

Backup Facilities SAR Drafting Team

Meeting Notes

January 31–February 1, 2007

1. Administrative Items

a. Introductions and Quorum

The meeting was called to order by the Chair at 0800 on January 31, 2007. Attendance at the meeting was as follows:

Sam Brattini (Chair)	Mike Schiavone (Vice Chair)	Tom Bowe
Kevin Conway	Sam Holeman	Charles Jenkins
Glenn Kaht	James Larsen	Allen Phelps
Keith Porterfield	James Vermilion	Melinda Montgomery
Ed Dobrowolski (NERC)	Maureen Long (NERC)	

All team members were present for the meeting so a quorum was attained.

b. NERC Antitrust Compliance Guidelines

Ed Dobrowolski briefly reviewed the recently updated antitrust guidelines.

c. Review Meeting Agenda & Objectives

Sam Brattini reviewed the meeting agenda and objectives. No changes were made to the published agenda.

2. SAR Drafting Team Overview Session

Maureen Long presented a Power Point presentation detailing the roles and responsibilities of drafting teams. The presentation is attached to these notes.

3. Review & Finalize SAR Comment Responses

The team had split the responsibility for the initial responses to the SAR questions. Charles Jenkins answered question #1. Allen Phelps responded to question #2. Sam Brattini and Keith Porterfield handled question #3.

The initial responses were reviewed by the entire team and revised as necessary. The response form was finalized and attached to these notes. It will be passed on to NERC staff for posting.

4. Review & Finalize SAR

a. The SAR was extensively revised based on the responses to reviewer comments. A red-lined and clean version of the revised SAR is attached to these notes. Major changes included:

- Deletion of COM-001 from the project (due to the fact) as it was felt that it dealt with generic communications issues (that will be handled elsewhere) and not backup capabilities.
- Revisions to the applicability section, particularly the inclusion of transmission owner.
- Clarifications to the project scope.

b. Due to the extensive revisions to the SAR, the team decided that it was necessary to repost. Two questions were developed in support of the reposting:

- The revised SAR shows the transmission owner as an applicable entity based on the concept that there are transmission owners that operate control centers that could potentially have impact on the reliability of the bulk power system. Do you agree that the Standard Drafting Team needs to have the flexibility to address the issue of transmission owners as applicable entities in the drafting of the standard?
- The SAR Drafting Team has deleted COM-001 from the revised SAR based on the fact that COM-001 deals with generic communication issues and not backup facility issues. Communication support explicitly needed for backup facilities will be considered in the revision of EOP-008. Also, COM-001 is covered in other areas of the Reliability Standards Development Plan 2007–2009. On this basis, do you agree that COM-001 should be deleted from the scope of this SAR?

5. Review Action Items & Schedule

Ed Dobrowolski reviewed the schedule for this project as shown in the Reliability Standards Development Work Plan 2007–2009. To date, the project is tracking the estimated schedule and no problems are anticipated. A key element in the overall schedule is the close liaison with the Operating Committee Backup Capability Study Team and the availability of that draft report. As several members of that team are also members of the SAR Drafting Team, it was felt that this will not be an issue.

There were no action items specifically developed during the meeting. However, assignments were made for the drafting of initial responses to the second set of questions:

- Question #1 — Charles Jenkins
- Question #2 — Allen Phelps

6. Schedule Next Meetings

Thursday, April 10, 2007 has been set for a Conference Call and WebEx from 1300 to 1600 hours EDT. This date was selected based on a second 30-day posting for the SAR on February 15th and to allow for an appropriate amount of time to formulate responses following the posting period expiration. The goal of the call will be to finalize the responses and to prepare the SAR for advancement to the SC.

7. Adjourn

The meeting was adjourned at 1200 on February 1, 2007.

Notes by Ed Dobrowolski

Backup Facilities SAR DT Kick-off Meeting

Maureen Long
NERC Staff

Topics

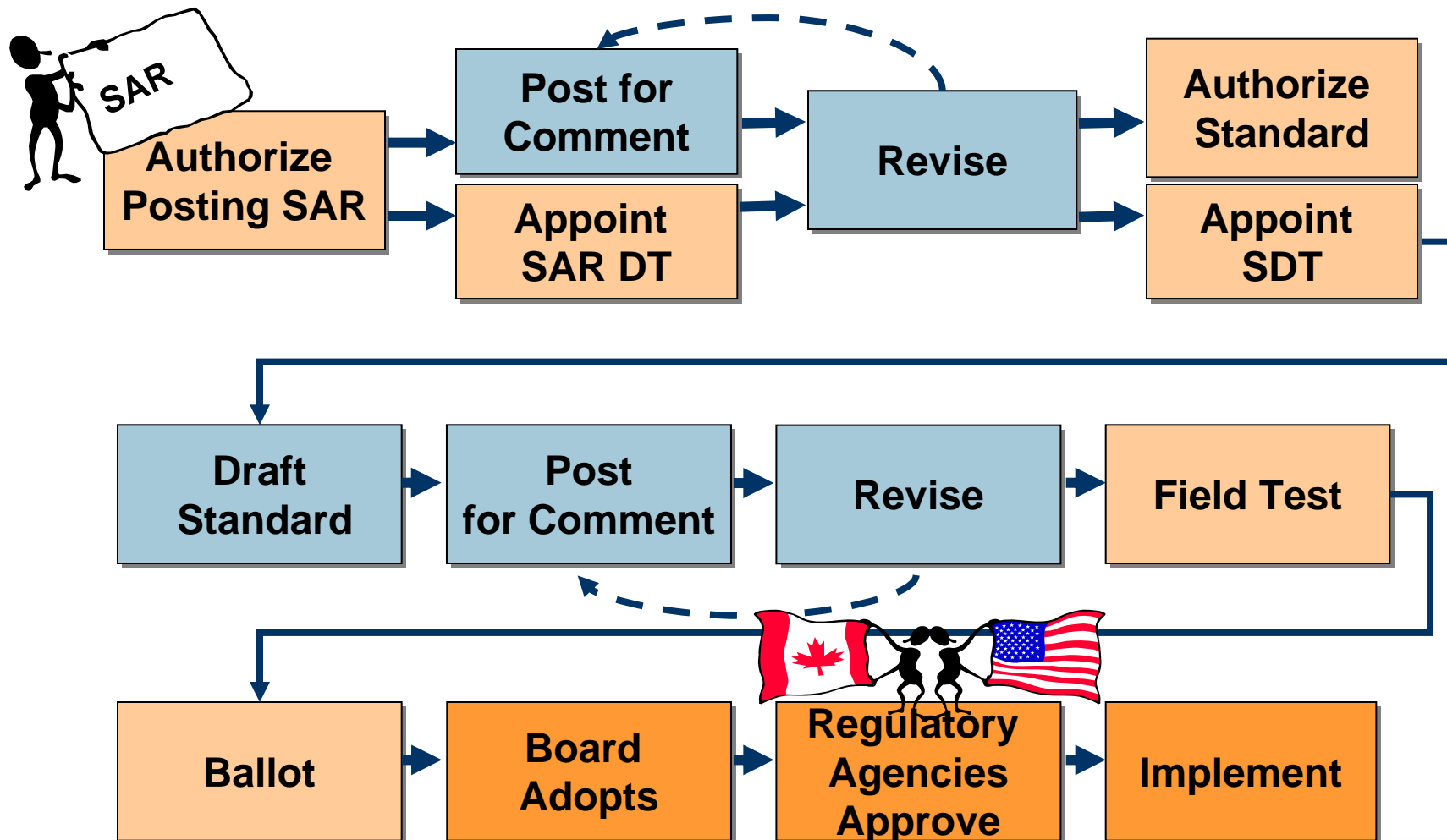
- SAR Drafting Team Support & References
- Overview of Process
- Expectations of DT Members
 - Responsibilities of DT Members
 - DT Products
 - SAR
 - Comment Form
 - Response to Comments
 - Recommendation to Standards Committee (SC)
 - Preservation of 'Open' Process
- Questions

Support & Resources

- Reliability Standards Development Procedure Manual
- Drafting Team Guidelines
- SAR DT Scope Document
- Functional Model
- NERC Staff Directly Involved with Standards
 - Ed Dobrowolski
 - Maureen Long
 - Gerry Adamski
 - Barbara Bogenrief

Overview of Process

Drafting Team
SC Approval
After DT Done



Key Roles in Standards Process



Board of Trustees



Regulators



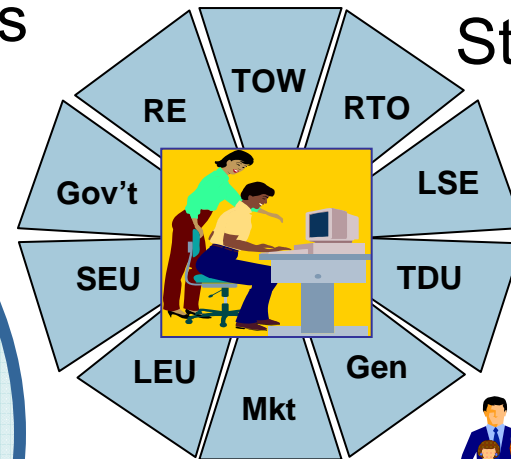
Stakeholders



Standards Committee



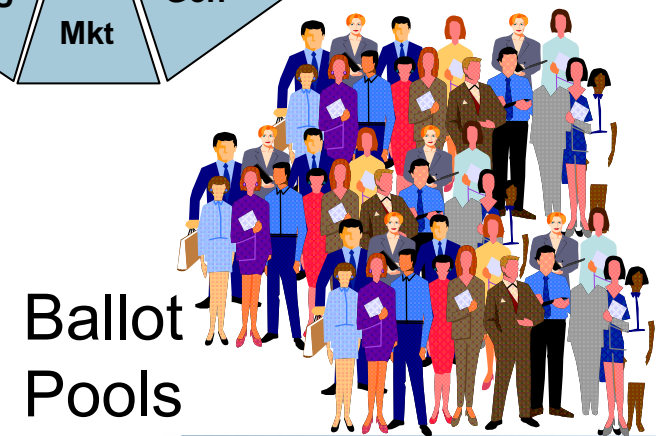
Standards Staff



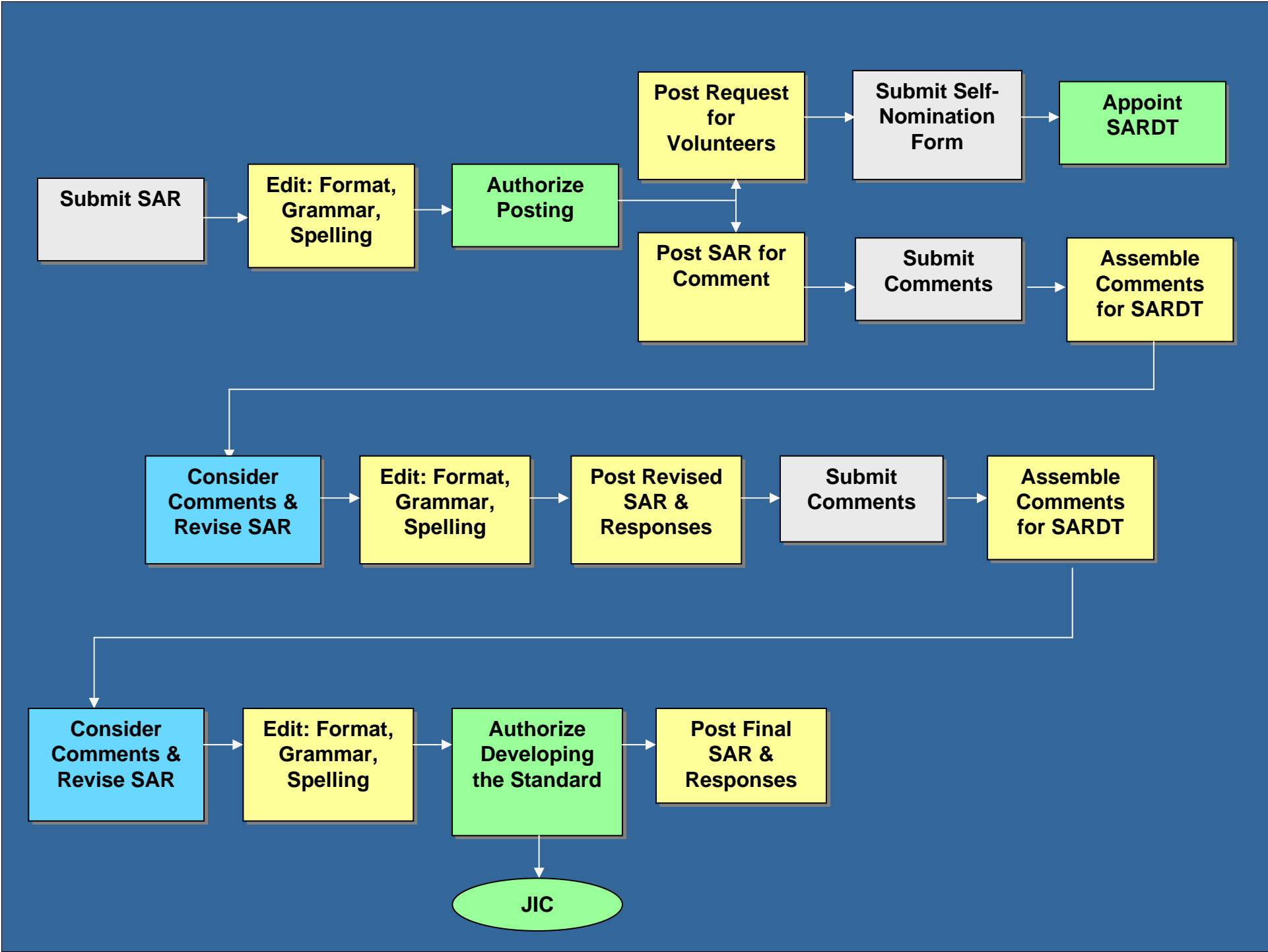
Ballot Body



Drafting Teams



Ballot Pools



Responsibilities of Chair

- Leads the Team in a neutral capacity
- Ensures the Team makes progress
- Conducts meetings of the Team
- Represents the Team to other bodies
- Reports progress to the SAC

Responsibilities of all Members

- Provide knowledge and expertise
- Participate actively
- Provide contributions, drafts, comments
- Attend meetings
- Participate in Industry Forums
- Provide feedback on Standards Development activities

Responsibilities of Coordinator

- Advises the Team in a neutral capacity
- Monitors, facilitates, reports on, ensures active progress
- Prepares and circulates Team documents
- Maintains membership records
- Prepares for and assists at meetings

Standard Authorization Request (SAR)

- Establishes **purpose (reliability-related), scope and applicability** of proposed standard action
 - Keep revising until you have consensus on **purpose (reliability-related), scope, applicability**
- Can be used to add, modify or retire standards
- Requestor 'owns' SAR and has final say until SAR is finalized

Comment Forms

- Ask very pointed questions
- If you've made changes, ask for feedback
- Ask for agreement on:
 - **Purpose** (reliability-related need for SAR)
 - **Scope**
 - **Applicability**
- Ask for known Regional Variances

Responding to Comments

- Scan for 'sense' of stakeholders' reactions
- Consider & respond to **every** comment
 - Responses must be respectful
 - Responses should provide a justification for making/not making the requested change
- Develop 'summary consideration' for each question
- Add overview of changes made – including issues resolved and those unresolved
- Make conforming changes to SAR

Sample Question & Summary Consideration

- 1. Do you believe that there is a reliability-related need to upgrade the requirements in this set of standards?**

Summary Consideration: Most commenters indicated they do believe there is a reliability-related need to upgrade the requirements in this set of standards.

