ed	ison Co. of New York, Inc.	NPCC	1										
7.	Don Nelson	Massachusetts [Dept. of Public Utilities	NPCC	9										
8.	Brian Evans-Mongeor	Utility Services		NPCC	6										
9.	Mike Gildea	Constellation En	ergy	NPCC	6										
10.	Sylvain Clermont	Hydro-Quebec T	ransEnergie	NPCC	1										
11.	Dan Rochester	Independent Ele	ctricity System Operator	NPCC	2										
12.	Brian Gooder	Ontario Power G	eneration Incorporated	NPCC	5										
13.	Lee Pedowicz	NPCC		NPCC	NA										
14.	Gerry Dunbar	NPCC			NA										
15.	Brian Hogue	logue NPCC I		NPCC	NA										
25.	Greg Ward / Darryl Cu	Greg Ward / Darryl Curtis Oncor Electric				х									
26.	Richard Kafka Pepco Holdin			s, Inc Af	filiates	х									

		Commenter	_		Organization				Indu	ustry	Segn	nent			
						1	2	3	4	5	6	7	8	9	10
Additi	onal Member	Additional Organization	n Region		gment lection										
1.		Dave Thorne	Potomac Electric	Power Co RFC	1										
2.		Vic Davis	Delmarva Power	& Light Co RFC	1										
27.	Tom Mo	oleski		PJM Interc	onnection		х								
28.	D. Brya	n Guy		Progress E	nergy Carolinas, Inc.	х		х		х					
29.	Marty B	erland		Progress E	nergy-Florida	х		х		х	х				
30.	Todd Lie	etz		Puget Soul	nd Energy	х		х							
31.	Rao Soi	mayajula		ReliabilityF	irst Corporation										х
32.	Randy S	Schimka		San Diego	Gas and Electric	х		х	х	х					
33.	Terry L.	Blackwell		Santee Co	oper	х									
Additi	dditional Member Additional Organization Region		n Region	Segment Selection											
1.		S. T. Abrams	Santee Cooper	SERC	1										
2.		Glenn Stephens	Santee Cooper S	SERC	1										
3.		Wayne Ahl	Santee Cooper S	SERC	1										
4.		Jim Peterson	Santee Cooper S	SERC	1										

	Commenter			Org	ganization				Ind	ustry	Segr	nent			
						1	2	3	4	5	6	7	8	9	10
5.		Rene' Free	Santee Cooper SEI	RC 1		•		•	•		•	•	•	•	•
34.	Richard	Salgo		Sierra Pacific P Energy)	ower Co. (dba NV	х									
35.	Roman	Carter		Southern Comp	oany Transmission	х									
Additi	onal Member	Additional Organization	n Region	Segment Selection		1	1	1	1	•				•	
1.		Marc Butts	Southern Transmiss	sion SERC	1										
2.		Jim Busbin	Southern Transmiss	sion SERC	1										
3.		JT Wood	Southern Transmiss	sion SERC	1										
4.		Raymond Vice	Southern Transmiss	sion SERC	1										
5.		Chris Wilson	Southern Transmiss	sion SERC	1										
6.		Terry Coggins	southern Transmiss	sion SERC	1										
36.	Linda Perez (WECC)			WECC Reliabili Comment Work											х
						•				•	•	•	•	•	
37.	Robert 1	Temple		Western Area F	Power Administration	х									
38.	Alice Dr	uffel		Xcel Energy		х		х		х	х				

1. The SDT has made a change in the applicability of the Transmission Operator (see Section 4.1.2). Do you agree with the change that was made? If not, please provide specific suggestions for improvement.

Summary Consideration:

Many commenters expressed disapproval of the applicability exclusion proposed for certain Transmission Operators. Based on these comments and further research by the SDT, it appears that the exclusion is not necessary as the intent of the SDT is covered in the NERC "Statement of Compliance Registry Criteria (Revision 5.0)" and Section 501 (specifically Section 501 1.2.3) of the NERC Rules of Procedure which addresses the entities who should be registered as a TOP, and therefore, subject to the applicable provisions of this standard. Therefore, the exclusionary language of Section 4.1.2 has been deleted.

4.1.2. Transmission Operator operating Facilities at 200 kV or above, or non-radial Facilities above 100 KV, or Facilities demonstrated by the Regional Entity to be critical to the reliability of the Bulk Electric System (BES).

Organization	Question 1:	Question 1 Comments:					
Manitoba Hydro	No	I suggest the applicability for the Transmission Operator be changed to the following: "Transmission Operator operating Bulk Electric System (BES) Facilities at 100 kV or higher, including those Facilities demonstrated by the Regional Entity to be critical to the reliability of the Bulk Electric System." The Transmission Operator that just has a radial connection to the BES is taken care of by the definition of Bulk Electric System which states: "Radial transmission facilities serving only load with one transmission source are generally not included in this definition."					
Sierra Pacific Power Co. (dba NV Energy)	No	We would recommend the deletion of the last portion of the applicability statement in 4.1.2. The suggestion is to delete "or Facilities demonstrated by the Regional Entity to be critical to the reliability of the Bulk Electric System (BES)". We believe this part of the applicability is highly subjective and would result in uncertainty among entities who are excluded today, but could suddenly be subject to this Standard due to a subjective judgment call made by their Regional Entity at some point in the future. The Regional Entities presently do not exhibit consistency in their determination of the components of the BES, and quite likely would be even less consistent in a determination of facilities "critical to the reliability of the BES". The applicability statement that would remain after this suggested deletion would not only be clear and objective, it would also point to the specific entities that should be responsible for complying with this Standard.					
it would also point to the specific entities that should be responsible for complying with this Standard. Response: Based on your comment and many others, the SDT has decided to remove all qualifying language from 4.1.2 and list only							

Organization Question 1: Question 1 Comments:

"Transmission Operator." We believe, and in addition are convinced by comments received, that the NERC "Statement of Compliance Registry Criteria (Revision 5.0)" and Section 501 (specifically Section 501 1.2.3) of the NERC Rules of Procedure satisfactorily addresses which entities should be registered as a TOP, and therefore, subject to the applicable provisions of this standard. The standards drafting process is not the appropriate venue for addressing inconsistency issues regarding the Regional Entities. This should be addressed directly with the Regional Entities, or if necessary, with NERC or FERC.

4.1.2 Transmission Operator operating Facilities at 200 kV or above, or non-radial Facilities above 100 KV, or Facilities demonstrated by the Regional Entity to be critical to the reliability of the Bulk Electric System (BES).

NPCC	No	The addition of the wording "operating Facilities at 200 kV or above, or non-radial Facilities above 100 kV," is not appropriate.
Hydro-Québec TransÉnergie (HQT)	No	The addition of the wording "operating Facilities at 200 kV or above, or non-radial Facilities above 100 kV," is not appropriate and should be removed.
Northeast Utilities	No	The addition of the language, "operating Facilities at 200 kV or above, or non radial Facilities above 100 kV", is not appropriate.
Entergy Services, Inc	No	We suggest the Applicability to Transmission Operators (4.1.2) be revised as follows to improve readability, to address the ambiguity of the use of the word "critical", and to address section c of the Applicability statement. Use of the term "critical" is vague and causes confusion as evidenced in the Vegetation standards, Cyber standards, and others. We suggest not using "critical" and revising the Applicability to address what is desired - requiring backup functionality for operators of "transmission facilities that have a material impact on the reliability of the BES." We suggest the following Applicability for Transmission Operator: 4.1.2. Transmission Operator operating: a) Transmission Facilities at 200 kV or above, or b) non-radial Transmission Facilities above 100 kV, or c) Transmission Facilities operating at voltages lower that those identified in a) or b) that are demonstrated to have a material impact on the reliability of the Bulk Electric System (BES)
ITC	No	The addition to 4.1.2 attempts to address what is really a registration and BES defintion issue. This is not the proper place to these issues. The applicability should be just to the TOP and any limitation to the scope of the TOP should be handled in registration.

Organization	Question 1:	Question 1 Comments:
ISO New England Inc	No	We agree with the drafting team's intent to eliminate the burden on a Transmission Operator that just has a radial connection to the BES under 200 kV by limiting TOP applicability. However, this is a registration issue and really identifies an issue with the definition of the BES. A standard is not the proper place to address registration and BES definition issues. The applicability should be just to the TOP and any limitation should be handled in registration. TOPs operating only radial transmission lines serving load are already excluded from registering per Section 501 sub-section 1.2.3 of the NERC Rules of Procedure. Limiting applicability further than this on radial transmission lines in essence redefines the BES and that is not a function of a standard. Please remove the language limiting the applicability.
Ameren	No	We agree with the drafting team's intent to eliminate the burden on a Transmission Operator that just has a radial connection to the BES under 200 kV by limiting TOP applicability. However, this is a registration issue and really identifies an issue with the definition of the BES. A standard is not the proper place to address registration and BES definition issues. The applicability should be just to the TOP and any limitation should be handled in registration. TOPs operating only radial transmission lines serving load are already excluded from registering per Section 501 sub-section 1.2.3 of the NERC Rules of Procedure. Limiting applicability further than this on radial transmission lines in essence redefines the BES and that is not a function of a standard. Please remove the language limiting the applicability.
ISO/RTO Council	No	We agree with the drafting team's intent to eliminate the burden on a Transmission Operator that just has a radial connection to the BES under 200 kV by limiting TOP applicability. However, this is a registration issue and really identifies an issue with the definition of the BES. A standard is not the proper place to address registration and BES definition issues. The applicability should be just to the TOP and any limitation should be handled in registration. TOPs operating only radial transmission lines serving load are already excluded from registering per Section 501 sub-section 1.2.3 of the NERC Rules of Procedure. Limiting applicability further than this on radial transmission lines in essence redefines the BES and that is not a function of a standard. Please remove the language limiting the applicability.
FirstEnergy Corp.	No	We understand and appreciate the drafting team's intent to eliminate the burden on a Transmission Operator with one radial connection under 200 kV to the BES by refining the applicability to exclude such entities. However, what if there was a single radial 200kV+ line to load not owned by the traditional TO/TOP in the area? Would the owner of the facility be required to have a primary/back-up control center? The applicability section of this standard is not the appropriate place to address these issues. The exclusion for TOPs operating only radial transmission lines serving load is contained in Section 501 sub-section 1.2.3 of the NERC Rules of Procedure. Exclusion issues should be vetted and managed in the Rules of Procedure

Organization	Question 1:	Question 1 Comments:
		and the registration processes. The applicability of this standard should point to the functional model entities used in the registration process. It may be simpler to state the applicability as follows related to the TOP: "Transmission Operator of Bulk Electric System (BES) facilities and/or any non-BES facilities, deemed materially important to the BES by the Regional Entity." We believe the SDT should avoid the word "critical" as it may cause confusion with the CIP references to Critical Assets.
Midwest ISO	No	We agree with the drafting team's intent to eliminate the burden on a Transmission Operator that just has a radial connection to the BES under 200 kV by limiting TOP applicability. However, this is a registration issue and really identifies an issue with the definition of the BES. A standard is not the proper place to address registration and BES definition issues. The applicability should be just to the TOP and any limitation should be handled in registration. TOPs operating only radial transmission lines serving load are already excluded from registering per Section 501 sub-section 1.2.3 of the NERC Rules of Procedure. Limiting applicability further than this on radial transmission lines in essence redefines the BES and that is not a function of a standard. Please remove the language limiting the applicability. We urge the drafting team to communicate the need to limit applicability of certain requirements in the registration process. This is a broader problem that NERC needs to resolve.
CenterPoint Energy	No	CenterPoint Energy believes the applicability should not include the vague, fill-in-the-blank provision of "?or Facilities demonstrated by the Regional Entity to be critical to the reliability of the Bulk Electric System." This provision leaves it open to the whim of a Regional Entity to conjure some rationale to "demonstrate", by whatever means, that these requirements should apply to an otherwise exempt entity. Adding to the vagueness of the language is that it is not clear to whom the Regional Entity would make such a "demonstration". If the Regional Entity "demonstrates" the alleged criticality to itself, the problems with the proposed language should be self-evident to even the most naive proponent. Even if the "demonstration" is to an independent, competent, and trustworthy third party (all of which cannot be assumed without specificity of who the independent third party would be), it is unclear what due process is afforded to otherwise exempt entities to argue the facts asserted by the Regional Entity and to argue the reasonabless of the vague, undefined "demonstration" criteria used by the Regional Entity to make its assertion of criticality to the reliability of the BES. CenterPoint Energy recommends that this vague, fill-in-the-blank provision be deleted.
PJM Interconnectio n	No	In 4.1.2, the SDT creates a new class of TOP. This is beyond the Scope of the Standard. 4.1.2 can only apply to current functional entities.

Organization	Question 1:	Question 1 Comments:
Entergy System Planning & Operations (Generation & Marketing)	No	
"Transmission C Criteria (Revisio	perator." We be n 5.0)" and Secti	nent and many others, the SDT has decided to remove all qualifying language from 4.1.2 and list only elieve, and in addition are convinced by comments received, that the NERC "Statement of Compliance Registry on 501 (specifically Section 501 1.2.3) of the NERC Rules of Procedure satisfactorily addresses which entities and therefore, subject to the applicable provisions of this standard.
		prating Facilities at 200 kV or above, or non-radial Facilities above 100 KV, or Facilities demonstrated by the the reliability of the Bulk Electric System (BES).
Western Area Power Administration	No	Please define radial/non-radial; Is the definition radial to load, radial to generation, radial to both load and generation?
Response: Becathe definition of standards develo	radial/non-radial	removing all qualifying language from 4.1.2 and will be listing only "Transmission Operator" in a revised 4.1.2, would be most appropriately addressed through the NERC/Regional Entity registration process, not the
		erating Facilities at 200 kV or above, or non-radial Facilities above 100 KV, or Facilities demonstrated by the se reliability of the Bulk Electric System (BES).
Santee Cooper	No	In 4.1.2 (Applicability) it is not clear that it is for a radial connection to the BES under 200 kV. There could be differences in what a regional entity deems critical to the reliability of the BES and what a TOP deems critical to the reliability of the BES. Would this allow a Regional Entity to require a TOP with radial facilities deemed critical by the RE to have a backup control center?
		Suggestion for rewording of 4.1.2: Transmission Operator?. or radial facilities under 200 kV demonstrated by the Regional Entity to be critical to the reliability of the BES.
Response: Bas	ed on the current	t draft of the standard, an applicable TOP would be required to have backup <u>functionality</u> , not a backup control

Organization Question 1: Question 1 Comments:

center. A TOP could accomplish this with a backup control center, but it could also accomplish this with backup functionality at a third party location, or via contracted services. Due to comments received, we are relying on the NERC registration process to identify the TOPs that would be subject to applicable provisions of the standard. This eliminates the need for qualifying language in 4.1.2 of the standard, and we will list only "Transmission Operator" in the revised 4.1.2.

4.1.2 Transmission Operator operating Facilities at 200 kV or above, or non-radial Facilities above 100 KV, or Facilities demonstrated by the Regional Entity to be critical to the reliability of the Bulk Electric System (BES).

Brazos Electric Power Cooperative, Inc. Nο

This new definition basically brings in all TO's that operate transmission lines 100 kV and above given the NERC definition of a Transmission Operator (The entity responsible for the reliability of its 'local' transmission system?) and the emphasis now on Facilities. This new applicability is much broader than the original version and does not eliminate any burden on TO's, it could in fact be quite the opposite. The new applicability does not seem to match the intent of the old language. Taken literally this means that almost all TO's in ERCOT must have a backup control center. In the past we viewed this Standard applied to ERCOT, the one who directs the operation of the BES, not just a 'local' area. If the intent is to require more TO's to have backup control centers we are against this new concept because of the very small probability of ever losing the primary control center. As this happens so infrequently we feel it is not in the best interest of the electric customers to provide something that will have little benefit or any benefit ever. However, if this standard can be assigned to an entity such as ERCOT by each TO to which this applies then we can accept that concept but not all the new language. The last part of 4.1.2 is ambiguous in several ways. How are Facilities 'demonstrated' to be Critical and to whom and under what criteria? This language is not well thought out. The old 4.1.2, while not great, was better than the new one. The use of the word 'control' leads us to believe that the TO who has the final authority or 'control' of the facilities (small 'f', not capital 'F' for facilities), should have the backup control center and thus we assumed this to be ERCOT. We see no reason for this to change.

Response: Based on your comment and many others, the SDT has decided to remove all qualifying language from 4.1.2 and list only "Transmission Operator." We believe, and in addition are convinced by comments received, that the NERC "Statement of Compliance Registry Criteria (Revision 5.0)" and Section 501 (specifically Section 501 1.2.3) of the NERC Rules of Procedure satisfactorily addresses which entities should be registered as a TOP, and therefore, subject to the applicable provisions of this standard. It is important to understand that this standard applies to TOPs, not TOs that are not also a TOP.

In addition, TOPs under the current draft of this standard would be required to have backup <u>functionality</u>, not a backup control center. A TOP could accomplish this with a backup control center, but it could also accomplish this with backup functionality at a third party location, or via contracted services.

Organization Question 1: **Question 1 Comments:** Finally, NERC's "Statement of Compliance Registry Criteria (Revision 5.0)" states that a TOP is "an entity that operates an integrated transmission element associated with the bulk power system 100 kV and above" This indicates that an entity responsible for only radial transmission lines may not be registered as a TOP, unless such facilities are "defined by the Regional Entity necessary for the reliable operation of the interconnected transmission grid" or if a sub-100 kV facility "is included on a critical facility list that is defined by the Regional Entity." 4.1.2 Transmission Operator operating Facilities at 200 kV or above, or non-radial Facilities above 100 KV, or Facilities demonstrated by the Regional Entity to be critical to the reliability of the Bulk Electric System (BES). "Facilities demonstrated by the Regional Entity to be critical to the reliability of the Bulk Electric System **AEP** No (BES)" needs to be clearly defined. Each regional entity must have a documented process for defining critical facilities. Response: As the SDT is eliminating the qualifying language for TOPs in 4.1.2 in this standard, we are leaving issues related to determining criticality to the NERC/Regional Entity registration process. This is primarily addressed in the NERC "Statement of Compliance Registry Criteria (Revision 5.0)." The SDT agrees that Regional Entities must have a documented process for determining critical facilities, must clearly identify critical facilities, and notify the facility owners with sufficient time to address applicable standards requirements. 4.1.2 Transmission Operator operating Facilities at 200 kV or above, or non-radial Facilities above 100 KV, or Facilities demonstrated by the Regional Entity to be critical to the reliability of the Bulk Electric System (BES). Bureau of No In the applicability of the current draft, the term "Regional Entity" appears. This term is not a NERC defined Reclamation term, nor is it added for this document, so to whom or what it refers is unclear. What entity(s) are expected to demonstrate the criticality? Is this Entity the RRO, a RC, or some other party? In addition the term "non radial" is not clear, is it non-radial with respect to generation and/or load? The applicability should be for all Transmission Operators, with a provision to allow them to be granted a waiver from their RRO if that TOP can demonstrate why the standard should not apply to them.

Response: Regional Entities (REs) are the entities that NERC has delegated compliance and enforcement responsibilities to through FERC approved delegation agreements. REs essentially are the former Regional Reliability Organizations (RROs) that the industry is familiar with. More information about the eight REs can be found at http://www.nerc.com/page.php?cid=1|9|119. Because the SDT is eliminating the qualifying language for TOPs in 4.1.2 in this standard, we are leaving issues related to radial facilities to the NERC/Regional Entity registration process. All registered entities have the right to challenge the functions they are registered for. A waiver provision is not needed in this standard as the registration process is the appropriate venue for such challenges.

4.1.2 Transmission Operator operating Facilities at 200 kV or above, or non-radial Facilities above 100 KV, or Facilities demonstrated by the

Organization	Question 1:	Question 1 Comments:
Regional Entity	to be critical to th	ne reliability of the Bulk Electric System (BES).
Puget Sound Energy	Yes	Since there are many differences in size and effect on the BES of the many registered TOPs, there should be a mechanism where the RRO or RC determines the level of risk an entity poses to their area should they lose their control center. Just because a small entity has a line or two that fits the all encompassing definition of BES, does not place the same burden on the system as a large path operator with hundreds of lines. Some entities are large enough where they should have a staffed backup facility. Implementation of costly plans simply due to a registration type that does nothing to increase reliability should be avoided. Costs are passed on to customers. Simply stating it is for reliability does not justify it to them.
Rules of Proced	ures and/or the N	In your comments are best addressed in the entity registration process and through revisions to the NERC NERC "Statement of Compliance Registry Criteria (Revision 5.0)." The standards development process is not the issues you have presented.
WECC Reliability Coordinator Comment Working Group	Yes	
San Diego Gas and Electric	Yes	
ComEd / Exelon	Yes	
Progress Energy Carolinas, Inc.	Yes	
Southern Company	Yes	

Organization	Question 1:	Question 1 Comments:
Transmission		
Xcel Energy	Yes	
Duke Energy	Yes	
Electric Reliability Council of Texas, Inc.	Yes	
MRO NERC Standards Review Subcommittee	Yes	
Oncor Electric Delivery	Yes	
Independent Electricity System Operator	Yes	
Progress Energy-Florida	Yes	
Pepco Holdings, Inc. - Affiliates	Yes	
ReliabilityFirst Corporation	Yes	

Organization	Question 1:	Question 1 Comments:
Bonneville Power Administration	Yes	
Dynegy	Yes	
Response: Tha	Response: Thank you for your response.	

2. The SDT has made the transition timeframes equivalent for all applicable entities as shown in Requirement R1.5. Do you agree with this change? If not, please provide specific suggestions for improvement.

Summary Consideration:

The vast majority of the respondents supported the position of the SDT on this issue so no substantial changes have been made to the transition timeframe cited in the standard. However, the following requirements were changed for clarity due to industry comments:

R1.5 A transition period between the loss of primary control center functionality and the time to fully implement the backup functionality that is less than or equal to plan and get backup functionality up and running that is less than two hours.

R1.6 An Operating Process describing the actions to be taken during the transition period between the loss of primary control center functionality and the time to to fully implement the backup functionality elements identified in Requirement R1.2get backup functionality up and running. The Operating Process shall include at a minimum:

R8.1 A demonstration of tThe transition time between the <u>loss of primary control</u> center <u>functionality</u> and the <u>time to fully implement the backup functionality initiation of backup functionality</u>.

Organization	Question 2:	Question 2 Comments:
Entergy System Planning & Operations (Generation & Marketing)	No	It is not apparent as to the basis for this number. Is it arbitrary or based on some technical concern? State as such. A statistical risk analysis would be ideal to determine this allowable time, if a valid model exists. If an arbitrary value is used, then an industry survey or something similar (experts/EPRI) may be appropriate (e.g. EPRI Project RP2473-68)
ISO/RTO Council	No	We agree with and thank the drafting team for making the timeframes equivalent. However, we continue to believe that the new requirement is actually less stringent than the existing requirement. While the new requirement specifies that the backup plan must be implemented in two or less hours, the existing requirement specifies that interim provisions must be made if it will take more than one hour to implement the backup capability. Thus, even if the backup capability is not fully implemented within one hour, the responsible entity still has to have an alternative to operate without the primary control center within an hour. We also question what the 2 hours is based on. Have industry surveys or compliance audit results been utilized that demonstrate that two hours is required to fully implement the back up capability plan instead of the one? We recommend changing the

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Organization	Question 2:	Question 2 Comments:
		implementation time back to one hour.
backup control of mitigations to ac	centers (weighing Idress the maxim	no hours was broad enough to capture the very different business/risk decisions that have been made in the past regarding the value of greater geographic separation over the need for rapid response), but also tight enough for entities to develop the two hour transition period. The SDT believes that the new standard has significantly moved beyond the old standard (original nediate management of the risks.
Progress Energy Carolinas, Inc.	No	Transition Period — Different transition period requirements are needed in order to correlate with the various reasons that a primary control center can be lost. A blanket 2-hour requirement forces a backup site to be within approximately 60–90 miles of the primary site to cover the scenario of the quick loss ("crater") of the primary center, where offsite personnel must travel from a non-business location to the backup site. However, this distance is insufficient to protect against the loss of both the primary and backup centers due to a major storm, such as a hurricane. Either the transition period needs to be increased to 4 hours, or exceptions are needed for centers located in hurricane-prone areas. Clarification requested as to what constitutes "loss of primary control center functionality" and what constitutes "backup functionality up and running"? Is the functionality to mean at a minimum the aggregate abilities to monitor/maintain frequency, perform AGC, calculate ACE, and perform interchange scheduling (for BA's) and/or for TA's, the minimum aggregate abilities to monitor and control transmission system voltages, power flows, the switching of transmission elements, and ability to respond to IROL's and SOL's violations? Suggest better definition which would identify the minimum as being any one (or all) of the following:
		 loss of ability to monitor and provide basic tie line control for maintaining the status of all inter-area schedules,
		-loss of ability to monitor and control critical transmission facilities, generation control, voltage control, time and frequency control, control of critical substation devices, and logging of significant power system events.
		- loss of ability to maintain basic voice communication capabilities with other areas.
Progress Energy-Florida	No	Transition Period — Different transition period requirements are needed in order to correlate with the various reasons that a primary control center can be lost. A blanket 2-hour requirement forces a backup site to be within approximately 60–90 miles of the primary site to cover the scenario of the quick loss ("crater") of the primary center, where offsite personnel must travel from a non-business location to the backup site. However, this distance is insufficient to protect against the loss of both the primary and backup centers due to a major storm, such as a hurricane. Either the transition period needs to be increased to 4 hours, or exceptions are needed for centers located in hurricane-prone areas. Clarification requested as to what constitutes "loss of primary control center functionality" and what constitutes "backup functionality up and running"? Is the functionality to mean at a minimum the aggregate abilities to monitor/maintain frequency, perform AGC, calculate ACE, and perform interchange

Organization	Question 2:	Question 2 Comments:
		scheduling (for BA's) and/or for TO's, the minimum aggregate abilities to monitor and control transmission system voltages, power flows, the switching of transmission elements, and ability to respond to IROLs and SOLs violations? Suggest better definition which would identify the minimum as being any one (or all) of the following:
		loss of ability to monitor and provide basic tie line control for maintaining the status of all inter-area schedules,
		loss of ability to monitor and control critical transmission facilities, generation control, voltage control, time and frequency control, control of critical substation devices, and logging of significant power system events.
		loss of ability to maintain basic voice communication capabilities with other areas.

Response: Regarding the request for the SDT to correlate the transition period to the various reasons a control center could be lost would most likely result in the SDT making a very complex standard that still could not possibly address the number of permutations for the loss of a control center.

Regarding clarification as to what constitutes "loss of primary control center functionality," R1.4 specifies that the Operating Plan includes: "Operating Procedures, including decision authority, for use in determining when to implement the Operating Plan for backup functionality." The intention of the SDT is to allow the entity to make the determination that a loss of primary control center functionality has occurred, and when to implement the Operating Plan. The SDT suggests the entity may consider factors, such as, but not limited to: natural disasters, fire, smoke, other inhabitability issues, and control center equipment degradation/failure that precludes continuing operations from the primary control center.

Regarding clarification of the term "backup functionality up and running", the SDT believes implementing the modifications specified by Duke Energy in the section below will enhance the standard's clarity.

Duke Energy	No	We agree that two hours is appropriate for all applicable entities. However we think more clarity is needed on exactly what is required within two hours.
		R1.5 should be revised as follows: "A transition period between the loss of primary control center functionality and the time to fully implement the backup functionality elements identified in R1.2 that is less than or equal to two hours".
		R1.6 should be revised as follows: "An Operating Process describing the actions to be taken during the transition period between the loss of primary control center functionality and the time to fully implement the backup functionality elements identified in R1.2. The Operating Process shall include, at a minimum:".
		R8.1 should be revised as follows: "A demonstration of the transition time between the loss of primary control center functionality and the time to fully implement the backup functionality elements identified in R1.2".

Response: The SDT agrees with the recommended re-wording for R1.5, R1.6, and R8.1 using the reference of R1.2 provides the clarification which is being requested by Progress's comments (above). Thank you for suggesting alternative wording.

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Organization	Question 2:	Question 2 Comments:
		the loss of primary control center functionality and the time to fully implement the backup <u>functionality that is less than or equal to up and running that is less than</u> two hours.
fully implement to minimum:	the backup functi	ribing the actions to be taken during the transition period between the loss of primary control center functionality and the time to onality elements identified in Requirement R1.2 get backup functionality up and running. The Operating Process shall include at a nosition time between the loss of primary control center functionality and the time to fully implement the backup functionality
initiation of back		and the section the local primary control control interest and the same to rany important the section random and
Santee Cooper	No	We recommend that R1.5 be changed such that the backup plan be implemented in less than two hours and the backup functionality up and running that is less than three hours. Smaller entities that need a larger physical separation between control centers will need at least three hours to get backup functionality up and running.
		e time of 2 hours to be the top most limit for registered entities to have implemented enough of its plan to have restored. Increasing the time limit is contrary to most of the other comments received.
Hydro-Québec TransÉnergie (HQT)	No	In the previous version of the Standards, the TOP and BA had a leeway for interim provisions to be included in the plan when extenuating circumstances cause the transition to take longer than two hours (See R8.1 and R8.2 in the redline version). HQT asked to have a similar leeway for the RC. In the current version, that leeway has been removed for all of them. In the answers provided by the SDT, it seems that they assume that facilities for the RC are in another location than that of the BA and TOP. While this might be true for others, for HQT they are all in the same location.
		HQT propose that that a bullet be added in R1.6.3 that reads: "Interim provisions must be included in the plan when extenuating circumstances cause the transition to take longer than two hours for the RC, TOP and BA"
not drive the sta registered entity registered entitie	ndard's developr having a differer es to reestablish	med that registered entities that were TOP's, RC's, and BA's were operating these functions from different sites so this notion did nent. The SDT evaluated the possibility of providing for interim provisions; however, interim provisions could result in each at time limit that would make the standard very hard to evaluate. The SDT believes that 2 hours is a reasonable maximum for their critical functionality in order to ensure the reliability of the interconnection. The SDT believes that the new standard has ld standard (original Version 0, R1.8) by requiring immediate management of the risks.
PJM Interconnectio n	No	The transition timeframe should be defined and justified by the respondent, and be made part of their Operating Plan.

Organization	Question 2:	Question 2 Comments:
Response: The control centers;	SDT believes th providing each re	e intent of this standard is to reduce the interconnections' risk during periods when registered entities need to utilize their backup egistered entity the flexibility to define its own timeframe may not achieve this intent. Therefore, no change was made.
Northeast Utilities	Yes	
Midwest ISO	Yes	
Consumers Energy Company	Yes	
WECC Reliability Coordinator Comment Working Group	Yes	
Puget Sound Energy	Yes	
San Diego Gas and Electric	Yes	
ComEd / Exelon	Yes	
Manitoba Hydro	Yes	
Sierra Pacific	Yes	This is an improvement to the Standard.

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Organization	Question 2:	Question 2 Comments:
Power Co. (dba NV Energy)		
NPCC	Yes	
Southern Company Transmission	Yes	
Xcel Energy	Yes	
Entergy Services, Inc	Yes	
Electric Reliability Council of Texas, Inc.	Yes	
MRO NERC Standards Review Subcommittee	Yes	
ITC	Yes	
CenterPoint Energy		
Oncor Electric Delivery	Yes	

Organization	Question 2:	Question 2 Comments:
Western Area Power Administration	Yes	
ISO New England Inc	Yes	
Pepco Holdings, Inc. - Affiliates	Yes	
ReliabilityFirst Corporation	Yes	
Bonneville Power Administration	Yes	
Dynegy	Yes	
AEP	Yes	The extended transition period increases the criticality of R1.6.
Ameren	Yes	
FirstEnergy Corp.	Yes	We agree that the transition time frames should be equivalent for all applicable entities.
Bureau of Reclamation	Yes	
Response: Tha	nk you for your re	esponse.

3. The SDT has included VRFs and Time Horizons with this posting. Do you agree with the assignments that have been made? If not, please make specific suggestions for improvement.

Summary Consideration: The majority of the responses received supported the SDT VRF assignments and consequently, no changes have been made to the assigned VRF due to industry comments.

Organization	Question 3:	Question 3 Comments:
NPCC	No	We agree with the VRFs for R1 to R8 but not R9. We assess the reliability impact of (R9) failure to come up with a plan 6 months after an entity has experienced a loss of its primary control center or backup capability and expects such loss to last for 6 months or more is lower than any of the other requirements that are assigned a Medium VRF. We therefore suggest a Lower be assigned to this requirement.
ISO New England Inc	No	We agree with the VRFs for R1 to R8 but not R9. We assess the reliability impact of (R9) failure to come up with a plan 6 months after an entity has experienced a loss of its primary control center or backup capability and expects such loss to last for 6 months or more is lower than any of the other requirements that are assigned a Medium VRF. We therefore suggest a Lower be assigned to this requirement.
Independent Electricity System Operator	Yes	We agree with the VRFs for R1 to R8 but not R9. We assess the reliability impact of (R9) - that failure to come up with a plan 6 months after an entity has experienced a loss of its primary control centre or backup capability and expects such loss to last for 6 months or more - is lower than any of the other requirements that are assigned a Medium VRF. We therefore suggest a Lower VRF be assigned to this requirement.
Hydro-Québec TransÉnergie (HQT)	No	We agree with the VRFs for R1 to R8 but not R9. We assess the reliability impact of (R9) failure to come up with a plan 6 months after an entity has experienced a loss of its primary control center or backup capability and expects such loss to last for6 months or more is lower than any of the other requirements that are assigned a Medium VRF. We therefore suggest a Lower be assigned to this requirement.
		sing the VRF for R9. Going without a plan to restore backup functionality beyond six months could affect "the ability to ectric system" as per the definition of a Medium VRF. Therefore, the SDT believes that the proposed VRF is
ITC	No	Per comments made elsewhere, requirement 6 should be part of requirement 1 and therefore have a Medium VRF.

Organization	Question 3:	Question 3 Comments:
		the content of the plan, while Requirement R6 addresses the timeliness of reviews and updates. While it is certainly a uirement R6 is more of an administrative requirement and hence should continue to have a VRF as currently written.
ISO/RTO Council	No	R7 should be a sub-requirement of R1. Thus, it should not have a VRF. The VRF for R8 should be lower. Given that the Operating Plan needs to be tested more frequently than annually to ensure that the backup capability is available when it is needed, this requirement is clearly intended to be administrative. Requirement 9 should be removed from the standard. This is, in essence, a requirement for an N-2 contingency. It is such a rare occurrence to operate from a backup center for an extended period of time that this requirement is not needed. If the RC, TOP or BA must operate from their backup center or utilizes their backup capability for an extended period of time, they should work with NERC and the Regional Entity to address the specific situation rather than having a requirement that dictates a time frame. We assess the reliability impact of (R9) failure to come up with a plan 6 months after an entity has experienced a loss of its primary control center or backup capability and expects such loss to last for 6 months or more is lower than any of the other requirements that are assigned a Medium VRF. We therefore suggest a Lower VSL be assigned to this requirement if the requirement is retained.
Midwest ISO	No	R7 should be a sub-requirement of R1. Thus, it should not have a VRF. The VRF for R8 should be lower. Given that the Operating Plan needs to be tested more frequently than annually to ensure that the backup capability is available when it is needed, this requirement is clearly intended to be administrative. Requirement 9 should be removed from the standard. This is, in essence, is a requirement for an N-2 contingency. It is such a rare occurrence to operate from a backup center for an extended period of time that this requirement is not needed. If the RC, TOP or BA must operate from their backup center or utilizing their backup capability for an extended period of time, they should work with NERC and the Regional Entity to address the specific situation rather than having a requirement that dictates a time frame.
Ameren	No	R7 should be a sub-requirement of R1. Thus, it should not have a VRF. The VRF for R8 should be lower. Given that the Operating Plan needs to be tested more frequently than annually to ensure that the backup capability is available when it is needed, this requirement is clearly intended to be administrative. Requirement 9 should be removed from the standard. This is, in essence, is a requirement for an N-2 contingency. It is such a rare occurrence to operate from a backup center for an extended period of time that this requirement is not needed. If the RC, TOP or BA must operate from their backup center or utilizing their backup capability for an extended period of time, they should work with NERC and the Regional Entity to address the specific situation rather than having a requirement that dictates a time frame.