Sample Responses:

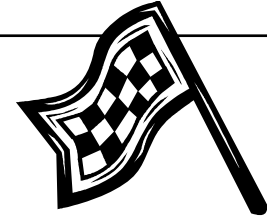
- The drafting team agrees
- The applicability section was expanded to add the Generator Owner as proposed.
- The drafting team disagrees
- The change was not adopted because the Generator Owner, not the Generator Operator is responsible for determining the facility rating.

If the suggestion is submitted by	And the suggestion . . .	Then . . .	Ask stakeholders to . . .
Multiple entities in multiple regions	Does /may have technical merit	Incorporate suggestion	Confirm change
	Does not have obvious technical merits	Tell why suggestion lacks technical merit	
Single entity or by multiple entities in a single region	Does /may have technical merit	If widespread support anticipated, incorporate suggestion	Confirm change
		If widespread support not anticipated, don't incorporate	Indicate preference for suggestion
	Does not have obvious technical merits	Tell why suggestion lacks technical merit	

Weighing Comments

# signatures	# companies	# segments	# comments
1	1	1	1
5	1	1	1
8	1	3	3
12	12	1	12
12	3	3	??

Ready to Post?



- SAR
 - Clean
 - Red-line to last posted version
- Consideration of comments
 - All comments addressed
 - Matches SAR
 - Includes notice of appeals process
- Comment form
 - Asks useful questions

Report to SC when Finished:

- SAR complete – consensus on **purpose (reliability-related need), scope & applicability**
- SAR withdrawn – no consensus
- Provide SC with:
 - Summary of unresolved strong minority issues
 - Link to all work
 - Notice that DT has responded to all comments
 - Notice that all commenters apprised of appeals process

Preserve 'Open' Process



- 'Standards under Development' - stakeholder review and comment
 - Drafts of SARs
 - Reference Documents
 - Comment Forms
 - Responses to Comments
 - Conference call/Web Ex Schedule
- 'Related Files' drafting team use
 - Agendas and meeting notes (at least 5 days before/no more than 5 days after meeting)

Questions?



Comment Report — Backup Facilities SAR

The **[Backup Facilities SAR]** Drafting Team thanks all commenters who submitted comments on the **[Draft 1]** of the **[Backup Facilities SAR]**. This **[SAR]** was posted for a **[30-]** day public comment period from **[November 6 through December 5, 2006]**. The **[Backup Facilities SAR Drafting Team]** asked stakeholders to provide feedback on the standard through a special standard Comment Form. There were 23 sets of comments, including comments from more than 60 different people from more than 25 companies representing 8 of the 10 Industry Segments as shown in the table on the following pages.

Based on the comments received, the drafting team is recommending that the SAR be re-posted for comments.

In this 'Consideration of Comments' document stakeholder comments have been organized so that it is easier to see the responses associated with each question. All comments received on the SAR can be viewed in their original format at:

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

If you feel that your comment has been overlooked, please let us know immediately. Our goal is to give every comment serious consideration in this process! If you feel there has been an error or omission, you can contact the Vice President and Director of Standards, Gerry Cauley at 609-452-8060 or at gerry.cauley@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>.

Comment Report — Backup Facilities SAR

Commenter		Organization	Industry Segment											
			1	2	3	4	5	6	7	8	9	10		
1.	James Sorrels	American Electric Power	✓					✓	✓					
2.	Jason Shaver	American Transmission Company	✓											
3.	Terry Doern	Bonneville Power Administration	✓											
4.	Edward Davis	Entergy Services, Inc.	✓											
5.	Will Franklin	Entergy Services, Inc.							✓					
6.	David Kiguel	Hydro One Networks Inc.	✓											
7.	Ron Falsetti	Independent Electricity System Operator		✓										
8.	Roderick Conwell	IPL	✓											
9.	Charles Yeung (SPP)	IRC Standards Review Committee		✓										
10.	Tom Bowe (PJM)	IRC Standards Review Committee		✓										
11.	Mike Calimano (NYISO)	IRC Standards Review Committee		✓										
12.	Ron Falsetti (IESO)	IRC Standards Review Committee		✓										
13.	Matt Goldberg (ISONE)	IRC Standards Review Committee		✓										
14.	Brent Kingsford (CAISO)	IRC Standards Review Committee		✓										
15.	Anita Lee (AESO)	IRC Standards Review Committee		✓										
16.	Steve Myers (ERCOT)	IRC Standards Review Committee		✓										
17.	Bill Phillips (MISO)	IRC Standards Review Committee		✓										
18.	Kathleen Goodman	ISO New England		✓										
19.	Brian Thumm	ITC Transmission	✓											
20.	Jim Cyrulewski	JDRJC Associates										✓		
21.	Jim Useldinger	Kansas City Power & Light Company	✓											
22.	Robert Coish	Manitoba Hydro	✓		✓			✓	✓					
23.	Dede Subakti	Midwest ISO, Inc.		✓										
24.	Terry Bilke	Midwest ISO, Inc.		✓										
25.	Guy Zito (NPCC)	NPCC CP9 Reliability Standards Working Group		✓										
26.	Ralph Rufrano (NYPA)	NPCC CP9 Reliability Standards Working Group	✓											
27.	Kathleen Goodman (ISONE)	NPCC CP9 Reliability Standards Working Group		✓										
28.	Bill Shemley (ISONE)	NPCC CP9 Reliability Standards Working Group		✓										
29.	Greg Campoli (NYISO)	NPCC CP9 Reliability Standards Working Group		✓										
30.	Roger Champagne (TEHQ)	NPCC CP9 Reliability Standards Working Group	✓											
31.	David Kiguel (Hydro One)	NPCC CP9 Reliability Standards Working Group	✓											
32.	Herbert Schrayshuen (NGrid)	NPCC CP9 Reliability Standards Working Group	✓											
33.	Donald Nelson (MA)	NPCC CP9 Reliability Standards												✓

Comment Report — Backup Facilities SAR

Commenter		Organization	Industry Segment											
			1	2	3	4	5	6	7	8	9	10		
	Dept. of Tele and Energy)	Working Group												
34.	Ed Thompson (ConEd)	NPCC CP9 Reliability Standards Working Group	✓											
35.	Ron Falsetti (IESO)	NPCC CP9 Reliability Standards Working Group		✓										
36.	Alan Adamson (NYSRC)	NPCC CP9 Reliability Standards Working Group												✓
37.	Jerad Barnhart	NSTAR Electric	✓											
38.	Michael Anthony	Progress Energy Carolinas	✓											
39.	Phil Riley	Public Service Commission of SC											✓	
40.	Mignon L. Clyburn	Public Service Commission of SC											✓	
41.	Elizabeth B. Fleming	Public Service Commission of SC											✓	
42.	G. O'Neal Hamilton	Public Service Commission of SC											✓	
43.	John E. Howard	Public Service Commission of SC											✓	
44.	Randy Mitchell	Public Service Commission of SC											✓	
45.	C. Robert Moseley	Public Service Commission of SC											✓	
46.	David A. Wright	Public Service Commission of SC											✓	
47.	Kevin Conway	PUD #2 of Grant County				✓								
48.	Mike Gentry	Salt River Project	✓											
49.	Gary Strickler	Salt River Project	✓											
50.	J.T. Wood	Southern Company Services, Inc.	✓											
51.	Marc Butts	Southern Company Services, Inc.	✓											
52.	Roman Carter	Southern Company Services, Inc.	✓											
53.	Steve Corbin	Southern Company Services, Inc.	✓											
54.	Kathy Davis	Tennessee Valley Authority	✓											
55.	Sue Mangum Goins	Tennessee Valley Authority	✓											
56.	Mark Creech	Tennessee Valley Authority	✓											
57.	Earl Shockley	Tennessee Valley Authority	✓											
58.	Jerry Landers	Tennessee Valley Authority	✓											
59.	Nancy Bellows (WACM)	WECC Reliability Coordination Comments Work Group		✓										
60.	Terry Baker (PRPA)	WECC Reliability Coordination Comments Work Group		✓										
61.	Tom Botello (SCE)	WECC Reliability Coordination Comments Work Group		✓										
62.	Richard Ellison (BPA)	WECC Reliability Coordination Comments Work Group		✓										
63.	Mike Gentry (SRP)	WECC Reliability Coordination Comments Work Group		✓										
64.	Robert Johnson (PSC)	WECC Reliability Coordination Comments Work Group		✓										
65.	Greg Tillitson (CMRC)	WECC Reliability Coordination Comments Work Group		✓										

Comment Report — Backup Facilities SAR

Commenter		Organization	Industry Segment											
			1	2	3	4	5	6	7	8	9	10		
66.	Martin Trence	Xcel Energy – NSP	✓											

Index to Questions, Comments, and Responses

1. Do you believe that there is a reliability-related need to upgrade the requirements in this set of standards? 6
2. Do you agree with the scope of the proposed project? (The scope includes all the items noted on the 'Standard Review Forms' attached to the SAR as well as other improvements to the standards that meet the consensus of stakeholders, consistent with establishing high quality, enforceable, and technically sufficient bulk power system reliability standards.) 10
3. Please identify any additional revisions that should be incorporated into this set of standards, beyond those that have already been identified in the SAR. 20

Summary Response to Comments

1. Based upon industry comments, the SAR DT determined that there is a reliability requirement for this SAR on back-up capabilities. Most of the comments were associated with points of clarification.
2. The questions/concerns raised in questions 2 and 3 centered around 8 areas:
 - The study of backup capabilities referenced in the SAR.
 - The inclusion of the COM standards in the SAR.
 - References to backup capabilities in other Reliability Standards.
 - Information in Appendix B.
 - The inclusion of Distribution Provider and Generation Operator in the SAR.
 - The relationship between Transmission Operators and other functions such as Transmission Owners and Market Operators as it relates to applicability in this SAR.
 - The specification of standard requirements and the entities to which they would apply.
 - The lack of clarity and conceptual bounds with regards to the scope of the SAR.

The SAR Drafting Team responded to each of these areas with specificity appropriate for the SAR drafting stage. The intent of the SAR Drafting Team is to provide the conceptual boundaries around Backup Capability, while providing ample flexibility to the Standard Drafting Team to develop clear and crisp reliability standards with respect to backup capability. We believe that the revisions made to the SAR provide this flexibility and clarity.

Comment Report — Backup Facilities SAR

Do you believe that there is a reliability-related need to upgrade the requirements in this set of standards?