Manitoba Hydro

Yes

Organization	Question 3:	Question 3 Comments:
However, Requirement F	R7 has been re-w	vritten to provide additional clarity as to what was the intent of the SDT.
	enter each other	ng Authority, and applicable Transmission Operator shall have <u>primary and</u> backup capabilit <u>yies</u> that do <u>es</u> not depend <u>or any single data center</u> for any functionality required to maintain compliance with Reliability Standards <u>that depend on</u>
		rative. If a plan is not routinely tested, it is likely that weaknesses in the plan will not be identified and remedied. the plan could affect BES reliability and no change has been made.
rare contingency. We ag functionality instead of a	gree that flexibility ctual restoration. ability to effective	N-2 contingency. It addresses the need for an entity to restore itself to N-1 after it has suffered what we agree is a very y is required to address the specific situation encountered; that is why the requirement is for a <u>plan</u> to restore The SDT cannot justify reducing the VRF for R9. Going without a plan to restore backup functionality beyond six ely monitor and control the bulk electric system" as per the definition of a Medium VRF. Therefore, the SDT believes the
Consumers Energy Company	Yes	
WECC Reliability Coordinator Comment Working Group	Yes	
Puget Sound Energy	Yes	
San Diego Gas and Electric	Yes	
ComEd / Exelon	Yes	
Entergy System Planning & Operations (Generation & Marketing)	Yes	

Consideration of Comments on 2nd Draft of EOP-008-1 — Backup Facilities (Project 2006-04)

Organization	Question 3:	Question 3 Comments:
Sierra Pacific Power Co. (dba NV Energy)	Yes	The VRF's and Time Horizons appear to be appropriate.
Progress Energy Carolinas, Inc.	Yes	
Southern Company Transmission	Yes	
Duke Energy	Yes	
Electric Reliability Council of Texas, Inc.	Yes	
MRO NERC Standards Review Subcommittee	Yes	
Oncor Electric Delivery	Yes	
Western Area Power Administration	Yes	
Progress Energy- Florida	Yes	
Pepco Holdings, Inc Affiliates	Yes	
Santee Cooper	Yes	
ReliabilityFirst	Yes	

Consideration of Comments on 2nd Draft of EOP-008-1 — Backup Facilities (Project 2006-04)

Organization	Question 3:	Question 3 Comments:	
Corporation			
Bonneville Power Administration	Yes		
PJM Interconnection	Yes		
AEP	Yes		
FirstEnergy Corp.	Yes		
Bureau of Reclamation	Yes		
Northeast Utilities	Yes		
Response: Thank you for	Response: Thank you for your response.		

4. The SDT has included Measures and Data Retention with this posting. Do you agree with the assignments that have been made? If not, please make specific suggestions for improvement.

Summary Consideration:

There were no major problems expressed with the measures or data retention requirements. However, there were several requests for clarity with request to measures. The SDT has reviewed these and made the following changes based on industry comments:

- **R3.** Each <u>Reliability Coordinator</u>, <u>Balancing Authority</u>, <u>and applicable</u>-Transmission Operator directing BES operations through other entities shall <u>ensure that backup functionality exists for the BES operations performed through those other entities. <u>include provisions for the loss of such entity's control functionality in its Operating Plan for backup functionality</u>.</u>
- **R7.** Each Reliability Coordinator, Balancing Authority, and applicable Transmission Operator shall have <u>primary and</u> backup capabilityies that does not depend on the primary control center each other or any single data center for any functionality required to maintain compliance with Reliability Standards that depend on the primary control functionality.
- **M1.** Each Reliability Coordinator, Balancing Authority, and applicable. Transmission Operator shall have a dated, current, in force Operating Plan for backup functionality in accordance with Requirement R1, in electronic or hardcopy format., with evidence of its last issue, describing the manner in which it ensures reliable operations of the BES in the event that its primary control center becomes inoperable.
- **M2.** Each Reliability Coordinator, Balancing Authority, and applicable Transmission Operator shall have a dated, current, in force copy of its Operating Plan for backup functionality in accordance with Requirement R2, in electronic or hardcopy format, with evidence of its last issue, located available in its primary control center and at the location supporting backup functionality.
- M3. Each Reliability Coordinator, Balancing Authority, and applicable. Transmission Operator directing BES operations through other entities shall provide evidence that it has ensured that backup functionality exists for the BES operations performed through those other entities included provisions for the loss of such entity's control functionality in its dated, current, in force Operating Plan for backup functionality, with evidence of its last issue, for backup functionality in accordance with Requirement R3.
- M4. Each Reliability Coordinator shall provide dated evidence that it has demonstrated that it has a backup control center facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators) that provides the functionality required for maintaining compliance with all Reliability Standards applicable to the Reliability Coordinator that depend on primary control center functionality in accordance with Requirement R4.
- **M5.** Each Balancing Authority and applicable Transmission Operator shall provide dated evidence that it has demonstrated that it's its backup functionality (provided either through a backup control center facility or contracted services) includes monitoring, control,

logging, and alarming sufficient for maintaining compliance with all Reliability Standards applicable that depend on to a Balancing Authority or Transmission Operator's primary control center functionality respectively in accordance with Requirement R5.

M6. Each Reliability Coordinator, Balancing Authority, and applicable Transmission Operator, shall have evidence that it's dated, current, in force Operating Plan for backup functionality, in electronic or hardcopy format, with evidence of its last issue, has been reviewed and approved annually and that it has been updated within sixty calendar days of any changes to the backup location, capabilities described in Requirement R1, or contact information in accordance with Requirement R6.

M7. Each Reliability Coordinator, Balancing Authority, and applicable Transmission Operator shall have dated evidence that its primary and backup capabilityies does not depend on each other or any common facility the primary control center for any functionality required to maintain compliance with Reliability Standards that depend on the primary control functionality in accordance with Requirement R7.

M8. Each Reliability Coordinator, Balancing Authority, and applicable. Transmission Operator shall provide evidence such as dated records, that it has completed and documented its annual tested of its dated, current, in force Operating Plan for backup functionality, with evidence of its last issue, and that test results and lessons learned from such testing are noted and incorporated in subsequent revisions of its Operating Plan for backup functionality in accordance with Requirement R8.

R8 VSL

The Reliability Coordinator, R8. Balancing Authority, or applicable Transmission Operator has provided evidence, such as dated records, that it has annually tested its dated, current, in force Operating Plan for backup functionality, but one of the following occurred: 1) the demonstration was with evidence of its last issue. through actual implementation or test operations for less than two continuous hours, 2)or it has failed to demonstrate that the transition time period is less than

The Reliability Coordinator,
Balancing Authority, or
Transmission Operator has
annually tested its Operating
Plan for backup functionality, but
two of the following occurred: 1)
the -demonstration was for less
than two continuous hours, 2) it
has failed to demonstrate that
the transition time period is less
than or equal to two hours, or 3)
test results were not
documented. N/A

The Reliability Coordinator. Balancing Authority, or Transmission Operator has annually tested its Operating Plan for backup functionality. but all three of the following occurred: 1) the testdemonstration was for less than two continuous hours, 2) it has failed to demonstrate that the transition time period

The Reliability Coordinator,
Balancing Authority, or
applicable Transmission
Operator has not annually
tested its dated, current, in
force Operating Plan for backup
functionality.

or equal to two hours, or it was done in more than twelve calendar months or 3 3 test results and lessons learned were not incorporated	is less than or equal to two hours, and 3) test results were not i documented. N/A	
documentedin subsequent revisions of the Operating Plan for backup functionality.		

Organization	Question 4:	Question 4 Comments:
Consumers Energy Company	No	M7. calls for "shall have dated evidence that its backup capability does not depend on the primary control center for any functionality required to maintain compliance with Reliability Standards in accordance with Requirement R7." This is subjective as to what that evidence consists of and leaves too much to interpretation. Is a letter stating there is no dependence suffice? Will it suffice regardless of who the auditor is?

Response: Requirement R7 was retained as a concept from the current version of EOP-008 because the SDT believes there is tremendous value in ensuring that backup capabilities not depend upon the primary control center. Measure M7 is an attempt to put terms of measurability around the language of this requirement, without being so prescriptive that we define what that evidence has to be. Measure M7 was revised in an attempt to clarify the intent of the SDT. The SDT cannot supply answers to specific compliance questions.

M7. Each Reliability Coordinator, Balancing Authority, and applicable Transmission Operator shall have dated evidence that its <u>primary and</u> backup capabilityies does not depend on <u>each other or any common facility</u> the <u>primary control center</u> for any functionality required to maintain compliance with Reliability Standards that depend on the <u>primary control functionality</u> in accordance with Requirement R7.

Puget Sound Energy	No	M.3 - There needs to be clarification in either the requirement or the measure as to the definition of "directing", "entity" and "control functionality". Was this intended to be the TOP that is acting as a host for a DP, or say a GOP? Does the loss of functionality mean a RTU being down now must be addressed in the loss of control center plan for the TOP? Does this even need to be a requirement since R.5 is so vague and encompassing? Why just the TOP and not BA's that are providing regulation services of acting as a host to others? The measurement and requirement are open to interpretation. Both need to be clear, concise and measurable.
		M.6 - The requirement and measure ask for approval. What level of approval does the SDT expect for this? If the SDT does not feel the need to specify, then why have it.

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Organization	Question 4:	Question 4 Comments:
		M.7 - The measure requires dated evidence of a negative statement. Proving a negative in an audit is not easy. Could a statement in the current, dated Operating Plan stating it does not rely on the primary facility be sufficient evidence? I know the SDT does not determine what is acceptable to an auditor, but measures asking for dated proof that something does not exist, did not happen or are not dependent should be avoided. Will I have to provide dated evidence that I did not lose my primary capability for six months in M.9 as well?
		M.8 Providing evidence that the Operating Plan and backup functionality were tested is definitely needed. The current wording of the requirement and measure could be interpreted as each version of the plan must be tested. If a test is done, and the plan is subsequently updated with lessons learned as required in R8.3, the new dated, current, in force plan would not have evidence of being tested. I know this is petty and just semantics, but compliance people may take it literally.

Response: M3 – See response in question 7 related to suggested changes to R3. Both Requirement R3 and Measure M3 were revised to clarify the intent of the SDT.

R3 – Each Reliability Coordinator, Balancing Authority, and applicable Transmission Operator directing BES operations through other entities shall ensure that backup functionality exists for the BES operations performed through those other entities. include provisions for the loss of such entity's control functionality in its Operating Plan for backup functionality.

M3. Each Reliability Coordinator, Balancing Authority, and applicable Transmission Operator directing BES operations through other entities shall provide evidence that it has ensured that backup functionality exists for the BES operations performed through those other entities included provisions for the loss of such entity's control functionality in its dated, current, in force Operating Plan for backup functionality, with evidence of its last issue, for backup functionality in accordance with Requirement R3..

M6 – The SDT did not specify who should approve the procedure because entities are structured differently, and may already have processes in place for the approval of operating procedures. Approval is required to ensure that the procedures have the authority of the operating level management or higher to enforce the implementation of the procedure.

M7 & M9 – The SDT feels that the measure is clear and that the proof is not burdensome. No change made.

M8 – The SDT can understand how that would be a possible interpretation of M8 and has made wording changes for clarity.

M8. Each Reliability Coordinator, Balancing Authority, and applicable. Transmission Operator shall provide evidence such as dated records, that it has completed and documented its annual tested of its dated, current, in force-Operating Plan for backup functionality, with evidence of its last issue, and that test results and lesson's learned from such testing are noted and incorporated in subsequent revisions of its Operating Plan for backup functionality in accordance with Requirement R8.

Progress	No	What is purpose of requiring Operating Plans to be retained for prior 3 years? It should be satisfactory to maintain current active plan with retention revisions of last full calendar year unless there has been a compliance violation identified by the
Energy		active plan with retention revisions of last full calendar year unless there has been a compliance violation identified by the

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Organization	Question 4:	Question 4 Comments:
Carolinas, Inc.		Regional Compliance entity.
		R8 — Does a test in January of one year followed by a test in December of the following year meet the requirement of an "annual" test? If not, the wording here should match Violation Security Levels section D.2.R8.
		M5 — Does this require a document detailing each requirement of all Reliability Standards along with a description of how each is satisfied at the backup (similar to an audit response)? If not, what else can satisfy this measure?
		M7 — Does this require a document detailing each requirement of all Reliability Standards along with a description of how it is satisfied at the backup (similar to an audit response) without utilizing equipment at the primary? If not, what else can satisfy this measure?
		D.1.4, 5th bullet (related to M5) — Does this require a demonstration of adequate backup functionality to be repeated and documented at least once between compliance audits? This measure is not needed since R8/M8 requires an annual test with documentation.D.2.
		R8, Lower Level — States that a violation occurs if subsequent tests occur more than 12 months apart. Section B.R8 states that an annual test shall be conducted. Unless the term "annual" is defined as "every 12 months" in a reference document, these descriptions must match.
Progress Energy-Florida	No	What is purpose of requiring Operating Plans to be retained for prior 3 years? It should be satisfactory to maintain current active plan with retention of last full calendar year unless there has been a compliance violation identified by the Regional Compliance entity.
		R8 — Does a test in January of one year followed by a test in December of the following year meet the requirement of an "annual" test? If not, the wording here should match Violation Security Levels section D.2.R8.
		M5 — Does this require a document detailing each requirement of all Reliability Standards along with a description of how each is satisfied at the backup (similar to an audit response)? If not, what else can satisfy this measure?
		M7 — Does this require a document detailing each requirement of all Reliability Standards along with a description of how it is satisfied at the backup (similar to an audit response) without utilizing equipment at the primary? If not, what else can satisfy this measure?
		D.1.4, 5th bullet (related to M5) — Does this require a demonstration of adequate backup functionality to be repeated and documented at least once between compliance audits? This measure is not needed since R8/M8 requires an annual test with documentation.
		D.2.R8, Lower Level — States that a violation occurs if subsequent tests occur more than 12 months apart. Section B.R8

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Organization	Question 4:	Question 4 Comments:
		states that an annual test shall be conducted. Unless the term "annual" is defined as ?every 12 months? in a reference document, these descriptions must match.

Response: Data retention is an aspect of each standard. The intent of the SDT is to ensure that evidence and copies of the Operating Plan be retained for review by the compliance audit team since the last compliance audit, currently three years, although due to scheduling of audits, it is possible that the audit period may extend beyond 36 months. That is why the team recommends retaining data for three previous years, plus the current year.

- R8. As the standard is written the annual test could be performed at any point during that year, not just within twelve months of the previous year's test.
- M5. The SDT anticipates that the Operating Plan including the elements of R5 would be sufficient to meet the requirement of M5 but the SDT can't answer for what an auditor might require.
- M7. The measure is that evidence will be provided which could include a review, study, report, or some other appropriate type of evidence that the backup capabilities do not share a common point of failure with the primary control center. The type of document described in your comment is another type of evidence which could be used. The SDT cannot supply answers to specific compliance questions.
- D1.4. This is a data retention requirement that the dated evidence showing compliance with R5, and measured according to M5 be retained since the entity's last compliance audit. It does not impose any additional demonstrations of backup functionality.

R8 VSL for lower severity level violation: Agreed. As the standard is written the annual test could be performed at any point during that year, not just within twelve months of the previous year's test. R8 VSL has been changed for clarity.

R8 VSL

	I	I	I	T
R8.	The Reliability Coordinator, Balancing Authority, or	The Reliability Coordinator, Balancing Authority, or	The Reliability Coordinator, Balancing	The Reliability Coordinator, Balancing Authority, or
	applicable Transmission Operator has provided evidence, such as dated	Transmission Operator has annually tested its Operating Plan for backup	Authority, or Transmission Operator has annually tested its	applicable Transmission Operator has not annually tested its dated, current, in
	records, that it has annually tested its dated, current, in	functionality, but two of the following occurred: 1) the	Operating Plan for backup functionality, but	force Operating Plan for backup functionality
	force Operating Plan for backup functionality, but one	demonstration was for less than two continuous hours,	all three of the following occurred: 1) the	backup functionality
	of the following occurred: 1) the demonstration was with	2) it has failed to demonstrate that the	test than two	
	evidence of its last issue, through actual implementation	transition time period is less than or equal to two hours,	continuous hours, 2) it has failed to	

Organiza	ation	Question 4:			Question 4 Comment	s:	
	two co has fa the tra less th hours, than to or 3 3 learned docum	operations for lead to demonstration time period and or equal to two period or equal to two period or each of the Operator of	2) or it ate that od is vo in more nonths lessons porated uent ing Plan	or 3) test results were not documented. N/A	demonstrate that the transition time period is less than or equal to two hours, and 3) test results were not documented. N/A		
Entergy Services,	, Inc	No	not include unspecific unspecific TOP can some unsthe meas	le requirements. These measures ed entities. These measures incled entity and then that unspecific provide that "dated evidence" for specified entity is not in the NER ures be changed to: ch Reliability Coordinator shall put the Balancing Authority and applies	es include new requirements and ude a requirement that the RC, B ed entity must "provide dated evic r evidence of compliance. This re C standards. We suggest the der	monstrated that it has a (BCC)?" Measures on set of TOP "demonstrate" BCC function dence to the RC, BA and TOP so the equirement for demonstration to, and monstration aspect of these measure a backup control center facility ??."	several onality to some e RC, BA and approval by, s be deleted and

Response: The intent of M4 and M5 is just that an entity have dated evidence that it met R4 and R5 respectively. The wording of M4 & M5 have been changed for clarity.

M4. Each Reliability Coordinator shall provide dated evidence that it has demonstrated that it has a backup control center facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators) that provides the functionality required for maintaining compliance with all Reliability Standards applicable to the Reliability Coordinator that depend on primary control center functionality in accordance with Requirement R4.

M5. Each Balancing Authority and applicable Transmission Operator shall provide dated evidence that it has demonstrated that it's its backup functionality (provided either through a backup control center facility or contracted services) includes monitoring, control, logging, and alarming sufficient for maintaining

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Organization	Question 4:	Question 4 Comments:		
compliance with all Reliability Standards applicable that depend on to a Balancing Authority or Transmission Operator's primary control center functionality respectively in accordance with Requirement R5.				
		This standard uses the terms "control center", "capability", "facility" and "functionality" somewhat interchangeably. We believe the standard should consistently use the term "functionality" in the Requirements, Measures and Data Retention (see detailed comment #7 below).		
		The Data Retention requirements are onerous and need further review. For example, there is no need to retain three years of old Operating Plans for backup functionality.		

Response: The SDT has attempted to be consistent in its use of these terms. The terms capability and functionality are used instead of facilities designated as control centers to denote that the Operating Plan does not just have to provide for an alternate physical space for control center personnel to work from, but also the provision for the functionality required of a registered entity to meet the standards, such as monitoring and control. The term functionality refers to the functions that are required to be performed by a registered entity, while capability refers to an entities ability to perform that function. So the plan needs to provide the capability for each function to be met.

Data retention is an aspect of each standard. The intent of the SDT is to ensure that evidence and copies of the Operating Plan be retained for review by the compliance audit team since the last compliance audit, currently three years, although due to scheduling of audits, it is possible that the audit period may extend beyond 36 months. That is why the team recommends retaining data for three previous years, plus the current year.

Electric Reliability Council of Texas, Inc.	No	M5: change "it's" to "its" M7: delete if is made part of R1 M8: this measure and the related data retention requirement (Bullet 8) imply that testing must occur immediately on changing the Plan. Also change "such testing" to "previous testing"
		M9: change if R9 is changed Data Retention Bullet 3: this will be hard to do until the standard has been in place for several years. It may be deleted if R3 is changed or removed.
		Data Retention Bullet 6: this will be hard to do until the standard has been in place for several years.
		Data Retention Bullet 7: delete if R7 is rolled into R1

Response: M5 change 'it's' to 'its'. The SDT agrees to this change.

M5. Each Balancing Authority and applicable Transmission Operator shall provide dated evidence that it has demonstrated that it's its backup functionality (provided either through a backup control center facility or contracted services) includes monitoring, control, logging, and alarming sufficient for maintaining

Organization	Question 4:	Question 4 Comments:
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compliance with all Reliability Standards applicable that depend on to a Balancing Authority or Transmission Operator's <u>primary control center functionality</u> respectively in accordance with Requirement R5.

M7 – The SDT did not roll Requirement R7 into Requirement R1 so Measure M7 remains in place. The SDT believes that Requirement R7 is a standalone requirement as Requirement R1 covers the plan and Requirement R7 the capabilities. However, Requirement R7 has been re-written to provide additional clarity as to what was the intent of the SDT.

R7. Each Reliability Coordinator, Balancing Authority, and applicable. Transmission Operator shall have <u>primary and</u> backup capabilityies that does not depend on the <u>primary control center each other or any single data center</u> for any functionality required to maintain compliance with Reliability Standards that depend on the <u>primary control functionality.</u>.

M8 – The SDT can understand how that would be a possible interpretation of M8 and has made wording changes for clarity.

M8. Each Reliability Coordinator, Balancing Authority, and applicable. Transmission Operator shall provide evidence such as dated records, that it has completed and documented its annual tested of its dated, current, in force-Operating Plan for backup functionality, with evidence of its last issue, and that test results and lesson's learned from such testing are noted and incorporated in subsequent revisions of its Operating Plan for backup functionality in accordance with Requirement R8.

M9 – The SDT did not change Requirement R9 as suggested so there is no need to change here.

Since Requirement R7 was not rolled into Requirement R1, there is no reason to delete Data Retention 7. The SDT believes that Requirement R7 is a standalone requirement as Requirement R1 covers the plan and Requirement R7 the capabilities. However, Requirement R7 has been re-written to provide additional clarity as to what was the intent of the SDT.

R7. Each Reliability Coordinator, Balancing Authority, and applicable Transmission Operator shall have primary and backup capabilityies that does not depend on the primary control center each other or any single data center for any functionality required to maintain compliance with Reliability Standards that depend on the primary control functionality.

MRO NERC Standards	No	M1, M2, M3, M6, states that Entities shall have a "dated, current, in force Operating Plan?", The SDT is placing a measurement that is not contained in the Requirement.
Review Subcommittee		M4, M5, M7, states that Entities shall provide "dated evidence?", The SDT is placing a measurement that is not contained in the Requirement.

Response: Requirement R6 contains language that requires the backup plan to be annually reviewed and approved, and update and approval for any changes to be accomplished within 60 days of changes in backup location, capability or contact information. Requirement R8 also includes the requirement for an annual test of its Operating Plan.

The terms dated, current, and in force refer to the timing requirements stated in Requirement R6, that the Operating Plan for backup or redundant functionality be

Organization Question 4: Question 4 Comments:

dated to determine when it became effective, current, and in force, to denote that it is the version of the plan that is approved, and has been updated to include any changes in location, capability, or contact information. The measures in this case do not add to the requirements, but rather make the requirements clearly measurable.

The SDT feels that 'dated evidence' is needed in the measurements of the various requirements to demonstrate for an auditor that the entity was in compliance for the period of time since the last audit. If, for instance, test results are provided with no dates as to when the test was performed, the auditors would have no way of knowing whether or not the requirement, such as R8 which requires annual testing of the Operating Plan, was met.

ITC	No	Suggest replacing the words "current, in-force" with "approved" for clarity in several of the Measures. The implication of "approved" is that an auditor would be able to see a signature of approval of the Plan.
		Measure 7 evidence would not be easy to provide since you trying to prove a negative - that you don't do something. An auditor could not practically verify that the technical backup capability does not depend on the primary control center. Per comments elsewhere, the associated requirement should be removed and defer to requirement 1.

Response: The term 'approved' is included to address the authority of the plan, whereas the terms 'current and in-force' have more to do with ensuring the version of the plan which is provided to operating personnel is the version of the plan which has been most recently reviewed and distributed to the intended audience.

M7 – In this case, the SDT is not asking an entity for proof that something didn't happen. Rather, the measure is that evidence should include a review, study or report, or some other appropriate type of evidence that the backup capabilities do not share a common point of failure with the primary control center, which can be done and documented.

Western Area Power Administration	No	These measures should be consistent with other existing data retention measures that have already been approved (3 years worth of data). Suggestion is to have the current year and two previous years worth of data.
Bureau of Reclamation	No	These measures should be consistent with other existing data retention measures that have already been approved.
Xcel Energy	No	Data retention should be 3 years.

Response: Data retention is an aspect of each standard. The intent of the standards drafting team is to ensure that evidence and copies of the Operating Plan be retained for review by the compliance audit team since the last compliance audit, currently three years, although due to scheduling of audits, it is possible that the audit period may extend beyond 36 months. That is why the team recommends retaining data for three previous years, plus the current year.

Organization	Question 4:	Question 4 Comments:
Brazos Electric Power Cooperative, Inc.	No	It seems excessive to retain each and every change to these documents and to note that they be 'an approved' plan. We think more emphasis should be placed on having the backup and demonstrating its readiness instead of worrying about documenting everything. No real suggestion for improvement other than to remove some of the unnecessary documentation burdens and language. Perhaps just delete all the lower risk items.
capability. Docu	mentation and me that adequate	the standard is to ensure that adequate backup capability exists, the Operating Plan is an integral part of verifying that backup neasures that are appropriate for audit are an important part of this verification. The requirements for approval and retention are review and authorization are given to the Operating Plan and that the entity retains sufficient documentation to demonstrate d by the audit. The SDT does not consider the retention of this data to be unnecessary.
PJM Interconnectio n	No	Changes need to be made to address the primary/backup language (see 7 below). Additionally, data retention requirements are far too voluminous. There should only be one version (current) in the Control Center. Requiring 3 years worth of outdated plans in the control room, accessible to the operators, may result in mis-operations.
		of the SDT that three years of outdated plans be maintained in the control room. Rather the requirement to maintain former urposes only. Only the current version of the plan should be provided to operating personnel for implementation.
Ameren	No	Measures 1, 2, 3, 6, and 8 require dated, current, in force Operating Plan but there is no time requirement in the associated requirements. Measures should not add to the requirements. What does current really mean? How would the compliance auditor know if the Operating Plan is current given that the requirement does not mention date or time? We suggest removing the term in force because it does not add anything to the requirement. Why would the responsible entity supply an Operating Plan to the compliance auditor that wasn't in force? Measures 1, 2, 3, 6, and 8 also state that evidence of the last issue of the Operating Plan is required. There is nothing in the associated requirements about issuing. Thus again the measures are adding to the requirements but should not. To whom is the Operating Plan required to be issued in the Measures? Part of the issue with Measure 6 is that its associated requirement really should be a sub-requirement of requirement 1. This would solve some of the issues with Measure 1. A large part of the issue with Measures 2, 3, 6, and 8 appear to be overuse of copy and paste. The only requirement associated with these measurements that really needs a dated Operating plan as evidence is requirement 1 but as the requirement is currently written it does not require the Operating Plan to have a date. Measure 7 should not include a requirement for dated evidence. What is really needed is that the Operating Plan evidence presented should have a date and the Operating Plan should be verified to not depend on the primary control center. The compliance auditors could not practically verify that the backup capability or backup control center does not depend on the primary control center. Thus, the requirement associated with Measure 7 is really a sub-requirement of requirement 1.Measurement 9 should not require the RC, BA, and TOP to have evidence that a plan has been submitted to its Regional Entity when it loses its primary control center or backup capability or backup control center because th

Organization	Question 4:	Question 4 Comments:
		Enforcement Authority. The Regional Entity will know when the plan is received.
FirstEnergy Corp.	No	Measures 1, 2, 3, 6, and 8 require a dated Operating Plan but there is nothing in the associated requirements that states the plan shall contain an effective date. The requirements section of the standard should cover all of the expectations Measures should not add to the requirements. We believe adding a subrequirement to R1 that requires the plan have an effective date, would provide the appropriate source documents to substantiate compliance for all requirements associated with the Operating Plan. Also, with the span of time that elapses between each compliance audit, the drafting team should consider whether the measures section should include statements to retain copies of revisions to the plan for the specified retention period as evidence of compliance. The measures could be simplified by not repeating text that has already been stated, so that the main point is clearly evident. For example in Measure M2 the intent of the requirement and measure is ensure a valid copy of the Operating Plan is located at both the primary and back-up centers. Therefore it may be more concise to say: "Each Reliability Coordinator, Balancing Authority, and applicable Transmission Operator shall have evidence of a vaild Operating Plan, meeting R1/M1, is in force and located at its primary and back-up operating centers. It is suggested that the SDT consider this advice/recommendation throughout all measures to improve readability so that readers can quickly understand what is needed. There should be no need to re-peat text from other requirements/measures already covered within the standard.
ISO/RTO Council	No	Measures 1, 2, 3, 6, and 8 require dated, current, in force Operating Plan but there is no time requirement in the associated requirements. Measures should not add to the requirements. What does current really mean? How would the compliance auditor know if the Operating Plan is current given that the requirement does not mention date or time? We suggest removing the term in force because it does not add anything to the requirement. Why would the responsible entity supply an Operating Plan to the compliance auditor that wasn't in force? Measures 1, 2, 3, 6, and 8 also state that evidence of the last issue of the Operating Plan is required. There is nothing in the associated requirements about issuing. Thus again the measures are adding to the requirements but should not. To whom is the Operating Plan required to be issued in the Measures? Part of the issue with Measure 6 is that its associated requirement really should be a sub-requirement of requirement 1. This would solve some of the issues with Measure 1. A large part of the issue with Measures 2, 3, 6, and 8 appear to be overuse of copy and paste. The only requirement associated with these measurements that really needs a dated Operating plan as evidence is requirement 1 but as the requirement is currently written it does not require the Operating Plan to have a date. Measure 7 should not include a requirement for dated evidence. What is really needed is that the Operating Plan evidence presented should have a date and the Operating Plan should be verified to not depend on the primary control center. The compliance auditors could not practically verify that the backup capability or backup control center does not depend on the primary control center. Thus, the requirement associated with Measure 7 is really a sub-requirement of requirement 1. Measurement 9 should not require the RC, BA, and TOP to have evidence that a plan has been submitted to its Regional Entity when it loses its primary control center or backup capability or backup control center because t

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Organization	Question 4:	Question 4 Comments:
Midwest ISO	No	Measures 1, 2, 3, 6, and 8 require dated, current, in force Operating Plan but there is no time requirement in the associated requirements. Measures should not add to the requirements. What does current really mean? How would the compliance auditor know if the Operating Plan is current given that the requirement does not mention date or time? We suggest removing the term in force because it does not add anything to the requirement. Why would the responsible entity supply an Operating Plan to the compliance auditor that wasn't in force?
		Measures 1, 2, 3, 6, and 8 also state that evidence of the last issue of the Operating Plan is required. There is nothing in the associated requirements about issuing. Thus again the measures are adding to the requirements but should not. To whom is the Operating Plan required to be issued in the Measures? Part of the issue with Measure 6 is that its associated requirement really should be a sub-requirement of requirement 1. This would solve some of the issues with Measure 1. A large part of the issue with Measures 2, 3, 6, and 8 appear to be overuse of copy and paste. The only requirement associated with these measurements that really needs a dated Operating plan as evidence is requirement 1 but as the requirement is currently written it does not require the Operating Plan to have a date.
		Measure 7 should not include a requirement for dated evidence. What is really needed is that the Operating Plan evidence presented should have a date and the Operating Plan should be verified to not depend on the primary control center. The compliance auditors could not practically verify that the backup capability or backup control center does not depend on the primary control center. Thus, the requirement associated with Measure 7 is really a sub-requirement of requirement 1.
		Measurement 9 should not require the RC, BA, and TOP to have evidence that a plan has been submitted to its Regional Entity when it loses its primary control center or backup capability or backup control center because the Regional Entity is the Compliance Enforcement Authority. The Regional Entity will know when the plan is received.

Response: The SDT understands that the use of several adjectives to describe the timeliness and authorization of the Plan may seem superfluous, but believes that each of these words are needed to capture the expectation that the Operating Plan be the most recent version, with the effective date noted, with appropriate approval authority, and be the one that is currently in effect.

R1 and R2 – The SDT has modified the requirements to add a timing factor. The other requirements already included a timing factor.

In response to these comments, M1, M2, M3, M6, and M8 have been revised to remove the 'evidence of issue' wording.

M1. Each Reliability Coordinator, Balancing Authority, and applicable Transmission Operator shall have a dated, current, in force Operating Plan for backup functionality in accordance with Requirement R1, in electronic or hardcopy format._, with evidence of its last issue, describing the manner in which it ensures reliable operations of the BES in the event that its primary control center becomes inoperable.

M2. Each Reliability Coordinator, Balancing Authority, and applicable Transmission Operator shall have a dated, current, in force copy of its Operating Plan for backup functionality in accordance with Requirement R2, in electronic or hardcopy format, with evidence of its last issue, located available in its primary control

Organization	Question 4:	Question 4 Comments:
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center and at the location supporting backup functionality.

M3. Each Reliability Coordinator, Balancing Authority, and applicable Transmission Operator directing BES operations through other entities shall provide evidence that it has ensured that backup functionality exists for the BES operations performed through those other entities included provisions for the loss of such entity's control functionality in its dated, current, in force Operating Plan for backup functionality, with evidence of its last issue, for backup functionality in accordance with Requirement R3.

M6. Each Reliability Coordinator, Balancing Authority, and applicable Transmission Operator, shall have evidence that it's dated, current, in force Operating Plan for backup functionality, in electronic or hardcopy format, with evidence of its last issue, has been reviewed and approved annually and that it has been updated within sixty calendar days of any changes to the backup location, capabilities described in Requirement R1, or contact information in accordance with Requirement R6.

M8. Each Reliability Coordinator, Balancing Authority, and applicable Transmission Operator shall provide evidence such as dated records, that it has completed and documented its annual tested of its dated, current, in force Operating Plan for backup functionality, with evidence of its last issue, and that test results and lesson's learned from such testing are noted and incorporated in subsequent revisions of its Operating Plan for backup functionality in accordance with Requirement R8.

R1 & R6: The SDT does not consider the requirement and associated measure for annual review and approval, or review and approval within 60 days of changes being made to be redundant with Requirement R1 and its sub-requirements which contain the minimum set of attributes to be included in the Operating Plan for redundant or backup functionality.