Question #1			
Commenter	Yes	No	Comment
Entergy Services, Inc.		<input checked="" type="checkbox"/>	We believe there is not a reliability-related need to upgrade the requirements in this set of standards. We do agree these standards need to be reviewed and revised to make them better standards.
PUD #2 of Grant County		<input checked="" type="checkbox"/>	I don't believe there is a reliability rated need per se, but there does seem to be a need to improve the standards to allow consistent evaluation of the back-up plans and facilities during audits and inspections.
Response: The SAR Drafting Team recognizes that whether there is a reliability-related need is subjective and open to interpretation of the question, but does agree with the commenters' conclusion that the standards need to be upgraded and improved.			
Hydro One Networks Inc.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<p>There is a need to upgrade requirements. The EOP and COM standards need to be rewritten to better reflect a requirement for backup control center in the event of the loss of the primary control center. The requirement for this backup control center should clearly articulate a minimum set of functional requirements.</p> <p>However, we request clarification on this SAR before deciding if there is a reliability-related need to upgrade the requirements in this set of Standards. The SAR updates COM-001-0. The industry approved COM-001-1. What will happen to COM-001-1 if this SAR is approved? The Brief Description does not mention COM-001. Is that an oversight? Is this SAR only updating EOP-008? If this SAR updates COM-001, then what is that justification? The title of this SAR is Backup Facilities. Does that mean the updated COM-001 will apply only to backup facilities? Since the Interchange Authority (IA) should have at least an Area view, we suggest that the IA should be checked on. This assumes that the IA continues as a Functional Model Entity. This comment form's background information provides two solutions, 1) move the COM-001 requirements to other Standards or 2) update COM-001. We feel that decision is part of this SAR's scope. To fully explore moving COM-001 to other Standards, what are those other Standards? If moved, what happens to COM-001? We prefer that the other Standards reference COM-001 and that COM-001 be updated.</p>
NPCC CP9 Reliability Standards Working Group	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<p>NPCC Participating Members agree there is a need to upgrade requirements. We believe the EOP and COM standard needs to be rewritten to better reflect a requirement for backup control center in the event of the loss of the primary control center. The requirement for this backup control center should clearly articulate a minimum set of functional requirements.</p> <p>Also, NPCC participating members request clarification on this SAR before deciding if there is a reliability-related need to upgrade the requirements in this set of Standards. The SAR updates COM-001-0. The industry approved COM-001-1. What will happen to COM-001-1 if this SAR is approved? The Brief Description does not mention COM-001. Is that an oversight? Is this SAR only updating EOP-008? If this SAR updates COM-001, then what is that justification? The title of this SAR is Backup Facilities. Does that mean the updated COM-001 will apply to only backup facilities? Since the Interchange Authority (IA) should have at least an Area view, we suggest that the IA should be checked on. This assumes that the IA continues as a Functional Model Entity. This comment form's background information provides two solutions, 1) move the COM-001 requirements to other Standards or 2) update</p>

Comment Report — Backup Facilities SAR

Question #1			
Commenter	Yes	No	Comment
			COM-001. We feel that decision is part of this SAR's scope. To fully explore moving COM-001 to other Standards, what are those other Standards? If moved, what happens to COM-001? We prefer that the other Standards reference COM-001 and that COM-001 be updated.
NSTAR Electric	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<p>Although NSTAR agrees there is a need to upgrade requirements, we believe the EOP and COM standard should be rewritten to better reflect a requirement for backup control center in the event of the loss of the primary control center. The requirement for this backup control center should clearly articulate a minimum set of functional requirements.</p> <p>Also, we request clarification on this SAR before deciding if there is a reliability-related need to upgrade the requirements in this set of Standards. The SAR proposes to update COM-001-0. The industry approved COM-001-1. What will happen to COM-001-1 if this SAR is approved? The Brief Description does not mention COM-001. Is that an oversight? Is this SAR only updating EOP-008? If this SAR updates COM-001, then what is that justification? The title of this SAR is Backup Facilities. Does that mean the updated COM-001 will apply to only backup facilities? This comment form's background information provides two solutions, 1) move the COM-001 requirements to other Standards or 2) update COM-001. We feel that decision is part of this SAR's scope.</p>
ISO New England	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<p>Although ISO New agrees there is a need to upgrade requirements, we believe the EOP and COM standard should be rewritten to better reflect a requirement for backup control center in the event of the loss of the primary control center. The requirement for this backup control center should clearly articulate a minimum set of functional requirements.</p> <p>Also, we request clarification on this SAR before deciding if there is a reliability-related need to upgrade the requirements in this set of Standards. The SAR proposes to update COM-001-0. The industry approved COM-001-1. What will happen to COM-001-1 if this SAR is approved? The Brief Description does not mention COM-001. Is that an oversight? Is this SAR only updating EOP-008? If this SAR updates COM-001, then what is that justification? The title of this SAR is Backup Facilities. Does that mean the updated COM-001 will apply to only backup facilities? This comment form's background information provides two solutions, 1) move the COM-001 requirements to other Standards or 2) update COM-001. We feel that decision is part of this SAR's scope.</p>
MISO, IPL, JDRJC Associates	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<p>Yes, there is a reliability-related need. While we expect the backup requirements for Reliability Coordinators be fairly standard, a one-size fits all approach may not be appropriate for all other entities. A small TOP or BA can perform many of their tasks with lower tech tools.</p> <p>The SAR needs additional definition. It should clearly define the bounds of the proposed standard.</p>
Independent Electricity System Operator	<input checked="" type="checkbox"/>		<p>We agree that the 2 standards should be tightened up to meet reliability needs and FERC's request. However, we don't think the scope of this SAR is clearly defined (see comment on Q2 below). The SAR proposes to update COM-001-0 but the industry has already approved COM-001-1. What will happen to COM-001-1 if this SAR is approved? Please clarify.</p>
<p>Response: The SAR Drafting Team agrees that the standard needs to be upgraded. The reference in the draft SAR to COM-001-0 was an oversight. However, the SAR Drafting Team agrees the current wording in the</p>			

Comment Report — Backup Facilities SAR

Question #1			
Commenter	Yes	No	Comment
<p>“Brief Description” section does not address COM-001 and after discussion has determined to delete COM-001 from this SAR. COM-001 deals with communications in a generic sense and does not specifically relate to backup facilities. Consideration for communications support explicitly for backup facilities will be included in the scope of this SAR.</p> <p>The SAR DT discussed the applicability of the IA to this SAR and decided that the IA was not an applicable entity in this regard. We believe that the true responsible entities are the RC, BA and TOP.</p> <p>The SAR Drafting Team agrees with the comment that a “one-size fits all approach may not be appropriate” and has reflected that in the revised SAR.</p>			
ITC Transmission	<input checked="" type="checkbox"/>		The requirements for backup facilities need more specificity in several areas.
American Transmission Company	<input checked="" type="checkbox"/>		The upgrade is needed in order to eliminate existing ambiguity and requirement redundancy.
American Electric Power	<input checked="" type="checkbox"/>		Yes, EOP-008-0 is very weak in that it does not require the applicable entities to have a minimum defined level of backup capabilities nor to prove those backup capabilities. It is unacceptable that all that is required today is to have a set of plans.
Salt River Project	<input checked="" type="checkbox"/>		Admittedly, there are some "holes" in the current version.
<p>Response: The SAR Drafting Team agrees with the comments concerning the need for upgrades to the standard.</p>			
Kansas City Power & Light Company	<input checked="" type="checkbox"/>		<p>SAR needs additional clarification.</p> <p>COM-001 Generator Operators and Distribution Operators should be included as applicable entities for telecommunications information.</p> <p>EOP-008 The bulleted items under "FERC NOPR" are reliability-related issues and should be considered for changes to the standard EOP-008.</p>
<p>Response: The SAR Drafting Team agrees the SAR needs additional clarification and believes the specific matters raised by this commenter with regard to EOP-008 are within the scope of this SAR as revised.</p> <p>After discussion the SAR DT has decided to delete COM-001 from this SAR. COM-001 deals with communications in a generic sense and does not specifically relate to backup facilities. Consideration for communications support explicitly for backup facilities will be included in the scope of this SAR.</p>			
Tennessee Valley Authority	<input checked="" type="checkbox"/>		We agree that there should be more detailed information in the Standards, but would prefer to see the results of the "study" before commenting further.
<p>Response: The SAR DT is going to work closely with the OC Backup Control Center Task Force. Several members of that task force are also serving on the SAR DT. The goal of this effort is to start the standards effort at the time that the draft of the OC study is available. The project schedule supports this timing.</p>			

Comment Report — Backup Facilities SAR

Question #1			
Commenter	Yes	No	Comment
Midwest ISO, Inc.	<input checked="" type="checkbox"/>		Standard EOP - 008 contains all the necessary elements pertaining to Back-Up Control Center requirements.
Response: The SAR Drafting Team agrees that the current EOP-008 standard contains many of the necessary elements, but believes there are several areas within the standard that need to be upgraded such as requiring capability as opposed to simply having a plan.			
Bonneville Power Administration	<input checked="" type="checkbox"/>		
Xcel Energy – NSP	<input checked="" type="checkbox"/>		
IRC Standards Review Committee	<input checked="" type="checkbox"/>		
Southern Company Services, Inc.	<input checked="" type="checkbox"/>		
Entergy Services, Inc.	<input checked="" type="checkbox"/>		
Progress Energy Carolinas	<input checked="" type="checkbox"/>		
WECC Reliability Coordination Comments Work Group	<input checked="" type="checkbox"/>		
Public Service Commission of SC	<input checked="" type="checkbox"/>		
Manitoba Hydro	<input checked="" type="checkbox"/>		

Comment Report — Backup Facilities SAR

Do you agree with the scope of the proposed project? (The scope includes all the items noted on the ‘Standard Review Forms’ attached to the SAR as well as other improvements to the standards that meet the consensus of stakeholders, consistent with establishing high quality, enforceable, and technically sufficient bulk power system reliability standards.)

Question #2			
Commenter	Yes	No	Comment
ITC Transmission		<input checked="" type="checkbox"/>	The study of backup capabilities should be performed first, and then the SAR written to address the findings of the study.
Response: The SAR DT is going to work closely with the OC Backup Control Center Task Force. Several members of that task force are also serving on the SAR DT. The goal of this effort is to start the standards effort at the time that the draft of the OC study is available. The project schedule supports this timing.			
IRC Standards Review Committee		<input checked="" type="checkbox"/>	The SRC would suggest that the SAR be clear that it will be a complete review of the subject requirements: to include the addition, deletion and modification of requirements as agreed to by public consensus and not be limited to the "TO DO LIST" identified in this draft.
Midwest ISO, Inc.		<input checked="" type="checkbox"/>	The scope of this project should not be limited to just revising two Standards due to directives from regulatory bodies, but should be flexible to meet industry needs, whether additional or fewer Standards are required to address Back-Up Control Center and Communication needs.
Response: The SAR DT agrees that the needs of the entire industry will be reviewed and considered rather than only addressing perceived deficiencies.			
Entergy Services, Inc.		<input checked="" type="checkbox"/>	<p>There are several issues within the proposed SAR that concern scope, timing and sequence.</p> <p>Please indicate in the scope why these two seemingly unrelated standards are being revised together.</p> <p>COM-001 R5 is the only part of COM-001 that is concerned with loss of telecommunications facilities. We suggest that the SAR contain an explicit statement that standard development be limited to revisions to COM-001 R5 only and no other part of COM-001 will be changed.</p> <p>The reference to the certification standards should be deleted as there are no approved certification standards, or the statement should be modified from - identify which of these ARE essential to reliable operations - to - identify which of these, PLUS OTHERS, MAY BE essential to reliable operations".</p> <p>Changes to these standards and requirements should be made based on the final rulemaking by FERC. They should not be made based on the NOPR and the SAR should so state.</p> <p>The SAR should specify the sequence of standard development activity especially since there is a study required. The SAR should indicate that a study is required and the study draft results will be circulated to the industry for comment and revision. Then, the SAR should state that revisions to EOP-008 and COM-001 R5 will be considered based on the results of that study.</p> <p>We are concerned about the open-ended statements in the SAR. Those statements should be deleted or modified. The first is the statement that there are backup facility requirements in some other standard</p>

Comment Report — Backup Facilities SAR

Question #2			
Commenter	Yes	No	Comment
			<p>which should be moved into this standard. Those other standards should be specified in this SAR.</p> <p>Additionally, the SAR contains the statement that - development may include other improvements to the standards deemed appropriate - should contain a statement that those other improvements will be limited to these two standards and approval of this SAR is not an open-ended approval to change standards and requirements other than EOP-008 and COM-001 R5 and back-up facility requirements that may be contained in the other standards specified in this SAR.</p>
<p>Response:</p> <p>After discussion the SAR DT has decided to delete COM-001 from this SAR. COM-001 deals with communications in a generic sense and does not specifically relate to backup facilities. Consideration for communications support explicitly for backup facilities will be included in the scope of this SAR.</p> <p>The SAR DT agrees with the comment on certification standards and have removed this reference from the SAR.</p> <p>The NOPR must be taken into consideration when drafting this Standard since it is occurring now. When the final FERC ruling is issued, changes may be necessary if it differs significantly from the NOPR input.</p> <p>The SAR DT is going to work closely with the OC Backup Control Center Task Force. Several members of that task force are also serving on the SAR DT. The goal of this effort is to start the standards effort at the time that the draft of the OC study is available. The project schedule supports this timing.</p> <p>The SAR DT will review whether the backup requirements in other Standards will need to be consolidated into this one. The BFSDT will only consider what requirements are necessary for reliable system operations.</p> <p>The SAR DT does not intend to change other Standards. If appropriate, the BFSDT will relocate backup requirements from other Standards and include them in this Standard. The other Standards could then be updated to remove the redundant requirements.</p>			
Hydro One Networks Inc.		<input checked="" type="checkbox"/>	<p>Hydro One submits that the Scope is too open ended and removal of the word "full" from the phrase "full backup facility" is suggested.</p> <p>Also, since Version 0, some in the industry have recommended that the NERCnet users be removed from the Applicability section as this is not an entity that is part of the NERC Funtional Model. We recommend that COM-001 R6 should not be a Reliability Requirement. R6 and Attachment 1 should be moved to a NERCnet procedure document. As written, the Requirements need better granularity so the industry can consistently measure compliance. The Requirements need to spell out the underlying assumptions such as "special attention" and the SAR's "shall do what" comment on R1.4.</p>
NSTAR Electric		<input checked="" type="checkbox"/>	<p>NSTAR believes the Scope is too open ended and removal of the word "full" from the phrase "full backup facility" is suggested.</p> <p>Also, since Version 0, we have recommended that the NERCnet users be removed from the Applicability</p>