The intent of M7 is that the entity provides evidence that its backup functionality does not depend upon the primary control center for any functionality required to maintain compliance with Reliability Standards in accordance with Requirement R7.

The intent of Requirement R9 is not to simply notify the Reliability Assurer but to provide the entity that has suffered the failure a 6 month window in which to create a plan without being in non-compliance of the basic requirements in this standard. Without Requirement R9, the entity that has suffered a loss is technically out of compliance with several other requirements in this standard.

ISO New England Inc	No	We do not agree with some of the requirements (see our comments under Q7) and hence some Measures may need to be revised if the SDT agrees with any of our suggested changes to the requirements.
Independent Electricity System Operator	Yes	We do not agree with some of the requirements (see our comments under Q7) and hence some Measures may need to be revised if the SDT agrees with any of our suggested changes to the requirements.
NPCC	Yes	We do not agree with some of the requirements (see our comments under Q7) and hence some Measures may need to be

Organization	Question 4:	Question 4 Comments:
		revised if the SDT agrees with any of our suggested changes to the requirements.
Hydro-Québec TransÉnergie (HQT)	No	We do not agree with some of the requirements (see our comments underQ7) and hence some Measures may need to be revised if the SDT agrees with any of our suggested changes to the requirements.
Response: See	the comments p	provided in Question 7.
WECC Reliability Coordinator Comment Working Group	Yes	
San Diego Gas and Electric	Yes	
ComEd / Exelon	Yes	
Entergy System Planning & Operations (Generation & Marketing)	Yes	
Manitoba Hydro	Yes	
Sierra Pacific Power Co.	Yes	

Consideration of Comments on 2nd Draft of EOP-008-1 — Backup Facilities (Project 2006-04)

Organization	Question 4:	Question 4 Comments:
(dba NV Energy)		
Southern Company Transmission	Yes	
Oncor Electric Delivery	Yes	
Pepco Holdings, Inc. - Affiliates	Yes	
Santee Cooper	Yes	
ReliabilityFirst Corporation	Yes	
Bonneville Power Administration	Yes	
AEP	Yes	
Northeast Utilities	Yes	
Response: Tha	nk you for your re	esponse.

5. The SDT has included compliance elements including VSLs for this posting. Do you agree with the assignments that have been made? If not, please provide specific suggestions for change.

Summary Consideration:

Numerous comments were received from industry on the VSLs. The SDT reviewed these comments, some of which disagreed with each other, and has made corresponding changes in the VSLs for EOP-008-1. The following changes have been made due to industry comments:

R1 Each Reliability Coordinator, Balancing Authority, and applicable Transmission Operator shall have an <u>current</u> Operating Plan describing the manner in which it ensures reliable operations of the BES in the event that its primary control center becomes inoperable. This Operating Plan for backup functionality shall include the following at a minimum:

R1.5 A transition period between the loss of primary control center functionality and the time to fully implement the backup <u>functionality that is less</u> than or equal to plan and get backup functionality up and running that is less than two hours.

R2 Each Reliability Coordinator, Balancing Authority, and applicable Transmission Operator shall have a copy of its <u>current</u> Operating Plan for backup functionality <u>located</u> available <u>inat</u> its primary control center and at the location supporting backup functionality.

M1. Each Reliability Coordinator, Balancing Authority, and applicable. Transmission Operator shall have a dated, current, in force Operating Plan for backup functionality in accordance with Requirement R1, in electronic or hardcopy format._, with evidence of its last issue, describing the manner in which it ensures reliable operations of the BES in the event that its primary control center becomes inoperable.

M2 Each Reliability Coordinator, Balancing Authority, and applicable. Transmission Operator shall have a dated, current, in force copy of its Operating Plan for backup functionality in accordance with Requirement R2, in electronic or hardcopy format, with evidence of its last issue, located available inat its primary control center and at the location supporting backup functionality.

M8. Each Reliability Coordinator, Balancing Authority, and applicable. Transmission Operator shall provide evidence such as dated records, that it has completed and documented its annual tested of its dated, current, in force. Operating Plan for backup functionality, with evidence of its last issue, and that test results and lessons learned from such testing are noted and incorporated in subsequent revisions of its Operating Plan for backup functionality in accordance with Requirement R8.

R1 VSL

R1	The Reliability Coordinator,	The Reliability Coordinator,	The Reliability Coordinator,	The Reliability Coordinator,
	Balancing Authority, or	Balancing Authority, or	Balancing Authority, or	Balancing Authority, or
	applicable Transmission	applicable Transmission	applicable Transmission	applicable Transmission
	Operator has an current	Operator has an current	Operator has an current	Operator does not have an
	Operating Plan for backup	Operating Plan for backup	Operating Plan for backup	current Operating Plan for
	functionality but the plan is	functionality but the plan is	functionality but the plan is	backup functionality.
	missing one of the sub-	missing two of the sub-	missing three or more of	

	requirements or the plan is does not dated with evidence reflect the date of its last issue issuance.	requirements.	the sub-requirements or is not compliant with Requirement R1.5.	
R2 VSL	The Reliability Coordinator, Balancing Authority, or applicable Transmission Operator has an Operating	The Reliability Coordinator, Balancing Authority, or applicable Transmission Operator has an Operating	N/A	N/A The Reliability Coordinator, Balancing Authority, or Transmission Operator has an Operating
	Plan for backup functionality but the plan is not located available in at one all ocations but at one location it is not the current plan.	Plan for backup functionality but the plan is not located available inat either all of its control locations but at all locations it is not the current plan.		Plan for backup functionality but no version of the plan is available at all of its control locations.
R3 VSL				
R3	The Reliability Coordinator, Balancing Authority, or applicable Transmission Operator directing BES operations through other entities has not ensured against included provisions for the loss of such entity's control functionality that is depended upon for compliance with one or more Requirements in the Reliability Standards having a Lower VRF for	The Reliability Coordinator, Balancing Authority, or applicable Transmission Operator directing BES operations through other entities has not ensured against included provisions for the loss of such entity's control functionality that is depended upon for compliance with one or more Requirements in the Reliability Standards having a Medium VRF for more than 10% and less	The Reliability Coordinator, Balancing Authority, or applicable Transmission Operator directing BES operations through other entities has not ensured against included provisions for the loss of such entity's control functionality that is depended upon for compliance with one or more Requirements in the Reliability Standards having a High VRFfor more than 25% of its	The Reliability Coordinator, Balancing Authority, or applicable Transmission Operator directing BES operations through other entities has not ensured against included provisions for the loss of any such entity's control functionality in its Operating Plan for backup functionality.

	applicable entities in its Operating Plan for backup functionality.	than 25% of its applicable entities in its Operating Plan for backup functionality.	applicable entities in its Operating Plan for backup functionality.	
R4 VSL				
R4	The Reliability Coordinator has demonstrated that it has a backup control center facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators) in accordance with requirement R4 but it only provides does not provide the functionality required for maintaining compliance with 90% one or more of the Requirements in the Reliability Standards applicable to the Reliability Coordinator that depend on the primary control center functionality and which have a Lower VRF. Tor the evidence of the demonstration is not dated.	The Reliability Coordinator has demonstrated that it has a backup control center facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators) in accordance with requirement R4 but it only provides does not provide the functionality required for maintaining compliance with 80% one or more of the Requirements in the Reliability Standards applicable to the Reliability Coordinator that depend on the primary control center functionality and which have a Medium VRF.	The Reliability Coordinator has demonstrated that it has a backup control center facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators) in accordance with FRequirement R4 but it only provides does not provide the functionality required for maintaining compliance with 70% one or more of the Requirements in the Reliability Standards applicable to the Reliability Coordinator that depend on the primary control center functionality and which have a High VRF.	The Reliability Coordinator has not demonstrated that it has a backup control center facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators) in accordance with Requirement R4.

R5 VSL

The Balancing Authority or The Balancing Authority or The Balancing Authority or The Balancing Authority or R5 applicable Transmission applicable Transmission applicable Transmission applicable Transmission Operator has Operator has Operator has Operator has not demonstrated that it has demonstrated that it has demonstrated that it has demonstrated that it has backup functionality backup functionality backup functionality backup functionality (provided either through a (provided either through a (provided either through a (provided either through a backup control center backup control center backup control center backup control center facility or contracted facility or contracted facility or contracted facility or contracted services) in accordance services) in accordance services) in accordance services) in accordance with FRequirement R5 but with rRequirement R5 but with rRequirement R5 but with rRequirement R5. it only includes does not it only includes does not it only includes does not include monitoring, control, include monitoring, control, include monitoring, control, logging, and alarming logging, and alarming logging, and alarming sufficient for maintaining sufficient for maintaining sufficient for maintaining compliance with 90% one compliance with 70% one compliance with 80% one or more of the or more of the or more of the Requirements in the Requirements in the Requirements in the Reliability Standards Reliability Standards Reliability Standards applicable to a Balancing applicable to a Balancing applicable to a Balancing Authority and Authority and Authority and Transmission Operator Transmission Operator **Transmission Operator** respectively that depend respectively that depend respectively that depend on the primary control on the primary control on the primary control center functionality and center functionality and center functionality and which have a Lower VRF., which have a Medium which have a High VRF or its evidence is not VRF. dated. R6 VSL The Reliability Coordinator, The Reliability Coordinator, N/A The Reliability N/A The Reliability R6 Balancing Authority, or Coordinator, Balancing Coordinator, Balancing Balancing Authority, or applicable Transmission Authority, or Transmission applicable Transmission Authority, or Transmission

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Operator, has evidence

that it's dated, current, in

force Operating Plan for

Operator, has evidence that it's dated, current, in

force Operating Plan for

Operator, has evidence

that it's dated, current, in

force Operating Plan for

Operator, does not have

evidence that it's dated,

current, in force Operating

	backup functionality, with evidence of its last issue, was reviewed and approved but it was not done in one calendar year more than twelve calendar months and less than or equal to fifteen calendar months or that it was updated more than sixty calendar days and less than or equal to ninety calendar days after any changes to the backup location, capabilities	backup functionality, with evidence of its last issue, was reviewed and approved but it was not done in more than two calendar years fifteen calendar months or that it was updated more than ninety calendar days after any changes to the backup location, capabilities, or contact information. N/A	backup functionality, with evidence of its last issue, was reviewed and approved but it was not done in two calendar years or more or that it was updated more than ninety calendar days after any changes to the capabilities described in Requirement R1.	Plan for backup functionality was reviewed and approved.
R7 VSL	described in Requirement R1, or contact information. N/A	N/A	N/A	The Reliability Coordinator, Balancing Authority, or applicable Transmission Operator's dated evidence

primary and backup

capabilityies does not depend on each other or any common facility the primary control center for the functionality required to maintain compliance with Reliability Standards that depend on the primary control functionality.

The Reliability Coordinator,

done in more than twelve calendar months or 3 3) test results and lessons learned-were not incorporated

documentedin subsequent revisions of the Operating

Plan for backup functionality

R8 VSL

R8

Balancing Authority, or applicable Transmission Operator has provided evidence, such as dated records, that it has annually tested its dated, current, in force Operating Plan for backup functionality, but one of the following occurred: 1) the demonstration was with evidence of its last issue. through actual implementation or test operations for less than two continuous hours, 2)or it has failed to demonstrate that the transition time period is less than or equal to two hours, or it was

The Reliability Coordinator, Balancing Authority, or Transmission Operator has annually tested its Operating Plan for backup functionality, but two of the following occurred: 1) the demonstration was for less than two continuous hours, 2) it has failed to demonstrate that the transition time period is less than or equal to two hours, or 3) test results were not documented. N/A

The Reliability Coordinator, Balancing Authority, or Transmission Operator has annually tested its Operating Plan for backup functionality, but all three of the following occurred:

1) the demonstration was for less than two continuous hours, 2) it has failed to demonstrate that the transition time period is less than or equal to two hours, and 3) test results were not documented.

N/A

The Reliability Coordinator, Balancing Authority, or applicable-Transmission Operator has not annually tested its dated, current, in force-Operating Plan for backup functionality.

Organization	Question 5:	Question 5 Comments:		
Puget Sound Energy	No	R.3 Since the terms of this requirement and measure are not clearly defined, there is no clear way to determine what percentage was met. R.5 What mechanism will be used to determine the percentage of standards can be or could be met?		
Response: The BFSDT agrees and has modified Requirements R3 and R5 VSL to better address the intent of the SDT and to remove the reliance on a percentage calculation.				

R3 VSL

R3	The Reliability Coordinator, Balancing Authority, or applicable Transmission Operator directing BES operations through other entities has not ensured against included provisions for the loss of such entity's control functionality that is depended upon for compliance with one or more Requirements in the Reliability Standards having a Lower VRF for 10% or less of its applicable entities in its Operating Plan for backup functionality.	The Reliability Coordinator, Balancing Authority, or applicable Transmission Operator directing BES operations through other entities has not ensured against included provisions for the loss of such entity's control functionality that is depended upon for compliance with one or more Requirements in the Reliability Standards having a Medium VRF for more than 10% and less than 25% of its applicable entities in its Operating Plan for backup functionality.	The Reliability Coordinator, Balancing Authority, or applicable Transmission Operator directing BES operations through other entities has not ensured against included provisions for the loss of such entity's control functionality that is depended upon for compliance with one or more Requirements in the Reliability Standards having a High VRFfor more than 25% of its applicable entities in its Operating Plan for backup functionality.	The Reliability Coordinator, Balancing Authority, or applicable Transmission Operator directing BES operations through other entities has not ensured against included provisions for the loss of any such entity's control functionality in its Operating Plan for backup functionality.
R5 VSL		,		

Organization	Question 5:		(Question 5 Comments:		
R5	Au Tra ha it h fur eit ba fac se ac FR on inc co ala ma co 90 Re ap Ba an Op tha pri fur ha its	ne Balancing athority or applicable ansmission Operator as demonstrated that has backup inctionality (provided ther through a ackup control center cility or contracted rvices) in accordance with equirement R5 but it ally includes does not clude monitoring, introl, logging, and arming sufficient for aintaining impliance with advance or more of the equirements in the eliability Standards applicable to a allancing Authority and Transmission berator respectively at depend on the imary control center inctionality and which ave a Lower VRF.; or evidence is not ted.	The Balancing Authority or applicable Transmission Operator has demonstrated that it has backup functionality (provided either through a backup control center facility or contracted services) in accordance with rRequirement R5 but it only includes does not include monitoring, control, logging, and alarming sufficient for maintaining compliance with 80% one or more of the Requirements in the Reliability Standards applicable to a Balancing Authority and Transmission Operator respectively that depend on the primary control center functionality and which have a Medium VRF.	The Balancing Authority or applicable Transmission Operator has demonstrated that it has backup functionality (provided either through a backup control center facility or contracted services) in accordance with rRequirement R5 but it only includes does not include monitoring, control, logging, and alarming sufficient for maintaining compliance with 70% one or more of the Requirements in the Reliability Standards applicable to a Balancing Authority and Transmission Operator respectively that depend on the primary control center functionality and which have a High VRF.	The Balancing Authority or applicable Transmission Operator has not demonstrated that it has backup functionality (provided either through a backup control center facility or contracted services) in accordance with rRequirement R5.	
San Diego Gas and	No				biage and the Violation Severity Level tables elsewhere as well). The Requirements	е

Organization	Question 5:		C	Question 5 Comments:					
Electric		of "12 calendar month of the word "annual" w anytime within a partic etc.), whereas others I August 1 in the followi requirement will suffer prior year. Over time, of the year when we d	erbiage for R8 uses the term "annual" in the description when referring to testing, whereas the VSL table refers to a period "12 calendar months." In discussing the terminology with others, there seems to be a difference of opinion of the definition the word "annual" when it comes to NERC compliance. Some people think that the particular requirement can be fulfilled by time within a particular calendar year (one year in July and the following year in September and the following year in May, oc.), whereas others believe that an August 1 test date in one year means that the same testing must be completed before august 1 in the following year to remain in compliance. The issue with the latter interpretation of "annual" is that the quirement will suffer from date creep every year, as the entity completes the compliance requirement in advance of the ior year. Over time, this date creep will ultimately cause entities to have to perform testing and other requirements at times the year when we don't want to do them (i.e. summer periods) or do them too far in advance. We believe the requirement hould be spelled out specifically so the definition is crystal clear (i.e., every 11 months plus or minus 30 days).						
		d has clarified the langua e in a calendar year.	ge in the VSL for Requiremer	nt R8 to make it consistent wit	th the requirement that the test is	s an annual			
R8	CAThest teached by the condition of the	the Reliability coordinator, Balancing authority, or applicable fransmission Operator as provided evidence, uch as dated records, nat it-has annually ested its_dated, urrent, in force operating Plan for ackup functionality, ut one of the following ccurred: 1) the emonstration was with evidence of its last issue, through actual inplementation or test perations for less than we continuous hours,	The Reliability Coordinator, Balancing Authority, or Transmission Operator has annually tested its Operating Plan for backup functionality, but two of the following occurred: 1) the test demonstration was through actual implementation or test operations for less than two continuous hours, 2) it has failed to demonstrate that the transition time period is less than or equal to two hours, or 3) test	The Reliability Coordinator, Balancing Authority, or Transmission Operator has annually tested its Operating Plan for backup functionality, but all three of the following occurred: 1) the demonstration was for less than two continuous hours, 2) it has failed to demonstrate that the transition time period is less than or equal to two hours, and 3) test results were not incorporated	The Reliability Coordinator, Balancing Authority, or applicable Transmission Operator has not annually tested its dated, current, in force-Operating Plan for backup functionality.				

Organization	Question 5:			Question 5 Comments:		
	tr le tv d tv e e ir d s	c)er it has failed to lemonstrate that the ransition time period is less than or equal to wo hours. er it was lone in more than welve calendar months or 3 3) test lesults and lessons learned were not incorporated locumented in locumented in locumented in lessons of the Operating Plan or backup unctionality.	results were not documented. N/A	documented. N/A		
Sierra Pacific Power Co. (dba NV Energy)	No	with "available to Oper "located in either of its In R5, it appears that the determination of exactle don't have a specific su VSL's as written. In R7, there is only one the backup functionality which that dependency	ators at one of either the princontrol locations" and replace the degree of severity will be by what percentage of the Regarder that the VSL and it is "severe". The by has upon the primary continuous at the primary continuous	e be amended to strike "locate mary or backup control centers be with "available to Operators nearly impossible to determine bliability Standards can be come Auditors will have a very differ degree of violation here must rol center and the number and agree with the exclusion of Lothis Requirement.	s" and in R2 Moderate, amen at any of its control locations e. The VSL language calls for a plied with from the backup of ficult time making a determinant depend upon the level of deliverative importance of the fu	d to remove by: or a enter. While we ation with the ependency that nctions for

R2 Each Reliability Coordinator, Balancing Authority, and applicable Transmission Operator shall have a copy of its current Operating Plan for backup

Organization	Question 5:			Question 5 Comments:		
M2 Each Reliab	ility Coordinator, ality in accordan	Balancing Authority, and	, in electronic or hardcopy for	perator shall have a dated, cu	rrent, in force copy of its Operating F ssue, located available inat its prima	
R2 R5: The SDT ag	Con All Tricks for the least of	ne Reliability oordinator, Balancing uthority, or applicable ransmission Operator as an Operating Plan or backup functionality ut the plan is not cated available in at neall of its control cations but at one cation it is not the urrent plan.	The Reliability Coordinator, Balancing Authority, or applicable Transmission Operator has an Operating Plan for backup functionality but the plan is not located available inat either all of its control locations but at all locations it is not the current plan.	N/A	N/A The Reliability Coordinator, Balancing Authority, or Transmission Operator has an Operating Plan for backup functionality but no version of the plan is available at all of its control locations.	
R5 VSL		ne Balancing	The Balancing	The Balancing	The Balancing	
N.J	An Tri ha it fu ei ba fa	uthority or applicable ransmission Operator as demonstrated that has backup inctionality (provided ther through a ackup control center cility or contracted ervices) in accordance with	Authority or applicable Transmission Operator has demonstrated that it has backup functionality (provided either through a backup control center facility or contracted services) in accordance with	Authority or applicable Transmission Operator has demonstrated that it has backup functionality (provided either through a backup control center facility or contracted services) in accordance with	Authority or applicable Transmission Operator has not demonstrated that it has backup functionality (provided either through a backup control center facility or contracted services) in accordance with	

Organization	Question 5:		Q	uestion 5 Comments:	
	enly inc include control, alarmin maintai complia 90%one Require Reliabil applical Balanci and Tra Operato that dep primary function have a	Itudes does not monitoring, logging, and g sufficient for ning ma ince with e or more of the ements in the lity Standards ole to a ap ng Authority ansmission or respectively opend on the control center hality and which	equirement R5 but it ly includes does not stude monitoring, and arming sufficient for aintaining mpliance with %one or more of the equirements in the stability Standards plicable to a lancing Authority d Transmission perator respectively at depend on the mary control center actionality and which we a Medium VRF.	rRequirement R5 but it only includes does not include monitoring, control, logging, and alarming sufficient for maintaining compliance with 70% one or more of the Requirements in the Reliability Standards applicable to a Balancing Authority and Transmission Operator respectively that depend on the primary control center functionality and which have a High VRF.	₹Requirement R5.
functionality that		everity level, and as sucl			tween the primary and backup control uirement R7. The SDT did change the
R7	N/A	N//	Α	N/A	The Reliability Coordinator, Balancing Authority, or applicable Transmission Operator's dated evidence does not demonstrateshows its primary and backup

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Organization	n Question 5: Question 5 Comments:						
					capabilityies does not depend on each other or any common facility the primary control center for the functionality required to maintain compliance with Reliability Standards that depend on the primary control functionality.		
Progress Energy Carolinas, Inc. No Reference section D.2 Violation Severity Levels R5 there are specific percentage Is it per standard or per individual requirement and sub-requirements?			iges stated therein, how are the	ey calculated?			
Progress Energy-Florida	No	Reference section D.2 Violation Severity Levels R5 — there are specific percentages stated therein, how are they calculated? Is it per standard or per individual requirement and sub-requirements?					
Response: The R5 VSL	SDT agrees an	d has modified the VSL a	accordingly.				
R5	A T h: it fu e: b: fa	he Balancing uthority or applicable ransmission Operator as demonstrated that has backup unctionality (provided ither through a ackup control center ucility or contracted ervices) in accordance with Requirement R5 but it	The Balancing Authority or applicable Transmission Operator has demonstrated that it has backup functionality (provided either through a backup control center facility or contracted services) in accordance with rRequirement R5 but it	The Balancing Authority or applicable Transmission Operator has demonstrated that it has backup functionality (provided either through a backup control center facility or contracted services) in accordance with requirement R5 but it	The Balancing Authority or applicable Transmission Operator has not demonstrated that it has backup functionality (provided either through a backup control center facility or contracted services) in accordance with		

Organization	Question 5:		(Question 5 Comments:		
	ir c a n c 9 R R a C tt p	nly includes does not include monitoring, control, logging, and larming sufficient for maintaining compliance with compliance or more of the dequirements in the compliance in the compliance of t	only includes does not include monitoring, control, logging, and alarming sufficient for maintaining compliance with 80% one or more of the Requirements in the Reliability Standards applicable to a Balancing Authority and Transmission Operator respectively that depend on the primary control center functionality and which have a Medium VRF.	only includes does not include monitoring, control, logging, and alarming sufficient for maintaining compliance with 70% one or more of the Requirements in the Reliability Standards applicable to a Balancing Authority and Transmission Operator respectively that depend on the primary control center functionality and which have a High VRF.	₹Requirement R5.	
NPCC	No	at all is a complete vio measure of the extent from Low/Medium to h R4: The Se maintaining compliand providing functionality wording change, i.e., < R5: Same of R6: There at fails to meet the bulk of example, a High VSL	lation of the requirement and to which a requirement is not digh/Severe in accordance will were level should include a context with the Reliability Standar sufficient for maintaining come 70%, covers the condition of the ment as in (ii) except the lare no VSLs assigned to High of the intent of this requirement can be assigned if the entity of	rided at both the primary and hence should be assigned at met, not its impact). We then the established VSL guidelines and tion that the RC provides applicable to an RC. Other appliance with, say, 40% of the not having any functionality at entities are the BAs and applicant and Severe. We suggest the and Severe. We suggest the at (High) and fails to meet this did not review and if necessaring applications.	Severe VSL, not Medium (not efore suggest to move the two less than 70% of the functional wise, there will not be any VS Reliability Standards. Further at all to comply with reliability scable TOPs. SDT to provide the conditions requirement completely (Severy update its plan after 18 months.	te that VSL is a conditions ality required for RC the proposed standards. Is that an entity ere). For this, or 120

Organization	Question 5:	Question 5 Comments:
		plan for a longer time period or not at all.
ISO New England Inc	No	R2: It requires a copy of the plan be provided at both the primary and backup facilities. Failing to provide any copy at all is a complete violation of the requirement and hence should be assigned a Severe VSL, not Medium (note that VSL is a measure of the extent to which a requirement is not met, not its impact). We therefore suggest to move the two conditions from Low/Medium to High/Severe in accordance with established VSL guidelines.
		R4: The Severe level should include a condition that the RC provides less than 70% of the functionality required for maintaining compliance with the Reliability Standards applicable to an RC. Otherwise, there will not be any VSL for RC providing functionality sufficient for maintaining compliance with, say, 40% of the Reliability Standards. Further, the proposed wording change, i.e., <70%, covers the condition of not having any functionality at all to comply with reliability standards.
		R5: Same comment as in (ii) except the entities are the BAs and applicable TOPs.
		R6: There are no VSLs assigned to High and Severe. We suggest the SDT to provide the conditions that an entity fails to meet the bulk of the intent of this requirement (High) and fails to meet this requirement completely (Severe). For example, a High VSL can be assigned if the entity did not review and if necessary update its plan after 18 months, or 120 calendar days after changes were made to the backup capability; a Severe for failing to review and if necessary update its plan for a longer time period or not at all.
Independent Electricity System Operator	No	R2: It requires a copy of the plan be provided at both the primary and backup facilities. Failing to provide any copy at all is a complete violation of the requirement and hence should be assigned a Severe VSL, not Medium (note that VSL is a measure of the extent to which a requirement is not met, not its impact). We therefore suggest to move the two conditions from Low/Medium to High/Severe in accordance with established VSL guideline.
		R4: The Severe level should include a condition that the RC provides less than 70% of the functionality required for maintaining compliance with the Reliability Standards applicable to an RC. Otherwise, there will not be any VSL for RC providing functionality sufficient for maintaining compliance with, say, 40% of the Reliability Standards. Further, the proposed wording change, i.e., <70%, covers the condition of not having any functionality at all to comply with reliability standards.
		R5: Same comment as in (ii) except the entities are the BAs and applicable TOPs.
		R6: There are no VSLs assigned to High and Severe. We suggest the SDT to provide the conditions that an entity fails to meet the bulk of the intent of this requirement (High) and fails to meet this requirement completely (Severe). For example, a High VSL can be assigned if the entity did not update its plan after 18 months or 120 calendar days after changes were made to the backup capability; a Severe VSL may be assigned for failing to update its plan for a longer time period or at all.

Organization	Question 5:	Question 5 Comments:
Hydro-Québec TransÉnergie (HQT)	No	R2: It requires a copy of the plan be provided at both the primary and backup facilities. Failing to provide any copy at all is a complete violation of the requirement and hence should be assigned a Severe VSL, not Medium (note that VSL is a measure of the extent to which a requirement is not met, not its impact). We therefore suggest to move the two conditions from Low/Medium to High/Severe in accordance with established VSL guidelines.
		R4: The Severe level should include a condition that the RC provides less than 70% of the functionality required for maintaining compliance with the Reliability Standards applicable to an RC. Otherwise, there will not be any VSL for RC providing functionality sufficient for maintaining compliance with, say, 40% of the Reliability Standards. Further, the proposed wording change, i.e., <70%, covers the condition of not having any functionality at all to comply with reliability standards.
		R5: Same comment as in (ii) except the entities are the BAs and applicable TOPs.
		R6: There are no VSLs assigned to High and Severe. We suggest the SDT to provide the conditions that an entity fails to meet the bulk of the intent of this requirement (High) and fails to meet this requirement completely (Severe). For example, a High VSL can be assigned if the entity did not review and if necessary update its plan after 18 months, or 120 calendar days after changes were made to the backup capability; a Severe for failing to review and if necessary update its plan for a longer time period or not at all.

Response: R2: It is the intent of the SDT to allow electronic or hardcopy of the plan to meet Requirement R2 and it has modified Measure M2 and the R2 VSL accordingly. The SDT also agrees with the notion of the plan being 'available at' rather than 'located at' in order to be consistent with the change to accommodate electronic access and has modified Requirement R2 VSL accordingly

R2 Each Reliability Coordinator, Balancing Authority, and applicable Transmission Operator shall have a copy of its <u>current Operating Plan for backup functionality</u> located available inat its primary control center and at the location supporting backup functionality.

M2 Each Reliability Coordinator, Balancing Authority, and applicable Transmission Operator shall have a dated, current, in force copy of its Operating Plan for backup functionality in accordance with Requirement R2, in electronic or hardcopy format, with evidence of its last issue, located available inat its primary control center and at the location supporting backup functionality.

R2 VSL

R2	Th	e Reliability	The Reliability	N/A	N/A The Reliability
	Co	oordinator, Balancing	Coordinator, Balancing		Coordinator, Balancing
	Αι	ithority, or applicable	Authority, or applicable		Authority, or
	Tra	ansmission Operator	Transmission Operator		Transmission Operator
	ha	s an Operating Plan	has an Operating Plan		has an Operating Plan
	for	backup functionality	for backup functionality		for backup functionality

Organization	Question 5:		(Question 5 Comments:		
	loc on loc loc	Interpolation that the plan is not cated available in at meall of its control cations but at one cation it is not the irrent plan.	but the plan is not located available inat either all of its control locations but at all locations it is not the current plan.		but no version of the plan is available at all of its control locations.	
R4/R5: The SD7	Tagrees and has	modified the VSL for Re	equirements R4 and R5 to rer	move reliance on percentages	: .	
R4	code ha ce thr de fac en wir Cc in FR on fur for co	ne Reliability coordinator has emonstrated that it as a backup control enter facility (provided rough its own edicated backup cility or at another nitity's control center th certified Reliability coordinator operators) accordance with equirement R4 but it ally provides does not ovide the nctionality required r maintaining empliance with 0%one or more of the equirements in the	The Reliability Coordinator has demonstrated that it has a backup control center facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators) in accordance with rRequirement R4 but it only provides does not provide the functionality required for maintaining compliance with 80%one or more of the Requirements in the	The Reliability Coordinator has demonstrated that it has a backup control center facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators) in accordance with rRequirement R4 but it only provides does not provide the functionality required for maintaining compliance with 70%one or more of the Requirements in the	The Reliability Coordinator has not demonstrated that it has a backup control center facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators) in accordance with FRequirement R4.	
	ap Re	eliability Standards oplicable to the eliability Coordinator at depend on the	Reliability Standards applicable to the Reliability Coordinator that depend on the	Reliability Standards applicable to the Reliability Coordinator that depend on the		

Organization	Question 5:		Question 5 Comments:	
	primary control center functionality and which have a Lower VRFor the evidence of the demonstration is not dated	primary control center functionality and which have a Medium VRF.	primary control center functionality and which have a High VRF.	
R5 VSL				
R5	The Balancing Authority or applicable Transmission Operator has demonstrated that it has backup functionality (provided either through a backup control center facility or contracted services) in accordance with rRequirement R5 but it enly includes does not include monitoring, control, logging, and alarming sufficient for maintaining compliance with 90%one or more of the Requirements in the Reliability Standards applicable to a Balancing Authority and Transmission Operator respectively	The Balancing Authority or applicable Transmission Operator has demonstrated that it has backup functionality (provided either through a backup control center facility or contracted services) in accordance with rRequirement R5 but it only includes does not include monitoring, control, logging, and alarming sufficient for maintaining compliance with 80%one or more of the Requirements in the Reliability Standards applicable to a Balancing Authority and Transmission Operator respectively	The Balancing Authority or applicable Transmission Operator has demonstrated that it has backup functionality (provided either through a backup control center facility or contracted services) in accordance with rRequirement R5 but it only includes does not include monitoring, control, logging, and alarming sufficient for maintaining compliance with 70%one or more of the Requirements in the Reliability Standards applicable to a Balancing Authority and Transmission Operator respectively	The Balancing Authority or applicable Transmission Operator has not demonstrated that it has backup functionality (provided either through a backup control center facility or contracted services) in accordance with rRequirement R5.

Organization	Question 5:		(Question 5 Comments:		
	functi have	ary control center ionality and which a Lower VRF., er idence is not	primary control center functionality and which have a Medium VRF.	primary control center functionality and which have a High VRF.		
R6: The SDT a however.	grees and has made	changes accordingly	The VSL content for Requir	rement R6 was changed in res	sponse to other comments rece	ived
R6	Coord Author Trans Opera that it in forc for ba functi evide issue and a was r calen than t month or equ calen that it more calen than o	Reliability dinator, Balancing prity, or applicable smission ator, has evidence t's dated, current, ce Operating Plan ackup ionality, with mee of its last , was reviewed approved but it not done in one idar year more twelve calendar hs and less than ual to fifteen idar months or t was updated than sixty idar days and less or equal to ninety idar days after any ges to the backup	The Reliability Coordinator, Balancing Authority, or applicable Transmission Operator, has evidence that it's dated, current, in force Operating Plan for backup functionality, with evidence of its last issue, was reviewed and approved but it was not done in more than two calendar years fifteen calendar months or that it was updated more than ninety calendar days after any changes to the backup location, capabilities, or contact information. N/A	N/A The Reliability Coordinator, Balancing Authority, or applicable Transmission Operator, has evidence that it's dated, current, in force Operating Plan for backup functionality, with evidence of its last issue, was reviewed and approved but it was not done in two calendar years or more or that it was updated more than ninety calendar days after any changes to the capabilities described in Requirement R1.	N/A The Reliability Coordinator, Balancing Authority, or Transmission Operator, does not have evidence that it's dated, current, in force Operating Plan for backup functionality was reviewed and approved.	

Organization	Question 5:	Question 5 Comments:				
	<u>d</u> <u>R</u>	escribed in Requirement R1, or entact information.				
-	No The SDT agree	pertain to monitoring, must be included with adequate and reliable applicable to the TOP 70/80/90% thresholds standards that can be VSL be utilized along For R8, it is recomme VSL. For example, if a result in a Lower VSL calendar months), the VSL.	control, logging, or alarming a the metered boundaries of a telecommunications facilities and BA pertaining to monitor associated with Lower, Mode used as a benchmark for det with its current criteria.** Inded that the 3 components of an registered entity failed to further this would equate to a Mode	actions within the requirement BA Area. NERC standard CC a. Unless there is a definite and ing, control, etc., it is difficult erate, or High VSLs. Until the remining the correct level of vectoral within the Lower VS alfill one of the components (e.g., tested <	left uncertainty as to whether its. For example, BAL-005 state DM-001 states the TOP shall plan agreeable number of state determine whether you excretise a predetermined number /SL, it is recommended that of the staged for Lower, Mode e.g., testing for less than 2 hours AND it was done in three components would equate percentages.	tes that the TOP provide andards seed the of applicable only the Severe rate, and High urs), this would more than 12
R5 VSL	Т	he Balancing	The Balancing	The Balancing	The Balancing	
	T h it fue e b	tuthority or applicable fransmission Operator as demonstrated that has backup functionality (provided ither through a ackup control center acility or contracted ervices) in ccordance with	Authority or applicable Transmission Operator has demonstrated that it has backup functionality (provided either through a backup control center facility or contracted services) in accordance with	Authority or applicable Transmission Operator has demonstrated that it has backup functionality (provided either through a backup control center facility or contracted services) in accordance with	Authority or applicable Transmission Operator has not demonstrated that it has backup functionality (provided either through a backup control center facility or contracted services) in accordance with	

Organization	Question 5:		Qı	uestion 5 Comments:	
	enly incided control alarmin maintaid compliage some sequired some sequi	cludes does not monitoring, logging, and ag sufficient for ining maintained e or more of the ements in the lity Standards ble to a ling Authority ansmission or respectively pend on the control center hality and which include include control enter include control alarmin maintain control enter include control alarmin maintain complia enter include control enter include control alarmin maintain complia enter include control enter include	ance with e or more of the ements in the ity Standards	rRequirement R5 but it only includes does not include monitoring, control, logging, and alarming sufficient for maintaining compliance with 70% one or more of the Requirements in the Reliability Standards applicable to a Balancing Authority and Transmission Operator respectively that depend on the primary control center functionality and which have a High VRF.	rRequirement R5.
R8: The SDT a	grees and has modified	d the VSL for R8 accordingly.			
R8	Authori Transm has pro such as that it h tested i current	nator, Balancing ty, or applicable nission Operator vided evidence, s dated records, nas annually its_dated, , in force Coordin Authori Transm has an Operat backup but two occurre	nator, Balancing	The Reliability Coordinator, Balancing Authority, or Transmission Operator has annually tested its Operating Plan for backup functionality, but all three of the following occurred: 1) the demonstration was	The Reliability Coordinator, Balancing Authority, or applicable Transmission Operator has not annually tested its dated, current, in force Operating Plan for backup functionality.

March 16, 2009

Organization	Question 5:	Question 5 Comments:
		ckup functionality, to one of the following curred: 1) the monstration was the evidence of its last two through actual plementation or test cerations for less than or equal to permission time period is less than or equal to continuous hours, or it has failed to monstrate that the transition time period is less than or equal to two hours, or 3) test results were not documented. N/A sist has failed to monstrate that the transition time period is less than or equal to two hours, and 3) test results were not documented. N/A sist has failed to demonstrate that the transition time period is less than or equal to two hours, and 3) test results were not documented. N/A sist has failed to demonstrate that the transition time period is less than or equal to two hours, and 3) test results were not documented. N/A sist has failed to demonstrate that the transition time period is less than or equal to two hours, and 3) test results were not documented. N/A sist has failed to demonstrate that the transition time period is less than or equal to two hours, and 3) test results were not documented. N/A sist has failed to demonstrate that the transition time period is less than or equal to two hours, and 3) test results were not documented. N/A sist has failed to demonstrate that the transition time period is less than or equal to two hours, and 3) test results were not documented. N/A sist has failed to demonstrate that the transition time period is less than or equal to two hours, and 3) test results were not documented. N/A
Duke Energy	No	Once the requirements are revised, the VSLs need to be revisited and cleaned up accordingly. For example, the Lower, Medium and High VSLs for R4 and R5 are unworkable - how can anyone document that the backup functionality includes monitoring, control, logging and alarming sufficient to maintain compliance with 90%,80%, 70% of the applicable requirements of other standards? This would require an impossible burden of recordkeeping. The VSL for R8 imposes a new requirement - that the entity demonstrate through a test that the transition time is less than or equal to two hours.

Organization	Question 5:		Question 5 Comments:			
Response: R4 and R5: The SDT agrees and has modified the VSLs for Requirements R4 and R5 to not rely upon percentages. R4 VSL						
R4	Code has centh defared with defared with the second	ne Reliability coordinator has emonstrated that it as a backup control enter facility (provided rough its own edicated backup cility or at another ntity's control center th certified Reliability coordinator operators) accordance with equirement R4 but it ovide the nctionality required r maintaining empliance with equirements in the eliability Standards eplicable to the eliability Coordinator at depend on the imary control center nctionality and which ave a Lower VRF. eventuation is not extend	The Reliability Coordinator has demonstrated that it has a backup control center facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators) in accordance with rRequirement R4 but it only provides does not provide the functionality required for maintaining compliance with 80% one or more of the Requirements in the Reliability Standards applicable to the Reliability Coordinator that depend on the primary control center functionality and which have a Medium VRF.	The Reliability Coordinator has demonstrated that it has a backup control center facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators) in accordance with rRequirement R4 but it only provides does not provide the functionality required for maintaining compliance with 70% one or more of the Requirements in the Reliability Standards applicable to the Reliability Coordinator that depend on the primary control center functionality and which have a High VRF.	The Reliability Coordinator has not demonstrated that it has a backup control center facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators) in accordance with rRequirement R4.	

Organization	Question 5:		Question 5 Comments:				
R5 VSL							
R5	Au Tra has it h fun eitl bac ser acc #Re en inc cor ala ma cor Re app Ba anc Op tha prii fun	e Balancing thority or applicable ansmission Operator s demonstrated that has backup nctionality (provided her through a ckup control center cility or contracted rvices) in cordance with equirement R5 but it ly includes does not clude monitoring, ntrol, logging, and arming sufficient for aintaining mpliance with %one or more of the equirements in the eliability Standards plicable to a llancing Authority d Transmission perator respectively at depend on the mary control center nctionality and which we a Lower VRF., or evidence is not	The Balancing Authority or applicable Transmission Operator has demonstrated that it has backup functionality (provided either through a backup control center facility or contracted services) in accordance with requirement R5 but it only includes does not include monitoring, control, logging, and alarming sufficient for maintaining compliance with 80% one or more of the Requirements in the Reliability Standards applicable to a Balancing Authority and Transmission Operator respectively that depend on the primary control center functionality and which have a Medium VRF.	The Balancing Authority or applicable Transmission Operator has demonstrated that it has backup functionality (provided either through a backup control center facility or contracted services) in accordance with rRequirement R5 but it only includes does not include monitoring, control, logging, and alarming sufficient for maintaining compliance with 70% one or more of the Requirements in the Reliability Standards applicable to a Balancing Authority and Transmission Operator respectively that depend on the primary control center functionality and which have a High VRF.	The Balancing Authority or applicable Transmission Operator has not demonstrated that it has backup functionality (provided either through a backup control center facility or contracted services) in accordance with rRequirement R5.		

Organization	Question 5:		Question 5 Comments:					
However, to avo the importance of R1.5 A transition	id confusion, the of this transition of the period between	ne SDT has altered the wo time.	ording of Requirement R1.5. rol center functionality and th	The SDT has also modified th	nnual test is not a new require e High VSL for Requirement For sackup functionality that is less	R1 to address		
R1		The Reliability Coordinator, Balancing Authority, or applicable Transmission Operator has an current Operating Plan for backup functionality but the plan is missing one of the sub- requirements or the blan is does not dated with evidence reflect he date of its last ssue issuance.	The Reliability Coordinator, Balancing Authority, or applicable Transmission Operator has an current Operating Plan for backup functionality but the plan is missing two of the sub- requirements	The Reliability Coordinator, Balancing Authority, or applicable Transmission Operator has an current Operating Plan for backup functionality but the plan is missing three or more of the sub-requirements or is not compliant with Requirement R1.5.	The Reliability Coordinator, Balancing Authority, or applicable Transmission Operator does not have an current Operating Plan for backup functionality.			
MRO NERC Standards Review Subcommittee	No	contained within any p Category, "The respo details or minor progra requirement." Recom R4, part of the Lower of contained within any p Category, "The respo details or minor progra	part of R1. The VSL Criteria S nsible entity has demonstrate am/procedural elements. Suc mend that "?not dated with ev VSL category of non complian part of R4. The VSL Criteria S nsible entity has demonstrate am/procedural elements. Suc	Straw man Document sites that the existence of required proch deficiencies would not impossible to the existence of its last issue date." Ince is "?or the evidence of its straw man Document sites that the existence of required proch deficiencies would not impact	nce of its last issue date.", this at for procedures/programs, in rocedure/program but is missir act the achievement of the object be deleted from R1's VSL. demonstration is not dated.", that for procedures/programs, in rocedure/program but is missir act the achievement of the object be deleted from R4's VSL.	the Lowering minor ective of the this is not the Lowering minor ective of the		

Organization	Question 5:	Question 5 Comments:
		R5, part of the Lower VSL category of non compliance is "?or its evidence is not dated.", this is not contained within any part of R5. The VSL Criteria Straw man Document sites that for procedures/programs, in the Lower Category, "The responsible entity has demonstrated the existence of required procedure/program but is missing minor details or minor program/procedural elements. Such deficiencies would not impact the achievement of the objective of the requirement." Recommend that "or its evidence is not dated" be deleted from R5's VSL.
		R7, part of the Severe VSL category of non compliance states "?dated evidence shows that?", the word "dated" is not contained within any part of R7.
		R8, part of the Lower VSL category of non compliance is "?has provided evidence, such as dated records, that it has tested its dated, current, in force Operating Plan for backup functionally, with evidence of its last issue, through actual implementation?" If an Entity accomplished this they would BE compliant. Perhaps the SDT forgot to add a deficiency (negative aspect) to a minor detail within the VSL. Overall it seems that the SDT has been directed to place some sort of "date (d)" qualifier within the VSLs. If there is another document that is directing this (i.e., Generally Accepted Government Accounting Standards?), it would be helpful to the Utility Industry of what that document is. VSLs should be a direct reflection of the Requirements.

Response: R1 – The SDT has modified the requirement to add a timing factor. This is now also reflected in the VSL.

R1 Each Reliability Coordinator, Balancing Authority, and applicable Transmission Operator shall have an current Operating Plan describing the manner in which it ensures reliable operations of the BES in the event that its primary control center becomes inoperable. This Operating Plan for backup functionality shall include the following at a minimum:

R1 VSL

R1	The Reliability	The Reliability	The Reliability	The Reliability
Ī	Coordinator, Balancing	Coordinator, Balancing	Coordinator, Balancing	Coordinator, Balancing
	Authority, or applicable	Authority, or applicable	Authority, or applicable	Authority, or applicable
1	Transmission Operator	Transmission Operator	Transmission Operator	Transmission Operator
	has a n <u>current</u>	has a n <u>current</u>	has a n <u>current</u>	does not have an
	Operating Plan for	Operating Plan for	Operating Plan for	current Operating Plan
	backup functionality	backup functionality	backup functionality	for backup
	but the plan is missing	but the plan is missing	but the plan is missing	functionality.
	one of the sub-	two of the sub-	three or more of the	
	requirements or the	requirements.	sub-requirements or is	
	plan is does not dated		not compliant with	

Organization	Question 5:		C	Question 5 Comments:	
	the da issue	videncereflect ate of its last ssuance.		Requirement R1.5.	
R7 – "Dated" na	s been deleted from	tne VSL.			
R7	N/A		N/A	N/A	The Reliability Coordinator, Balancing Authority, or applicable Transmission Operator's dated evidence does not demonstrateshows that its primary and backup capabilityies does not depend on each other or any common facility the primary control center for the functionality required to maintain compliance with Reliability Standards that depend on the primary control functionality.
R4, R5, R8 - In Requirement R8		emoved from the LOV	wer vols for both Requireme	ni k4 and kequirement R5 ar	nd from the Lower and Severe VSLs for
R4	Coord demo	eliability linator has nstrated that it backup control	The Reliability Coordinator has demonstrated that it has a backup control	The Reliability Coordinator has demonstrated that it has a backup control	The Reliability Coordinator has not demonstrated that it has a backup control

Organization	Question 5:		(Question 5 Comments:		
	th de fa en w C in FE of the function of the f	enter facility (provided prough its own edicated backup acility or at another intity's control center ith certified Reliability coordinator operators) accordance with Requirement R4 but it inly provides does not rovide the inctionality required or maintaining compliance with compliance with compliance with compliance with compliance with compliance with complicable to the eliability Standards opplicable to the eliability Coordinator and depend on the rimary control center inctionality and which compliance of the compliance of th	center facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators) in accordance with requirement R4 but it enly provides does not provide the functionality required for maintaining compliance with 80% one or more of the Requirements in the Reliability Standards applicable to the Reliability Coordinator that depend on the primary control center functionality and which have a Medium VRF.	center facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators) in accordance with FRequirement R4 but it enly provides does not provide the functionality required for maintaining compliance with 70% one or more of the Requirements in the Reliability Standards applicable to the Reliability Coordinator that depend on the primary control center functionality and which have a High VRF.	center facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators) in accordance with rRequirement R4.	
R5	A Ti ha it fu ei	he Balancing uthority or applicable ransmission Operator as demonstrated that has backup inctionality (provided ither through a ackup control center	The Balancing Authority or applicable Transmission Operator has demonstrated that it has backup functionality (provided either through a backup control center	The Balancing Authority or applicable Transmission Operator has demonstrated that it has backup functionality (provided either through a backup control center	The Balancing Authority or applicable Transmission Operator has not demonstrated that it has backup functionality (provided either through a backup control center	

Organization	Question 5:		(Question 5 Comments:	
	se ac rf fe en in co al m co se ac rf fe en co s	acility or contracted ervices) in accordance with Requirement R5 but it only includes does not include monitoring, and farming sufficient for include monitoring ompliance with an include of the equirements in the eliability Standards alancing Authority and Transmission appropriate of the repeated on the control center included included in the sevidence is not atted.	facility or contracted services) in accordance with FRequirement R5 but it enly includes does not include monitoring, control, logging, and alarming sufficient for maintaining compliance with 80% one or more of the Requirements in the Reliability Standards applicable to a Balancing Authority and Transmission Operator respectively that depend on the primary control center functionality and which have a Medium VRF.	facility or contracted services) in accordance with FRequirement R5 but it only includes does not include monitoring, control, logging, and alarming sufficient for maintaining compliance with 70% one or more of the Requirements in the Reliability Standards applicable to a Balancing Authority and Transmission Operator respectively that depend on the primary control center functionality and which have a High VRF.	facility or contracted services) in accordance with FRequirement R5.
R8	C A Ti his si the te	he Reliability oordinator, Balancing uthority, or applicable ransmission Operator as provided evidence, uch as dated records, eat it has annually ested its dated, urrent, in force recting Plan for ackup functionality,	The Reliability Coordinator, Balancing Authority, or Transmission Operator has annually tested its Operating Plan for backup functionality, but two of the following occurred: 1) the demonstration was for less than two	The Reliability Coordinator, Balancing Authority, or Transmission Operator has annually tested its Operating Plan for backup functionality, but all three of the following occurred: 1) the demonstration was for less than two	The Reliability Coordinator, Balancing Authority, or applicable Transmission Operator has not annually tested its dated, current, in force-Operating Plan for backup functionality.

Organization	Question 5:	Question 5 Comments:
	de wii ies im es	cone of the following purred: 1) the monstration was he evidence of its last ue, through actual elementation or test partiens for less than or equal to two hours, or 3) test results were not documented. N/A if the has failed to demonstrate that the transition time period is less than or equal to two hours, or 3) test results were not documented. N/A if the following two demonstrate that the transition time period is less than or equal to two hours, or 3) test results were not documented. N/A if the following two demonstrate that the transition time period is less than or equal to two hours, and 3) test results were not documented. N/A if the following two demonstrate that the transition time period is less than or equal to two hours, and 3) test results were not documented. N/A if the following two demonstrate that the transition time period is less than or equal to two hours, and 3) test results were not documented. N/A if the following two demonstrate that the transition time period is less than or equal to two hours, and 3) test results were not documented. N/A if the following two hours, 2) it has failed to demonstrate that the transition time period is less than or equal to two hours, and 3) test results were not documented. N/A if the following two hours, 2) it has failed to demonstrate that the transition time period is less than or equal to two hours, and 3) test results were not documented. N/A if the following two hours, 2) it has failed to demonstrate that the transition time period is less than or equal to two hours, and 3) test results were not documented. N/A
ITC	No	The VSLs for Requirement 3 don't make any sense. Per comments elsewhere, this requirement should be re-written to focus on delegated functions. It is unlikely multiple entities would be involved as implied in the VSLs. For requirement 4 and 5, the VSL would be nearly impossible to calculate or measure from a practical standpoint. The VSL should not be focused on the number of other Standards that would be violated, but on the Plan itself or the functions. For requirement 7, the only VSL (severe) does not make any sense, further evidence that the requirement itself is not appropriate, as commented elsewhere. For requirement 8, the drafting team should develop VSLs for all levels, similar to requirement 1.

Organization	Question 5:			Question 5 Comments:	
	efine the VSL aga	ainst other factors than t	he percentage of entities that	were not provided for.	le entities may well be involved, but
	Con Au Trandir op other on the context on Recontext on Au For on Recontext on Au For o	ne Reliability cordinator, Balancing athority, or applicable ansmission Operator recting BES recting BES rections through ther entities has not asured against reluded provisions for reliable loss of such entity's retrol functionality reat is depended upon recompliance with recompliance with requirements in the reliability Standards reliability Standards reliability Standards reliability Standards replicable entities in its rection of the provision of the rection of the second of the reliability Standards replicable entities in its rection of the second of the second of the rection of the second of the second of the rection of the second of the second of the rection of the second of the second of the second of the rection of the second of the	The Reliability Coordinator, Balancing Authority, or applicable Transmission Operator directing BES operations through other entities has not ensured against included provisions for the loss of such entity's control functionality that is depended upon for compliance with one or more Requirements in the Reliability Standards having a Medium VRF for more than 10% and less than 25% of its applicable entities in its Operating Plan for backup functionality.	The Reliability Coordinator, Balancing Authority, or applicable Transmission Operator directing BES operations through other entities has not ensured against included provisions for the loss of such entity's control functionality that is depended upon for compliance with one or more Requirements in the Reliability Standards having a High VRFfor more than 25% of its applicable entities in its Operating Plan for backup functionality.	The Reliability Coordinator, Balancing Authority, or applicable Transmission Operator directing BES operations through other entities has not ensured against included provisions for the loss of any such entity's control functionality in its Operating Plan for backup functionality.
R4	Co	ne Reliability pordinator has emonstrated that it	The Reliability Coordinator has demonstrated that it	The Reliability Coordinator has demonstrated that it	The Reliability Coordinator has not demonstrated that it

Organization	Question 5:		(Question 5 Comments:		
	the definition of the definiti	as a backup control enter facility (provided rough its own edicated backup icility or at another ith certified Reliability coordinator operators) accordance with Requirement R4 but it inly provides does not rovide the inctionality required or maintaining compliance with 20% one or more of the equirements in the eliability Standards oplicable to the eliability Coordinator is at depend on the rimary control center inctionality and which ave a Lower VRF., or the evidence of the emonstration is not ested.	has a backup control center facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators) in accordance with requirement R4 but it only provides does not provide the functionality required for maintaining compliance with 80% one or more of the Requirements in the Reliability Standards applicable to the Reliability Coordinator that depend on the primary control center functionality and which have a Medium VRF.	has a backup control center facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators) in accordance with requirement R4 but it enly provides does not provide the functionality required for maintaining compliance with 70% one or more of the Requirements in the Reliability Standards applicable to the Reliability Coordinator that depend on the primary control center functionality and which have a High VRF.	has a backup control center facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators) in accordance with #Requirement R4.	
R5 VSL					,	
R5 	Ai Ti ha	he Balancing uthority or applicable ransmission Operator as demonstrated that has backup	The Balancing Authority or applicable Transmission Operator has demonstrated that it has backup	The Balancing Authority or applicable Transmission Operator has demonstrated that it has backup	The Balancing Authority or applicable Transmission Operator has not demonstrated that it has backup	

Organization	Question 5:			Question 5 Comments:		
	eit ba fac se ac #R on inc co ala ma co 90 Re ap Ba an Op tha its	nctionality (provided ther through a ackup control center cility or contracted strvices) in accordance with acquirement R5 but it ally includes does not clude monitoring, antrol, logging, and arming sufficient for aintaining ampliance with acquirements in the celiability Standards aplicable to a calancing Authority and Transmission cerator respectively at depend on the imary control center actionality and which ave a Lower VRF. To evidence is not atted.	functionality (provided either through a backup control center facility or contracted services) in accordance with requirement R5 but it only includes does not include monitoring, control, logging, and alarming sufficient for maintaining compliance with 80% one or more of the Requirements in the Reliability Standards applicable to a Balancing Authority and Transmission Operator respectively that depend on the primary control center functionality and which have a Medium VRF.	functionality (provided either through a backup control center facility or contracted services) in accordance with FRequirement R5 but it only includes does not include monitoring, control, logging, and alarming sufficient for maintaining compliance with 70% one or more of the Requirements in the Reliability Standards applicable to a Balancing Authority and Transmission Operator respectively that depend on the primary control center functionality and which have a High VRF.	functionality (provided either through a backup control center facility or contracted services) in accordance with #Requirement R5.	

R7: As noted previously, the SDT believes that Requirement R7 is needed. The SDT believes that Requirement R7 is a standalone requirement as Requirement R1 covers the plan and Requirement R7 the capabilities. However, Requirement R7 has been re-written to provide additional clarity as to what was the intent of the SDT and the VSL has been clarified as well.

R7. Each Reliability Coordinator, Balancing Authority, and applicable-Transmission Operator shall have primary and backup capabilityies that does not depend on the primary control center each other or any single data center for any functionality required to maintain compliance with Reliability Standards that depend on the primary control functionality.

R7 VSL

Organization	Question 5:		C	Question 5 Comments:	
R7	N	I/A	N/A	N/A	The Reliability Coordinator, Balancing Authority, or applicable Transmission Operator's dated evidence does not demonstrateshows that its primary and backup capabilityies does not depend on each other or any common facility the primary control center for the functionality required to maintain compliance with Reliability Standards that depend on the primary control functionality.
	rees and has de	efined all four VSL catego	ries for Requirement R8.		
R8 VSL					
R8	C A T H SE	The Reliability Coordinator, Balancing Authority, or applicable Transmission Operator as provided evidence, uch as dated records, nat it-has annually ested its_dated, urrent, in force Operating Plan for ackup functionality,	The Reliability Coordinator, Balancing Authority, or Transmission Operator has annually tested its Operating Plan for backup functionality, but two of the following occurred: 1) the demonstration was for less than two	The Reliability Coordinator, Balancing Authority, or Transmission Operator has annually tested its Operating Plan for backup functionality, but all three of the following occurred: 1) the demonstration was for less than two	The Reliability Coordinator, Balancing Authority, or applicable Transmission Operator has not annually tested its dated, current, in force-Operating Plan for backup functionality.

Organization	Question 5:		(Question 5 Comments:		
	de d	ut one of the following courred: 1) the emonstration was ith evidence of its last sue, through actual eplementation or test perations for less than to continuous hours, for it has failed to emonstrate that the ensition time period is so than or equal to to hours, or it was one in more than evelve calendar enths or 3 1 test esults and lessons earned were not corporated ocumented in ubsequent revisions the Operating Plan or backup enctionality.	continuous hours, 2) it has failed to demonstrate that the transition time period is less than or equal to two hours, or 3) test results were not documented N/A	continuous hours, 2) it has failed to demonstrate that the transition time period is less than or equal to two hours, and 3) test results were not documented. N/A		
Western Area Power Administration	No	Suggestion is to apply written).	percentage levels to requirer	ments as opposed to percenta	age levels to standards (as th	is is currently
Response: R4 a	and R5: The SD	T has modified the VSL to	o not rely on percentages.			
R4		ne Reliability oordinator has	The Reliability Coordinator has	The Reliability Coordinator has	The Reliability Coordinator has not	

Organization	Question 5:		(Question 5 Comments:		
R5 VSL	hace the defa er wi Coin FR or profession of the	emonstrated that it as a backup control enter facility (provided rough its own edicated backup cility or at another nitity's control center ith certified Reliability coordinator operators) accordance with Requirement R4 but it ally provides does not covide the notionality required r maintaining empliance with compliance with compliance with consideration of the equirements in the eliability Standards oplicable to the eliability Coordinator at depend on the compliance of the empliance of the emplicated of the emplication	demonstrated that it has a backup control center facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators) in accordance with requirement R4 but it only provides does not provide the functionality required for maintaining compliance with 80% one or more of the Requirements in the Reliability Standards applicable to the Reliability Coordinator that depend on the primary control center functionality and which have a Medium VRF.	demonstrated that it has a backup control center facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators) in accordance with rRequirement R4 but it only provides does not provide the functionality required for maintaining compliance with 70% one or more of the Requirements in the Reliability Standards applicable to the Reliability Coordinator that depend on the primary control center functionality and which have a High VRF.	demonstrated that it has a backup control center facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators) in accordance with FRequirement R4.	
R5	Au Tr	ne Balancing uthority or applicable ransmission Operator as demonstrated that	The Balancing Authority or applicable Transmission Operator has demonstrated that	The Balancing Authority or applicable Transmission Operator has demonstrated that	The Balancing Authority or applicable Transmission Operator has not demonstrated	

Organization	Question 5:			Question 5 Comments:	
	fur eit ba fac se ac #R en inc co ala ma co 90 Re ap Ba an Op tha its	nas backup nctionality (provided her through a ckup control center cility or contracted rvices) in cordance with equirement R5 but it ly includes does not clude monitoring, ntrol, logging, and arming sufficient for aintaining mpliance with %one or more of the equirements in the eliability Standards plicable to a allancing Authority d Transmission perator respectively at depend on the mary control center nctionality and which we a Lower VRF., or evidence is not ted.	it has backup functionality (provided either through a backup control center facility or contracted services) in accordance with FRequirement R5 but it only includes does not include monitoring, control, logging, and alarming sufficient for maintaining compliance with 80% one or more of the Requirements in the Reliability Standards applicable to a Balancing Authority and Transmission Operator respectively that depend on the primary control center functionality and which have a Medium VRF.	it has backup functionality (provided either through a backup control center facility or contracted services) in accordance with requirement R5 but it only includes does not include monitoring, control, logging, and alarming sufficient for maintaining compliance with 70% one or more of the Requirements in the Reliability Standards applicable to a Balancing Authority and Transmission Operator respectively that depend on the primary control center functionality and which have a High VRF.	that it has backup functionality (provided either through a backup control center facility or contracted services) in accordance with FRequirement R5.
Pepco Holdings, Inc. - Affiliates	No	facility. R3 has increments on	number of entities rather tha concentrate on percentage of	n number of BES facilities. C	nplies one primary facility and one backup oncentrating on entities does not address the backup facility rather than number of

Organization	Question 5:		(Question 5 Comments:	
Response: R2 involved.	2: The SDT agree	s and has modified the v	vording of the VSL for Require	ement R2 to not rely on an as	sumption that there are only two facilities
R2 R3: The SDT a	Co Ai Tr ha fo bu lo or lo co	ne Reliability cordinator, Balancing uthority, or applicable ransmission Operator as an Operating Plan r backup functionality ut the plan is not cated available in at neall of its control cations but at one cation it is not the urrent plan.	The Reliability Coordinator, Balancing Authority, or applicable Transmission Operator has an Operating Plan for backup functionality but the plan is not located available inat either all of its control locations but at all locations it is not the current plan.	N/A nan the percentage of entities	N/A The Reliability Coordinator, Balancing Authority, or Transmission Operator has an Operating Plan for backup functionality but no version of the plan is available at all of its control locations.
R3	Co Ai Tr di op ot <u>er</u> in th co th	ne Reliability cordinator, Balancing uthority, or applicable ransmission Operator recting BES cerations through ther entities has not asured against cluded provisions for e loss of such entity's control functionality at is depended upon r compliance with	The Reliability Coordinator, Balancing Authority, or applicable Transmission Operator directing BES operations through other entities has not ensured against included provisions for the loss of such entity's control functionality that is depended upon for compliance with	The Reliability Coordinator, Balancing Authority, or applicable Transmission Operator directing BES operations through other entities has not ensured against included provisions for the loss of such entity's control functionality that is depended upon for compliance with	The Reliability Coordinator, Balancing Authority, or applicable Transmission Operator directing BES operations through other entities has not ensured against included provisions for the loss of any such entity's control functionality in its Operating Plan for

Organization	Question 5:			Question 5 Comments:	
		ne or more Requirements in the Reliability Standards having a Lower VRF for 10% or less of its applicable entities in its Operating Plan for backup functionality.	one or more Requirements in the Reliability Standards having a Medium VRF for more than 10% and less than 25% of its applicable entities in its Operating Plan for backup functionality.	one or more Requirements in the Reliability Standards having a High VRFfor more than 25% of its applicable entities in its Operating Plan for backup functionality.	backup functionality.
and R5: The	SDT agrees a	nd has modified the VSL f	or R4 and R5 to not rely on pe	ercentages.	
4 VSL					
R4		The Reliability Coordinator has demonstrated that it has a backup control center facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators) in accordance with	The Reliability Coordinator has demonstrated that it has a backup control center facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators) in accordance with	The Reliability Coordinator has demonstrated that it has a backup control center facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators) in accordance with	The Reliability Coordinator has not demonstrated that it has a backup control center facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators) in accordance with
		rRequirement R4 but it enly provides does not provide the functionality required for maintaining compliance with enly one or more of the Requirements in the Reliability Standards	rRequirement R4 but it only provides does not provide the functionality required for maintaining compliance with 80%one or more Requirements in the Reliability Standards	rRequirement R4 but it only provides does not provide the functionality required for maintaining compliance with 70%one or more of the Requirements in the Reliability Standards	FRequirement R4.

Organization	Question 5:		Question 5 Comments:	
	applicable to the Reliability Coordinator that depend on the primary control center functionality and which have a Lower VRF.—or the evidence of the demonstration is not dated.	applicable to the Reliability Coordinator that depend on the primary control center functionality and which have a Medium VRF.	applicable to the Reliability Coordinator that depend on the primary control center functionality and which have a High VRF.	
R5 VSL				
R5	The Balancing Authority or applicable Transmission Operator has demonstrated that it has backup functionality (provided either through a backup control center facility or contracted services) in accordance with	The Balancing Authority or applicable Transmission Operator has demonstrated that it has backup functionality (provided either through a backup control center facility or contracted services) in accordance with	The Balancing Authority or applicable Transmission Operator has demonstrated that it has backup functionality (provided either through a backup control center facility or contracted services) in accordance with	The Balancing Authority or applicable Transmission Operator has not demonstrated that it has backup functionality (provided either through a backup control center facility or contracted services) in accordance with
	#Requirement R5 but it only includes does not include monitoring, control, logging, and alarming sufficient for maintaining compliance with	FRequirement R5 but it only includes does not include monitoring, control, logging, and alarming sufficient for maintaining compliance with	rRequirement R5 but it only includes does not include monitoring, control, logging, and alarming sufficient for maintaining compliance with	<u>FR</u> equirement R5.
	90%one or more of the Requirements in the Reliability Standards applicable to a Balancing Authority	80%one or more of the Requirements in the Reliability Standards applicable to a Balancing Authority	70%one or more of the Requirements in the Reliability Standards applicable to a Balancing Authority	

Organization	Question 5:	Question 5 Comments:
	O _I th pr fu ha its	and Transmission perator respectively at depend on the imary control center nctionality and which ave a Lower VRF. sevidence is not and Transmission Operator respectively that depend on the primary control center functionality and which have a Medium VRF. and Transmission Operator respectively that depend on the primary control center functionality and which have a High VRF.
PJM Interconnectio n	No	Changes need to be made to address the primary/backup language (see 7 below)
Response: Plea	ase see our resp	onse to question 7 comments.
Ameren	No	Guideline 3 of FERC's order conditionally approving VSLs for the original 83 regulatory approved standards stipulates that the VSL should not add to the requirement. The Lower VSL of R1 does add a requirement for the document to be dated which violates Guideline 3. Requirement 1 fits the multi-component category of the VSL Guidelines. This category puts the number of sub-requirements that are missing from the Operating Plan into quartiles. Thus, the Lower VSL would be missing one or two sub-requirements the Moderate VSL would be missing three or four sub-requirements the High VSL would be missing five to six sub-requirements and the Severe VSL would be missing seven sub-requirements or the plan would not exist.
		The VSLs for Requirement 2 should use the term back-up capability along with primary control center for consistency with the requirements. We agree with these levels. The VSLs for Requirement 3 really don't make any sense. It implies there may be more than one other entity that a TOP is directing BES operations through. We don't think that this is likely. Additionally, the VSLs as written do not seem to fit any category within the VSL guidelines document. Why would the VSLs not be divided into quartiles?
		For the requirement 4, the Lower VSL violates FERC's guideline 3 established in their order conditionally approving VSLs since the VSL indicates a date which is not in the requirement. Additionally, the VSLs do not consider most of the range of possibilities foreseen by the drafting team. For example, compliance with 83% of the reliability standards does not fit any VSL. Review of these VSLs cause us to question if the associated requirement needs to be modified. If the requirement is that the BA or TOP has a backup capability plan, isn't the BA or TOP still required to comply with all other reliability standards? Thus, why does the requirement need to explicitly state this. Doesn't this present an opportunity for double

Organization	Question 5:	Question 5 Comments:
		jeopardy? For the requirement 5, the Lower VSL violates FERC's guideline 3 established in their order conditionally approving VSLs since the VSL indicates a date which is not in the requirement. Additionally, the VSLs do not consider most of the range of possibilities foreseen by the drafting team. For example, compliance with 83% of the reliability standards does not fit any VSL. Review of these VSLs cause us to question if the associated requirement needs to be modified. If the requirement is that the RC has a backup control center, isn't the RC still required to comply with all other reliability standards? Thus, why does the requirement need to explicitly state this. Doesn't this present an opportunity for double jeopardy? Perhaps the drafting team should consider applying VSLs based on if monitoring, control, logging and alarming are included in the backup capability. In its order approving VSLs, the FERC stated in paragraph 27 that they prefer gradated VSLs whenever possible.
		For requirement 6, we believe a VSL could be written for each severity level using the time requirements established. For instance, high could apply to 18 months and severe to 21 months. Additionally, the VSLs for requirement 6 violation FERC's guideline 3 by requiring the Operating Plan to be dated. The associated requirement does not mention dating.
		For requirement 7, the only VSL does not make any sense. The VSL implies that the responsible entity may provide evidence that backup plan depends on the primary control center. Why would the responsible entity providing evidence of non-compliance be a severity level? The purpose of providing evidence is to demonstrate compliance. Is this requirement 7 even needed? There are requirements in this standard that require a backup plan. The responsible entity is responsible to comply with this standard and with all other standards even when operating with the backup plan. Can they comply with other standards if the backup plan depends on the primary control center and the primary control center is destroyed? No. Thus, they would violate many other standards. Thus, requirement 7 is implied and not needed explicitly as a requirement.
		For requirement 8, we do not support a mandatory testing time of two hours or a transition time of two hours. However, considering the requirement as written, we suggest the drafting team could develop VSLs for all levels. VSLs could be written as:
		Lower: Tested the back plan for less than 30 minutes or The transition time was more than two hours but less than or equal to 3 hours or the test results and lessons learned were not incorporated in subsequent revisions.
		Moderate: Tested the backup plan for 30 minutes or more but less than one hour. The transition time was more than three hours but less than or equal to four hours.
		High: Tested the back plan for one hour or more but less than 90 minutes or The transition time was more than four hours but less than or equal to five hours.
		Severe: Tested the back plan for 90 minutes or more but less than two hours or The transition time was more than five hours.
		For requirement 9, the VSL perpetuates some of the problems that are currently occurring with compliance monitoring of

Organization	Question 5:	Question 5 Comments:
		requirements that have periodic reporting requirements to the Regional Entity. The Regional Entity either already has the evidence or a violation has occurred because the report was not submitted on time. The responsible entity should not have to redemonstrate to the compliance auditor that it submitted the plan to the Regional Entity since the compliance auditor is the Regional Entity.
ISO/RTO Council	No	Guideline 3 of FERC's order conditionally approving VSLs for the original 83 regulatory approved standards stipulates that the VSL should not add to the requirement. The Lower VSL of R1 does add a requirement for the document to be dated which violates Guideline 3.
		Requirement 1 fits the multi-component category of the VSL Guidelines. This category puts the number of sub-requirements that are missing from the Operating Plan into quartiles. Thus, the Lower VSL would be missing one or two sub-requirements the Moderate VSL would be missing three or four sub-requirements. the High VSL would be missing five to six sub-requirements and the Severe VSL would be missing seven sub-requirements or the plan would not exist.
		The VSLs for Requirement 2 should use the term back-up capability along with primary control center for consistency with the requirements. R2 requires a copy of the plan be provided at both the primary and backup facilities. Failing to provide any copy at all is a complete violation of the requirement and hence should be assigned a Severe VSL, not Medium (note that VSL is a measure of the extent to which a requirement is not met, not its impact). We therefore suggest to move the two conditions from Low/Medium to High/Severe in accordance with established VSL guideline.
		The VSLs for Requirement 3 really don't make any sense. It implies there may be more than one other entity that a TOP is directing BES operations through. We don't think that this is likely. Additionally, the VSLs as written do not seem to fit any category within the VSL guidelines document. Why would the VSLs not be divided into quartiles based the number of entities?
		For the requirement 4, the Lower VSL violates FERC's guideline 3 established in their order conditionally approving VSLs since the VSL indicates a date which is not in the requirement.
		Additionally, the VSLs do not consider most of the range of possibilities foreseen by the drafting team. For example, compliance with 83% of the reliability standards does not fit any VSL. Review of these VSLs cause us to question if the associated requirement needs to be modified. If the requirement is that the BA or TOP has a backup capability plan, isn't the BA or TOP still required to comply with all other reliability standards? Thus, why does the requirement need to explicitly state this. Doesn't this present an opportunity for double jeopardy? The Severe level should include a condition that the RC provides less than 70% of the functionality required for maintaining compliance with the Reliability Standards applicable to an RC. Otherwise, there will not be any VSL for RC providing functionality sufficient for maintaining compliance with, say, 40% of the Reliability Standards. Further, the proposed wording change, i.e., <70%, covers the condition of not having any functionality at all to comply with reliability standards.