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Question #2			
Commenter	Yes	No	Comment
			section. We cannot find NERCnet users in the Functional Model. We continue recommending that COM-001 R6 should not be a Reliability Requirement. R6 and Attachment 1 should be moved to a NERCnet procedure document. As written, the Requirements need better granularity so the industry can consistently measure compliance. The Requirements need to spell out the underlying assumptions such as “special attention” and the SAR’s “shall do what” comment on R1.4.
NPCC CP9 Reliability Standards Working Group		<input checked="" type="checkbox"/>	<p>NPCC participating members believe the Scope is too open ended and removal of the word “full” from the phrase “full backup facility” would be suggested.</p> <p>Also, since Version 0, NPCC participating members have recommended that the NERCnet users be removed from the Applicability section. We cannot find NERCnet users in the Functional Model. We continue recommending that COM-001 R6 should not be a Reliability Requirement. R6 and Attachment 1 should be moved to a NERCnet procedure document. As written, the Requirements need better granularity so the industry can consistently measure compliance. The Requirements need to spell out the underlying assumptions such as “special attention” and the SAR’s “shall do what” comment on R1.4.</p>
ISO New England		<input checked="" type="checkbox"/>	<p>ISO-NE believes the Scope is too open ended and removal of the word “full” from the phrase “full backup facility” is suggested.</p> <p>Also, since Version 0, we have recommended that the NERCnet users be removed from the Applicability section. We cannot find NERCnet users in the Functional Model. We continue recommending that COM-001 R6 should not be a Reliability Requirement. R6 and Attachment 1 should be moved to a NERCnet procedure document. As written, the Requirements need better granularity so the industry can consistently measure compliance. The Requirements need to spell out the underlying assumptions such as “special attention” and the SAR’s “shall do what” comment on R1.4.</p>
<p>Response:</p> <p>The word “Full” only exists in Appendix B that is now listed as consideration only and not mandatory changes. It is possible (as pointed in several comments) that alternatives may exist to meet the requirements without requiring a “full” backup or complete duplication of a Primary Control Center.</p> <p>After discussion the SAR DT has decided to delete COM-001 from this SAR. COM-001 deals with communications in a generic sense and does not specifically relate to backup facilities. Consideration for communications support explicitly for backup facilities will be included in the scope of this SAR.</p>			
American Transmission Company		<input checked="" type="checkbox"/>	<p>ATC requests more detail on the scope and nature of the backup capability study identified in the “Brief Description” section of the SAR.</p> <ol style="list-style-type: none"> 1)What specifically is going to be asked in the study? <ol style="list-style-type: none"> a) Is the study going to include questions for both COM-001 and EOP-008? 2) Who is going to oversee the development and results of the study? <ol style="list-style-type: none"> a) How are the results going to be incorporated into the revised Standards? 3) What is the goal of the study? 4) Why do the SAR’s author(s) feel that a study needs to be performed before moving forward with

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			<p>improvements to the two standards?</p> <p>It's difficult from ATC's perspective to completely agree with the scope of the SAR when a major part of the effort (the study) is not defined.</p> <p>Second, the SAR identifies "new" Reliability Functions (Distribution Provider & Generator Operator) that may be subject to either one or both of these standards. Greater clarity needs to be provided as to how NERC will be expanding the Applicability of these standards. In other words, what existing requirements or new requirements would these entities be responsible for that they currently are not?</p> <p>Third, ATC requests that NERC consider expanding the applicability of these standards to the TSP and Market Operator functions. As the industry evolves the loss of these entities facilities may also have a major impact on system reliability.</p> <p>Fourth, the SAR states that there are back-up facility requirements in other standards that will be moved into this standard. That being the case, those standards with requirements that may be modified or "moved" as a result of this effort should be clearly identified under the "Related Standards" section of the Standard Authorization Request Form. Currently this SAR has identified only the COM-001-0 and EOP-008-0 standards.</p> <p>EOP-008-0</p> <p>Per the Standards Review Form the Title of EOP-008 may be changed by dropping the words "Plans for" from the Standard's title. If that is to be done, then it is also important to clarify the Purpose of this Standard to align with the title. Currently, the "Purpose" of the standard is to: "have a plan to continue reliability operations in the event its control center becomes inoperable."</p> <p>In the Standards Authorization Request Form, the Applicability section asks whether the reliability entity should be the TSP and not the TOP:</p> <p>Question: Isn't the reliability entity the TSP and not the TO as per the FM?</p> <p>As a TOP, ATC believes that the standard needs to continue to apply to TOPs. That being said, the standard may also need to be expanded to apply to the TSP function as well.</p> <p>ATC believes that the Standard Authorization Request Form should clearly identify which entity is responsible for each requirement under the existing standard. Two specific requirements that would benefit from additional clarification include: R1.2 and R1.3 where the functional model responsibilities of the BA and TOP have been intermingled. Requirement 1.2 requires the RC, TOP and BA to have</p>

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Question #2			
Commenter	Yes	No	Comment
			<p>procedures for providing basic tie line control, inter-area schedules and hourly accounting for all schedules. This is required of all three entities but should apply to the BA and TSP/Interchange Authority. Likewise requirement 1.3 lumps requirements specific to three different functional entities under a single umbrella. Each of the components under the requirement should be broken out to the appropriate applicable entity. For example, TOPs should be responsible for the control of critical transmission facilities and the control of critical substation devices. BAs should be responsible for generation control, time and frequency control. Both entities should be responsible for logging significant power system events. The SAR needs to address this issue so that each entity is able to clearly identify and comply with those items under their purview of control and not be held responsible for those items outside their control.</p> <p>Similarly, any new requirements should clearly state who is responsible for performing that function.</p> <p>COM-001-0</p> <p>ATC believes that the Standard Authorization Request Form needs to be updated to reflect that the standard being worked on is COM-001-1 (Version 1) not COM-001-0 (Version 0). COM-001-0 is listed in the Standards Authorization Request Form even though COM-001-1 will become effective on January 1 2007.</p> <p>The Applicability Section of this standard should be updated to remove "NERCNet User" from the list. A NERCNet user is not a defined term/entity under the NERC functional model and therefore, should not be used. NERC should take up any requirements for NERCNet users under a different forum (i.e. individual rules or agreements). In addition to removing the NERCNet user from the applicability section the standard, NERC should also remove any related requirements for this "entity".</p>
<p>Response: The SAR DT is going to work closely with the OC Backup Control Center Task Force. Several members of that task force are also serving on the SAR DT. The goal of this effort is to start the standards effort at the time that the draft of the OC study is available. The project schedule supports this timing.</p> <p>Generator Operator & Distribution Provider functions are contained in the NERC Functional Model but were only pertinent to COM-001 as per the FERC NOPR referenced in Appendix B. After discussion the SAR DT has decided to delete COM-001 from this SAR. COM-001 deals with communications in a generic sense and does not specifically relate to backup facilities. Consideration for communications support explicitly for backup facilities will be included in the scope of this SAR.</p> <p>The SAR DT discussed the applicability of the TSP and MP to this SAR and decided that they were not applicable entities in this regard. We believe that the coverage provided by the RC, BA and TOP should be sufficient to cover the need for control center backup.</p>			

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Commenter	Yes	No	Comment
<p>The SAR DT agrees that any associated standards that may be affected by this project will be identified in the SAR.</p> <p>EOP-008:</p> <p>1) The SAR DT agrees that the SDT should consider changing the title and purpose of EOP-008</p> <p>2) The SAR DT agrees that individual requirements should be associated with the responsible entity.</p>			
Kansas City Power & Light Company		<input checked="" type="checkbox"/>	<p>There are no bounds to the scope of the project.</p> <p>COM-001 Agree with addition of measures, non-compliance, and addition of applicability with Generator Operators and Distribution Operators, but do not agree with any of the other specific comments.</p> <p>Agree with the proposed measures and non-compliance in COM-001 version 1 except for non-compliance 2.3.1 as a level 3 non-compliance. Recommend consideration be given to making this a level 2.</p> <p>The comments under "VO Industry Comments" and "VRF Comments" are not specific enough to respond to.</p> <p>EOP-008 Agree the plan should contain the provisions as suggested under bulleted items under "FERC NOPR" and do not agree with any of the other items. The comments under "VO Industry Comments" are not specific enough to respond to. The comments under "VRF Comments" are editorial and should not be considered for any modification to the standard EOP-008.</p>
<p>Response: The SAR DT has made changes to the content of the SAR that are believed to have clarified the scope of the project.</p> <p>After discussion the SAR DT has decided to delete COM-001 from this SAR. COM-001 deals with communications in a generic sense and does not specifically relate to backup facilities. Consideration for communications support explicitly for backup facilities will be included in the scope of this SAR.</p> <p>Appendix B is an informative attachment that contains material for consideration in the standards revision process. It should not be considered to contain mandatory changes to the standard.</p>			
Tennessee Valley Authority		<input checked="" type="checkbox"/>	<p>Not enough detail to make an adequate determination.</p> <p>Why are we dealing with the Version 0 of COM-001 when version 1 is effective in January?</p>
<p>Response: The SAR DT has made changes to the content of the SAR that are believed to have clarified the scope of the project.</p> <p>After discussion the SAR DT has decided to delete COM-001 from this SAR. COM-001 deals with communications in a generic sense and does not specifically relate to backup facilities. Consideration for communications support explicitly for backup facilities will be</p>			

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Question #2			
Commenter	Yes	No	Comment
included in the scope of this SAR.			
Xcel Energy – NSP		<input checked="" type="checkbox"/>	Need to address that communication facilities should be compatible. For primary communciations we are there just by evolution, but back-up communciations could easily be diverse, especially at the Reliability Coordinator level.
Response: Any considerations for compatibility of communications facilities should be considered by the SDT We believe that the SAR as revised has sufficient flexibility to cover this issue.			
Independent Electricity System Operator		<input checked="" type="checkbox"/>	<p>(1) The Brief Description does not provide any bounds on the work that is envisioned. For example, it was mentioned that "there are backup requirements in some other standards", which standards are they? Further, there is no elaboration on what "study" will be conducted, which leaves the industry to speculate what study and its scope are being pursued, and how its outcomes may affect the standards. The industry is left without any clue to offer comments on this particular issue.</p> <p>(2) If COM-001-1 is to be revised, then we offer the following suggestions:</p> <p>(i) Since Version 0, we have recommended that the NERCnet users be removed from the Applicability section. We cannot find NERCnet users in the Functional Model. The Requirements need to spell out the underlying assumptions such as "special attention" and the SAR's "shall do what" comment on R1.4.</p> <p>(ii) R1.2: Entities shall provide adequate and reliable telecommunications facilities to ensure the exchange of interconnection and operating information.</p> <p>The IESO is concerned that this might be somewhat ambiguous and recommends improved definition of terms like "adequate", and perhaps some language that defines the parameters for the telecommunications facilities being provided.</p> <p>(iii) R3: Each RC, TOP and BA shall provide a means to coordinate telecommunications among their respective areas. This coordination shall include the ability to investigate and recommend solutions to telecommunications problems within the area and with other areas.</p> <p>In consideration of the addition of compliance measures, we suggest that R3 be reviewed to confirm the objectives sought by this requirement. Further, the language for R3 needs to be modified to more clearly convey the essence of the requirement.</p> <p>(iv) R4: Unless agreed to otherwise, each RC, Top and BA shall use English as the language for all communications between and among operating personnel responsible for the real-time generation control and operation of the interconnected BES. TOP and BA may use an alternate language for</p>

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Question #2			
Commenter	Yes	No	Comment
			<p>internal operations.</p> <p>We have concerns regarding how R4 would be monitored for compliance.</p> <p>(v) R6: Each NERCNet User Organization shall adhere to the requirements in Attachment 1-COM-001-0, "NERCNet Security Policy".</p> <p>We recommend R6 be removed from the COM-001 requirements as it is considered general terms for completing the NERCnet application.</p> <p>(vi) Lastly, we question whether or not COM-001 should remain as a standard since most of the requirements were mapped to existing documents (some with the exact same language as the requirement), while requirements such as R1.2, R3 and R4 contain ambiguous language leaving margin for being misinterpreted.</p>
<p>Response: The SAR DT is going to work closely with the OC Backup Control Center Task Force. Several members of that task force are also serving on the SAR DT. The goal of this effort is to start the standards effort at the time that the draft of the OC study is available. The project schedule supports this timing.</p> <p>The SAR DT agrees that any associated standards that may be affected by this project will be identified in the SAR.</p> <p>After discussion the SAR DT has decided to delete COM-001 from this SAR. COM-001 deals with communications in a generic sense and does not specifically relate to backup facilities. Consideration for communications support explicitly for backup facilities will be included in the scope of this SAR.</p>			
MISO, IPL, JDRJC Associates	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	The Brief Description provides no bounds on the scope of the study or project. Expected cost, duration, participants, etc.
<p>Response: The SAR DT has made changes to the content of the SAR that are believed to have clarified the scope of the project.</p>			
PUD #2 of Grant County	<input checked="" type="checkbox"/>		The scope seems appropriate, but I am afraid that it may create an overly burdensome standard during the drafting process.
<p>Response: The SAR DT appreciates your comments and concerns and will concentrate on only what is required for reliable system operations.</p>			
Salt River Project	<input checked="" type="checkbox"/>		The scope appears reasonable in order to provide measurable requirements. Please define the acronym "VRF" that appears as comments in the To Do List.
WECC Reliability Coordination Comments Work Group	<input checked="" type="checkbox"/>		Please define the acronym VRF that appears in the To Do List. While we agree with the scope of the project, we feel that clarification of terms is necessary to facilitate an improved standard.

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Question #2			
Commenter	Yes	No	Comment
			<p>Inclusion of a requirement that all reliability coordinators have full backup control centers is included in first bullet of the To Do List. The meaning of "full" is unclear. The level of independence required in the second bullet of the To Do List needs to be specified. Does "independent" mean that separate RTU's and communication paths are needed for a backup facility, that there is no single point of failure shared between the two facilities, or does that term carry some other meaning?</p> <p>The second bullet of the To Do List specifies that the backup facility must be capable of operating for a prolonged period of time, but the meaning of "prolonged" remains unclear.</p>
<p>Response: VRF = Violation Risk Factor. Each standard has a VRF assigned that represents the impact of non-compliance will have on grid reliability. The Violation Risk Factors would be used for the initial basis for determining enforcement action for violations.</p> <p>The word "Full" only exists in Appendix B that is now listed as consideration only and not mandatory changes. It is possible (as pointed in several comments) that alternatives may exist to meet the requirements without requiring a "full" backup or complete duplication of a Primary Control Center.</p> <p>The terms Independent and Prolonged (as used in Appendix B) will be further defined by the SDT as appropriate with regard to backup control centers.</p>			
Manitoba Hydro			<p>Define "CESDT". This SAR says that a study of the backup capabilities that are needed to support reliable operations is required as part of this project. It is not clear what is the intended scope of this study. It might be helpful to the drafting team if the SAR indicated the expected time line to complete the work outlined in this SAR - perhaps by referring to the 2007-2009 work plan if timeframe is specified there.</p>
<p>Response: CESDT = Compliance Elements Standards Drafting Team.</p> <p>The SAR DT is going to work closely with the OC Backup Control Center Task Force. Several members of that task force are also serving on the SAR DT. The goal of this effort is to start the standards effort at the time that the draft of the OC study is available. The project schedule supports this timing.</p> <p>The timeline for the completion of this project is included in the Reliability Standards Development Work Plan 2007 – 2009 and therefore does not need to be included in the SAR. The estimated completion date shown in the work plan for the completion of balloting on the revised standard is 4Q08.</p>			
Southern Company Services, Inc.	<input checked="" type="checkbox"/>		
American Electric Power	<input checked="" type="checkbox"/>		
Progress Energy Carolinas	<input checked="" type="checkbox"/>		

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Question #2			
Commenter	Yes	No	Comment
Public Service Commission of SC	<input checked="" type="checkbox"/>		
Entergy Services, Inc.	<input checked="" type="checkbox"/>		
Bonneville Power Administration			No comment.