Organization	Question 5:	Question 5 Comments:
		For the requirement 5, the Lower VSL violates FERC's guideline 3 established in their order conditionally approving VSLs since the VSL indicates a date which is not in the requirement. Additionally, the VSLs do not consider most of the range of possibilities foreseen by the drafting team. For example, compliance with 83% of the reliability standards does not fit any VSL. Review of these VSLs cause us to question if the associated requirement needs to be modified. If the requirement is that the RC has a backup control center, isn't the RC still required to comply with all other reliability standards? Thus, why does the requirement need to explicitly state this. Doesn't this present an opportunity for double jeopardy? Perhaps the drafting team should consider applying VSLs based on if monitoring, control, logging and alarming are included in the backup capability. The Severe level should include a condition that the BA or TOP provides less than 70% of the functionality required for maintaining compliance with the Reliability Standards applicable to an RC. Otherwise, there will not be any VSL for RC providing functionality sufficient for maintaining compliance with, say, 40% of the Reliability Standards. Further, the proposed wording change, i.e., <70%, covers the condition of not having any functionality at all to comply with reliability standards. In its order approving VSLs, the FERC stated in paragraph 27 that they prefer gradated VSLs whenever possible.
		For requirement 6, we believe a VSL could be written for each severity level using the time requirements established. For instance, high could apply to 18 months and severe to 21 months. Additionally, the VSLs for requirement 6 violate FERC's guideline 3 by requiring the Operating Plan to be dated. The associated requirement does not mention dating. There are no VSLs assigned to High and Severe. We suggest the SDT to provide the conditions that an entity fails to meet the bulk of the intent of this requirement (High) and fails to meet this requirement completely (Severe). For example, a High VSL can be assigned if the entity did not update its plan after 18 months or 120 calendar days after changes were made to the backup capability; a Severe for failing to update its plan for a longer time period or at all.
		For requirement 7, the only VSL does not make any sense. The VSL implies that the responsible entity may provide evidence that backup plan depends on the primary control center. Why would the responsible entity providing evidence of non-compliance be a severity level? The purpose of providing evidence is to demonstrate compliance. Is this requirement 7 even needed? There are requirements in this standard that require a backup plan. The responsible entity is responsible to comply with this standard and with all other standards even when operating with the backup plan. Can they comply with other standards if the backup plan depends on the primary control center and the primary control center is destroyed? No. Thus, they would violate many other standards. Thus, requirement 7 is implied and not needed explicitly as a requirement.
		For requirement 8, we do not support a mandatory testing time of two hours or a transition time of two hours. However, considering the requirement as written, we suggest the drafting team could develop VSLs for all levels. VSLs could be written as:
		Lower: Tested the back plan for 90 minutes or more but less than two hours or The transition time was more than two hours but less than or equal to 3 hours.
		Moderate: Tested the back plan for one hour or more but less than 90 minutes. The transition time was more than three

Organization	Question 5:	Question 5 Comments:
		hours but less than or equal to four hours.
		High: Tested the backup plan for 30 minutes or more but less than one hour or The transition time was more than four hours but less than or equal to five hours.
		Severe: Tested the back up plan for less than 30 minutes or The transition time was more than five hours or or the test results and lessons learned were not incorporated in subsequent revisions.
		For requirement 9, the VSL perpetuates some of the problems that are currently occurring with compliance monitoring of requirements that have periodic reporting requirements to the Regional Entity. The Regional Entity either already has the evidence or a violation has occurred because the report was not submitted on time. The responsible entity should not have to redemonstrate to the compliance auditor that it submitted the plan to the Regional Entity since the compliance auditor is the Regional Entity.
Midwest ISO	No	Guideline 3 of FERC's order conditionally approving VSLs for the original 83 regulatory approved standards stipulates that the VSL should not add to the requirement.
		The Lower VSL of R1 does add a requirement for the document to be dated which violates Guideline 3. Requirement 1 fits the multi-component category of the VSL Guidelines. This category puts the number of sub-requirements that are missing from the Operating Plan into quartiles. Thus, the Lower VSL would be missing one or two sub-requirements the Moderate VSL would be missing three or four sub-requirements the High VSL would be missing five to six sub-requirements and the Severe VSL would be missing seven sub-requirements or the plan would not exist.
		The VSLs for Requirement 2 should use the term back-up capability along with primary control center for consistency with the requirements. We agree with these levels.
		The VSLs for Requirement 3 really don't make any sense. It implies there may be more than one other entity that a TOP is directing BES operations through. We don't think that this is likely. Additionally, the VSLs as written do not seem to fit any category within the VSL guidelines document. Why would the VSLs not be divided into quartiles?
		For the requirement 4, the Lower VSL violates FERC's guideline 3 established in their order conditionally approving VSLs since the VSL indicates a date which is not in the requirement. Additionally, the VSLs do not consider most of the range of possibilities foreseen by the drafting team. For example, compliance with 83% of the reliability standards does not fit any VSL. Review of these VSLs cause us to question if the associated requirement needs to be modified. If the requirement is that the BA or TOP has a backup capability plan, isn't the BA or TOP still required to comply with all other reliability standards? Thus, why does the requirement need to explicitly state this. Doesn't this present an opportunity for double jeopardy?

Organization	Question 5:	Question 5 Comments:
		For the requirement 5, the Lower VSL violates FERC's guideline 3 established in their order conditionally approving VSLs since the VSL indicates a date which is not in the requirement. Additionally, the VSLs do not consider most of the range of possibilities foreseen by the drafting team. For example, compliance with 83% of the reliability standards does not fit any VSL. Review of these VSLs cause us to question if the associated requirement needs to be modified. If the requirement is that the RC has a backup control center, isn't the RC still required to comply with all other reliability standards? Thus, why does the requirement need to explicitly state this. Doesn't this present an opportunity for double jeopardy? Perhaps the drafting team should consider applying VSLs based on if monitoring, control, logging and alarming are included in the backup capability. In its order approving VSLs, the FERC stated in paragraph 27 that they prefer gradated VSLs whenever possible.
		For requirement 6, we believe a VSL could be written for each severity level using the time requirements established. For instance, high could apply to 18 months and severe to 21 months. Additionally, the VSLs for requirement 6 violation FERC's guideline 3 by requiring the Operating Plan to be dated. The associated requirement does not mention dating.
		For requirement 7, the only VSL does not make any sense. The VSL implies that the responsible entity may provide evidence that backup plan depends on the primary control center. Why would the responsible entity providing evidence of non-compliance be a severity level? The purpose of providing evidence is to demonstrate compliance. Is this requirement 7 even needed? There are requirements in this standard that require a backup plan. The responsible entity is responsible to comply with this standard and with all other standards even when operating with the backup plan. Can they comply with other standards if the backup plan depends on the primary control center and the primary control center is destroyed? No. Thus, they would violate many other standards. Thus, requirement 7 is implied and not needed explicitly as a requirement.
		For requirement 8, we do not support a mandatory testing time of two hours or a transition time of two hours. However, considering the requirement as written, we suggest the drafting team could develop VSLs for all levels. VSLs could be written as:
		Lower: Tested the back plan for 90 minutes or more but less than two hours or The transition time was more than two hours but less than or equal to 3 hours or the test results and lessons learned were not incorporated in subsequent revisions.
		Moderate: Tested the back plan for one hour or more but less than 90 minutes The transition time was more than three hours but less than or equal to four hours.
		High: Tested the backup plan for 30 minutes or more but less than one hour or The transition time was more than four hours but less than or equal to five hours.
		Severe: Tested the back plan for less than 30 minutes or The transition time was more than five hours.
		For requirement 9, the VSL perpetuates some of the problems that are currently occurring with compliance monitoring of requirements that have periodic reporting requirements to the Regional Entity. The Regional Entity either already has the evidence or a violation has occurred because the report was not submitted on time. The responsible entity should not have

Organization	Question 5:	Question 5 Comments:
		to redemonstrate to the compliance auditor that it submitted the plan to the Regional Entity since the compliance auditor is the Regional Entity.

Response: R1 – The SDT has modified the requirement to add a timing factor.

R2: While the terminology used was not identical it is technically correct and no change was made.

R3: The SDT agrees and has modified the VSL for Requirement R3. The SDT does believe that multiple entities may well be involved, but determined to define the VSL against other factors than the percentage of entities that were not provided for.

R3 VSL

R3	The Reliability Coordinator, Balancing Authority, or applicable Transmission Operator directing BES operations through other entities has not ensured against included provisions for the loss of such entity's control functionality that is depended upon for compliance with one or more Requirements in the Reliability Standards having a Lower VRF for 10% or less of its applicable entities-in its Operating Plan for backup functionality.	The Reliability Coordinator, Balancing Authority, or applicable Transmission Operator directing BES operations through other entities has not ensured against included provisions for the loss of such entity's control functionality that is depended upon for compliance with one or more Requirements in the Reliability Standards having a Medium VRF for more than 10% and less than 25% of its applicable entities in its Operating Plan for backup functionality.	The Reliability Coordinator, Balancing Authority, or applicable Transmission Operator directing BES operations through other entities has not ensured against included provisions for the loss of such entity's control functionality that is depended upon for compliance with one or more Requirements in the Reliability Standards having a High VRFfor more than 25% of its applicable entities in its Operating Plan for backup functionality.	The Reliability Coordinator, Balancing Authority, or applicable Transmission Operator directing BES operations through other entities has not ensured against included provisions for the loss of any such entity's control functionality in its Operating Plan for backup functionality.
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R4/R5: The SDT has modified the VSL for R4 and R5. The word, "dated" was removed from the Lower VSL for R4.

Organization	Question 5:		(Question 5 Comments:				
	Simply having a backup control center does not automatically imply that it will adhere to relevant standards, therefore the need for the phrase. Double jeopardy shouldn't be an issue as this requirement applies only to the backup. R4 VSL							
R4	Code ha ce thi de face in FR or fun for co Re ap Re ap Re thi de	ne Reliability cordinator has emonstrated that it is a backup control enter facility (provided rough its own edicated backup cility or at another entity's control center th certified Reliability cordinator operators) accordance with equirement R4 but it elly provides does not covide the enctionality required or maintaining empliance with eliability Standards eplicable to the eliability Coordinator at depend on the emary control center enctionality and which ever a Lower VRF., or evidence of the emonstration is not ented	The Reliability Coordinator has demonstrated that it has a backup control center facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators) in accordance with rRequirement R4 but it only provides does not provide the functionality required for maintaining compliance with 80% one or more of the Requirements in the Reliability Standards applicable to the Reliability Coordinator that depend on the primary control center functionality and which have a Medium VRF.	The Reliability Coordinator has demonstrated that it has a backup control center facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators) in accordance with rRequirement R4 but it only provides does not provide the functionality required for maintaining compliance with 70% one or more of the Requirements in the Reliability Standards applicable to the Reliability Coordinator that depend on the primary control center functionality and which have a High VRF.	The Reliability Coordinator has not demonstrated that it has a backup control center facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators) in accordance with FRequirement R4.			

The Balancing Authority or applicable Transmission Operator has demonstrated that it has backup functionality (provided either through a backup control center facility or contracted services) in accordance with #Requirement R5 but it only includes does not The Balancing Authority or applicable Transmission Operator has demonstrated that it has backup functionality (provided either through a backup control center facility or contracted services) in accordance with enly includes does not The Balancing Authority or applicable Transmission Operator has demonstrated that it has backup functionality (provided either through a backup control center facility or contracted services) in accordance with enly includes does not The Balancing Authority or applicable Transmission Operator has demonstrated that it has backup functionality (provided either through a backup control center facility or contracted services) in accordance with enly includes does not The Balancing Authority or applicable Transmission Operator has demonstrated that it has backup functionality (provided either through a backup control center facility or contracted services) in accordance with enly includes does not enly includes does not
Authority or applicable Transmission Operator has demonstrated that it has backup functionality (provided either through a backup control center facility or contracted services) in accordance with FRequirement R5 but it Authority or applicable Transmission Operator has demonstrated that it has backup functionality of applicable Transmission Operator has demonstrated that it has backup functionality (provided either through a backup control center facility or contracted services) in accordance with FRequirement R5 but it Authority or applicable Transmission Operator has demonstrated that it has backup functionality (provided either through a backup control center facility or contracted services) in accordance with FRequirement R5 but it Authority or applicable Transmission Operator has demonstrated that it has backup functionality (provided either through a backup control center facility or contracted services) in accordance with FRequirement R5 but it FRequirement R5 but it
The state of the s

Organization **Question 5: Question 5 Comments:** R6: The requirement includes the phrase, "annually review and approve" and the only way to see if the plan has been reviewed and approved on an annual basis is to look at the dates of the documents over several years. No change made. R7: The SDT agrees and has modified the VSL for Requirement R7 to be based on an inability to show compliance rather than a showing of non-compliance. The SDT does believe Requirement R7 is an appropriate and needed requirement. While it may appear implied to some, the SDT believes it is too important an issue to be left to implication. **R7 VSL R7** The Reliability N/A N/A N/A Coordinator, Balancing Authority, or applicable Transmission Operator's dated evidence does not demonstrateshows that its primary and backup capabilityies does not depend on each other or any common facility the primary control center for the functionality required to maintain compliance with Reliability Standards that depend on the primary control functionality. R8: The SDT believes that a two-hour continuous test is appropriate in that it ensures that the functionality is tested through at least one full clock hour. The SDT did modify the VSL for Requirement R8 to reflect increasing levels of severity of non-compliance. **R8 VSL** R8 The Reliability The Reliability The Reliability The Reliability

Organization	Question 5:		(Question 5 Comments:		
	Au Tra ha su tha tes cu Op ba bu occ de wit iss im op two 2)c de tra les two do two res inc do su for	pordinator, Balancing othority, or applicable ansmission Operator is provided evidence, when as dated records, at it has annually sted its_dated, when a continuous plan for experimentation was the evidence of its last every through actual plementation or test erations for less than a continuous hours, or it has failed to monstrate that the insition time period is its than or equal to a hours, or it was no in more than elve calendar on this or 3 3) test sults and lessons are in more than elve calendar on the operating Plan becauper the Operating Plan backup inctionality.	Coordinator, Balancing Authority, or Transmission Operator has annually tested its Operating Plan for backup functionality, but two of the following occurred: 1) the demonstration was for less than two continuous hours, 2) it has failed to demonstrate that the transition time period is less than or equal to two hours, or 3) test results were not documented. N/A	Coordinator, Balancing Authority, or Transmission Operator has annually tested its Operating Plan for backup functionality, but all three of the following occurred: 1) the demonstration was for less than two continuous hours, 2) it has failed to demonstrate that the transition time period is less than or equal to two hours, and 3) test results were not documented. N/A	Coordinator, Balancing Authority, or applicable Transmission Operator has not annually tested its dated, current, in force-Operating Plan for backup functionality.	

Organization	Question 5:	Question 5 Comments:					
R9: The SDT s	R9: The SDT sees this as a necessary part of the documentation required and not a burdensome requirement so no change has been made.						
FirstEnergy Corp.	No	more than one other e provisions for the loss	The VSLs for Requirement 3 implies this method of operation is employed only when a TOP is directing operations through more than one other entity. We don't believe this to be the norm. The drafting team should consider the failure to include provisions for the loss of a percentage of such entity's or entities' total control functionality rather than basing the compliance measurement on the percentage of entities.				
		For the requirement 4,	the VSL's should be revised	based on the needed revision	ns to the associated requireme	ent.	
		For the requirement 5,	the VSL's should be revised	based on the needed revision	ns to the associated requireme	ent.	
			For requirement 6, we believe a VSL could be written for each severity level using the time requirements established. For instance, high could apply to 18 months and severe to 21 months.				
		For requirement 7, the	VSL's should be revised bas	sed on the needed revisions to	o the associated requirement.		
		For requirement 8, there is nothing in Requirement 8 as currently proposed by the drafting team that requires a two hour test. If there is an expectation for a test of the backup center to last two hours, it should be stated in the requirement. The VSL for Requirement 8 should be rewritten based on the needed revisions to the associated requirement.					
		For requirement 9, the Regional Entity either already has the evidence or a violation has occurred because the report was not submitted on time. The responsible entity should not have to redemonstrate to the compliance auditor that it submitted the plan to the Regional Entity since the compliance auditor is the Regional Entity.					
	Response: R3: The SDT agrees and has modified the VSL for Requirement R3. The SDT does believe that multiple entities may well be involved, but determined to define the VSL against other factors than the percentage of entities that were not provided for.						
R3		ho Doliobility	The Delichility	The Delichility	The Delichility		
N3	CA A Ti di op	he Reliability oordinator, Balancing uthority, or applicable ransmission Operator recting BES perations through ther entities has not nsured against	The Reliability Coordinator, Balancing Authority, or applicable Transmission Operator directing BES operations through other entities has not ensured against	The Reliability Coordinator, Balancing Authority, or applicable Transmission Operator directing BES operations through other entities has not ensured against	The Reliability Coordinator, Balancing Authority, or applicable Transmission Operator directing BES operations through other entities has not ensured against		

Organization	Question 5:		(Question 5 Comments:	
	the co that for on Re ha for ap	cluded provisions for e loss of such entity's introl functionality at is depended upon compliance with le or more equirements in the eliability Standards wing a Lower VRF 10% or less of its uplicable entities in its perating Plan for ackup functionality.	included provisions for the loss of such entity's control functionality that is depended upon for compliance with one or more Requirements in the Reliability Standards having a Medium VRF for more than 10% and less than 25% of its applicable entities in its Operating Plan for backup functionality.	included provisions for the loss of such entity's control functionality that is depended upon for compliance with one or more Requirements in the Reliability Standards having a High VRFfor more than 25% of its applicable entities in its Operating Plan for backup functionality.	included provisions for the loss of any such entity's control functionality in its Operating Plan for backup functionality.
R4/R5: The SDT R4 VSL R4	The Code de had ce this de face en with Code in FR	modified the VSL for Repeated that it is a backup control inter facility (provided rough its own edicated backup cility or at another entity's control center the certified Reliability pordinator operators) accordance with equirement R4 but it by provides does not	The Reliability Coordinator has demonstrated that it has a backup control center facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators) in accordance with rRequirement R4 but it only provides	The Reliability Coordinator has demonstrated that it has a backup control center facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators) in accordance with rRequirement R4 but it only provides	The Reliability Coordinator has not demonstrated that it has a backup control center facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators) in accordance with rRequirement R4.
	pro	ovide the nctionality required	provide the functionality required	provides the functionality required	

Organization	Question 5:	(Question 5 Comments:	
	for maintaining compliance with 90% one or more of the Requirements in the Reliability Standards applicable to the Reliability Coordinator that depend on the primary control center functionality and which have a Lower VRF. or the evidence of the demonstration is not dated	for maintaining compliance with 80% one or more of the Requirements in the Reliability Standards applicable to the Reliability Coordinator that depend on the primary control center functionality and which have a Medium VRF.	for maintaining compliance with 70% one or more of the Requirements in the Reliability Standards applicable to the Reliability Coordinator that depend on the primary control center functionality and which have a High VRF.	
R5 VSL				
R5	The Balancing Authority or applicable Transmission Operator has demonstrated that it has backup functionality (provided either through a backup control center facility or contracted services) in accordance with FRequirement R5 but it only includes does not include monitoring, control, logging, and alarming sufficient for maintaining compliance with	The Balancing Authority or applicable Transmission Operator has demonstrated that it has backup functionality (provided either through a backup control center facility or contracted services) in accordance with rRequirement R5 but it only includes does not include monitoring, control, logging, and alarming sufficient for maintaining compliance with	The Balancing Authority or applicable Transmission Operator has demonstrated that it has backup functionality (provided either through a backup control center facility or contracted services) in accordance with FRequirement R5 but it only includes does not include monitoring, control, logging, and alarming sufficient for maintaining compliance with	The Balancing Authority or applicable Transmission Operator has not demonstrated that it has backup functionality (provided either through a backup control center facility or contracted services) in accordance with FRequirement R5.

Organization	Question 5:		Qı	estion 5 Comments:		
	Require Reliabili applicat Balancii and Tra Operato that dep primary function have a	ements in the ity Standards Rel app ole to a app on the control center allity and which Rel Rel Rel Rel app on the ity Standards Rel app on the ity Standards Rel Rel Rel Rel App on the ity Standards Rel Rel Rel Rel Rel App on the ity Standards Rel	done or more of the quirements in the liability Standards plicable to a liability Authority of Transmission erator respectively to depend on the liability and which we a Medium VRF.	70%one or more of the Requirements in the Reliability Standards applicable to a Balancing Authority and Transmission Operator respectively that depend on the primary control center functionality and which have a High VRF		
R6: VSL for Re	equirement R6 was char	nged due to several comn	nents.			
R6	Authorit Transm Operato that it's in force for back function evidence issue, w and app was not calenda than two months	rator, Balancing ry, or applicable rission or, has evidence dated, current, Operating Plan raup rality, with re of its last vas reviewed oroved but it ratione in one rar year more elve calendar rand less than	e Reliability ordinator, Balancing hority, or applicable nsmission erator, has evidence t it's dated, current, orce Operating Plan backup ctionality, with dence of its last ue, was reviewed l approved but it s not done in more n two calendar oths or that it was lated more than	N/A The Reliability Coordinator, Balancing Authority, or applicable Transmission Operator, has evidence that it's dated, current, in force Operating Plan for backup functionality, with evidence of its last issue, was reviewed and approved but it was not done in two calendar years or more or that it was updated more than ninety calendar days after any	N/A The Reliability Coordinator, Balancing Authority, or Transmission Operator, does not have evidence that it's dated, current, in force Operating Plan for backup functionality was reviewed and approved.	

Organization	Question 5:	Question 5 Comments:
	2 di tri le tv el tv el el in de	o continuous hours, er it has failed to emonstrate that the ansition time period is set than or equal to o hours, er it was one in more than elve calendar enths or 3 3) test sults and lessons arned were not corporated occumented in lesequent revisions the Operating Plan reactionality.
WECC Reliability Coordinator Comment Working Group	Yes	essary part of the documentation required and not a burdensome requirement so no change has been made.
ComEd / Exelon	Yes	
Manitoba Hydro	Yes	
Entergy	Yes	

Consideration of Comments on 2nd Draft of EOP-008-1 — Backup Facilities (Project 2006-04)

Organization	Question 5:	Question 5 Comments:
Services, Inc		
Electric Reliability Council of Texas, Inc.	Yes	
Oncor Electric Delivery	Yes	
Santee Cooper	Yes	
ReliabilityFirst Corporation	Yes	
Bonneville Power Administration	Yes	
AEP	Yes	
Bureau of Reclamation	Yes	
Northeast Utilities	Yes	
Response: Tha	nk you for your re	esponse.

6. The SDT has provided an Implementation Plan with this posting. Do you agree with the implementation timeframe that shows all requirements going into effect on the same time/date? If not, please provide specific suggestions for improvement.

Summary Consideration:

The vast majority of the comments received were supportive of the Implementation Plan. There were only a very few comments that expressed concern about the ability to get backup capability fully functioning within 24 months of adoption of the standard. The SDT understands the importance of backup control capability to reliability and recognizes the balance between doing this rapidly and the practical realities of being able to accomplish it and the relative priority of other standards compliance activities. The SDT considered these questions and agrees with the majority of commenters that 24 months is the correct timeframe. Therefore, no changes have been made.

However, to provide clarity, the following requirements have been changed:

- **R1.5** A transition period between the loss of primary control center functionality and the time to fully implement the backup functionality that is less than or equal to plan and get backup functionality up and running that is less than two hours.
- **R5**. Each Balancing Authority and applicable Transmission Operator shall, during the time period when the primary control center functionality and the backup functionality are both available for use, have backup functionality (provided either through a backup control center facility or contracted services) that includes monitoring, control, logging, and alarming sufficient for maintaining compliance with all Reliability Standards applicable that depend on to a Balancing Authority and Transmission Operator's primary control center functionality respectively. To avoid requiring tertiary functionality, backup functionality is not required during:
- R5.1 Planned outages of the primary or backup functionality of two weeks or less
- R5.2 Unplanned outages of the primary or backup functionality

Organization	Question 6:	Question 6 Comments:
Puget Sound Energy	No	This depends on the interpretation of R.5. The statement of "during the time period when the primary control center and the back up functionality are both available for use" is vague. Does this refer to the time period when an entity is in the process of constructing a backup facility or is it referring to the transition time in R.1.5? If it is the time of R.1.5, this is a huge monetary and resource burden. Essentially it would require an entity to have a staffed fully redundant backup facility 24x7, or a contract with another entity with 24x7 staff properly trained to monitor, control, log and respond to alarms on another

Organization	Question 6:	Question 6 Comments:
		entities entire system. If this is the case, then 24 months may not be adequate.
Response: The SDT agrees with the majority of commenters that 24 months is the correct timeframe for this standard. However, R1.5 and R5 were clarified to avoid confusion as to what is required and R5.1 & R5.2 have been added for additional clarity.		
It is intended that a backup to the backup is clearly not required. For example, it is intended to ensure that while you were operating out of your backup during loss of the primary control center that the requirement should not be interpreted to require an additional backup.		
This taken in concert with Requirement 1.5 contemplates that the backup can be activated and fully operational within 2 hours. It is the SDT opinion that this standard does not require a full-time fully-staffed backup capability. It is believed that off-duty trained operators can be called out in a manner to arrive at the backup capability within 2 hours, and that the control system used by the backup capability could either be always hot or able to be remotely started during the period that operators are en route.		
R1.5 A transition period between the loss of primary control center functionality and the time to fully implement the backup <u>functionality that is less than or equal to plan and get backup functionality up and running that is less than two hours.</u>		
R5. Each Balancing Authority and applicable-Transmission Operator shall, during the time period when the primary control center functionality and the backup functionality are both available for use, have backup functionality (provided either through a backup control center facility or contracted services) that includes monitoring, control, logging, and alarming sufficient for maintaining compliance with all Reliability Standards applicable that depend on to a Balancing Authority and Transmission Operator's primary control center functionality respectively. To avoid requiring tertiary functionality, backup functionality is not required during:		
R5.1 Planned outages of the primary or backup functionality of two weeks or less.		
R5.2 Unplanned outages of the primary or backup functionality.		
Entergy System Planning & Operations (Generation & Marketing)	No	Consider adding to the implementation requirement that entities comply within the timeframe stated or if an entity believes it will take longer than the specified time to become compliant, allowing entities to apply for an extension to the timeframe stated if that entity can justify the need for an extension to its Regional Compliance Entity. Each entity desiring the extension shall submit a plan and obtain approval from its Regional Compliance Entity within 6 months of approval of this standard. The Regional Compliance entity will review the requests and approve on a case by case basis. Compliance would be required after the date approved by the Regional Compliance Entity.
Response: Procedures exist for an entity that has challenges complying with standards to work with the Regional Compliance Entity on mitigation plans. The SDT does not believe it would be appropriate to embed such concepts into standards.		
Progress	No	Effective Date — 24 months is not adequate time to address such a significant change in requirements from EOP-008-0.

Organization	Question 6:	Question 6 Comments:
Energy Carolinas, Inc.		The requirement is changing from a recovery plan to a hot-standby backup available within 2 hours. Additional time is needed to choose a backup methodology, budget accordingly, purchase/construct a backup site (or negotiate with another entity, though the feasibility of this is questionable), design backup voice and data communications, and implement — all per CIP requirements while upgrading existing primary equipment/facilities to meet CIP requirements with implementation schedules through 2010. This requires multi-million dollar actions that must be addressed with a methodologically sound approach to avoid rework and undue financial burden. PEC suggests an implementation period of 1) 36 months for Substantial Progress (i.e. groundbreaking) and 2) 48 months for full implementation.
Progress Energy-Florida	No	Effective Date — 24 months is not adequate time to address such a significant change in requirements from EOP-008-0. The requirement is changing from a recovery plan to a hot-standby backup available within 2 hours. Additional time is needed to choose a backup methodology, budget accordingly, purchase/construct a backup site (or negotiate with another entity, though the feasibility of this is questionable), design backup voice and data communications, and implement —all per CIP requirements while upgrading existing primary equipment/facilities to meet CIP requirements with implementation schedules through 2010. This requires multi-million dollar actions that must be addressed with a methodologically sound approach to avoid rework and undue financial burden. PEF suggests an implementation period of 1) 36 months for Substantial Progress (i.e. groundbreaking) and 2) 48 months for full implementation.
Response: The made.	SDT agrees wit	th the majority of commenters that 24 months is the correct timeframe for this standard. Therefore, no changes have been
NPCC	Yes	
Southern Company Transmission	Yes	
Xcel Energy	Yes	
Duke Energy	Yes	
Electric Reliability Council of	Yes	

Organization	Question 6:	Question 6 Comments:
Texas, Inc.		
MRO NERC Standards Review Subcommittee	Yes	
ITC	Yes	
Oncor Electric Delivery	Yes	
Western Area Power Administration	Yes	
ISO New England Inc	Yes	
Independent Electricity System Operator	Yes	
Pepco Holdings, Inc. - Affiliates	Yes	
Santee Cooper	Yes	
ReliabilityFirst Corporation	Yes	

Consideration of Comments on 2nd Draft of EOP-008-1 — Backup Facilities (Project 2006-04)

Organization	Question 6:	Question 6 Comments:
Bonneville Power Administration	Yes	
Brazos Electric Power Cooperative, Inc.	Yes	
Dynegy	Yes	
Hydro-Québec TransÉnergie (HQT)	Yes	
PJM Interconnectio n	Yes	
AEP	Yes	
Ameren	Yes	
FirstEnergy Corp.	Yes	
Bureau of Reclamation	Yes	
ISO/RTO Council	Yes	

Consideration of Comments on 2nd Draft of EOP-008-1 — Backup Facilities (Project 2006-04)

Organization	Question 6:	Question 6 Comments:	
Northeast Utilities	Yes		
Midwest ISO	Yes		
WECC Reliability Coordinator Comment Working Group	Yes		
San Diego Gas and Electric	Yes		
ComEd / Exelon	Yes		
Manitoba Hydro	Yes		
Response: That	Response: Thank you for your response.		

7. Are there any other issues that need to be addressed? Please be specific.

Summary Consideration:

There were a number of comments raised that presented the SDT with an opportunity to provide additional clarity to a number of items. Therefore, the following requirements have been changed due to industry comments to this question:

- R1.2 An <u>overview_summary description</u> of the elements required to support the backup functionality.
- **R1.5** A transition period between the loss of primary control center functionality and the time to fully implement the backup functionality that is less than or equal to plan and get backup functionality up and running that is less than two hours.
- R1.6 An Operating Process describing the actions to be taken during the transition period between the loss of primary control center functionality and the time to to fully implement the backup functionality elements identified in Requirement R1.2get backup functionality up and running. The Operating Process shall also include:
- **R1.6.2**. Actions to manage the risk to the BES during the transition from primary to backup functionality as well as during outages of the primary or backup functionality.
- **R3.** Each <u>Reliability Coordinator</u>, <u>Balancing Authority</u>, <u>and applicable</u> Transmission Operator directing BES operations through other entities shall <u>ensure that backup functionality exists for the BES operations performed through those other entities. <u>include</u> <u>provisions for the loss of such entity's control functionality in its Operating Plan for backup functionality</u>.</u>
- R4. Each Reliability Coordinator shall, during the time period when the primary control center functionality and the backup functionality are both available for use, have a backup control center facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators) that provides the functionality required for maintaining compliance with all Reliability Standards applicable to the Reliability Coordinator that depend on primary control center functionality. To avoid requiring a tertiary facility, a backup facility is not required during.
- R4.1 Planned outages of the primary or backup facilities of two weeks or less
- R4.2 Unplanned outages of the primary or backup facilities
- **R5.** Each Balancing Authority and applicable Transmission Operator shall, during the time period when the primary control center functionality and the backup functionality are both available for use, have backup functionality (provided either through a backup control center facility or contracted services) that includes monitoring, control, logging, and alarming sufficient for maintaining compliance with all Reliability Standards applicable that depend on to a Balancing Authority and Transmission Operator's primary control center functionality respectively. To avoid requiring tertiary functionality, backup functionality is not required during:

R5.1 Planned outages of the primary or backup functionality of two weeks or less

- R5.2 Unplanned outages of the primary or backup functionality
- **R6.1** The An update and approval of the Operating Plan for backup functionality shall take place within sixty calendar days of any changes to the backup location, in capabilities described in Requirement R1, or contact information.
- **R7.** Each Reliability Coordinator, Balancing Authority, and applicable Transmission Operator shall have <u>primary and</u> backup capabilityies that does not depend on the <u>primary control center</u> each other or any single data center for any functionality required to maintain compliance with Reliability Standards that depend on the <u>primary control functionality</u>.
- **M1.** Each Reliability Coordinator, Balancing Authority, and applicable. Transmission Operator shall have a dated, current, in force Operating Plan for backup functionality in accordance with Requirement R1, in electronic or hardcopy format., with evidence of its last issue, describing the manner in which it ensures reliable operations of the BES in the event that its primary control center becomes inoperable.

Organization	Question 7:	Question 7 Comments:
Consumers Energy Company	Yes	This standard is overbearing and requires far more documentation than is needed to maintain reliability and accomplish the goals of adequate back-up facilities. For example, could the annual test be considered the review of the Operating Plan? Is it sufficient documentation that proof a test has been conducted and was successful in operating the system?
Response: The SDT is following the FERC directives as outlined in Orders 693 and 693A. The SDT feels that testing of the Operating Plan is required and that R8 clearly describes the testing needed to satisfy the standard.		
Puget Sound Energy	Yes	R.5 needs further clarification as stated in my response to the previous question.R.1.6.2. The definition of "actions to manage risk" is vague. This again points to R.5. If an entity has notified affected entities that it is in the process of transitioning to the back up facility and made notifications to implement the plan, aren't these actions to manage risk to the BES? I am not sure what the SDT had in mind with this requirement.

Response: The intent of the drafting team was to provide for the operation of either the primary or backup system individually during periods of emergency, transition, or maintenance without the need for a tertiary backup capability. The SDT has modified R5 to provide clarity on this matter.

R5. Each Balancing Authority and applicable Transmission Operator shall, during the time period when the primary control center functionality and the backup functionality are both available for use, have backup functionality (provided either through a backup control center facility or contracted services) that includes monitoring, control, logging, and alarming sufficient for maintaining compliance with all Reliability Standards applicable that depend on to a Balancing Authority and Transmission Operator's primary control center functionality respectively. To avoid requiring tertiary functionality, backup functionality is not required during:

Organization	Question 7:	Question 7 Comments:
R5.1 Planned or	utages of the prim	nary or backup functionality of two weeks or less
R5.2 Unplanned	doutages of the p	rimary or backup functionality
San Diego Gas and Electric	Yes	R5 - We would like to get some clarification on Requirement 5, particularly with respect to the opening sentence that refers to the time period when primary and backup control center functionality is available for use, then the requirement is to have backup functionality. If both primary and backup control centers are available for use, doesn't that automatically mean that backup functionality is available? Please clarify the meaning of this
		Requirement. R6.1 - We would like further clarification to the term "changes to the backup capabilities" that would require an update and approval of the Operating Plan. What are examples of changes to backup capabilities that would trigger an update of the Operating Plan? What are examples of changes to backup capabilities that are considered more "minor" that wouldn't require an update?
		drafting team was to provide for the operation of either the primary or backup system individually during periods of emergency, it the need for a tertiary backup capability. The SDT has modified Requirement R5 to provide clarity on this matter.
functionality are monitoring, cont	both available fo rol, logging, and	d applicable-Transmission Operator shall, during the time period when the primary control center functionality and the backup ruse, have backup functionality (provided either through a backup control center facility or contracted services) that includes alarming sufficient for maintaining compliance with all Reliability Standards applicable that depend on to a Balancing Authority mary control center functionality respectively. To avoid requiring tertiary functionality, backup functionality is not required
R5.1 Planned or	utages of the prim	nary or backup functionality of two weeks or less
R5.2 Unplanned	doutages of the p	rimary or backup functionality
R6.1: The SDT	clarified Requiren	nent R6.1.
R6.1 The An upo	date and approval abilities described	I of the Operating Plan for backup functionality shall take place within sixty calendar days of any changes to the backup in Requirement R1, or contact information.
ComEd / Exelon	Yes	R5 addresses maintaining the backup functionality that includes monitoring, control, logging, and alarming. M5 requires dated evidence (documentation) that you have demonstrated the backup functionality for the requirements in R5. However R8.2 addresses the testing of the backup functionality through actual implementation or test operation for a minimum of two consecutive hours. The requirements of R5 should be incorporated into R8.2 and therefore R5 eliminated as a standalone

Organization	Question 7:	Question 7 Comments:
		requirement. As it is currently written in draft 2, R5 & R8.2 are redundant and M5 & M8 are redundant in terms of practical application and verification of compliance.
		el a need to integrate Requirement R5 with Requirement R8 because they are not redundant. Requirement R5 deals with als with testing that functionality. They are two separate requirements.
Entergy System	Yes	The use of the term "control center" needs definition and align with that which will be used in the CIP critical asset identification methodology. The terms "primary" and "back up" control center or functionality should also be defined.
Planning & Operations		R1.1 the use of the term "prolonged" is subjective and should be revised to identify a definite period of time.
(Generation & Marketing)		R1.2.4 the actual power supply requirements should go here. BAL-005 R15 regarding back up power supplies should be revised and transplanted to this standard. consider consulting with the BACSDT on moving and enhancing this requirement.
		R1.3 is vague - "Keeping consistent" may be redundant to the requirements already listed unless it is intended to mean something else. if so, be specific.
		R4 & 5 both contain the phrase "during the time when the primary control center functionality and the backup functionality are both available for use". what is the intent of this phrase. Does this mean that the remainder of the requirement does not apply if both are not available for use? Recommend removing this phrase from both requirements.
		R6.1 should apply only to changes that are related to Reliability Standards or other items specifically identified. Otherwise even very minor changes (such as corporate related features) would be subject to this requirement even though there is no reliability impact.
		R8. the term "annual" needs better definition in this standard or within the NREC Standards. Does annual mean every calendar year, or every 12 months?
		R8.3 should simply state "Test results shall be documented.". Lessons learned, etc are related to corporate and industry practices and are not part of reliability standards, otherwise there would need to be an entire standard for a corrective action process.
		R9 is not needed. The way this standard is written, there is NO allowable outage time permitted on either the primary or back up control center. As soon as one is unavailable the entity is immediately non-compliant. For an entity to continue to operate in non-compliance would be a significant exposure to penalties. What this standard really needs are requirements that describe the allowable outage time on the primary and back up control centers. The reality is that at some point every entity will need to disable one of their facilities so that maintenance can be conducted (whether it be planned or unplanned). Consider adding provisions for short term planned and unplanned outages on either the primary or back up control center.

Organization	Question 7:	Question 7 Comments:
		This would be similar to outage "time clocks" in the nuclear world. This would allow entities to make repairs and upgrades on the primary and back up control centers without automatically being non-compliant when conducting such activities.

Response: The primary control center is the facility normally used and the backup control center is used when the primary center becomes inoperable. The SDT does not see a contradiction between EOP-008-1 and the CIP standards. No change made.

"Prolonged" is the term used by FERC in Order 693 and was defined there as "generally defined by the time it takes to restore the primary control center".

R1.2.4: BAL-005, R15 requires adequate and reliable power supplies to ensure uninterrupted operation of AGC. EOP-008 requires the backup operating plan to describe the power supply used to support the backup facility. The SDT does not feel a need to make changes to either standard.

R1.3: The intent of this sub-requirement is to keep the functionality used at the backup facility up to date with that used at the primary center.

R4 & 5: The intent of the drafting team was to provide for the operation of either the primary or backup system individually during periods of emergency, transition, or maintenance without the need for a tertiary backup capability. The SDT has modified Requirements R4 & R5 to provide clarity on this matter.

R4. Each Reliability Coordinator shall, during the time period when the primary control center functionality and the backup functionality are both available for use, have a backup control center facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators) that provides the functionality required for maintaining compliance with all Reliability Standards applicable to the Reliability Coordinator that depend on primary control center functionality. To avoid requiring a tertiary facility, a backup facility is not required during.

R4.1 Planned outages of the primary or backup facilities of two weeks or less

R4.2 Unplanned outages of the primary or backup facilities

R5. Each Balancing Authority and applicable Transmission Operator shall, during the time period when the primary control center functionality and the backup functionality are both available for use, have backup functionality (provided either through a backup control center facility or contracted services) that includes monitoring, control, logging, and alarming sufficient for maintaining compliance with all Reliability Standards applicable that depend on to a Balancing Authority and Transmission Operator's primary control center functionality respectively. To avoid requiring tertiary functionality, backup functionality is not required during:

R5.1 Planned outages of the primary or backup functionality of two weeks or less

R5.2 Unplanned outages of the primary or backup functionality.

R6.1: The SDT has modified Requirement R6.1 for clarity.

R6.1 The An update and approval of the Operating Plan for backup functionality shall take place within sixty calendar days of any changes to the backup location, in capabilities described in Requirement R1, or contact information.

Organization	Question 7:	Question 7 Comments:
R8: As the stand	lard is written the	annual test could be performed at any point during that year, not just within twelve months of the previous year's test
R8.3: The requir	ement has been	deleted.
R9: The SDT ha	as modified the w	vording to Requirements R4 & R5 to address this concern. See above.
Sierra Pacific Power Co. (dba NV Energy)	Yes	In R1.3, a requirement is made to have a process for keeping the backup functionality "consistent" with the primary control center. The word "consistent" will be subject to much interpretation. Backup Control Centers inherently carry somewhat less functionality than the primary centers even though they may satisfy all of the compliance requirements with the Reliability Standards.
		In R2, we suggest a change in the language to say "shall have its Operating Plan for backup functionality available to its System Operators at its primary control center?" This would allow for the use of electronic document management, as many entities have moved away from the tedious chore of maintaining hard-copy procedures in their control centers and should not be found non-compliant for using a progressive electronic document management solution.
		R3: It is unclear what is meant by directing BES operations through other entities, and what would constitute including "provisions for loss of those entities' control functionality". If for example, we direct BES operations through issuing switching instructions to a TO entity in our balancing area, do we become responsible for the loss of that TO's primary control center under this language? If this is the implication, we believe this Requirement is inappropriate.
		R4/R5: Why is there a conditional statement present in these Requirements ("shall, during the time period when the primary control center functionality and the backup functionality are both available for use,)? This literally states that this Requirement is inactive upon loss of the primary control center. After reading it several times, we continue to be unclear about the intent of that conditional statement.
		R6: We don't believe it is reasonable to require entities to update, approve, and keep necessary documentation for minor changes to backup facility plans for items such as "contact information". Phone numbers, fax, cell numbers, etc are all relatively dynamic, and should lie below the threshold of providing full plan updates. Perhaps this update/approval is needed for material changes to the Plan, Process or notification protocols, but minor, insignificant edits should not require this degree of documentation.
		R7: This specifies that the backup capability shall not depend on the "primary control center" for functionality to maintain compliance with the Standards. This is where much interpretation may arise. Most backup control facilities will have a fully redundant EMS computer, but it may depend on SCADA information that passes through the building which houses the primary control center. Such communications are outside the primary control center, yet in the same facility. Would this situation constitute a "dependency upon the primary control center, and if so, is the intent of this Requirement to expand beyond the confines of the "Primary Control Center" itself?

Organization	Question 7:	Question 7 Comments:
		R8.3: We suggest that it is unnecessary to document and incorporate into subsequent Plan revisions items that are characterized as "lessons learned". We should always be learning from test results and improving plans and processes, but as a compliance requirement, we believe this is onerous. Suggest replacement of the term "lessons learned" with "deficiencies", such that it reads "Test results shall be documented and deficiencies noted and incorporated in subsequent revisions of the Operating Plan for backup functionality".

Response: R1.3: intent of this sub-requirement is to keep the functionality used at the backup facility up to date with that used at the primary center.

- R2: Measure M2 specifically allows for an electronic copy. No change made.
- R3: The SDT has modified the wording of Requirement R3 to make it clear that the responsible entity must ensure that all entities with BES switching capability have backup functionality.
- R3. Each Reliability Coordinator, Balancing Authority, and applicable Transmission Operator directing BES operations through other entities shall ensure that backup functionality exists for the BES operations performed through those other entities. include provisions for the loss of such entity's control functionality in its Operating Plan for backup functionality.
- R4 & 5: The intent of the drafting team was to provide for the operation of either the primary or backup system individually during periods of emergency, transition, or maintenance without the need for a tertiary backup capability. The SDT has modified Requirements R4 & R5 to provide clarity on this matter.
- R4. Each Reliability Coordinator shall, during the time period when the primary control center functionality and the backup functionality are both available for use, have a backup control center facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators) that provides the functionality required for maintaining compliance with all Reliability Standards applicable to the Reliability Coordinator that depend on primary control center functionality. To avoid requiring a tertiary facility, a backup facility is not required during.:
- R4.1 Planned outages of the primary or backup facilities of two weeks or less.
- R4.2 Unplanned outages of the primary or backup facilities.
- R5. Each Balancing Authority and applicable Transmission Operator shall, during the time period when the primary control center functionality and the backup functionality are both available for use, have backup functionality (provided either through a backup control center facility or contracted services) that includes monitoring, control, logging, and alarming sufficient for maintaining compliance with all Reliability Standards applicable that depend on to a Balancing Authority and Transmission Operator's primary control center functionality respectively. To avoid requiring tertiary functionality, backup functionality is not required during:
- R5.1 Planned outages of the primary or backup functionality of two weeks or less
- R5.2 Unplanned outages of the primary or backup functionality

48 hours.

Organization	Question 7:	Question 7 Comments:	
R6: The SDT ag	grees and contac	t information has been deleted.	
	R6.1 The An update and approval of the Operating Plan for backup functionality shall take place within sixty calendar days of any changes to the backup location, in capabilities described in Requirement R1, or contact information.		
R7: The intent is of the BES.	s that if the prima	ary control center is destroyed, the backup facility will be capable of collecting the data needed to support the reliable operation	
R8.3: The requir	ement has been	deleted.	
Progress Energy Carolinas, Inc.	Yes	R5 — Compliance with all Reliability Standards should not be required immediately upon transition to the backup. The focus at immediate transition must be solely upon standards directly-related to essential BES reliability. This is evidenced within this standard by choosing an annual test only lasting 2 hours, which will only verify the basic functionalities of SCADA, alarming, voice & data communications, AGC, state estimator and contingency analysis. The requirement to immediately meet all standards causes undue time/finances to be spent on hot-backup technology for non-essential functions, and thus decreases attention to essential functions. Non-essential standard requirements such as inadvertent/interchange checkouts, TTC/ATC postings, transaction tagging, etc should be identified, and a longer transition requirement specified, such as 48 hours.	
		R7 — How does this apply to a situation where primary EMS or voice communication equipment resides in a facility geographically separate from the primary center's control room? Does the phrase "does not depend on the primary control center" refers to the control room facility only, or does it also apply to the facility housing EMS/voice communication equipment? What distinguishes equipment for compliance to this standard versus CIP-009-1?	
Progress Energy-Florida	Yes	R5 — Compliance with all Reliability Standards should not be required immediately upon transition to the backup. The focus at immediate transition must be solely upon standards directly-related to essential BES reliability. This is evidenced within this standard by choosing an annual test only lasting 2 hours, which will only verify the basic functionalities of SCADA, alarming, voice & data communications, AGC, state estimator and contingency analysis. The requirement to immediately	

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meet all standards causes undue time/finances to be spent on hot-backup technology for non-essential functions, and thus decreases attention to essential functions. Non-essential standard requirements such as inadvertent/interchange checkouts, TTC/ATC postings, transaction tagging, etc should be identified, and a longer transition requirement specified, such as

R7 — How does this apply to a situation where primary EMS or voice communication equipment resides in a facility geographically separate from the primary center's control room? Does the phrase "does not depend on the primary control

center" refer to the control room facility only, or does it also apply to the facility housing EMS/voice communication

Organization	Question 7:	Question 7 Comments:
		equipment? What distinguishes equipment for compliance to this standard versus CIP-009-1?

Response:

R5: Requirement R1.2 requires the plan to provide a summary description of the elements necessary to support the backup functionality. Requirement R1.6 requires the plan to provide a description of the actions to be taken during the transition period. The SDT did not intend to require a manned hot backup facility for BA's or TOP's.

R7: The SDT has re-written the requirement to address these concerns and does not believe that presents a contradiction with CIP-009-1.

R7. Each Reliability Coordinator, Balancing Authority, and applicable Transmission Operator shall have primary and backup capabilityies that does not depend on the primary control center each other or any single data center for any functionality required to maintain compliance with Reliability Standards that depend on the primary control functionality.

NPC	С	Yes	R3: It stipulates that "Each applicable Transmission Operator directing BES operations through other entities shall include provisions for the loss of such entity's control functionality in its Operating Plan for backup functionality." We do not agree that this requirement applies to the TOP only. There might well be situations that an RC or a BA directs it operations through other entities as well. We suggest the requirement to also include the RC and the BA by rewording to: "Each Reliability Coordinator, Balancing Authority and applicable Transmission Operator directing BES operations?"
			R4: We are not sure why the condition: "during the time period when the primary control center functionality and the backup functionality are both available for use" is included since having both control center functionalities available for use suffice to meet the condition for: "?have a backup control center facility (provided through its own dedicated backup facility or at another entity's control center) that provides the functionality required for maintaining compliance with all Reliability Standards applicable to the Reliability Coordinator." If the intent of this requirement is to ensure the functionality works, then the requirements should simply stipulate such a demonstration. In fact, the intent of R8 is to ensure that the backup capability is functional when called upon. We therefore hold the view that R4 (and R5) is not needed, be eliminated, and include the required clarifications in the Measures Section.
			R5: Please see our comments on R4. We do not think R5 is needed. If retained, the wording should be changed to require a demonstration of the backup capability's functionality.
			R7: We do not see the need for this to be a stand alone requirement. This requirement can be included as one of the sub-requirement in R1, or even combined with R1.3.

Response: R3: The SDT agrees that this requirement should be extended.

R3. Each Reliability Coordinator, Balancing Authority, and applicable. Transmission Operator directing BES operations through other entities shall ensure that

Organization	Question 7:	Question 7 Comments:		
backup functiona		BES operations performed through those other entities. include provisions for the loss of such entity's control functionality in ctionality.		
		team was to provide for the operation of either the primary or backup system individually during periods of emergency, the need for a tertiary backup capability. The SDT has modified Requirements R4 & R5 to provide clarity on this matter.		
use, have a bac Coordinator oper	kup control center rators) that provide	shall, during the time period when the primary control center functionality and the backup functionality are both available for er facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability des the functionality required for maintaining compliance with all Reliability Standards applicable to the Reliability Coordinator enter functionality. To avoid requiring a tertiary facility, a backup facility is not required during.		
R4.1 Planned ou	tages of the prin	nary or backup facilities of two weeks or less		
R4.2 Unplanned	outages of the p	rimary or backup facilities		
functionality are monitoring, contr	R5. Each Balancing Authority and applicable Transmission Operator shall, during the time period when the primary control center functionality and the backup functionality are both available for use, have backup functionality (provided either through a backup control center facility or contracted services) that includes monitoring, control, logging, and alarming sufficient for maintaining compliance with all Reliability Standards applicable that depend on to a Balancing Authority and Transmission Operator's primary control center functionality respectively. To avoid requiring tertiary functionality, backup functionality is not required during:			
R5.1 Planned ou	tages of the prim	nary or backup functionality of two weeks or less		
R5.2 Unplanned	outages of the p	rimary or backup functionality		
		a standalone requirement as Requirement R1 covers the plan and Requirement R7 the capabilities. However, Requirement additional clarity as to what was the intent of the SDT.		
R7. Each Reliability Coordinator, Balancing Authority, and applicable Transmission Operator shall have primary and backup capabilityies that does not depend on the primary control center each other or any single data center for any functionality required to maintain compliance with Reliability Standards that depend on the primary control functionality.				
Southern Company	Yes	**In reference to the Applicability Section 4.1, the following recommendation on the format is suggested:4.1.2 Transmission Operators that operate Facilities defined below:		
Transmission		4.1.2.1 Facilities operated at 200 kV or above		
		4.1.2.2 Non-radial Facilities operated at 100 kV 4.1.2.3 Facilities demonstrated by the Regional Entity to be critical to the reliability of the Bulk Electric System (BES)In addition to the format change noted above, there could be a misinterpretation with use of the term 'critical' in this standard considering its significance to CIP-002? We suggest you consider the terms		

Organization	Question 7:	Question 7 Comments:
		crucial, important, etc. as an alternative word for critical.
		**With respect to R1.1, an Operating Plan should include the location for providing backup functionality. There is a concern with how much specificity is required. If the Operating Plan becomes available to the public, the inclusion of the detailed location of a backup control center may unnecessarily create exposure to CEII information.
		**Requirement R1.1 does not clarify the meaning of "prolonged period of time." It is not clear if this means eight days or eight months for example. Should there be some correlation to Requirement R9, which provides that six months is the threshold for notifying the Regional Entity about restoration efforts?
		**The standard should consistently group sub-requirements under each of the relevant components? Operating Plan, Operating Procedure, and Operating Process. As written, the arrangement is too scattered. Note the order of the requirements and how they are grouped: Requirements R1.1, R1.2, R1.5, and R1.7 correlate to the Operating Plan; Requirements R1.3 and R1.6 correlate to the Operating Process; and Requirement R1.4 correlates to Operating Procedures. The following recommendations ensure more consistency:(a) Insert R1.7 after R1.2 since R1.7 addresses identification of roles for the Operating Plan. It should not be the last item.
		**R1.5 should be put under R1.6 as a sub-requirement. Also reword the requirement to say The transition period between the loss of primary control center functionality and the time to fully implement the backup plan and get backup functionality up and running must not exceed two hours.
		**Under R3, it is unclear as to what the requirement is stating. Are you saying that a registered entity that is relying entirely on other entities to perform the TOP function is also responsible for making sure their Operating Plan provides provisions for the loss of each of the other entities' control functionality? Are there such "Pseudo TOPs" out there that this describes? Clarification would be good for Industry.

Response: Based on your comment and many others, the SDT has decided to remove all qualifying language from 4.1.2 and list only "Transmission Operator." We believe, and in addition are convinced by comments received, that the NERC "Statement of Compliance Registry Criteria (Revision 5.0)" and Section 501 (specifically Section 501 1.2.3) of the NERC Rules of Procedure satisfactorily addresses which entities should be registered as a TOP, and therefore, subject to the applicable provisions of this standard. The standards drafting process is not the appropriate venue for addressing inconsistency issues regarding the REs. This should be addressed directly with the REs, or if necessary, with NERC or FERC.

4.1.2 Transmission Operator-operating Facilities at 200 kV or above, or non-radial Facilities above 100 KV, or Facilities demonstrated by the Regional Entity to be critical to the reliability of the Bulk Electric System (BES).

R1.1: a.: The SDT does not consider Operating Plans to be public material.

Organization	Question 7:	Question 7 Comments:
Organization	Question 1.	Question / Comments.

b.: "Prolonged" is the term used by FERC in Order 693 and was defined there as "generally defined by the time it takes to restore the primary control center"

The SDT does not plan to reorganize the standard format as it would not add any clarity at this time.

R1.5 The SDT has re-worded R1.5 for clarity.

R1.5 A transition period between the loss of primary control center functionality and the time to fully implement the backup <u>functionality that is less than or equal to plan and get backup functionality up and running that is less than two hours.</u>

R3 has been re-written to provide clarity surrounding the SDT's intent.

R3. Each Reliability Coordinator, Balancing Authority, and applicable Transmission Operator directing BES operations through other entities shall ensure that backup functionality exists for the BES operations performed through those other entities. include provisions for the loss of such entity's control functionality in its Operating Plan for backup functionality.

Xcel Energy	Yes	R1.5 Please clarify what you mean by "fully implement" and "get backup functionality up and running". As written, this requirement is too vague. Related to R1.5, please modify M1 to include clarifying language such as "functionality required for maintaining compliance".R1.2.1 Please clarify what is meant by "visualization capabilities". This statement is too vague and leaves too much room for interpretation.
		R1.3 Please clarify what is meant by "consistent". What processes need to be covered? This requirement is too vague and general, which leaves too much room for interpretation.R1.6 Please clarify/outline what minimum actions are required during the transition period.
		R1.6.2 To be more clear, we recommend changing "risk" to "impact".
		R5 As drafted, this requirement implies that both the primary and backup control centers have to be in operation at the same time. This is not practical, as only one control center can communicate with the RTUs. This requirement should be reworded.
		R6.1 Strike "contact information". This is not necessary to include in the requirement.
		R8.2 Testing for a minimum of 2 continuous hours is unnecessary and problematic b/c we would lose accounting data which affects our CPS reporting data. A minimum test of 30 minutes is reasonable and sufficient. Please either modify to 30 minutes or provide a factual basis for the 2 hours.

Response: R1.5: The intent is to define the transition period as the time from the loss of the primary control center to the time the operator at the backup location can perform monitoring and control. Measure M1 was re-written to provide greater clarity.

R1.5 A transition period between the loss of primary control center functionality and the time to fully implement the backup functionality that is less than or equal

Organization Question 7: Question 7 Comments:

to plan and get backup functionality up and running that is less than two hours.

- M1. Each Reliability Coordinator, Balancing Authority, and applicable Transmission Operator shall have a dated, current, in force Operating Plan for backup functionality in accordance with Requirement R1, in electronic or hardcopy format., with evidence of its last issue, describing the manner in which it ensures reliable operations of the BES in the event that its primary control center becomes inoperable.
- R1.2. 1: All facilities needed to display required operational information are considered visualization capabilities.
- R1.3: The intent of this sub-requirement is to keep the functionality used at the backup facility up to date with that used at the primary center.
- R1.6 The SDT has re-written this requirement to provide greater clarity.
- R1.6 An Operating Process describing the actions to be taken during the transition period between the loss of primary control center functionality and the time to to fully implement the backup functionality elements identified in Requirement R1.2 get backup functionality up and running. The Operating Process shall also include:
- R1.6.2: The SDT believes that managing risk is a broader term and more appropriate for this requirement.
- R4/5: The intent of the drafting team was to provide for the operation of either the primary or backup system individually during periods of emergency, transition, or maintenance without the need for a tertiary backup capability. The SDT has modified Requirements R4 & R5 to provide clarity on this matter.
- R4. Each Reliability Coordinator shall, during the time period when the primary control center functionality and the backup functionality are both available for use, have a backup control center facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators) that provides the functionality required for maintaining compliance with all Reliability Standards applicable to the Reliability Coordinator that depend on primary control center functionality. To avoid requiring a tertiary facility, a backup facility is not required during.:
- R4.1 Planned outages of the primary or backup facilities of two weeks or less
- R4.2 Unplanned outages of the primary or backup facilities
- R5. Each Balancing Authority and applicable-Transmission Operator shall, during the time period when the primary control center functionality and the backup functionality are both available for use, have backup functionality (provided either through a backup control center facility or contracted services) that includes monitoring, control, logging, and alarming sufficient for maintaining compliance with all Reliability Standards applicable that depend on to a Balancing Authority and Transmission Operator's primary control center functionality respectively. To avoid requiring tertiary functionality, backup functionality is not required during:
- R5.1 Planned outages of the primary or backup functionality of two weeks or less
- R5.2 Unplanned outages of the primary or backup functionality

Organization	Question 7:	Question 7 Comments:
R6.1: The SDT	clarified Requiren	nent R6.1.
		of the Operating Plan for backup functionality shall take place within sixty calendar days of any changes to the backup in Requirement R1, or contact information.
R8.2: The SDT	wanted the test t	o run across an hour boundary to ferret out exactly these types of problems which need to be fixed in order to be compliant.
Entergy	Yes	The terminology in R1.1 "for a prolonged period of time" is too vague. Please be more specific.
Services, Inc		The TOP situation indicated in R3 is unclear. What is the arrangement of a TOP directing BES operations through other entities? Is it envisioned that the TOP might be using, say, the RCs control center to run the TOP's BES? Please change the language so the applicability of this requirement is obvious.
		The rewording of R4 and R5 is confusing. Instead of trying to include all the ideas into one sentence, it would be better and more clear to include a couple of separate sentences.
		For instance, we suggest for R4, and similar wording for R5:"
		R4. Each Reliability Coordinator shall have a backup control center facility that provides the functionality required for maintaining compliance with all Reliability Standards applicable to the Reliability Coordinator. This functionality may be provided through its own dedicated backup facility or at another entity's control center. If the loss of the primary or backup capability has already been experienced, a second backup facility is not immediately necessary, i.e., double redundancy is not necessary."

Response: "Prolonged" is the term used by FERC in Order 693 and was defined there as "generally defined by the time it takes to restore the primary control center"

R3 has been re-written to provide clarity surrounding the SDT's intent.

R3. Each Reliability Coordinator, Balancing Authority, and applicable Transmission Operator directing BES operations through other entities shall ensure that backup functionality exists for the BES operations performed through those other entities. include provisions for the loss of such entity's control functionality in its Operating Plan for backup functionality.

R4 & 5: The intent of the drafting team was to provide for the operation of either the primary or backup system individually during periods of emergency, transition, or maintenance without the need for a tertiary backup capability. The SDT has modified Requirements R4 & R5 to provide clarity on this matter.

R4. Each Reliability Coordinator shall, during the time period when the primary control center functionality and the backup functionality are both available for use, have a backup control center facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators) that provides the functionality required for maintaining compliance with all Reliability Standards applicable to the Reliability Coordinator

Organization	Question 7:	Question 7 Comments:		
that depend on p	rimary control ce	enter functionality. To avoid requiring a tertiary facility, a backup facility is not required during-:		
R4.1 Planned ou	Planned outages of the primary or backup facilities of two weeks or less.			
R4.2 Unplanned	outages of the p	rimary or backup facilities.		
functionality are I monitoring, contr	5. Each Balancing Authority and applicable Transmission Operator shall, during the time period when the primary control center functionality and the backup netionality are both available for use, have backup functionality (provided either through a backup control center facility or contracted services) that includes control, logging, and alarming sufficient for maintaining compliance with all Reliability Standards applicable that depend on to a Balancing Authority and Transmission Operator's primary control center functionality respectively. To avoid requiring tertiary functionality, backup functionality is not required uring:			
R5.1 Planned ou	tages of the prim	nary or backup functionality of two weeks or less.		
R5.2 Unplanned	outages of the p	rimary or backup functionality.		
Duke Energy	Yes	Detailed edits - see revisions in CAPS below:		
		R1 - Each Reliability Coordinator, Balancing Authority, and applicable Transmission Operator shall have an Operating Plan describing the manner in which it ensures reliable operations of the BES in the event that its primary control center FUNCTIONALITY becomes inoperable. This Operating Plan for backup functionality shall include the following at a minimum:		
		R1.1 - The location and method of implementation for providing backup functionality for a prolonged period of time, AS DEFINED BY THE OPERATING PLAN.		
		R1.2.5 - Physical and cyber security. SDT SHOULD DELETE THIS REQUIREMENT SINCE IT IS COVERED IN THE CIP STANDARDS REQUIREMENTS.		
		R1.3 - An Operating Process for keeping the backup functionality consistent with the primary control center FUNCTIONALITY.		
		R3 - Question : What is an entity? More importantly, what is NOT an entity?		
		R4 and R5 - COMBINE THESE TWO REQUIREMENTS INTO ONE AS FOLLOWS: "Each Reliability Coordinator, Balancing Authority and applicable Transmission Operator shall, during the time period when the primary control center functionality and the backup functionality are both available for use, have backup functionality (such as monitoring, control, logging and alarming) needed to maintain compliance with all applicable Reliability Standards".		

Organization	Question 7:	Question 7 Comments:
		R6.1 - The update and approval of the Operating Plan for backup functionality shall take place within sixty calendar days of any changes to the backup FUNCTIONALITY AS DEFINED IN R1.2.
		R7 - Each Reliability Coordinator, Balancing Authority, and applicable Transmission Operator shall have backup FUNCTIONALITY that does not depend on the primary control center for any functionality required to maintain compliance with Reliability Standards.
		R9 - Each Reliability Coordinator, Balancing Authority, and applicable Transmission Operator that has experienced a loss of its primary or backup FUNCTIONALITY and that anticipates that the loss of primary or backup FUNCTIONALITY will last for more than six calendar months, shall provide a plan to its Regional Entity within six calendar months of the date when the functionality is lost, showing how it will re-establish backup FUNCTIONALITY.
		M1 - Each Reliability Coordinator, Balancing Authority, and applicable Transmission Operator shall have a dated, current, in force Operating Plan for backup functionality in accordance with Requirement R1, in electronic or hardcopy format, with evidence of its last issue, describing the manner in which it ensures reliable operations of the BES in the event that its primary control center FUNCTIONALITY becomes inoperable.
		M4/M5 - Language needs to match exclusions included in R4/R5. Same clean up as noted in R4/R5 comments aboveM7 - See comment on R7 aboveM9 - See comment on R9 above

Response: R1 & R1.3: The intent of the standard is to have backup capability for loss of the PCC including all facilities and functionality. Therefore, the SDT sees no need for a wording change.

- R1.1: The proposed wording is redundant. Therefore, the SDT feels there is no need to change the wording.
- R1.2.5: The SDT feels this should be part of the Operating Plan even if reference is made to another document.
- R3: An "entity" is the term used in the NERC functional model.
- R4 & 5: Because the backup requirement is different for RC and BA/TOP it is necessary to have two requirements that address the differences.
- R6.1: The SDT has made a change to provide clarity.
- **R6.1** The An update and approval of the Operating Plan for backup functionality shall take place within sixty calendar days of any changes to the backup location, in capabilities described in Requirement R1, or contact information.
- R7: The proposed wording doesn't seem to change anything. Therefore, the SDT feels there is no need to change the wording.
- R9: The intent of the standard is to have backup capability for loss of the PCC including all facilities and functionality. Therefore, the SDT sees no need for a

Organization	Question 7:	Question 7 Comments:
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wording change.

M1: The SDT did not change Requirement R1 as suggested so there is no change to Measure M1 for this comment.

M4 & M5: It is unclear as to what "exclusions" are referred to so the SDT made no changes.

M7: Since no change is made to R7 from this comment, no change is necessary to Measure M7. The SDT believes that Requirement R7 is a standalone requirement as Requirement R1 covers the plan and Requirement R7 the capabilities. However, Requirement R7 has been re-written to provide additional clarity as to what was the intent of the SDT.

R7. Each Reliability Coordinator, Balancing Authority, and applicable. Transmission Operator shall have primary and backup capabilityies that does not depend on the primary control center each other or any single data center for any functionality required to maintain compliance with Reliability Standards that depend on the primary control functionality.

M9: Since no change is made to Requirement R9 as suggested, no change is necessary to Measure M9.