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Please identify any additional revisions that should be incorporated into this set of standards, beyond those that have already been identified in the SAR.

Question #3			
Commenter	Yes	No	Comment
NSTAR Electric	<input checked="" type="checkbox"/>		A study is referred to in the SAR. If some study is needed, what will be studied? What is in place today? What should be in place? If the study remains as part of the SAR, will the commenters decide what is required or will the requestor?
ISO New England	<input checked="" type="checkbox"/>		A study is referred to in the SAR. If some study is needed, what will be studied? What is in place today? What should be in place? If the study remains as part of the SAR, will the commenters decide what is required or will the requestor?
IRC Standards Review Committee			<p>If a Study is needed, what will be studied? What is in place today? What should be in place? If the study remains as part of the SAR, will the commenters decide what is required or will the requestor make that decision?</p> <p>The SAR requestor should be more sensitive to the fact that these new standards will be formal mandatory requirements backed by the federal government. The idea that current requirements are unclear and ambiguous is no reason to write a proposal that is just as unclear and ambiguous.</p> <p>Note that this 'question' asks for input and yet includes a YES and NO box. Please take more care in the proposal.</p>
Hydro One Networks Inc.		<input checked="" type="checkbox"/>	<p>A study is referred to in the SAR. If a study is needed, what will be studied? What is in place today? What should be in place? If the study remains as part of the SAR, will the commenters decide what is required or will the requestor?</p> <p>Hydro One has concerns regarding COM-001. R1.2 which states "Entities shall provide adequate and reliable telecommunications facilities to ensure the exchange of interconnection and operating information." We are concerned that this might be somewhat ambiguous and recommends improved definition of terms like "adequate", and perhaps some language that defines the parameters for the telecommunications facilities being provided. R3 says "Each RC, TOP and BA shall provide a means to coordinate telecommunications among their respective areas. This coordination shall include the ability to investigate and recommend solutions to telecommunications problems within the area and with other areas." In consideration of the addition of compliance measures, we suggest that R3 be reviewed to confirm the objectives sought by this requirement. Further, that the language for R3 then be modified to more clearly convey the essence of the requirement. R4 says "Unless agreed to otherwise, each RC, Top and BA shall use English as the language for all communications between and among operating personnel responsible for the real-time generation control and operation of the interconnected BES. TOP and BA may use an alternate language for internal operations." We have concerns regarding how R4 would be monitored for compliance.</p>
NPCC CP9 Reliability Standards Working Group			A study is referred to in the SAR. If some study is needed, what will be studied? What is in place today? What should be in place? If the study remains as part of the SAR, will the commenters decide what is required or will the requestor?

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Question #3			
Commenter	Yes	No	Comment
			<p>NPCC participating members have also expressed concern regarding COM-001. R1.2 which states "Entities shall provide adequate and reliable telecommunications facilities to ensure the exchange of interconnection and operating information." We are concerned that this might be somewhat ambiguous and recommends improved definition of terms like "adequate", and perhaps some language that defines the parameters for the telecommunications facilities being provided. R3 says "Each RC, TOP and BA shall provide a means to coordinate telecommunications among their respective areas. This coordination shall include the ability to investigate and recommend solutions to telecommunications problems within the area and with other areas." In consideration of the addition of compliance measures, we suggest that R3 be reviewed to confirm the objectives sought by this requirement. Further, that the language for R3 then be modified to more clearly convey the essence of the requirement. R4 says "Unless agreed to otherwise, each RC, Top and BA shall use English as the language for all communications between and among operating personnel responsible for the real-time generation control and operation of the interconnected BES. TOP and BA may use an alternate language for internal operations." We have concerns regarding how R4 would be monitored for compliance.</p>
<p>Response: The SAR DT is going to work closely with the OC Backup Control Center Task Force. Several members of that task force are also serving on the SAR DT. The goal of this effort is to start the standards effort at the time that the draft of the OC study is available. The project schedule supports this timing.</p> <p>After discussion the SAR DT has decided to delete COM-001 from this SAR. COM-001 deals with communications in a generic sense and does not specifically relate to backup facilities. Consideration for communications support explicitly for backup facilities will be included in the scope of this SAR.</p> <p>The SAR DT has made changes to the content of the SAR that are believed to have clarified the scope of the project.</p>			
Midwest ISO, Inc.	<input checked="" type="checkbox"/>		<p>Requirements for emergency communication should include the concept that the communication infrastructure be consistent between Reliability Coordinators, Transmission Operators, Balancing Authorities, and other applicable entities under the Functional Model.</p>
<p>Response: Any considerations for compatibility of communications facilities should be considered by the SDT We believe that the SAR as revised has sufficient flexibility to cover this issue.</p>			
Southern Company Services, Inc.			<p>It is recommended that a transition period of a couple of years be incorporated into the standard for being compliant with the new requirements. This will give the different entities time to get something constructed and maybe a new EMS system implemented before being compliant. In many cases there will be capital dollars that will need to be budgeted and spent and other major changes in order to be compliant.</p>
<p>Response: This is an important point and will be considered during the standard drafting phase by the SDT in their consideration of the implementation period.</p>			

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Question #3			
Commenter	Yes	No	Comment
American Transmission Company	<input checked="" type="checkbox"/>		<p>ATC encourages the SC to select a wide range of individuals to work on these two standards. COM-001 will require the SDT to have some individuals with knowledge in telecommunication systems while EOP-008 requires individuals with an operations and facilities background.</p> <p>The following comment is on the SAR's form.</p> <p>Section: Reliability Functions</p> <p>Function: Market Operator</p> <p>Existing language: Integrates energy, capacity, balancing, and transmission resources to achieve an economic, reliability-constrained dispatch.</p> <p>ATC is concerned with the word "economic" being included in the description of Market Operator. The purpose of the SAR process is to develop reliability standards and the word economic being included in this description may cause problems/confusion down the road.</p> <p>Suggested language:</p> <p>Integrates energy, capacity, balancing, and transmission resources to achieve a reliability-constrained dispatch.</p>
<p>Response: The individuals selected by the SC for the SAR DT are experienced with operations, facilities, and communications. The membership of the SDT will be reviewed by the SC when the work is ready to progress to the standards writing phase.</p> <p>The SAR has been revised to include verbiage from Functional Model v3 as opposed to v2 text that appears in the original SAR and that should help to clear up any confusion with applicable entity assignment. The Market Operator is not an applicable entity for this standard.</p>			
PUD #2 of Grant County	<input checked="" type="checkbox"/>		<p>It should be communicated clearly that any transition to a back up center should allow for the continued normal operation of tasks and functions. The standard should be built on this concept, and should still allow for the type of tasks being done by the entity, and the level of effect that the entity has on the BES.</p>
<p>Response: This is an important point and will be considered by the SDT during the standard drafting phase.</p>			
Progress Energy Carolinas	<input checked="" type="checkbox"/>		<p>We agree that the EOP-008 standard should require that Backup Control Centers to be functionally viable for managing long-term operation of the bulk electric system from the backup control center facility. With respect to COM-001, which this SAR puts in tandem with EOP-008, the requirement to maintain dedicated and redundant communications channels and plans for continued operations with loss of telecommunications should be required of LSEs and Generator Operators as well. This revision will require third party generators to provide for adequate communications to facilitate reliable operations for the BAs and TOPs.</p>

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Question #3			
Commenter	Yes	No	Comment
<p>Response: After discussion the SAR DT has decided to delete COM-001 from this SAR. COM-001 deals with communications in a generic sense and does not specifically relate to backup facilities. Consideration for communications support explicitly for backup facilities will be included in the scope of this SAR.</p>			
Manitoba Hydro			<p>COM-001-0 and -1 R1 what is "adequate", needs to be defined. "Interconnection and operating information", does this include data transfer as well as communications? R1.2 Should this not read: "Between the Reliability Coordinators, Transmission Operators, and Balancing Authorities." This sounds like one way communications between the RC and TO's and BA's. R2 - define "vital". R4 - "Unless agreed to otherwise" needs to be defined by whom? COM-001-1 R1 - Missing the word "for" between "facilities the".</p> <p>EOP-008-0 R1.5 - Need to define "periodic tests", this could vary from one company testing annually to another company testing every 5 years, to each periodic testing is met. This SAR should require that Violation Risk Factors be assigned to the requirements of COM-001 and EOP-008 and be included in the subsequently . Coordinate assignment of VRF's with current ballot on Version 0 VRF and proposed VRF's for Version 1, as appropriate.</p>
<p>Response: After discussion the SAR DT has decided to delete COM-001 from this SAR. COM-001 deals with communications in a generic sense and does not specifically relate to backup facilities. Consideration for communications support explicitly for backup facilities will be included in the scope of this SAR.</p> <p>Clarification of the EOP-008 standard along the lines suggested by this comment is within the scope of the SAR and would be undertaken by the standard drafting team.</p> <p>Existing and approved violation risk factors will be taken into account as appropriate by the SDT.</p>			
Independent Electricity System Operator		<input checked="" type="checkbox"/>	<p>(1) Without knowing the bounds of the work and the purpose and expected outcomes of the "study", we are unable to offer further comments but feel uncomfortable to be asked to support this SAR to start standard development work.</p> <p>(2) Since some transmission owning entities may not register as a TOP but may have local control tasks assigned to it by the TOP, the Transmission Owner should also be included as an Applicable entity for both EOP-008 and COM-001.</p>
<p>Response: The study team referred to in the SAR is the Backup Control Center Task Force. The task force was authorized by the NERC Operating</p>			

Comment Report — Backup Facilities SAR

Question #3			
Commenter	Yes	No	Comment
<p>Committee to develop the concepts of backup control and to provide the technical basis for developing the backup standards. The task force report will be available to the Standards Drafting Team. The information from the report will be used by the standard drafting team as one of the inputs when drafting the standard. Five members of the task force are also members of the SAR drafting team. This provides close liaison between the study group and the drafting team.</p> <p>The SAR Drafting Team agrees that in some cases (as described in the Brief Description section of the revised SAR) the Transmission Owner should be considered as an applicable functional entity to deal with the situation where Transmission Owners are operating control centers that are critical to Bulk Power System reliability but are not registered as Transmission Operators. The SAR has been revised accordingly and a question on this subject has been posted for the re-issuance of the SAR.</p>			
Salt River Project	<input checked="" type="checkbox"/>		<p>Regarding R1.5, where it talks of ". . . conducting periodic tests, at least annually . . ." I would suggest monthly instead, but this has effects outside of just CA.</p> <p>Also, the NERC proposed changes talk of ". . . (2) be capable of operating for a prolonged period of time; . . ." And we have a 10 year schedule to add all of our existing RTUs to TCC. I assume that if TCC became our only dispatch center, would we accelerate this?</p>
<p>Response: Clarification of the EOP-008 standard along the lines suggested by this comment is within the scope of the SAR and would be undertaken by the standard drafting team.</p> <p>Issues such as raised here in part 2 of your comment are not within the scope of this SAR DT.</p>			
Bonneville Power Administration	<input checked="" type="checkbox"/>		<p>Reliability Coordinators (RC's) are dependent on data from control areas and transmission owners. RCs also rely on control areas and transmission owners to control the transmission system via SCADA, generators using AGC or voice communications to others like generator operators. Therefore Control Areas and Transmission Owners must also have backup facilities to provide critical data and controls even after the loss of their own control center. Voice circuits to backup centers are also needed.</p> <p>Another problem area is Uninterruptible Power System or UPS. Failures of UPS are a leading factor in control center failure. Also, during a widespread blackout, UPS failures have occurred causing control center failure.</p> <p>Communications circuits are needed from backup facilities for control areas or transmission owners to critical Reliability centers and backup centers, critical adjacent utilities, and large generators.</p> <p>COM-001 does not address the need for voice or data communications circuits to generators. These circuits are required for AGC operation and also during emergencies including black start restoration. It may be addressed elsewhere in NERC standards.</p>
<p>Response: The SAR Drafting Team agrees that in some cases (as described in the Brief Description section of the revised SAR) the Transmission Owner should be considered as an applicable functional entity to deal with the situation where Transmission Owners are operating control centers that are critical to Bulk Power System reliability but are not registered as Transmission Operators. The SAR has been revised accordingly and a question on this subject has been posted for the re-issuance of the SAR.</p>			

Comment Report — Backup Facilities SAR

Question #3			
Commenter	Yes	No	Comment
<p>Critical equipment such as UPS will be considered at the standards drafting stage of this project.</p> <p>After discussion the SAR DT has decided to delete COM-001 from this SAR. COM-001 deals with communications in a generic sense and does not specifically relate to backup facilities. Consideration for communications support explicitly for backup facilities will be included in the scope of this SAR.</p>			
Xcel Energy – NSP	<input checked="" type="checkbox"/>		Review training requirements to insure consistency and adequacy.
<p>Response: Training is an important item and it will be considered.</p>			
Entergy Services, Inc.			<p>COM-001-0/1 R1 needs clarification for "adequate and reliable". R2 needs "and/or" clarification - is active monitoring satisfactory for compliance in lieu of testing? What does it mean to "alarm" a vital telecommunication facility? Is it the same as testing? Should a periodicity for testing be explicit? How is "vital" defined? How is "special attention" defined? R3 - what does "coordinate telecommunications" mean? Also, this requirement has no measure - should there be one?</p> <p>EOP-008-0 Purpose - I have heard a lot of debate amongst industry members about whether a physical back up facility must exist or not, or if one just needs to have a 'plan'. This standard should make it explicitly clear as to whether a physical facility must exist. I believe it would be difficult to ensure the viability of a plan as required in R1.5 unless a physical facility existed. R1.8 - what constitutes "interim" provisions? The standard should consider stating the required time to make a back up center operational. PER-003-0 has a seemingly out of place requirement in its measures section (M1.2) about having NERC certified operators at all times except for 4 hours for transition to a back up center. This might be a starting point. VRFs - many appear to be administrative in nature, yet are rated as Medium. Please include in the review.</p>
<p>Response: After discussion the SAR DT has decided to delete COM-001 from this SAR. COM-001 deals with communications in a generic sense and does not specifically relate to backup facilities. Consideration for communications support explicitly for backup facilities will be included in the scope of this SAR.</p> <p>The intent of the project is to emphasize the continuation of needed functionality regardless of the manner in which it is achieved.</p> <p>Clarification of the EOP-008 standard along the lines suggested by this comment is within the scope of the SAR and would be undertaken by the standard drafting team.</p>			

Comment Report — Backup Facilities SAR

Question #3			
Commenter	Yes	No	Comment
Review of VRF is required of all standard drafting teams.			
Tennessee Valley Authority		<input checked="" type="checkbox"/>	
WECC Reliability Coordination Comments Work Group		<input checked="" type="checkbox"/>	
ITC Transmission			No comment.
Entergy Services, Inc.			We have no additional revisions at this time.
American Electric Power			None identified at this time.
Kansas City Power & Light Company			This does not require a yes/no response. No other comments.
Public Service Commission of SC			None identified.
MISO, IPL, JDRJC Associates			This does not appear to be a yes-no question.