Electric Reliability Council of Texas, Inc.	Yes	R1.2: The word "overview" seems to allow a lot of room and the measure (M1) does, too. However, when it comes to audit time, how specific might the auditor think it needs to be?
		R3: While ERCOT is the registered Transmission Operator in the region, it does not have direct control over the control facilities of all transmission operators and Qualified Scheduling Entities in ERCOT. ERCOT's Protocols and Operating Guides which require those entities to have and maintain backup facilities. Compliance with those requirements is monitored by ERCOT and the Texas Regional Entity. If ERCOT's Operating Plan would be considered to be in compliance based on references to such Protocol and Operating Guide requirements, rather than detailed provisions for each of the other entities, then this requirement is acceptable. Otherwise, it should be revised to accommodate such a method of compliance.
		R4 and R5: Is this just a way to say that there is no requirement to have a backup to the backup facility in the event that the primary control center functionality is lost? It also seems to say that when both primary and backup are available, the RC, BA and TO have to also have a Backup Control Center Facility. This requirement needs some simplified wording to make its intent more clear. Maybe using more than one sentence would help.R7: Should be part of R1R8.3: add "as necessary" between "incorporated" and "in" R9: Why six months to provide something that should be in place all the time?

Response: R1.2: The SDT changed the wording to provide greater clarity.

R1.2 An overview summary description of the elements required to support the backup functionality.

Requirement R3 has been re-written to provide clarity surrounding the SDT's intent.

MRO NERC

Standards

Yes

Organization	Question 7:	Question 7 Comments:
backup functiona		Balancing Authority, and applicable Transmission Operator directing BES operations through other entities shall ensure that BES operations performed through those other entities. include provisions for the loss of such entity's control functionality in ctionality.
		team was to provide for the operation of either the primary or backup system individually during periods of emergency, the need for a tertiary backup capability. The SDT has modified Requirements R4 & R5 to provide clarity on this matter.
use, have a bac Coordinator oper	ckup control center rators) that provide	shall, during the time period when the primary control center functionality and the backup functionality are both available for er facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability des the functionality required for maintaining compliance with all Reliability Standards applicable to the Reliability Coordinator tenter functionality. To avoid requiring a tertiary facility, a backup facility is not required during.
R4.1 Planned οι	utages of the prim	nary or backup facilities of two weeks or less
R4.2 Unplanned	outages of the p	rimary or backup facilities
functionality are monitoring, conti	both available for rol, logging, and a	d applicable-Transmission Operator shall, during the time period when the primary control center functionality and the backup ruse, have backup functionality (provided either through a backup control center facility or contracted services) that includes alarming sufficient for maintaining compliance with all Reliability Standards applicable that depend on to a Balancing Authority nary control center functionality respectively. To avoid requiring tertiary functionality, backup functionality is not required
R5.1 Planned οι	utages of the prim	nary or backup functionality of two weeks or less
R5.2 Unplanned	outages of the p	rimary or backup functionality
		a standalone requirement as Requirement R1 covers the plan and Requirement R7 the capabilities. However, Requirement additional clarity as to what was the intent of the SDT.
	control center <u>eac</u>	Balancing Authority, and applicable-Transmission Operator shall have primary and backup capabilityies that does not depend hother or any single data center for any functionality required to maintain compliance with Reliability Standards that depend on
R8.3: The requir	rement has been	deleted.
		he PCC are numerous and have an impact on the replacement of the PCC. Therefore, the SDT feels it necessary to give the the replacement and plan it. Six months seems adequate.

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R1, Requires that applicable entities have an Operating Plan covering "backup functionality". Then R1.1 uses "backup functionality" as a sub-requirement to R1, without explaining what "backup functionality" is. Would a Balancing Authority's

Organization	Question 7:	Question 7 Comments:
Review Subcommittee		backup functionality be all NERC requirements assigned to a Balancing Authority? Please define.R1.5, What happens if the applicable entity needs more than two hours to get "backup functionality" running?
		R1.6.2, Does "?as well as during outages of the primary/backup functionally" include SCADA, Energy Managements Systems, etc., updates? Could the SDT clarify the maximum amount of time that updates, patches, maintenance could take place without harming the BES, such as within one hour?
		R2, states the Operating Plan is required to be " at the location supporting backup functionally". If this is the backup control center, the MRO agrees, if not please clarify.
		R4, The MRO believes this requirement is redundant and should be removed. The MRO believes that this requirement would put the RC in double jeopardy. Please clarify why R4 is written.
		R5, The MRO believes this requirement is redundant and should be removed. The MRO believes that this requirement would put the BA & TOP in double jeopardy. Please clarify why R5 is written.

Response: R1: Your interpretation is correct.

R1.5: If you 'need' more than 2 hours, you would have to discuss the issue with your RE.

R1.6.2: The assumption is correct. Also, the SDT has not defined a max time for maintenance because maintenance time depends on the scope of the maintenance required.

R2: This can be the backup control center or a backup location where the functionality is contracted.

R4 & R5: The SDT does not understand what this would be redundant with as no specificity was provided but changes have been made to Requirements R4 & R5 due to other comments.

R4. Each Reliability Coordinator shall, during the time period when the primary control center functionality and the backup functionality are both available for use, have a backup control center facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators) that provides the functionality required for maintaining compliance with all Reliability Standards applicable to the Reliability Coordinator that depend on primary control center functionality. To avoid requiring a tertiary facility, a backup facility is not required during.

R4.1 Planned outages of the primary or backup facilities of two weeks or less

R4.2 Unplanned outages of the primary or backup facilities

R5. Each Balancing Authority and applicable Transmission Operator shall, during the time period when the primary control center functionality and the backup functionality are both available for use, have backup functionality (provided either through a backup control center facility or contracted services) that includes monitoring, control, logging, and alarming sufficient for maintaining compliance with all Reliability Standards applicable that depend on to a Balancing Authority

Org	anization	Question 7:	Question 7 Comments:
and durir		n Operator <u>'s prin</u>	nary control center functionality respectively. To avoid requiring tertiary functionality, backup functionality is not required
R5.1	Planned ou	ıtages of the prim	nary or backup functionality of two weeks or less
R5.2	<u>Unplanned</u>	outages of the p	rimary or backup functionality
ITC		Yes	Requirement 3 should be re-worded to "Each applicable Transmission Operator "delegating" BES "operational functions to" other entities? At any given time, the TOP may 'direct' any connected GOP or LSE to take an action to support BES operations. As written, this requirement could be interpreted to require the TOP to have the backup plan for all connected GOPs, LSEs, etc. incorporated into their plan. Limiting the scope to those functions which are formally delegated is more appropriate and reasonable.
			Requirement 4 and 5 should be reworded. The requirement is cumbersome to read and understand. We believe the intent of the phrase "during the time period when the primary control center functionality and the backup functionality are both available for use" is intended to clarify that if you are already at your backup, you are not required to have a second N-2 backup. We suggest you add a sub-requirement that clearly states this exclusion and remove the phrase from the main requirement.
			Requirement 6 should be a sub-requirement of requirement 1 and requirement 6 and 6.1 should be combined into a single requirement that says the plan must be updated annually OR within 60 days of any significant changes.
			Requirement 7 is unnecessary and ambiguous. Requirement 1 adequately addresses the specific requirements of the Plan.
			Requirement 9 should be modified. If extended operation from a backup facility is a real concern to reliability, the RE should not be waiting 6 months to know there is an alternative plan. If it's OK to wait 6 months, this requirement should be removed.

Response: R3 has been re-written to provide clarity surrounding the SDT's intent.

R3. Each Reliability Coordinator, Balancing Authority, and applicable Transmission Operator directing BES operations through other entities shall ensure that backup functionality exists for the BES operations performed through those other entities. include provisions for the loss of such entity's control functionality in its Operating Plan for backup functionality.

R4 & 5: The intent of the drafting team was to provide for the operation of either the primary or backup system individually during periods of emergency, transition, or maintenance without the need for a tertiary backup capability. The SDT has modified Requirements R4 & R5 to provide clarity on this matter.

R4. Each Reliability Coordinator shall, during the time period when the primary control center functionality and the backup functionality are both available for use, have a backup control center facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators) that provides the functionality required for maintaining compliance with all Reliability Standards applicable to the Reliability Coordinator

that depend on primary control center functionality. To avoid requiring a tertiary facility, a backup facility is not required during.:

Organization

Question 7:

R4.1 Planned outages of the primary or backup facilities of two weeks or less

R4.2 Unplanned	Unplanned outages of the primary or backup facilities			
functionality are monitoring, cont	R5. Each Balancing Authority and applicable-Transmission Operator shall, during the time period when the primary control center functionality and the backup functionality are both available for use, have backup functionality (provided either through a backup control center facility or contracted services) that includes monitoring, control, logging, and alarming sufficient for maintaining compliance with all Reliability Standards applicable that depend on to a Balancing Authority and Transmission Operator's primary control center functionality respectively. To avoid requiring tertiary functionality, backup functionality is not required during:			
R5.1 Planned ou	ıtages of the prin	nary or backup functionality of two weeks or less		
R5.2 Unplanned	outages of the p	orimary or backup functionality		
		R6 should be a separate requirement because it does not deal with the Plan contents. The SDT also feels the sub- nd approval requirements and should be separate from the requirement.		
R7: The intent is of the BES.	R7: The intent is that if the primary control center is destroyed, the backup facility will be capable of collecting the data needed to support the reliable operation of the BES.			
		he PCC are numerous and have an impact on the replacement of the PCC. Therefore, the SDT feels it necessary to give the the replacement and plan it. Six months seems adequate.		
Western Area	Yes	Requirement #1.6.2; Change "Actions to manage the risk?" to "Actions to manage the impact?"		
Power Administration		Requirement #3; Please specify the meaning of "?directing BES operations through other entities?" What does through other entities mean?		
		Requirement #5; "during the time period when the primary control center functionality and the backup functionality are both available for use, have backup functionality?" This statement is very vague and implies having two control centers in operation at all times. This sentence needs to be rewritten.		
		Requirement #5; "maintaining compliance with all Reliability Standards?" is too vague. Please specify the Reliability Standards required for compliance.		
		Requirement#6.1; Timing on an updated Operating Plan is vague. A suggestion is to state the updated Operating Plan should be within 12 months from the last update.		
		Requirement #8.3; Lessons learned should not be included in the Operating Plan. A suggestion is to have the lessons		

Question 7 Comments:

ISO New

Yes

Organization	Question 7:	Question 7 Comments:
		learned as evidence resulting from the tests.
Response: R1.6	6.2: The SDT bel	lieves that managing risk is a broader term and more appropriate for this requirement.
Requirement R3	has been re-writ	ten to provide clarity surrounding the SDT's intent.
backup function		Balancing Authority, and applicable Transmission Operator directing BES operations through other entities shall ensure that BES operations performed through those other entities. include provisions for the loss of such entity's control functionality in ctionality.
		team was to provide for the operation of either the primary or backup system individually during periods of emergency, the need for a tertiary backup capability. The SDT has modified Requirements R4 & R5 to provide clarity on this matter.
use, have a bac Coordinator ope	ckup control center rators) that provide	shall, during the time period when the primary control center functionality and the backup functionality are both available for er facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability des the functionality required for maintaining compliance with all Reliability Standards applicable to the Reliability Coordinator enter functionality. To avoid requiring a tertiary facility, a backup facility is not required during.
R4.1 Planned ou	utages of the prim	nary or backup facilities of two weeks or less
R4.2 Unplanned	outages of the p	rimary or backup facilities
functionality are monitoring, cont	both available for rol, logging, and a	d applicable-Transmission Operator shall, during the time period when the primary control center functionality and the backup ruse, have backup functionality (provided either through a backup control center facility or contracted services) that includes alarming sufficient for maintaining compliance with all Reliability Standards applicable that depend on to a Balancing Authority control center functionality respectively. To avoid requiring tertiary functionality, backup functionality is not required
R5.1 Planned ou	utages of the prim	nary or backup functionality of two weeks or less
R5.2 Unplanned	outages of the p	rimary or backup functionality
R6.1: The SDT	has made a char	nge to provide clarity.
		of the Operating Plan for backup functionality shall take place within sixty calendar days of any changes to the backup in Requirement R1, or contact information.
R8.3: The requir	rement has been	deleted.

March 16, 2009

R3: It stipulates that "Each applicable Transmission Operator directing BES operations through other entities shall include

Organization	Question 7:	Question 7 Comments:
England Inc		provisions for the loss of such entity's control functionality in its Operating Plan for backup functionality." We do not agree that this requirement applies to the TOP only. There might well be situations that an RC or a BA directs it operations through other entities as well. We suggest the requirement to also include the RC and the BA by rewording to: "Each Reliability Coordinator, Balancing Authority and applicable Transmission Operator directing BES operations?"
		R4: We are not sure why the condition: "during the time period when the primary control center functionality and the backup functionality are both available for use" is included since having both control center functionalities available for use suffice to meet the condition for: "?have a backup control center facility (provided through its own dedicated backup facility or at another entity's control center) that provides the functionality required for maintaining compliance with all Reliability Standards applicable to the Reliability Coordinator." If the intent of this requirement is to ensure the functionality works, then the requirements should simply stipulate such a demonstration. In fact, the intent of R8 is to ensure that the backup capability is functional when called upon. We therefore hold the view that R4 (and R5) is not needed.
		R5: Please see our comments on R4. We do not think R5 is needed. If retained, the wording should be changed to require a demonstration of the backup capability's functionality.
		R7: We do not see the need for this to be a stand alone requirement. This requirement can be included as one of the sub-requirement in R1, or even combined with R1.3.
Hydro-Québec TransÉnergie (HQT)	Yes	R3: It stipulates that "Each applicable Transmission Operator directing BES operations through other entities shall include provisions for the loss of such entity's control functionality in its Operating Plan for backup functionality." We do not agree that this' requirement applies to the TOP only. There might well be situations that an RC or a BA directs it operations through other entities as well. We suggest the requirement to also include the RC and the BA by rewording to: "Each Reliability Coordinator, Balancing" Authority and applicable Transmission Operator directing BES operations?"
		R4: We are not sure why the condition: "?during the time period when the primary control center functionality and the backup functionality are both available for use?" is included since having both control center functionalities available for use suffice to meet the condition for: "have a backup control center facility (provided through its own dedicated backup facility or at another entity's control center) that provides the functionality required for maintaining compliance with all Reliability Standards applicable to the Reliability Coordinator." If the intent of this requirement is to ensure the functionality works, then the requirements should simply stipulate such a demonstration. In fact, the intent of R8 is to ensure that the backup capability is functional when called upon. We therefore hold the view that R4 (and R5) is not needed, be eliminated, and include the required clarifications in the Measures Section.
		R5: Please see our comments on R4. We do not think R5 is needed. If retained, the wording should be changed to require a demonstration of the backup capability'sfunctionality.R7: We do not see the need for this to be a stand alone requirement. This requirement can be included as one of the sub-requirement in R1, or even combined with R1.3.In regard to R7, we

Organization	Question 7:	Question 7 Comments:
		would appreciate the SDT to indicate if the EMS system should be doubled also at the Backup facility since R7 specifies that the Backup "does not depend on the primary control center for any functionality required to maintain compliance with Reliability Standards.".

Response: Requirement R3 has been re-written to provide clarity surrounding the SDT's intent.

- R3. Each Reliability Coordinator, Balancing Authority, and applicable Transmission Operator directing BES operations through other entities shall ensure that backup functionality exists for the BES operations performed through those other entities. include provisions for the loss of such entity's control functionality in its Operating Plan for backup functionality.
- R4 & 5: The intent of the drafting team was to provide for the operation of either the primary or backup system individually during periods of emergency, transition, or maintenance without the need for a tertiary backup capability. The SDT has modified Requirement R4 & R5 to provide clarity on this matter.
- R4. Each Reliability Coordinator shall, during the time period when the primary control center functionality and the backup functionality are both available for use, have a backup control center facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators) that provides the functionality required for maintaining compliance with all Reliability Standards applicable to the Reliability Coordinator that depend on primary control center functionality. To avoid requiring a tertiary facility, a backup facility is not required during.
- **R4.1** Planned outages of the primary or backup facilities of two weeks or less
- R4.2 Unplanned outages of the primary or backup facilities
- R5. Each Balancing Authority and applicable Transmission Operator shall, during the time period when the primary control center functionality and the backup functionality are both available for use, have backup functionality (provided either through a backup control center facility or contracted services) that includes monitoring, control, logging, and alarming sufficient for maintaining compliance with all Reliability Standards applicable that depend on to a Balancing Authority and Transmission Operator's primary control center functionality respectively. To avoid requiring tertiary functionality, backup functionality is not required during:
- R5.1 Planned outages of the primary or backup functionality of two weeks or less
- R5.2 Unplanned outages of the primary or backup functionality
- R7: Requirement R7 is intended to provide clarity and remove ambiguity as it pertains to implementation of backup control functionality. The SDT believes that the requirement should remain. The SDT believes that this is a standalone requirement as Requirement R1 covers the plan and Requirement R7 the capabilities. Duplicate EMS functionality may be required to ensure no dependency on the primary control center.

Organization	Question 7:	Question 7 Comments:
Independent	Yes	R3: We have two comments on this Requirement:
Electricity System Operator		a. It stipulates that "Each applicable Transmission Operator directing BES operations through other entities shall include provisions for the loss of such entity's control functionality in its Operating Plan for backup functionality." We do not agree that this requirement applies to the TOP only. There might well be situations that an RC or a BA directs its operations through other entities as well. We suggest the requirement to also include the RC and the BA by rewording to: "Each Reliability Coordinator, Balancing Authority and applicable Transmission Operator directing BES operations?"
		b. We believe the wording is ambiguous in that in some areas/jurisdictions, there are multiple TOPs that one of them direct the operations of the other. For example, an ISO is registered as a TOP while a transmission entity (an owner, for example) within the ISO footprint is also registered as a TOP. The two TOPs perform distinctly different tasks and may even have their tasks and responsibilities clearly stipulated in an agreement, market rule or regional reliability plan. The ISO-TOP directs operations of the transmission-entity-TOP while the latter may be solely responsible for switching operations and maintenance. Both need to have backup capability. The way R3 is worded can be interpreted that the ISO-TOP needs to be responsible for the backup capability of the transmission-entity-TOP. We do not believe this is the intent of R3, and this is not acceptable. To clarify this situation, we suggest R3 to be reworded to: Each applicable Transmission Operator delegating its tasks for BES operations to other entities shall include provisions for the loss of such entity's control functionality in its Operating Plan for backup functionality. In other words, this requirement only applies to a TOP if it delegates it task (for which it is still fully responsible) to another entity.
		R4: We are not sure why the condition: "during the time period when the primary control center functionality and the backup functionality are both available for use" is included since having both control centre functionality available for use suffice to meet the condition for: "have a backup control center facility (provided through its own dedicated backup facility or at another entity's control center) that provides the functionality required for maintaining compliance with all Reliability Standards applicable to the Reliability Coordinator." If the intent of this requirement is to ensure the functionality works, then the requirements should simple stipulate such a demonstration. In fact, the intent of R8 is to ensure that the backup capability is functional when called upon. We therefore hold the view that R4 (and R5) is not needed.
		R5: Please see our comments on R4. We do not think R5 is needed. If retained, the wording should be changed to require a demonstration of the backup capability's functionality.
		R7: We do not see the need for this to be a stand alone requirement. This requirement can be included as one of the sub-requirement in R1, or even combined with R1.3.

Response: R3a – Requirement R3 has been re-written to provide clarity surrounding the SDT's intent.

R3. Each Reliability Coordinator, Balancing Authority, and applicable. Transmission Operator directing BES operations through other entities shall ensure that

Organization	Question 7:	Question 7 Comments:
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backup functionality exists for the BES operations performed through those other entities. include provisions for the loss of such entity's control functionality in its Operating Plan for backup functionality.

- R3b Each TOP is independently responsible for meeting the standard. Joint registration agreements may have an impact here.
- R4 & 5: The intent of the drafting team was to provide for the operation of either the primary or backup system individually during periods of emergency, transition, or maintenance without the need for a tertiary backup capability. The SDT has modified Requirements R4 & R5 to provide clarity on this matter.
- R4. Each Reliability Coordinator shall, during the time period when the primary control center functionality and the backup functionality are both available for use, have a backup control center facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators) that provides the functionality required for maintaining compliance with all Reliability Standards applicable to the Reliability Coordinator that depend on primary control center functionality. To avoid requiring a tertiary facility, a backup facility is not required during.
- R4.1 Planned outages of the primary or backup facilities of two weeks or less
- R4.2 Unplanned outages of the primary or backup facilities
- R5. Each Balancing Authority and applicable-Transmission Operator shall, during the time period when the primary control center functionality and the backup functionality are both available for use, have backup functionality (provided either through a backup control center facility or contracted services) that includes monitoring, control, logging, and alarming sufficient for maintaining compliance with all Reliability Standards applicable that depend on to a Balancing Authority and Transmission Operator's primary control center functionality respectively. To avoid requiring tertiary functionality, backup functionality is not required during:
- R5.1 Planned outages of the primary or backup functionality of two weeks or less
- R5.2 Unplanned outages of the primary or backup functionality
- R7. The SDT believes that this is a standalone requirement as Requirement R1 covers the plan and Requirement R7 the capabilities. However, Requirement R7 has been re-written to provide additional clarity as to what was the intent of the SDT.
- R7. Each Reliability Coordinator, Balancing Authority, and applicable Transmission Operator shall have primary and backup capabilityies that does not depend on the primary control center each other or any single data center for any functionality required to maintain compliance with Reliability Standards that depend on the primary control functionality.

Pepco Holdings, Inc.	Yes	The requirements should be modified to recognize that duplicate and separate EMS facilities running in parallel without dependence on each other fulfill the need for backup facilities.
- Affiliates		

Response: The SDT believes that the primary and backup capabilities should be independent. The SDT believes that Requirement R7 is a standalone

Organization	Question 7:	Question 7 Comments:
	Requirement R1 of the transfer	covers the plan and Requirement R7 the capabilities. However, Requirement R7 has been re-written to provide additional of the SDT.
	ontrol center <u>eac</u>	Balancing Authority, and applicable Transmission Operator shall have primary and backup capabilityies that does not depend hother or any single data center for any functionality required to maintain compliance with Reliability Standards that depend on
ReliabilityFirst Corporation	Yes	In R1.3, I am not sure what "Operating Process" means. I am thinking may be you can say "Back-up Control Facility Operating guide". Also suggest replacing "backup functionality" with "backup control functionality". I feel this conveys the intent better.
Response: The	term "Operating	Process" is a defined term.
PJM Interconnectio n	No	PJM's concerns center on the basic premise of the standard; that there is one "primary" facility, and one "backup" facility. With the completion of our Business Continuity plan, PJM will be operated simultaneously from our existing control center, and another fully staffed, redundant center at a remote location (neither facility will be designated "primary" or "backup"). In the event of the loss of one of these facilities, this type of operation will accommodate an instantaneous transfer of all control to the redundant center. For this reason, PJM would like to propose the following addition to the applicability section of the standard 4.2. EOP-008-1 shall not apply to Reliability Coordinators, Transmission Owners, or Balancing Authorities that operate two equal, real-time facilities, at geographically diverse sites, either of which is capable of operating as a stand alone, fully functional data center and control center. PJM feels that this type of redundant operation goes far beyond the requirements in the current standard, to ensure continued reliable operations of the Bulk Electric System (BES) in the event that a control center becomes inoperable. The very narrow exemption provided in the proposed addition is the cleanest. Simplest way to accommodate this scenario
		If the SDT does not agree to the proposed addition to the applicability section, PJM's representative will deliver a redline version of the current draft of the standard to the group at their next meeting. This will have a requirement by requirement, measure by measure, list of all the changes that allow for this type of redundant operation to meet all compliance scrutiny. A copy of this document has been forwarded to Ed Dobrowolski of the NERC office. Beyond this PJM submits the following for consideration: In Applicability 4.1.2, the SDT creates a new class of TOP. This is beyond the Scope of the Standard. 4.1.2 can only apply to current registered entities.
		PJM would like to strike "allow visualization capabilities that" in R1.2.1. Tools for visualization are not in the requirements for any primary control center. Seems inappropriate to be in the requirements for a backup.
		Suggest changing R1.2.5 to read "All applicable NERC CIP Standards Suggest adding "unless this change is functionally

Organization	Question 7:	Question 7 Comments:
		transparent to the users" to the end of R1.6.1. PJM is aware of several Local Control Centers that have telephone & data switching that is done by a central station. No contact information changes, and the caller should be indifferent to the physical location of the receiver.
		R3 would require TOPs directing BES operations through other entities to be accountable for the compliance of all of these entities. If this is the intent of the SDT, the Applicability section of the standard needs to be modified to include Transmission Owners (TOs) in lieu of defining other applicable entities in R3.
		In R5, Monitoring, control, logging, and alarming should all be sub-bullets of R5 (as done in R1.6 "Process shall include"

Response: The SDT believes that EOP-008 is applicable to all registered Reliability Coordinators, Transmission Operators, and Balancing Authorities.

Redlined document: The SDT has reviewed the redlined document. There were no changes other than those suggested for the applicability change mentioned in the first paragraph of the comment. Since that change was not made, none of the redlined comments apply.

R1.2.1: All facilities needed to display required operational information are considered visualization capabilities. The SDT considers this an important element for reliability and believes it needs to remain in the requirements.

R1.2.5: The SDT has reviewed your suggestion and believes that the current wording is appropriate.

R1.6.1: The SDT does not understand the comment as applied to Requirement R1.6.1 so no change has been made.

R3: R3 has been re-written to provide clarity surrounding the SDT's intent.

R3. Each Reliability Coordinator, Balancing Authority, and applicable Transmission Operator directing BES operations through other entities shall ensure that backup functionality exists for the BES operations performed through those other entities. include provisions for the loss of such entity's control functionality in its Operating Plan for backup functionality.

R5: The SDT reviewed this suggestion and didn't feel that it substantially changed the requirement so no change has been made.

Ameren	Yes	Requirement 2 is not needed. What is important is that the plan gets implemented when needed not that some compliance auditor can verify there is a copy of the plan at the backup and primary control centers. Most entities are going to have their plans at the primary and backup control centers to allow them to implement the plan. If they don't, they likely won't be able to implement their plan in the required time frame. Thus, they will already be violating another requirement so let's not provide an opportunity for double jeopardy.	
		Requirement 4 should strike "that provides functionality required for maintaining compliance with all Reliability Standards applicable to the Reliability Coordinator". The RC is already required to comply with these standards regardless of whether they operate from the backup center or the primary center.	

Organization	Question 7:	Question 7 Comments:
		Requirement 5 should strike "sufficient for maintaining compliance with all Reliability Standards applicable to a Balancing Authority or Transmission Operator respectively". The BA and TOP are already required to comply with these standards regardless of whether they operate from the location of their backup capability or the primary center. Further, we urge the drafting team to consider combining requirements 4 and 5 to require full backup control centers for the TOP and BA as well as the RC.
		Requirement 5 is already stringent enough that a backup control center is likely required anyway. Combining the requirements just simplifies the standards.
		Requirement 6 is really a sub-requirement of requirement 1. Sub-requirement 6.1 is confusing. Because it is a sub-requirement, it must apply to requirement 6. Thus, it would seem that the sub-requirement is requiring the annual review and approval to occur within 60 days of any changes. What if there are multiple changes in the year? From this perspective, it appears that the sub-requirement is intended to reflect that changes can occur at any time. To clarify the requirement, we suggest the following language as a sub-requirement of R1 along with striking requirement 6 and 6.1:"Each RC, BA an TOP shall review and approve its Operating Plan for backup functionality annually and within sixty calendar days of any changes to the backup location, capabilities or contact information, modify the Operating Plan to reflect the changes."
		Requirement 7 is unnecessary as an explicit requirement. Each RC, TOP and BA is required to comply with all applicable requirements even if they are operating from the location of their backup functionality or backup control center. If their backup functionality relies on the primary control center, the RC, TOP and BA will be unable to comply with numerous other requirements in the event that they lose the functionality of their primary control center. Requirement 8 is not needed and does not accomplish the goal of ensuring the backup capability is available when needed. In reality, an RC, TOP and BA will have to operate utilizing backup functionality significantly more often than annually to ensure that backup functionality is available when needed. In fact, most RC, TOP, and BA already test their backup capability more often than annually even though the current requirement is for an annual test. They do this not because of the testing requirement but because of the need to continue to comply with other applicable requirements. If the other standards requirements already drive the entities to exceed this requirement, why is it needed? It is not.
		Requirement 9 should be struck. This requirement essentially represents an N-2 condition. The requirements should not try to anticipate extreme conditions such as this. Because RC, TOP and BA are still required to comply with the requirements even if they lose one of the operating centers or backup capability, the RC, TOP and BA will have to make plans to operate in the event of the failure of their last operable control center. Thus, failure to begin developing a plan to replace the backup capability or primary control center will surely result in a violation of another requirement (actually likely many requirements).
		vide clarity and remove ambiguity as it pertains to the implementation of backup control functionality. R2 will also ensure that co assist personnel during an actual event. The SDT believes that the requirement should remain.

Organization	Question 7:	Question 7 Comments:
		team was to provide for the operation of either the primary or backup system individually during periods of emergency, it the need for a tertiary backup capability. The SDT has modified Requirements R4 & R5 to provide clarity on this matter.
use, have a bac Coordinator ope	ckup control centerators) that provi	shall, during the time period when the primary control center functionality and the backup functionality are both available for er facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability des the functionality required for maintaining compliance with all Reliability Standards applicable to the Reliability Coordinator enter functionality. To avoid requiring a tertiary facility, a backup facility is not required during.:
R4.1 Planned or	utages of the prin	nary or backup facilities of two weeks or less
R4.2 Unplanned	l outages of the p	rimary or backup facilities
functionality are monitoring, cont	both available for rol, logging, and	d applicable-Transmission Operator shall, during the time period when the primary control center functionality and the backup ruse, have backup functionality (provided either through a backup control center facility or contracted services) that includes alarming sufficient for maintaining compliance with all Reliability Standards applicable that depend on to a Balancing Authority mary control center functionality respectively. To avoid requiring tertiary functionality, backup functionality is not required
R5.1 Planned or	utages of the prin	nary or backup functionality of two weeks or less
R5.2 Unplanned	l outages of the p	rimary or backup functionality
R6: Requiremer made.	nt R1 addresses t	he content of the plan, while Requirement R6 addresses the timeliness of reviews and updates. Therefore, no change was
R7/R8: Require	ments R7 and R	8 are intended to provide clarity and remove ambiguity as they pertain to implementation of backup control functionality
on the primary of		Balancing Authority, and applicable-Transmission Operator shall have primary and backup capabilityies that does not depend the or any single data center for any functionality required to maintain compliance with Reliability Standards that depend on
R9: The SDT be	elieves this requi	rement adds clarity in the event of a catastrophic failure of either its primary facility or backup capability.
FirstEnergy Corp.	Yes	Requirement R1.6.2 is not clear. The meaning of primary/backup is ambiguous. This requirement should be revised to state, "Actions to manage the risk to the BES during the transition from primary to backup functionality as well as during simultaneous outages of both the primary and backup functionality."
		Requirements R4 and R5 as written are very confusing. It appears the drafting team's expectation is for an entity to have either the primary or backup control center available and in use at all times. If that is the intent, the requirement should say

that. Also, it appears the drafting team's expectation is compliance with all applicable Reliability Standards at all times. This

Organization	Question 7:	Question 7 Comments:
		is a requirement of the mandatory and enforceable reliability standards.
		R4 and R5 should be deleted.
		Requirement R6 as written is confusing. Who is intended to approve the Operating Plan for the backup functionality? Is it the intent of the drafting team for each entity to approve its own plan? Should these plans be required to be approved by a senior executive of the company? Should these plans be approved by the RC?
		Requirement R9 should be revised to state, "Each Reliability Coordinator, Balancing Authority, and applicable Transmission Operator that has experienced a loss of either its primary or backup capability due to a catastrophic event and anticipates the loss of either its primary or backup capability will last for more than six calendar months, shall provide a plan to its Regional Entity within six calendar months of the date when the functionality is lost, showing how it will re-establish backup capability." This requirement as currently proposed allows an entity 6 months to restore its backup functionality. Backup functionality should be restored as soon as repairs can be made in most cases. Only in a catastrophic event should an entity be allowed to be without backup for such a long period of time.
		Requirement 7 is unnecessary. If a RC, TOP and BA, can comply with all applicable requirements at all times from a backup control center that relies on facilities of their primary control center, then they have met the intent of the standards.

Response: R1.6.2: The SDT rewrote Requirement R1.6.2 to provide clarity but believes that covering simultaneous outages is not required.

R1.6.2. Actions to manage the risk to the BES during the transition from primary to backup functionality as well as during outages of the primary backup functionality.

R4 & 5: The intent of the drafting team was to provide for the operation of either the primary or backup system individually during periods of emergency, transition, or maintenance without the need for a tertiary backup capability. The SDT has modified Requirements R4 & R5 to provide clarity on this matter.

R4. Each Reliability Coordinator shall, during the time period when the primary control center functionality and the backup functionality are both available for use, have a backup control center facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators) that provides the functionality required for maintaining compliance with all Reliability Standards applicable to the Reliability Coordinator that depend on primary control center functionality. To avoid requiring a tertiary facility, a backup facility is not required during.

R4.1 Planned outages of the primary or backup facilities of two weeks or less

R4.2 Unplanned outages of the primary or backup facilities

R5. Each Balancing Authority and applicable Transmission Operator shall, during the time period when the primary control center functionality and the backup functionality are both available for use, have backup functionality (provided either through a backup control center facility or contracted services) that includes monitoring, control, logging, and alarming sufficient for maintaining compliance with all Reliability Standards applicable that depend on to a Balancing Authority

Requirement R3 has been re-written to provide clarity surrounding the SDT's intent which should alleviate your concern.

center"

its Operating Plan for backup functionality.