Standard Authorization Request Form

Title of Proposed Standard	Back-up Facilities Project 2006-04
Request Date	October 26, 2006

SAR Requestor Information	SAR Type	(Check a box for each one that applies.)
Name <u>Sam Brattini</u>	<input type="checkbox"/>	New Standard
Primary Contact <u>Sam Brattini</u>	<input checked="" type="checkbox"/>	Revision to existing Standard
Telephone <u>215-997-4500 x270</u> Fax <u>215-997-3818</u>	<input type="checkbox"/>	Withdrawal of existing Standard
E-mail <u>sam.brattini@us.kema.com</u>	<input type="checkbox"/>	Urgent Action

Deleted: Reliability Standards Development Plan: 2007 – 2009

Deleted: Richard Schneider (To be replaced by SAR DT Chair when the SAR DT is appointed)

Deleted: 609-452-8060

Deleted: Richard.schneider@nerc.net

Purpose

Applicable Standards: EOP-008: Plans for Loss of Control Center Functionality

The purpose of revising these standards is to:

1. Provide an adequate level of reliability for the North American bulk power systems — the standards are complete and the requirements are set at an appropriate level to ensure reliability.
2. Ensure they are enforceable as mandatory reliability standards with financial penalties — the applicability to bulk power system owners, operators, and users, and as appropriate particular classes of facilities, is clearly defined; the purpose, requirements, and measures are results-focused and unambiguous; the consequences of violating the requirements are clear.
3. Consider other general improvements as described in Appendix A.
4. Consider stakeholder comments received during the initial development of the standards and other comments received from ERO regulatory authorities as noted in the attached review sheets.
5. Satisfy the standards procedure requirement for five-year review of the standards.

Deleted: COM-001: Telecommunications ¶

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Deleted: the standards development work plan (see

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Industry Need

As the electric reliability organization begins enforcing compliance with reliability standards under Section 215 of the Federal Power Act in the United States and applicable statutes and regulations in Canada, the industry needs a set of clear, measurable, and enforceable reliability standards. The Version 0 standards and the translation of Phase III & IV planning measures, while a good foundation, were translated from historical operating and planning policies and guides that were appropriate in an era of voluntary compliance. The Version 0 standards, Phase III & IV standards, and recent updates were put in place as a temporary starting point to start up the electric reliability organization and begin enforcement of mandatory standards. However, it is important to update the standards in a timely manner, incorporating improvements to make the standards more suitable for enforcement and to capture prior recommendations that were deferred during the Version 0 and Phase III & IV translations. The standard in this project is a Version 0 standard.

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Brief Description

The requirements in EOP-008 need additional specificity. The development revision to EOP-008 may include other improvements to the standards deemed appropriate by the drafting team, with the consensus of stakeholders, consistent with establishing high quality, enforceable and technically sufficient bulk power system reliability standards. In addition, the efforts of the OC Backup Control Center Task Force will be used as one of the inputs to the revision of EOP-008. Also, there may be backup facility requirements in some other standards, and those requirements should be considered for movement into this standard.

The definition of backup capability that is pertinent to this effort is: the ability to maintain situational awareness and continue to comply with reliability standards when primary control center facilities are not operational. The objective of EOP-008 should be to emphasize the continuation of functionality needed for reliable system operation regardless of the manner in which it is achieved.

Additionally, consideration for communications required to explicitly support backup facilities will be included in the scope of this revision as applicable.

The reliability requirements for EOP-008 are such that simply checking the box in the Reliability Functions table for applicable functional model entities may not be appropriate. In some cases it may impose obligations on entities that are not truly warranted from a Bulk Power System reliability perspective (such as a small Transmission Operator that is only operating a radial transmission system), and at the other end it may not capture entities that are using control centers to perform critical Bulk Power System reliability tasks under delegation agreements.

The basic intent is to apply this standard to any entity for which the loss of its primary control capability would impose a significant real-time reliability risk to the Bulk Power System. In concept this would include:

- All Reliability Coordinators.
- All Balancing Authorities.
- All Transmission Operators, except those for which it is determined that loss of primary control capability would not impose a significant real-time reliability risk on the Bulk Power System
- Any entity performing reliability functions as a result of delegation of tasks from any Reliability Coordinator, Balancing Authority or Transmission Operator. An example of this situation would be a transmission control center operated by an entity that is registered as a Transmission Owner but not registered as a Transmission Operator. In order to afford the standard drafting team sufficient scope coverage to consider this delegation question, Transmission Owner is also checked as being a reliability function to which the standard will apply.

Note that Appendix B is an informative attachment that contains material for consideration in the standards revision process. It should not be considered to contain mandatory changes to the standard.

Deleted: A study of the backup capabilities that are needed to support reliable operations is required as part of this project. ¶
The requirements in EOP-008 need additional specificity. The study conducted before this standard is finalized should look at the facility requirements identified in the certification standards and identify which of these are essential to reliable operations. ¶
There are backup facility requirements in some other standards, and those requirements should be moved into this standard.¶

The development may include other improvements to the standards deemed appropriate by the drafting team, with the consensus of stakeholders, consistent with establishing high quality, enforceable and technically sufficient bulk power system reliability standards.

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Reliability Functions

The Standard will Apply to the Following Functions (Check box for each one that applies.)		
<input checked="" type="checkbox"/>	Reliability Coordinator	<u>Responsible for the real-time operating reliability of its Reliability Coordinator Area in coordination with its neighboring Reliability Coordinator's wide area view.</u>
<input checked="" type="checkbox"/>	Balancing Authority	<u>Integrates resource plans ahead of time, and maintains load-interchange-resource balance within a Balancing Authority Area and supports Interconnection frequency in real time.</u>
<input type="checkbox"/>	Interchange Coordinator	<u>Ensures communication of interchange transactions for reliability evaluation purposes and coordinates implementation of valid and balanced interchange schedules between Balancing Authority Areas.</u>
<input type="checkbox"/>	Planning Coordinator	<u>Assesses the longer-term reliability of its Planning Coordinator Area.</u>
<input type="checkbox"/>	Resource Planner	Develops a >one year plan for the resource adequacy of its specific loads within a Planning Coordinator area.
<input type="checkbox"/>	Transmission Planner	<u>Develops a >one year plan for the reliability of the interconnected Bulk Electric System within its portion of the Planning Coordinator area.</u>
<input type="checkbox"/>	Transmission Service Provider	<u>Administers the transmission tariff and provides transmission services under applicable transmission service agreements (e.g., the pro forma tariff).</u>
<input checked="" type="checkbox"/>	Transmission Owner	<u>Owns and maintains</u> transmission facilities.
<input checked="" type="checkbox"/>	Transmission Operator	<u>Ensures the real-time operating reliability of the transmission assets within a Transmission Operator Area.</u>
<input type="checkbox"/>	Distribution Provider	<u>Delivers electrical energy to the End-use customer.</u>
<input type="checkbox"/>	Generator Owner	Owns and maintains generation facilities.
<input type="checkbox"/>	Generator Operator	<u>Operates generation unit(s) to provide real and reactive power.</u>
<input type="checkbox"/>	Purchasing-Selling Entity	<u>Purchases or sells energy, capacity, and necessary reliability-related services as required.</u>
<input type="checkbox"/>	Market Operator	<u>Interface point for reliability functions with commercial functions.</u>

- Deleted:** Ensures the reliability of the bulk transmission system within its Reliability Authority area. This is the highest Reliability Authority.
- Deleted:** Authority
- Deleted:** Integrates resource plans ahead of time, and maintains load-interchange-resource balance within its metered boundary and supports system frequency in real time.
- Deleted:** Authorizes valid and balanced Interchange Schedules.
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- Deleted:** Plans the Bulk Electric System.
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- Deleted:** Develops a long-term (>one year) plan for the reliability of transmission systems within its portion of the Planning Authority area.
- Deleted:** Provides transmission services to qualified market participants under applicable transmission service agreements
- Deleted:**
- Deleted:** Operates and maintains the transmission facilities, and executes switching orders.
- Deleted:** X
- Deleted:** Provides and operates the "wires" between the transmission system and the customer.
- Deleted:** unit(s)
- Deleted:** X
- Deleted:** Operates generation unit(s) and performs the functions of supplying energy and Interconnected Operations Services.
- Deleted:** The function of purchasing or selling energy, capacity, and all necessary Interconnected Operations Services as required.
- Deleted:** Integrates energy, capacity, balancing, and transmission resources to achieve an economic, reliability-constrained dispatch.

Standards Authorization Request Form

<input type="checkbox"/>	Load-Serving Entity	Secures energy and transmission <u>service</u> (and related <u>reliability-related</u> services) to serve the <u>End-use Customer</u> .
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Reliability and Market Interface Principles

Applicable Reliability Principles <i>(Check box for all that apply.)</i>	
X	1. Interconnected bulk electric systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions as defined in the NERC Standards.
<input type="checkbox"/>	2. The frequency and voltage of interconnected bulk electric systems shall be controlled within defined limits through the balancing of real and reactive power supply and demand.
<input type="checkbox"/>	3. Information necessary for the planning and operation of interconnected bulk electric systems shall be made available to those entities responsible for planning and operating the systems reliably.
<input type="checkbox"/>	4. Plans for emergency operation and system restoration of interconnected bulk electric systems shall be developed, coordinated, maintained and implemented.
X	5. Facilities for communication, monitoring and control shall be provided, used and maintained for the reliability of interconnected bulk electric systems.
<input type="checkbox"/>	6. Personnel responsible for planning and operating interconnected bulk electric systems shall be trained, qualified, and have the responsibility and authority to implement actions.
<input type="checkbox"/>	7. The security of the interconnected bulk electric systems shall be assessed, monitored and maintained on a wide area basis.
Does the proposed Standard comply with all of the following Market Interface Principles? <i>(Select 'yes' or 'no' from the drop-down box.)</i>	
1. The planning and operation of bulk electric systems shall recognize that reliability is an essential requirement of a robust North American economy. Yes	
2. An Organization Standard shall not give any market participant an unfair competitive advantage. Yes	
3. An Organization Standard shall neither mandate nor prohibit any specific market structure. Yes	
4. An Organization Standard shall not preclude market solutions to achieving compliance with that Standard. Yes	
5. An Organization Standard shall not require the public disclosure of commercially sensitive information. All market participants shall have equal opportunity to access commercially non-sensitive information that is required for compliance with reliability standards. Yes	

Related Standards

Standard No.	Explanation
JRO-002	Currently contains provisions for backup facilities.

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Related SARs

SAR ID	Explanation

Regional Differences

Region	Explanation
ERCOT	
FRCC	
MRO	
NPCC	
SERC	
RFC	
SPP	
WECC	

Appendix A

Reliability Standard Review Guidelines

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Applicability

Does this reliability standard clearly identify the functional classes of entities responsible for complying with the reliability standard, with any specific additions or exceptions noted? Where multiple functional classes are identified is there a clear line of responsibility for each requirement identifying the functional class and entity to be held accountable for compliance? Does the requirement allow overlapping responsibilities between Registered Entities possibly creating confusion for who is ultimately accountable for compliance?

Does this reliability standard identify the geographic applicability of the standard, such as the entire North American bulk power system, an interconnection, or within a regional entity area? If no geographic limitations are identified, the default is that the standard applies throughout North America.

Does this reliability standard identify any limitations on the applicability of the standard based on electric facility characteristics, such as generators with a nameplate rating of 20 MW or greater, or transmission facilities energized at 200 kV or greater or some other criteria? If no functional entity limitations are identified, the default is that the standard applies to all identified functional entities.

Purpose

Does this reliability standard have a clear statement of purpose that describes how the standard contributes to the reliability of the bulk power system? Each purpose statement should include a value statement.

Performance Requirements

Does this reliability standard state one or more performance requirements, which if achieved by the applicable entities, will provide for a reliable bulk power system, consistent with good utility practices and the public interest?

Does each requirement identify who shall do what under what conditions and to what outcome?

Measurability

Is each performance requirement stated so as to be objectively measurable by a third party with knowledge or expertise in the area addressed by that requirement?

Does each performance requirement have one or more associated measures used to objectively evaluate compliance with the requirement?

If performance results can be practically measured quantitatively, are metrics provided within the requirement to indicate satisfactory performance?

Technical Basis in Engineering and Operations

Is this reliability standard based upon sound engineering and operating judgment, analysis, or experience, as determined by expert practitioners in that particular field?

Completeness

Is this reliability standard complete and self-contained? Does the standard depend on external information to determine the required level of performance?

Consequences for Noncompliance

In combination with guidelines for penalties and sanctions, as well as other ERO and regional entity compliance documents, are the consequences of violating a standard clearly known to the responsible entities?

Clear Language

Is the reliability standard stated using clear and unambiguous language? Can responsible entities, using reasonable judgment and in keeping with good utility practices, arrive at a consistent interpretation of the required performance?

Practicality

Does this reliability standard establish requirements that can be practically implemented by the assigned responsible entities within the specified effective date and thereafter?

Capability Requirements versus Performance Requirements

In general, requirements for entities to have ‘capabilities’ (this would include facilities for communication, agreements with other entities, etc.), should be located in the standards for certification. The certification requirements should indicate that entities have a responsibility to ‘maintain’ their capabilities.

Consistent Terminology

To the extent possible, does this reliability standard use a set of standard terms and definitions that are approved through the NERC reliability standards development process?

If the standard uses terms that are included in the NERC Glossary of Terms Used in Reliability Standards, then the term must be capitalized when it is used in the standard. New terms should not be added unless they have a ‘unique’ definition when used in a NERC reliability standard. Common terms that could be found in a college dictionary should not be defined and added to the NERC Glossary.

Are the verbs on the ‘verb list’ from the DT Guidelines? If not – do new verbs need to be added to the guidelines or could you use one of the verbs from the verb list?

Violation Risk Factors (Risk Factor)

High Risk Requirement

A requirement that, if violated, could directly cause or contribute to bulk electric system instability, separation, or a cascading sequence of failures, or could place the bulk electric system at an unacceptable risk of instability, separation, or cascading failures;

or a requirement in a planning time frame that, if violated, could, under emergency, abnormal, or restorative conditions anticipated by the preparations, directly cause or contribute to bulk electric system instability, separation, or a cascading sequence of failures, or could place the bulk electric system at an unacceptable risk of instability, separation, or cascading failures, or could hinder restoration to a normal condition.

Medium Risk Requirement

This is a requirement that, if violated, could directly affect the electrical state or the capability of the bulk electric system, or the ability to effectively monitor and control the bulk electric system. However, violation of a medium risk requirement is unlikely to lead to bulk electric system instability, separation, or cascading failures;

or a requirement in a planning time frame that, if violated, could, under emergency, abnormal, or restorative conditions anticipated by the preparations, directly and adversely affect the electrical state or capability of the bulk electric system, or the ability to effectively monitor, control, or restore the bulk electric system. However, violation of a medium risk requirement is unlikely,

under emergency, abnormal, or restoration conditions anticipated by the preparations, to lead to bulk electric system instability, separation, or cascading failures, nor to hinder restoration to a normal condition.

Lower Risk Requirement

A requirement that, if violated, would not be expected to adversely affect the electrical state or capability of the bulk electric system, or the ability to effectively monitor and control the bulk electric system. A requirement that is administrative in nature:

Or a requirement in a planning time frame that, if violated, would not, under the emergency, abnormal, or restoration conditions anticipated by the preparations, be expected to adversely affect the electrical state or capability of the bulk electric system, or the ability to effectively monitor, control, or restore the bulk electric system. A planning requirement that is administrative in nature.

Mitigation Time Horizon

The drafting team should also indicate the time horizon available for mitigating a violation to the requirement using the following definitions:

- **Long-term Planning** — a planning horizon of one year or longer.
- **Operations Planning** — operating and resource plans from day-ahead up to and including seasonal.
- **Same-day Operations** — routine actions required within the timeframe of a day, but not real-time.
- **Real-time Operations** — actions required within one hour or less to preserve the reliability of the bulk electric system.
- **Operations Assessment** — follow-up evaluations and reporting of real time operations.

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Violation Severity Levels

The drafting team should indicate a set of violation severity levels that can be applied for the requirements within a standard. ('Violation severity levels' replaces the existing 'levels of non-compliance.') The violation severity levels may be applied for each requirement or combined to cover multiple requirements, as long as it is clear which requirements are included.

The violation severity levels should be based on the following definitions:

- **Lower: mostly compliant with minor exceptions** — the responsible entity is mostly compliant with and meets the intent of the requirement but is deficient with respect to one or more minor details. Equivalent score: 95% to 99% compliant.
- **Moderate: mostly compliant with significant exceptions** — the responsible entity is mostly compliant with and meets the intent of the requirement but is deficient with respect to one or more significant elements. Equivalent score: 85% to 94% compliant.
- **High: marginal performance or results** — the responsible entity has only partially achieved the reliability objective of the requirement and is missing one or more significant elements. Equivalent score: 70% to 84% compliant.
- **Severe: poor performance or results** — the responsible entity has failed to meet the reliability objective of the requirement. Equivalent score: less than 70% compliant.

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Compliance Monitor

Replace, 'Regional Reliability Organization' with 'Electric Reliability Organization'

Bulk Electric System

Replace, 'Bulk Electric System' with 'bulk power system'

Fill-in-the-blank Requirements

Do not include any 'fill-in-the-blank' requirements. These are requirements that assign one entity responsibility for developing some performance measures without requiring that the performance measures be included in the body of a standard – then require another entity to comply with those requirements.

Every reliability objective can be met, at least at a threshold level, by a North American standard. If we need regions to develop regional standards, such as in under-frequency load shedding, we can always write a uniform North American standard for the applicable functional entities as a means of encouraging development of the regional standards.

Requirements for Regional Reliability Organization

Do not write any requirements for the Regional Reliability Organization. Any requirements currently assigned to the RRO should be re-assigned to the applicable functional entity.

Effective Dates

Must be 1st day of 1st quarter after entities are expected to be compliant – must include time to file with regulatory authorities and provide notice to responsible entities of the obligation to comply. If the standard is to be actively monitored, time for the Compliance Monitoring and Enforcement Program to develop reporting instructions and modify the Compliance Data Management System(s) both at NERC and Regional Entities must be provided in the implementation plan.

Associated Documents

If there are standards that are referenced within a standard, list the full name and number of the standard under the section called, 'Associated Documents'.

Appendix B: EOP-008 Technical Issues List

Excerpted from NERC Reliability Standards Development Plan: 2007 - 2009

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Form 1
Project 2006-04 Back-up
Facilities

... [1]

Reliability Standard Review Guidelines

Standard Review Form Project 2006-04 Back-up Facilities		
Standard #	EOP-008-0	Comments
Title	Plans for Loss of Control Center Functionality	Okay but could probably drop 'Plans for'.
Purpose		Okay
Applicability		Isn't the reliability entity the TSP and not the TO as per the FM?
Requirements	<i>Conditions</i>	Okay
	<i>Who?</i>	Okay
	<i>Shall do what?</i>	Grammar error in R1.2
	<i>Result or Outcome</i>	Missing
Measures		Measure doesn't define required evidence.
To Do List	<p>FERC NOPR</p> <ul style="list-style-type: none"> o Include a Requirement that all reliability coordinators have full backup control centers since they are essential to Bulk-Power System reliability. o Provision for backup capabilities should be an explicit Requirement. Such backup capability, at a minimum, must: (1) be independent of the primary control center; (2) be capable of operating for a prolonged period of time; and (3) provide for a minimum set of tools and facilities to replicate the critical reliability functions of the primary control center. <p>FERC staff report</p> <ul style="list-style-type: none"> o Distinction between providing plans and proving capabilities o Independence from primary control center <p>Regional Fill-in-the-Blank Team Comments</p> <ul style="list-style-type: none"> o No comments <p>VO Industry Comments</p> <ul style="list-style-type: none"> o How does staff know control center is lost? o How is backup control achieved? o Max. time to restore capabilities <p>VRF comments</p> <ul style="list-style-type: none"> o R1 - Not having a written plan does not directly cause or contribute to bulk electric system instability, separation, or a cascading sequence of failures, or could place the bulk electric system at an unacceptable risk of instability, separation, or cascading o R1.1 - Not having a written plan is unlikely, under emergency, abnormal, or restoration conditions anticipated by the preparations, to lead to bulk electric system instability, separation, or cascading failures, nor to hinder restoration to a normal condition. 	

Standard Review Form		
Project 2006-04 Back-up Facilities		
Standard #	COM-001-0	Comments
Title	Telecommunications	Okay
Purpose		Not sure that we need to include entities in Purpose.
Applicability		Not sure about inclusion of NERCNet
Requirements	<i>Conditions</i>	Interconnection is capitalized.
	<i>Who?</i>	Okay
	<i>Shall do what?</i>	R1.4 – should spell out applicability and extent for redundancy R2 – provide periodicity of testing R4 – cite communication protocol such as two-part communications R6 – probably doesn't belong here CESDT: R1 duplicated by COM-002 R1 R2 – 'special attention' R3 – 'provide a means' & 'ability to investigate'
	<i>Result or Outcome</i>	Missing
Measures		CESDT addressing but: 4M for 6R Still lacks measurability
To Do List	FERC NOPR Include Measures and Levels of Non-Compliance; Include generator operators and distribution provider as applicable entities; and Include requirements for communication facilities for use during emergency situations. FERC staff report Lacks adequacy, redundancy and routing requirements Generation owners missing Expect new standard in November V0 Industry Comments Redundant with Policy 5A, R1 Many players missing Apply R1 to all but smallest entities VRF comments R6 – administrative requirement	
Misc. Items		Compliance not specified but appears in CESDT version

Standard Authorization Request Form

Title of Proposed Standard	Back-up Facilities Project 2006-04
Request Date	October 26, 2006

SAR Requestor Information	SAR Type <i>(Check a box for each one that applies.)</i>
Name Sam Brattini	<input type="checkbox"/> New Standard
Primary Contact Sam Brattini	<input checked="" type="checkbox"/> Revision to existing Standard
Telephone 215-997-4500 x270 Fax 215-997-3818	<input type="checkbox"/> Withdrawal of existing Standard
E-mail sam.brattini@us.kema.com	<input type="checkbox"/> Urgent Action

<p>Purpose</p> <p>Applicable Standards: EOP-008: Plans for Loss of Control Center Functionality</p> <p>The purpose of revising these standards is to:</p> <ol style="list-style-type: none"> 1. Provide an adequate level of reliability for the North American bulk power systems — the standards are complete and the requirements are set at an appropriate level to ensure reliability. 2. Ensure they are enforceable as mandatory reliability standards with financial penalties — the applicability to bulk power system owners, operators, and users, and as appropriate particular classes of facilities, is clearly defined; the purpose, requirements, and measures are results-focused and unambiguous; the consequences of violating the requirements are clear. 3. Consider other general improvements as described in Appendix A. 4. Consider stakeholder comments received during the initial development of the standards and other comments received from ERO regulatory authorities as noted in the attached review sheets. 5. Satisfy the standards procedure requirement for five-year review of the standards.
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Standards Authorization Request Form

Industry Need

As the electric reliability organization begins enforcing compliance with reliability standards under Section 215 of the Federal Power Act in the United States and applicable statutes and regulations in Canada, the industry needs a set of clear, measurable, and enforceable reliability standards. The Version 0 standards and the translation of Phase III & IV planning measures, while a good foundation, were translated from historical operating and planning policies and guides that were appropriate in an era of voluntary compliance. The Version 0 standards, Phase III & IV standards, and recent updates were put in place as a temporary starting point to start up the electric reliability organization and begin enforcement of mandatory standards. However, it is important to update the standards in a timely manner, incorporating improvements to make the standards more suitable for enforcement and to capture prior recommendations that were deferred during the Version 0 and Phase III & IV translations. The standard in this project is a Version 0 standard.

Standards Authorization Request Form

Brief Description

The requirements in EOP-008 need additional specificity. The development revision to EOP-008 may include other improvements to the standards deemed appropriate by the drafting team, with the consensus of stakeholders, consistent with establishing high quality, enforceable and technically sufficient bulk power system reliability standards. In addition, the efforts of the OC Backup Control Center Task Force will be used as one of the inputs to the revision of EOP-008. Also, there may be backup facility requirements in some other standards, and those requirements should be considered for movement into this standard.

The definition of backup capability that is pertinent to this effort is: the ability to maintain situational awareness and continue to comply with reliability standards when primary control center facilities are not operational. The objective of EOP-008 should be to emphasize the continuation of functionality needed for reliable system operation regardless of the manner in which it is achieved.

Additionally, consideration for communications required to explicitly support backup facilities will be included in the scope of this revision as applicable.

The reliability requirements for EOP-008 are such that simply checking the box in the Reliability Functions table for applicable functional model entities may not be appropriate. In some cases it may impose obligations on entities that are not truly warranted from a Bulk Power System reliability perspective (such as a small Transmission Operator that is only operating a radial transmission system), and at the other end it may not capture entities that are using control centers to perform critical Bulk Power System reliability tasks under delegation agreements.

The basic intent is to apply this standard to any entity for which the loss of its primary control capability would impose a significant real-time reliability risk to the Bulk Power System. In concept this would include:

- All Reliability Coordinators,
 - All Balancing Authorities,
 - All Transmission Operators, except those for which it is determined that loss of primary control capability would not impose a significant real-time reliability risk on the Bulk Power System
- Any entity performing reliability functions as a result of delegation of tasks from any Reliability Coordinator, Balancing Authority or Transmission Operator. An example of this situation would be a transmission control center operated by an entity that is registered as a Transmission Owner but not registered as a Transmission Operator. In order to afford the standard drafting team sufficient scope coverage to consider this delegation question, Transmission Owner is also checked as being a reliability function to which the standard will apply.

Note that Appendix B is an informative attachment that contains material for consideration in the standards revision process. It should not be considered to contain mandatory changes to the standard.