Organization	Question 7:	Question 7 Comments:		
and Transmission Operator's primary control center functionality respectively. To avoid requiring tertiary functionality, backup functionality is not required during:				
R5.1 Planned outages of the primary or backup functionality of two weeks or less				
R5.2 Unplanned outages of the primary or backup functionality				
R6: Each entity would determine who from their utility would be the appropriate signature. The SDT cannot determine who that might be for every registered entity. It is not the intent of the SDT that each entity's plan be approved by their respective RC.				
R7. The SDT believes that this is a standalone requirement as Requirement R1 covers the plan and Requirement R7 the capabilities. However, Requirement R7 has been re-written to provide additional clarity as to what was the intent of the SDT.				
on the primary c the primary cont R9: The SDT be	ontrol center eac rol functionality lieves that prima	Balancing Authority, and applicable Transmission Operator shall have primary and backup capabilityies that does not depend the other or any single data center for any functionality required to maintain compliance with Reliability Standards that depend on any or backup functionality should be restored when reasonably practicable after an event. The intent of this requirement is to		
have a plan with	in 6 months for n	najor outage situations.		
Bureau of Reclamation	Yes	In requirement R1.1 the term "for a prolonged period of time" has been added. As this is a nebulous addition that does not add clarification to the requirement it should be deleted.		
		Requirement R3 requires the TOP when "directing BES operations through other entities" to "include provisions for the loss of such other entity's control functionality in its Operating Plan for backup functionality." We agree with this requirement, however, there is no requirement for such provision to ever be coordinated with the other entity, or for the other entity to even be informed. We suggest adding to R3 or R6, language similar to: "Those provisions in the Operating Plans for backup functionality that deal with the loss of another entity's control functionality shall be coordinated with that entity when the Operating Plans are reviewed annually."		
	·			

March 16, 2009

Response: "Prolonged" is the term used by FERC in Order 693 and was defined there as "generally defined by the time it takes to restore the primary control

R3. Each Reliability Coordinator, Balancing Authority, and applicable Transmission Operator directing BES operations through other entities shall ensure that backup functionality exists for the BES operations performed through those other entities. include provisions for the loss of such entity's control functionality in

Organization	Question 7:	Question 7 Comments:
ISO/RTO Council	Yes	We do not agree with the transition requirement of two hours. We believe that the transition time as worded in the existing standard actually requires full implementation of the backup plan in one hour or to provide an alternative to continue operations. Thus, we assume the drafting team must have had a compelling reason for changing to two hours. What is the reason? Is there data justifying it? We recommend changing it back to one hour.
		Requirement 2 is not needed. What is important is that the plan gets implemented when needed not that some compliance auditor can verify there is a copy of the plan at the backup and primary control centers. Most entities are going to have their plans at the primary and backup control centers to allow them to implement the plan. If they don't, they likely won't be able to implement their plan in the required time frame. Thus, they will already be violating another requirement so lets not provide an opportunity for double jeopardy. Requirement 3 stipulates that "Each applicable Transmission Operator directing BES operations through other entities shall include provisions for the loss of such entity's control functionality in its Operating Plan for backup functionality." We do not agree that this requirement should apply to the TOP only. There might well be situations that an RC or a BA directs it operations through other entities as well. We suggest the requirement should also include the RC and the BA by rewording the requirement to: "Each Reliability Coordinator, Balancing Authority and applicable Transmission Operator directing BES operations?"
		Wording of requirement 3 is ambiguous in that in some areas/jurisdictions, there are multiple TOPs that one of them directs the operations of the others. For example, an ISO is registered as a TOP while a transmission entity (an owner, for example) within the ISO footprint is also registered as a TOP. The two TOPs perform distinctly different tasks and may even have their tasks and responsibilities clearly stipulated in an agreement, market rule or regional reliability plan. The ISO-TOP directs operations of the transmission-entity-TOP while the latter may be solely responsible for switching operations and maintenance. Both need to have backup capability. The way R3 is worded can be interpreted that the ISO-TOP needs to be responsible for the backup capability of the transmission-entity-TOP. We do not believe this is the intent of R3, and this is not practical. To clarify this situation, we suggest R3 to be reworded to: "Each applicable Transmission Operator delegating its tasks for BES operations to other entities shall include provisions for the loss of such entity's control functionality in its Operating Plan for backup functionality." In other words, this requirement only applies to a TOP if it delegates it task (for which it is still fully responsible) to another entity.
		For Requirement 4, we are not sure why the condition: "?during the time period when the primary control center functionality and the backup functionality are both available for use?" is included since having both control center functionality available for use suffice to meet the condition for: "?have a backup control center facility (provided through its own dedicated backup facility or at another entity's control center) that provides the functionality required for maintaining compliance with all Reliability Standards applicable to the Reliability Coordinator." If the intent of this requirement is to ensure the functionality works, then the requirements should simply stipulate such a demonstration. In fact, the intent of R8 is to ensure that the backup capability is functional when called upon. We therefore hold the view that R4 (and R5) is not needed. We further do not understand the clause "that provides functionality required for maintaining compliance with all Reliability Standards

Organization	Question 7:	Question 7 Comments:
		applicable to the Reliability Coordinator". The RC is already required to comply with these standards regardless of whether they operate from the backup center or the primary center. Requirements should never require compliance with other requirements because it creates the opportunity for double jeopardy.
		For Requirement 5, please see our comments on regarding Requirement 4.
		We do not think Requirement 5 is needed. If retained, the wording should be changed to require a demonstration of the backup capability's functionality. Furthermore, we don't understand the need for the statement "sufficient for maintaining compliance with all Reliability Standards applicable to a Balancing Authority or Transmission Operator respectively" in the requirement. The BA and TOP are already required to comply with these standards regardless of whether they operate from the location of their backup capability or the primary center.
		Requirement 6 is really a sub-requirement of requirement 1. Sub-requirement 6.1 is confusing. Because it is a sub-requirement, it must apply to requirement 6. Thus, it would seem that the sub-requirement is requiring the annual review and approval to occur within 60 days of any changes. What if there are multiple changes in the year? From this perspective, it appears that the sub-requirement is intended to reflect that changes can occur at any time. To clarify the requirement, we suggest the following language as a sub-requirement of R1 along with striking requirement 6 and 6.1:"Each RC, BA an TOP shall review and approve its Operating Plan for backup functionality annually and within sixty calendar days of any changes to the backup location, capabilities or contact information, modify the Operating Plan to reflect the changes."
		Requirement 7 is unnecessary as an explicit requirement. Each RC, TOP and BA is required to comply with all applicable requirements even if they are operating from the location of their backup functionality or backup control center. If their backup functionality relies on the primary control center, the RC, TOP and BA will be unable to comply with numerous other requirements in the event that they lose the functionality of their primary control center.
		Requirement 8 is not needed and does not accomplish the goal of ensuring the backup capability is available when needed. In reality, an RC, TOP and BA will have to confirm that availability of their backup functionality significantly more often than annually to ensure that backup functionality is available when needed. In fact, most RC, TOP, and BA already confirm the availability of their backup capability more often than annually even though the current requirement is for an annual test. They do this not because of the testing requirement but because of the need to continue to comply with other applicable requirements. If the other standards requirements already drive the entities to exceed this requirement, why is it needed? It is not.
		Requirement 9 should be struck. This requirement essentially represents an N-2 condition. The requirements should not try to anticipate extreme conditions such as this. Because RC, TOP and BA are still required to comply with the requirements even if they lose one of the operating centers or backup capability, the RC, TOP and BA will have to make plans to operate in the event of the failure of their last operable control center. Thus, failure to begin developing a plan to replace the backup

Organization	Question 7:	Question 7 Comments:
		capability or primary control center will surely result in a violation of another requirement (actually likely many requirements).

Response: The SDT believes two hours was broad enough to capture the very different business/risk decisions that have been made in the past regarding backup control centers (weighing the value of greater geographic separation over the need for rapid response), but also tight enough for entities to develop mitigations to address the maximum two hour transition period. The SDT believes that the new standard has significantly moved beyond the old standard (original Version 0, R1.8) by requiring immediate management of the risks

R2: Requirement R2 is intended to provide clarity and remove ambiguity as it pertains to the implementation of backup control functionality. R2 will also ensure that the plan will be readily available to assist personnel during an actual event. The SDT believes that the requirement should remain.

Requirement R3 has been re-written to provide clarity surrounding the SDT's intent.

- R3. Each Reliability Coordinator, Balancing Authority, and applicable Transmission Operator directing BES operations through other entities shall ensure that backup functionality exists for the BES operations performed through those other entities. include provisions for the loss of such entity's control functionality in its Operating Plan for backup functionality.
- R4 & 5: The intent of the drafting team was to provide for the operation of either the primary or backup system individually during periods of emergency, transition, or maintenance without the need for a tertiary backup capability. The SDT has modified Requirements R4 & R5 to provide clarity on this matter.
- R4. Each Reliability Coordinator shall, during the time period when the primary control center functionality and the backup functionality are both available for use, have a backup control center facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators) that provides the functionality required for maintaining compliance with all Reliability Standards applicable to the Reliability Coordinator that depend on primary control center functionality. To avoid requiring a tertiary facility, a backup facility is not required during.
- R4.1 Planned outages of the primary or backup facilities of two weeks or less
- R4.2 Unplanned outages of the primary or backup facilities
- R5. Each Balancing Authority and applicable Transmission Operator shall, during the time period when the primary control center functionality and the backup functionality are both available for use, have backup functionality (provided either through a backup control center facility or contracted services) that includes monitoring, control, logging, and alarming sufficient for maintaining compliance with all Reliability Standards applicable that depend on to a Balancing Authority and Transmission Operator's primary control center functionality respectively. To avoid requiring tertiary functionality, backup functionality is not required during:
- R5.1 Planned outages of the primary or backup functionality of two weeks or less
- R5.2 Unplanned outages of the primary or backup functionality
- R6: Requirement R1 addresses the content of the plan, while Requirement 6 addresses the timeliness of reviews and updates. Therefore, no change was

Organization Question 7: Question 7 Comments:

made. R6.1 was changed to provide clarity.

R6.1 The An update and approval of the Operating Plan for backup functionality shall take place within sixty calendar days of any changes to the backup location. in capabilities described in Requirement R1, or contact information.

R7/R8: Requirements R7 and R8 are intended to provide clarity and remove ambiguity as they pertain to implementation of backup control functionality. The SDT believes that the requirements should remain but has revised Requirement R7 in an attempt to provide clarity.

R7. Each Reliability Coordinator, Balancing Authority, and applicable Transmission Operator shall have <u>primary and</u> backup capabilityies that does not depend on the primary control center each other or any single data center for any functionality required to maintain compliance with Reliability Standards that depend on the primary control functionality.

R9: The SDT believes that primary or backup functionality should be restored when reasonably practicable after an event. The intent of this requirement is to have a plan within 6 months for major outage situations.

Northeast Utilities	Yes	The revised language in R4 and R5 does not clarify the intent, which we believe is to prevent a violation for not having a backup facility during the time period when it has become necessary to utilize the backup facility. i.e that a backup for the backup is not required. We believe this clarification is not needed as separate requirements and results in confusing text. One possible solution would be to eliminate R4 & R5 and include the clarifying thoughts in the Measures. R7 includes the necessary language from R4 & R5, and could be included as one of the sub-requirements in R1, or combined with R1.3.
		COMDINED WITH N.S.

Response: R4 & 5: The intent of the drafting team was to provide for the operation of either the primary or backup system individually during periods of emergency, transition, or maintenance without the need for a tertiary backup capability. The SDT has modified R4 & R5 to provide clarity on this matter.

R4. Each Reliability Coordinator shall, during the time period when the primary control center functionality and the backup functionality are both available for use, have a backup control center facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators) that provides the functionality required for maintaining compliance with all Reliability Standards applicable to the Reliability Coordinator that depend on primary control center functionality. To avoid requiring a tertiary facility, a backup facility is not required during.

- R4.1 Planned outages of the primary or backup facilities of two weeks or less
- R4.2 Unplanned outages of the primary or backup facilities
- R5. Each Balancing Authority and applicable Transmission Operator shall, during the time period when the primary control center functionality and the backup functionality are both available for use, have backup functionality (provided either through a backup control center facility or contracted services) that includes monitoring, control, logging, and alarming sufficient for maintaining compliance with all Reliability Standards applicable that depend on to a Balancing Authority and Transmission Operator's primary control center functionality respectively. To avoid requiring tertiary functionality, backup functionality is not required

Organization Question 7:		Question 7 Comments:			
during:					
R5.1 Planned ou	tages of the prim	s of the primary or backup functionality of two weeks or less			
R5.2 Unplanned	outages of the p	ges of the primary or backup functionality			
		to provide clarity and remove ambiguity as it pertains to implementation of backup control functionality. The SDT believes that ut has revised Requirement R7 in an attempt to provide additional clarity.			
	ontrol center eac	Balancing Authority, and applicable Transmission Operator shall have primary and backup capabilityies that does not depend hother or any single data center for any functionality required to maintain compliance with Reliability Standards that depend on			
auditor can verify there is a copy of the plan at the backup and primary control centers. Most entities a plans at the primary and backup control centers to allow them to implement the plan. If they don't, they implement their plan in the required time frame. Thus, they will already be violating another requirement.		Requirement 2 is not needed. What is important is that the plan gets implemented when needed not that some compliance auditor can verify there is a copy of the plan at the backup and primary control centers. Most entities are going to have their plans at the primary and backup control centers to allow them to implement the plan. If they don't, they likely won't be able to implement their plan in the required time frame. Thus, they will already be violating another requirement so lets not provide an opportunity for double jeopardy.			
		Requirement 4 should strike "that provides functionality required for maintaining compliance with all Reliability Standards applicable to the Reliability Coordinator". The RC is already required to comply with these standards regardless of whether they operate from the backup center or the primary center.			
		Requirement 5 should strike "sufficient for maintaining compliance with all Reliability Standards applicable to a Balancing Authority or Transmission Operator respectively". The BA and TOP are already required to comply with these standards regardless of whether they operate from the location of their backup capability or the primary center. Further, we urge the drafting team to consider combining requirements 4 and 5 to require full backup control centers for the TOP and BA as well as the RC. Requirement 5 is already stringent enough that a backup control center is likely required anyway. Combining the requirements just simplifies the standards.			
		Requirement 6 is really a sub-requirement of requirement 1. Sub-requirement 6.1 is confusing. Because it is a sub-requirement, it must apply to requirement 6. Thus, it would seem that the sub-requirement is requiring the annual review and approval to occur within 60 days of any changes. What if there are multiple changes in the year? From this perspective, it appears that the sub-requirement is intended to reflect that changes can occur at any time. To clarify the requirement, we suggest the following language as a sub-requirement of R1 along with striking requirement 6 and 6.1:"Each RC, BA an TOP shall review and approve its Operating Plan for backup functionality annually and within sixty calendar days of any changes to the backup location, capabilities or contact information, modify the Operating Plan to reflect the changes." Requirement 7 is unnecessary as an explicit requirement. Each RC, TOP and BA is required to comply with all applicable			

Organization	Question 7:	Question 7 Comments:
		requirements even if they are operating from the location of their backup functionality or backup control center. If their backup functionality relies on the primary control center, the RC, TOP and BA will be unable to comply with numerous other requirements in the event that they lose the functionality of their primary control center.
In reality, an R0 ensure that bac capability more the testing requ	Requirement 8 is not needed and does not accomplish the goal of ensuring the backup capability is available when needed. In reality, an RC, TOP and BA will have to operate utilizing backup functionality significantly more often than annually to ensure that backup functionality is available when needed. In fact, most RC, TOP, and BA already test their backup capability more often than annually even though the current requirement is for an annual test. They do this not because of the testing requirement but because of the need to continue to comply with other applicable requirements. If the other standards requirements already drive the entities to exceed this requirement, why is it needed? It is not.	
		Requirement 9 should be struck. This requirement essentially represents an N-2 condition. The requirements should not try to anticipate extreme conditions such as this. Because RC, TOP and BA are still required to comply with the requirements even if they lose one of the operating centers or backup capability, the RC, TOP and BA will have to make plans to operate in the event of the failure of their last operable control center. Thus, failure to begin developing a plan to replace the backup capability or primary control center will surely result in a violation of another requirement (actually likely many requirements).

Response: Requirement R2 is intended to provide clarity and remove ambiguity as it pertains to the implementation of backup control functionality. R2 will also ensure that the plan will be readily available to assist personnel during an actual event. The SDT believes that the requirement should remain.

- R4 & 5: The intent of the drafting team was to provide for the operation of either the primary or backup system individually during periods of emergency, transition, or maintenance without the need for a tertiary backup capability. The SDT has modified Requirements R4 & R5 to provide clarity on this matter.
- R4. Each Reliability Coordinator shall, during the time period when the primary control center functionality and the backup functionality are both available for use, have a backup control center facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators) that provides the functionality required for maintaining compliance with all Reliability Standards applicable to the Reliability Coordinator that depend on primary control center functionality. To avoid requiring a tertiary facility, a backup facility is not required during.
- R4.1 Planned outages of the primary or backup facilities of two weeks or less
- R4.2 Unplanned outages of the primary or backup facilities
- R5. Each Balancing Authority and applicable Transmission Operator shall, during the time period when the primary control center functionality and the backup functionality are both available for use, have backup functionality (provided either through a backup control center facility or contracted services) that includes monitoring, control, logging, and alarming sufficient for maintaining compliance with all Reliability Standards applicable that depend on to a Balancing Authority and Transmission Operator's primary control center functionality respectively. To avoid requiring tertiary functionality, backup functionality is not required during:

Organization	Question 7:	Question 7 Comments:		
R5.1 Planned ou	R5.1 Planned outages of the primary or backup functionality of two weeks or less			
R5.2 Unplanned	R5.2 Unplanned outages of the primary or backup functionality			
R6: Requiremen	t 1 addresses the	e content of the plan, while Requirement 6 addresses the timeliness of reviews and updates. Therefore, no change was made.		
		are intended to provide clarity and remove ambiguity as they pertain to implementation of backup control functionality. The nts should remain but has revised Requirement R7 in an attempt to provide additional clarity.		
	ontrol center eac	Balancing Authority, and applicable Transmission Operator shall have primary and backup capabilityies that does not depend hother or any single data center for any functionality required to maintain compliance with Reliability Standards that depend on		
		ry or backup functionality should be restored when reasonably practicable after an event. The intent of this requirement is to najor outage situations.		
Northeast Utilities	Yes			
Midwest ISO	Yes			
WECC Reliability Coordinator Comment Working Group	No			
Manitoba Hydro	No			
Oncor Electric Delivery	No			
Santee Cooper	No			

Consideration of Comments on 2nd Draft of EOP-008-1 — Backup Facilities (Project 2006-04)

Organization	Question 7:	Question 7 Comments:
Bonneville Power Administration	No	
Dynegy	No	
AEP	No	
Response: Than	Response: Thank you for your response.	

8. Do you believe this standard will help deliver an adequate level of reliability?

Summary Consideration:

Most comments were positive with respect to the standard delivering an adequate level of reliability.

The following requirements were changed due to industry comments in an attempt to provide additional clarity:

- R1.6 An Operating Process describing the actions to be taken during the transition period between the loss of primary control center functionality and the time to to fully implement the backup functionality elements identified in Requirement R1.2get backup functionality up and running. The Operating Process shall also include:
- R3. Each <u>Reliability Coordinator</u>, <u>Balancing Authority</u>, <u>and applicable</u> Transmission Operator directing BES operations through other entities shall <u>ensure that backup functionality exists for the BES operations performed through those other entities. <u>include</u> <u>provisions for the loss of such entity's control functionality in its Operating Plan for backup functionality</u></u>
- R4. Each Reliability Coordinator shall, during the time period when the primary control center functionality and the backup functionality are both available for use, have a backup control center facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators) that provides the functionality required for maintaining compliance with all Reliability Standards applicable to the Reliability Coordinator that depend on primary control center functionality. To avoid requiring a tertiary facility, a backup facility is not required during.:
- R5. Each Balancing Authority and applicable Transmission Operator shall, during the time period when the primary control center functionality and the backup functionality are both available for use, have backup functionality (provided either through a backup control center facility or contracted services) that includes monitoring, control, logging, and alarming sufficient for maintaining compliance with all Reliability Standards applicable that depend on to a Balancing Authority and Transmission Operator's primary control center functionality respectively. To avoid requiring tertiary functionality, backup functionality is not required during:

R4 VSL

R4	The Reliability	The Reliability	The Reliability	The Reliability
	Coordinator has	Coordinator has	Coordinator has	Coordinator has not
	demonstrated that it has			
	a backup control center			
	facility (provided through	facility (provided through	facility (provided through	facility (provided through
	its own dedicated	its own dedicated	its own dedicated	its own dedicated
	backup facility or at			
	another entity's control	another entity's control	another entity's control	another entity's control

center with certified Reliability Coordinator operators) in accordance with **FR**equirement R4 but it only provides does not provide the functionality required for maintaining compliance with 90% one or more of the Requirements in the Reliability Standards applicable to the Reliability Coordinator that depend on the primary control center functionality and which have a Lower VRF., or the evidence of the demonstration is not dated

center with certified Reliability Coordinator operators) in accordance with **FR**equirement R4 but it only provides does not provide the functionality required for maintaining compliance with 80% one or more of the Requirements in the Reliability Standards applicable to the Reliability Coordinator that depend on the primary control center functionality and which have a Medium VRF.

center with certified Reliability Coordinator operators) in accordance with rRequirement R4 but it only provides does not provide the functionality required for maintaining compliance with 70% one or more of the Requirements in the Reliability Standards applicable to the Reliability Coordinator that depend on the primary control center functionality and which have a High VRF.

center with certified
Reliability Coordinator
operators) in
accordance with
FRequirement R4.

R5 VSL

R5	The Balancing Authority	The Balancing Authority	The Balancing Authority	The Balancing Authority
	or applicable	or applicable	or applicable	or applicable
	Transmission Operator	Transmission Operator	Transmission Operator	Transmission Operator
	has demonstrated that it	has demonstrated that it	has demonstrated that it	has not demonstrated
	has backup functionality	has backup functionality	has backup functionality	that it has backup
	(provided either through	(provided either through	(provided either through	functionality (provided
	a backup control center	a backup control center	a backup control center	either through a backup
	facility or contracted	facility or contracted	facility or contracted	control center facility or
	services) in accordance	services) in accordance	services) in accordance	contracted services) in

	with rRequire		with rRequirement R5	with #Requirement R5	accordance with
	but it only inc	l udes does b	out it only includes does	but it only includes does	FRequirement R5.
	not include m	onitoring, <u>n</u>	not include monitoring,	not include monitoring,	
	control, loggii	ng, and co	control, logging, and	control, logging, and	
	alarming suffi	cient for a	alarming sufficient for	alarming sufficient for	
	maintaining c	ompliance m	maintaining compliance	maintaining compliance	
	with 90%one	or more of w	with 80% one or more of	with 70% one or more of	
	the Requirem	ents in the th	he Requirements in the	the Requirements in the	
	Reliability Sta	indards R	Reliability Standards	Reliability Standards	
	applicable to	a a	applicable to a	applicable to a	
	Balancing Au	thority and B	Balancing Authority and	Balancing Authority and	
	Transmission	Operator T	Fransmission Operator	Transmission Operator	
	respectively t	hat depend re	espectively that depend	respectively that depend	
	on the primar	y control o	on the primary control	on the primary control	
	center function	nality and co	center functionality and	center functionality and	
	which have a	<u>Lower</u> <u>w</u>	which have a Medium	which have a High VRF	
	VRF., or its e	vidence is V	/RF		
	not dated.				
Ц					

Organization	Question 8:	Question 8 Comments:	
Consumers Energy Company	No	When drafting standards we should keep in mind the primary goal. That goal is to provide a high level of reliability. There needs to be a balance between the actions of making our operations reliable or taking away from that effort by putting a program in place that majority of effort is administrative, thus detracking from the original goal. Back-up facilities are needed but the amount of data being requested here seems to be excessive burden that changes the focus from preparing for back-up operations to preparing for a NERC audit.	
existing standard	Response: While the BF SDT acknowledges that there are more Measures and Data Retention specified in the new standard EOP-008-1 as compared to the existing standard, we have attempted to craft a standard with the minimum administrative requirements needed to achieve the reliability goals. The Applicability section was written to include only those entities that could have an impact on the BES."		
Puget Sound	uget Sound Yes However, I am concerned that many of the additional requirements of this standard do not add to reliability, just increase		

Organization	Question 8:	Question 8 Comments:			
Energy		documentation requirements, staffing and costs for a minimal increase in reliability. I am not aware of an instance where an entity has implemented their loss of control center plan and placed the BES in a perilous situation. There are actually few entities large enough to have this affect. I am fully on board with RCs having the capabilities prescribed in this standard, but there are many entities for which this is overkill. Perhaps the standard should place the burden on the RRO or RC to determine adequate levels of backup facilities for the BAs and TOPs under their jurisdiction.			
existing standar	d we have attemp	knowledges that there are more Measures and Data Retention specified in the new standard EOP-008 as compared to the oted to craft a standard with a minimum administrative requirement needed to achieve the reliability goals. The Applicability y those entities that could have an impact on the BES.			
After considerat	ion, the SDT dete	ermined that providing more latitude for the RE or RC would result in a standard that was too subjective and inconsistent.			
Sierra Pacific Power Co. (dba NV Energy)	Yes	Yes and No. This Standard has some very positive attributes that will help the industry attain an adequate level of reliability. These include the requirement to establish a Plan and Process for transition to the backup center, the definition of transition time from Primary to Backup center and the requirement to conduct an annual test of the functionality. These are necessary elements to ensure reasonable functionality of the backup plan to continue operations. Where it perhaps goes to far is in the areas of requiring auditable records of updates/approvals for minor and insignificant changes to the Plan, and the prescription of the level of redundancy being unclear and perhaps impossible to comply with depending on the assumptions made about the contingency that causes the backup plan to be executed.			
Response: The	SDT believes that	at having an up to date Plan is important and that the administrative burden is commensurate with the benefit.			
The SDT attemp	The SDT attempted to select language to provide the best balance between clarity and flexibility to match the diverse circumstances of all applicable entities.				
CenterPoint Energy	No	CenterPoint Energy believes this standard will likely deliver a more than adequate level of reliability. Some might argue that more than adequate reliability is always good. However, CenterPoint Energy disagrees with a one-sided view that ignores cost considerations. If more than adequate reliability can be delivered for minimal cost, then such a level of reliability is certainly in the public interest. However, if more than adequate reliability comes at a significant cost, then a balanced view that weighs costs and benefits would better serve the public interest.			
		Specifically, CenterPoint Energy believes R1.3 is unnecessary and could have unintended consequences. R1.2 outlines the requisite backup functionality, rendering R1.3 unnecessary. Given the infrequency with which loss of primary control center functionality occurs (due to the redundancy and hardening of such facilities), it is unnecessary and probably not cost-effective for backup control center functionality to be consistent with the primary control center. Some reduced backup functionality, that still meets the requirements of R1.2, is probably the most cost-effective approach in most circumstances to ensure adequate reliability in the infrequent circumstance of the loss of primary control center functionality. Furthermore, R1.3 could			

Organization	Question 8:	Question 8 Comments:
		have the unintended consequence of entities choosing not to voluntarily exceed the minimum required functionality of the primary control center because R1.3 essentially doubles the cost of any discretionary upgrade to the primary control by mandating that the backup facility maintain the same discretionary functionality. Moreover, the primary control center may have functionality unrelated to reliability considerations, such as market-related functionality, that arguably would need to be provided by the backup control center under R1.3. Backup functionality unrelated to reliability considerations should not be mandated by reliability standards but instead should be left to individual entities and their market stakeholders to decide. For all these reasons, CenterPoint Energy believes R1.3 should be deleted.
		Furthermore, CenterPoint Energy recommends that the SDT consider modifying R4 and R5 to specify that backup functionality be sufficient to comply with all medium or higher VRF requirements. Again, given the infrequency of loss of primary control center events, the most cost-effective approach to ensure an adequate level of reliability for backup control center functionality is probably to not require the lower VRFs to be maintained in such rare circumstances. When considering this recommendation, it might be helpful to remember that control centers operated reliably for years before the version 0 and beyond NERC standards without all the functionality now available and now required by NERC standards. Generally, such reliability was accomplished through more conservative operation. More conservative operation has costs usually in terms of inefficient generation dispatch. However, an entity may find that rare instances of inefficient generation dispatch due to conservative operation by a backup facility might be less costly than the on-going costs to retain full backup capability to meet all the NERC requirements, even the lower VRF requirements.

Response: The BFSDT agrees that there can be significant costs to entities to have a backup control center, however, the standard allows for entities to also contract backup services at another Control Center facility. There will always be challenges for entities to balance costs; however, the BFSDT is of the opinion that it is essential that backup facilities or contracted services be incorporated to ensure reliable operations of the BES. The SDT distinguishes between requiring a backup facility to be "consistent" and requiring it to be a "duplicate".

Requirement R1.3 was intended, for example, to require that the SCADA database at the backup system be routinely updated to match the one at the primary site, so that if you have to operate from the backup system you can still obtain the data you need to operate the system. It does not require that every system present at the primary site also be present at the backup site.

Requirements R4 & R5 and their VSLs have been clarified to address your concern.

R4. Each Reliability Coordinator shall, during the time period when the primary control center functionality and the backup functionality are both available for use, have a backup control center facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators) that provides the functionality required for maintaining compliance with all Reliability Standards applicable to the Reliability Coordinator that depend on primary control center functionality. To avoid requiring a tertiary facility, a backup facility is not required during.

R5. Each Balancing Authority and applicable Transmission Operator shall, during the time period when the primary control center functionality and the backup functionality are both available for use, have backup functionality (provided either through a backup control center facility or contracted services) that includes

Organization	Question 8:			Question 8 Comments:		
					ble_that depend on to a Balancing Authity, backup functionality is not required	
R4	code ha ce thi de fac en wi Cc in ful fol co 90 Re ap Re ap Re tha pri ful ha the	ne Reliability pordinator has a backup control inter facility (provided rough its own idicated backup cility or at another tity's control center th certified Reliability pordinator operators) accordance with equirement R4 but it also provides the inctionality required maintaining impliance with equirements in the eliability Coordinator of the eliability Coordinator at depend on the imary control center inctionality and which we a Lower VRF. or evidence of the immonstration is not	The Reliability Coordinator has demonstrated that it has a backup control center facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators) in accordance with #Requirement R4 but it only provides does not provide the functionality required for maintaining compliance with 80% one or more of the Requirements in the Reliability Standards applicable to the Reliability Coordinator that depend on the primary control center functionality and which have a Medium VRF.	The Reliability Coordinator has demonstrated that it has a backup control center facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators) in accordance with rRequirement R4 but it only provides does not provide the functionality required for maintaining compliance with 70% one or more of the Requirements in the Reliability Standards applicable to the Reliability Coordinator that depend on the primary control center functionality and which have a High VRF.	The Reliability Coordinator has not demonstrated that it has a backup control center facility (provided through its own dedicated backup facility or at another entity's control center with certified Reliability Coordinator operators) in accordance with #Requirement R4.	

Organization	Question	8:			Question	8 Comments:		
		dat	ed.					
Western Area Power Administration	No		Without understanding the implications regarding some of the vague wording on this draft, constructive con provided.		nments cannot be			
Response: With	nout specific o	comn	nents, the SDT can not	provide specific response	es. Thank yo	u for your response		
Brazos Electric Power Cooperative, Inc.	No		We believe this standa	ard to be excessive if the	intent is as s	tated above to have	all TO's have a backup cor	ntrol center.
Response: The have a backup of				bility as opposed to back	up control ce	nter or even backup	facility. There is no require	ement for a TO to
PJM Interconnectio n	No		No, not as currently drafted. These comments are extensive, and address nearly every requirement and measure. A thorough re-write of the Standard will be necessary before this can go to ballot.			easure. A		
	Response: The SDT has made numerous changes to the standard based on the specific comments received. Please see responses to specific comments in this and other questions.							
AEP	Yes		plan and get backup f	unctionality up and runnir	g) is a more	attainable goal. The	ity and the time to fully imple transition period is addres neerns during the transition	sed in R1.6. With
Response: Requirement R1.6 has been changed in an attempt to provide additional clarity.								
							nary control center functions od running. The Operating	
Bureau of	No		With regard to the dec	sision not to include Gene	rator Operato	or (GOP) centrally d	ispatched control centers w	e are concerned

Organization	Question 8:	Question 8 Comments:
Reclamation		with the introduction of the degree of BES risk to the decision to make a standard applicable to a Reliability Function or to include it in a requirement. This is exemplified in the SDT's statement in their consideration: "The primary issue of whether centrally dispatched generation control centers should be applicable entities to the EOP-008-1 standard is an issue of risk exposure to the reliable operation of the BES." We believe that the usual emphasis is on risk avoidance, and such a change in the basis of what is included or covered by a standard or to whom it applies should be determined by using the NERC ANSI approved Standards process and not a single drafting team.
		epart from the accepted approach to this type of question. Additionally, the SDT has revised R3 in an attempt to alleviate such
backup function		Balancing Authority, and applicable Transmission Operator directing BES operations through other entities shall ensure that BES operations performed through those other entities. include provisions for the loss of such entity's control functionality in ctionality.
	I approved proce eventual balloting	ss is that an SDT crafts the initial draft of a standard and then proposes it to the industry in a series of open postings for .
ISO/RTO Council	No	We believe that the standard may actually reduce reliability slightly given that the timing requirement for operating utilizing your backup capability has been increased. Given that the need to utilize your backup capability is a rare event, even this reduced level of reliability may be acceptable.
current EOP-008	8-0 only requires	of time has been increased what must be achieved within the time period has been even more significantly increased. The interim measures to be taken if backup capability will not be in place within an hour; there is theoretically no time limit to The SDT wanted to provide a realistic amount of time and place an absolute limit on establishing backup functionality.
FirstEnergy Corp.	Yes	Yes - the standard is much improved in defining expectations of implementing back-up capability, testing of the back-up center etc. Although the time allowed to implement backup capability could be perceived to be an increase over the existing EOP-008-1 standard, the existing standard does not include a hard and fast rule on a 1 hour implementation. In EOP-008-1, an entity was permitted to have "interim provisions" without a hard-stop on the time needed to implement the back-up center. In the proposed EOP-008-2 standard, we believe the SDT made the appropriate steps to put a firm time limit for implementation and we feel the 2 hour limit is sufficient. The need to utilize one's backup capability is a rare event and the adjustment made should not adversely effect reliability of the BES.
WECC	Yes	

Organization	Question 8:	Question 8 Comments:
Reliability Coordinator Comment Working Group		
San Diego Gas and Electric	Yes	
ComEd / Exelon	Yes	
Entergy System Planning & Operations (Generation & Marketing)	Yes	
Manitoba Hydro	Yes	
San Diego Gas and Electric	Yes	
Progress Energy Carolinas, Inc.	Yes	
NPCC	Yes	Backup functionality for RCs, BAs and applicable TOPs are essential to ensuring continuous reliable operation of the BES. This standard is needed to provide this assurance.

Organization	Question 8:	Question 8 Comments:
Southern Company Transmission	No	Not in its current form. However, with the changes we have recommended, we believe that it could.
Xcel Energy	Yes	There are some areas of concern that need addressed/ clarified. However, if they are properly addressed, then we feel this standard will help deliver an adequate level of reliability.
Duke Energy	Yes	It appears that this standard is moving in the right direction.
MRO NERC Standards Review Subcommittee	Yes	The MRO commends the SDT. The SDT has incorporated many past comments and given great replies to the many questions, Thank you.
ITC	Yes	
Oncor Electric Delivery	Yes	
ISO New England Inc	Yes	Backup functionality for RCs, BAs and applicable TOPs are essential to ensuring continuous reliable operation of the BES. This standard is needed to provide this assurance.
Independent Electricity System Operator	Yes	Backup functionality for RCs, BAs and applicable TOPs is essential to ensuring continuous and reliable operation of the BES. This standard is needed to provide this assurance.
Progress Energy-Florida	Yes	
Pepco Holdings, Inc.	Yes	Operative word is -help- see previous comments

Consideration of Comments on 2nd Draft of EOP-008-1 — Backup Facilities (Project 2006-04)

Organization	Question 8:	Question 8 Comments:	
- Affiliates			
ReliabilityFirst Corporation	Yes		
Bonneville Power Administration	Yes		
Dynegy	Yes		
Hydro-Québec TransÉnergie (HQT)	Yes		
Santee Cooper	No	We believe with our comments from above included in the standard, that this standard will help deliver an adequate level of reliability.	
Ameren	No	With suggested changes.	
Response: That	Response: Thank you for your response.		