Standards Authorization Request Form

Reliability Functions

The Standard will Apply to the Following Functions <i>(Check box for each one that applies.)</i>		
X	Reliability Coordinator	Responsible for the real-time operating reliability of its Reliability Coordinator Area in coordination with its neighboring Reliability Coordinator's wide area view.
X	Balancing Authority	Integrates resource plans ahead of time, and maintains load-interchange-resource balance within a Balancing Authority Area and supports Interconnection frequency in real time.
<input type="checkbox"/>	Interchange Coordinator	Ensures communication of interchange transactions for reliability evaluation purposes and coordinates implementation of valid and balanced interchange schedules between Balancing Authority Areas.
<input type="checkbox"/>	Planning Coordinator	Assesses the longer-term reliability of its Planning Coordinator Area.
<input type="checkbox"/>	Resource Planner	Develops a >one year plan for the resource adequacy of its specific loads within a Planning Coordinator area.
<input type="checkbox"/>	Transmission Planner	Develops a >one year plan for the reliability of the interconnected Bulk Electric System within its portion of the Planning Coordinator area.
<input type="checkbox"/>	Transmission Service Provider	Administers the transmission tariff and provides transmission services under applicable transmission service agreements (e.g., the pro forma tariff).
X	Transmission Owner	Owns and maintains transmission facilities.
X	Transmission Operator	Ensures the real-time operating reliability of the transmission assets within a Transmission Operator Area.
<input type="checkbox"/>	Distribution Provider	Delivers electrical energy to the End-use customer.
<input type="checkbox"/>	Generator Owner	Owns and maintains generation facilities.
<input type="checkbox"/>	Generator Operator	Operates generation unit(s) to provide real and reactive power.
<input type="checkbox"/>	Purchasing-Selling Entity	Purchases or sells energy, capacity, and necessary reliability-related services as required.
<input type="checkbox"/>	Market Operator	Interface point for reliability functions with commercial functions.

Standards Authorization Request Form

<input type="checkbox"/>	Load-Serving Entity	Secures energy and transmission service (and related reliability-related services) to serve the End-use Customer.
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Standards Authorization Request Form

Reliability and Market Interface Principles

Applicable Reliability Principles <i>(Check box for all that apply.)</i>	
X	1. Interconnected bulk electric systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions as defined in the NERC Standards.
<input type="checkbox"/>	2. The frequency and voltage of interconnected bulk electric systems shall be controlled within defined limits through the balancing of real and reactive power supply and demand.
<input type="checkbox"/>	3. Information necessary for the planning and operation of interconnected bulk electric systems shall be made available to those entities responsible for planning and operating the systems reliably.
<input type="checkbox"/>	4. Plans for emergency operation and system restoration of interconnected bulk electric systems shall be developed, coordinated, maintained and implemented.
X	5. Facilities for communication, monitoring and control shall be provided, used and maintained for the reliability of interconnected bulk electric systems.
<input type="checkbox"/>	6. Personnel responsible for planning and operating interconnected bulk electric systems shall be trained, qualified, and have the responsibility and authority to implement actions.
<input type="checkbox"/>	7. The security of the interconnected bulk electric systems shall be assessed, monitored and maintained on a wide area basis.
Does the proposed Standard comply with all of the following Market Interface Principles? <i>(Select 'yes' or 'no' from the drop-down box.)</i>	
1. The planning and operation of bulk electric systems shall recognize that reliability is an essential requirement of a robust North American economy. Yes	
2. An Organization Standard shall not give any market participant an unfair competitive advantage. Yes	
3. An Organization Standard shall neither mandate nor prohibit any specific market structure. Yes	
4. An Organization Standard shall not preclude market solutions to achieving compliance with that Standard. Yes	
5. An Organization Standard shall not require the public disclosure of commercially sensitive information. All market participants shall have equal opportunity to access commercially non-sensitive information that is required for compliance with reliability standards. Yes	

Reliability Standard Review Guidelines

Related Standards

Standard No.	Explanation
IRO-002	Currently contains provisions for backup facilities.

Related SARs

SAR ID	Explanation

Regional Differences

Region	Explanation
ERCOT	
FRCC	
MRO	
NPCC	
SERC	
RFC	
SPP	
WECC	

Appendix A

Reliability Standard Review Guidelines

Reliability Standard Review Guidelines

Applicability

Does this reliability standard clearly identify the functional classes of entities responsible for complying with the reliability standard, with any specific additions or exceptions noted? Where multiple functional classes are identified is there a clear line of responsibility for each requirement identifying the functional class and entity to be held accountable for compliance? Does the requirement allow overlapping responsibilities between Registered Entities possibly creating confusion for who is ultimately accountable for compliance?

Does this reliability standard identify the geographic applicability of the standard, such as the entire North American bulk power system, an interconnection, or within a regional entity area? If no geographic limitations are identified, the default is that the standard applies throughout North America.

Does this reliability standard identify any limitations on the applicability of the standard based on electric facility characteristics, such as generators with a nameplate rating of 20 MW or greater, or transmission facilities energized at 200 kV or greater or some other criteria? If no functional entity limitations are identified, the default is that the standard applies to all identified functional entities.

Purpose

Does this reliability standard have a clear statement of purpose that describes how the standard contributes to the reliability of the bulk power system? Each purpose statement should include a value statement.

Performance Requirements

Does this reliability standard state one or more performance requirements, which if achieved by the applicable entities, will provide for a reliable bulk power system, consistent with good utility practices and the public interest?

Does each requirement identify who shall do what under what conditions and to what outcome?

Measurability

Is each performance requirement stated so as to be objectively measurable by a third party with knowledge or expertise in the area addressed by that requirement?

Does each performance requirement have one or more associated measures used to objectively evaluate compliance with the requirement?

If performance results can be practically measured quantitatively, are metrics provided within the requirement to indicate satisfactory performance?

Technical Basis in Engineering and Operations

Is this reliability standard based upon sound engineering and operating judgment, analysis, or experience, as determined by expert practitioners in that particular field?

Completeness

Is this reliability standard complete and self-contained? Does the standard depend on external information to determine the required level of performance?

Consequences for Noncompliance

In combination with guidelines for penalties and sanctions, as well as other ERO and regional entity compliance documents, are the consequences of violating a standard clearly known to the responsible entities?

Clear Language

Reliability Standard Review Guidelines

Is the reliability standard stated using clear and unambiguous language? Can responsible entities, using reasonable judgment and in keeping with good utility practices, arrive at a consistent interpretation of the required performance?

Practicality

Does this reliability standard establish requirements that can be practically implemented by the assigned responsible entities within the specified effective date and thereafter?

Capability Requirements versus Performance Requirements

In general, requirements for entities to have ‘capabilities’ (this would include facilities for communication, agreements with other entities, etc.), should be located in the standards for certification. The certification requirements should indicate that entities have a responsibility to ‘maintain’ their capabilities.

Consistent Terminology

To the extent possible, does this reliability standard use a set of standard terms and definitions that are approved through the NERC reliability standards development process?

If the standard uses terms that are included in the NERC Glossary of Terms Used in Reliability Standards, then the term must be capitalized when it is used in the standard. New terms should not be added unless they have a ‘unique’ definition when used in a NERC reliability standard. Common terms that could be found in a college dictionary should not be defined and added to the NERC Glossary.

Are the verbs on the ‘verb list’ from the DT Guidelines? If not – do new verbs need to be added to the guidelines or could you use one of the verbs from the verb list?

Violation Risk Factors (Risk Factor)

High Risk Requirement

A requirement that, if violated, could directly cause or contribute to bulk electric system instability, separation, or a cascading sequence of failures, or could place the bulk electric system at an unacceptable risk of instability, separation, or cascading failures;

or a requirement in a planning time frame that, if violated, could, under emergency, abnormal, or restorative conditions anticipated by the preparations, directly cause or contribute to bulk electric system instability, separation, or a cascading sequence of failures, or could place the bulk electric system at an unacceptable risk of instability, separation, or cascading failures, or could hinder restoration to a normal condition.

Medium Risk Requirement

This is a requirement that, if violated, could directly affect the electrical state or the capability of the bulk electric system, or the ability to effectively monitor and control the bulk electric system. However, violation of a medium risk requirement is unlikely to lead to bulk electric system instability, separation, or cascading failures;

or a requirement in a planning time frame that, if violated, could, under emergency, abnormal, or restorative conditions anticipated by the preparations, directly and adversely affect the electrical state or capability of the bulk electric system, or the ability to effectively monitor, control, or restore the bulk electric system. However, violation of a medium risk requirement is unlikely, under emergency, abnormal, or restoration conditions anticipated by the preparations, to lead to bulk electric system instability, separation, or cascading failures, nor to hinder restoration to a normal condition.

Lower Risk Requirement

Reliability Standard Review Guidelines

A requirement that, if violated, would not be expected to adversely affect the electrical state or capability of the bulk electric system, or the ability to effectively monitor and control the bulk electric system. A requirement that is administrative in nature;

Or a requirement in a planning time frame that, if violated, would not, under the emergency, abnormal, or restorative conditions anticipated by the preparations, be expected to adversely affect the electrical state or capability of the bulk electric system, or the ability to effectively monitor, control, or restore the bulk electric system. A planning requirement that is administrative in nature.

Mitigation Time Horizon

The drafting team should also indicate the time horizon available for mitigating a violation to the requirement using the following definitions:

- **Long-term Planning** — a planning horizon of one year or longer.
- **Operations Planning** — operating and resource plans from day-ahead up to and including seasonal.
- **Same-day Operations** — routine actions required within the timeframe of a day, but not real-time.
- **Real-time Operations** — actions required within one hour or less to preserve the reliability of the bulk electric system.
- **Operations Assessment** — follow-up evaluations and reporting of real time operations.

Violation Severity Levels

The drafting team should indicate a set of violation severity levels that can be applied for the requirements within a standard. ('Violation severity levels' replaces the existing 'levels of non-compliance.')

The violation severity levels may be applied for each requirement or combined to cover multiple requirements, as long as it is clear which requirements are included.

The violation severity levels should be based on the following definitions:

- **Lower: mostly compliant with minor exceptions** — the responsible entity is mostly compliant with and meets the intent of the requirement but is deficient with respect to one or more minor details. Equivalent score: 95% to 99% compliant.
- **Moderate: mostly compliant with significant exceptions** — the responsible entity is mostly compliant with and meets the intent of the requirement but is deficient with respect to one or more significant elements. Equivalent score: 85% to 94% compliant.
- **High: marginal performance or results** — the responsible entity has only partially achieved the reliability objective of the requirement and is missing one or more significant elements. Equivalent score: 70% to 84% compliant.
- **Severe: poor performance or results** — the responsible entity has failed to meet the reliability objective of the requirement. Equivalent score: less than 70% compliant.

Compliance Monitor

Replace, 'Regional Reliability Organization' with 'Electric Reliability Organization'

Bulk Electric System

Replace, 'Bulk Electric System' with 'bulk power system'

Reliability Standard Review Guidelines

Fill-in-the-blank Requirements

Do not include any 'fill-in-the-blank' requirements. These are requirements that assign one entity responsibility for developing some performance measures without requiring that the performance measures be included in the body of a standard – then require another entity to comply with those requirements.

Every reliability objective can be met, at least at a threshold level, by a North American standard. If we need regions to develop regional standards, such as in under-frequency load shedding, we can always write a uniform North American standard for the applicable functional entities as a means of encouraging development of the regional standards.

Requirements for Regional Reliability Organization

Do not write any requirements for the Regional Reliability Organization. Any requirements currently assigned to the RRO should be re-assigned to the applicable functional entity.

Effective Dates

Must be 1st day of 1st quarter after entities are expected to be compliant – must include time to file with regulatory authorities and provide notice to responsible entities of the obligation to comply. If the standard is to be actively monitored, time for the Compliance Monitoring and Enforcement Program to develop reporting instructions and modify the Compliance Data Management System(s) both at NERC and Regional Entities must be provided in the implementation plan.

Associated Documents

If there are standards that are referenced within a standard, list the full name and number of the standard under the section called, 'Associated Documents'.

Appendix B: EOP-008 Technical Issues List

Excerpted from NERC Reliability Standards Development Plan: 2007 - 2009

Reliability Standard Review Guidelines

Standard Review Form Project 2006-04 Back-up Facilities		
Standard #	EOP-008-0	Comments
Title	Plans for Loss of Control Center Functionality	Okay but could probably drop 'Plans for'.
Purpose		Okay
Applicability		Isn't the reliability entity the TSP and not the TO as per the FM?
Requirements	<i>Conditions</i>	Okay
	<i>Who?</i>	Okay
	<i>Shall do what?</i>	Grammar error in R1.2
	<i>Result or Outcome</i>	Missing
Measures		Measure doesn't define required evidence.
To Do List	<p>FERC NOPR</p> <ul style="list-style-type: none"> o Include a Requirement that all reliability coordinators have full backup control centers since they are essential to Bulk-Power System reliability. o Provision for backup capabilities should be an explicit Requirement. Such backup capability, at a minimum, must: (1) be independent of the primary control center; (2) be capable of operating for a prolonged period of time; and (3) provide for a minimum set of tools and facilities to replicate the critical reliability functions of the primary control center. <p>FERC staff report</p> <ul style="list-style-type: none"> o Distinction between providing plans and proving capabilities o Independence from primary control center <p>Regional Fill-in-the-Blank Team Comments</p> <ul style="list-style-type: none"> o No comments <p>V0 Industry Comments</p> <ul style="list-style-type: none"> o How does staff know control center is lost? o How is backup control achieved? o Max. time to restore capabilities <p>VRF comments</p> <ul style="list-style-type: none"> o R1 - Not having a written plan does not directly cause or contribute to bulk electric system instability, separation, or a cascading sequence of failures, or could place the bulk electric system at an unacceptable risk of instability, separation, or cascading o R1.1 - Not having a written plan is unlikely, under emergency, abnormal, or restoration conditions anticipated by the preparations, to lead to bulk electric system instability, separation, or cascading failures, nor to hinder restoration to a normal condition. 	