NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Consideration of Comments on the 3rd Draft of EOP Standards — Project 2006-03

The System Restoration and Blackstart Standards Drafting Team thank all commenters who submitted comments on the 3rd draft of the revisions to the EOP-005 and EOP-006 standards. These standards were posted for a 45-day public comment period from April 15, 2008 through May 29, 2008. The stakeholders were asked to provide feedback through a special Standard Comment Form. There were 29 sets of comments, including comments from 75 different people from approximately 50 companies representing 8 of the 10 Industry Segments as shown in the table on the following pages.

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

While the SDT believes that the changes made to the standards are somewhat minor in nature and clarifying in purpose, the volume of such changes seems to indicate that an additional posting is required.

The SDT has made numerous minor changes to the requirements, measures, and VSLs for clarification purposes based on the comments received as shown below. Some of the changes are highlighted here:

- EOP-006-2, R1.9 was added to try to clarify the role of the BA.
- The SDT has made numerous changes for clarity due to the industry comments received. EOP-005-2, R10 has been deleted. 'Control room personnel' has been changed to 'System Operators'. 'Procedures' has been changed to 'Process'. Several sub-requirements have been rolled up into the main requirement to eliminate redundancies. EOP-006-2, R4 was deleted but the main concept was merged into R5.
- Definition of "Blackstart Resource was changed.
- EOP-005-2, Purpose statement was changed.

The following requirements have been changed due to industry comments:

EOP-005: R1.2, R1.3, R1.4, R1.7, R1.8, R2, R4, R4.1, R5, R6, R7, R10 (deleted), R11, R11.1, R14, R15, R17, R18, R18.1, and R18.2.

EOP-006: R1, R1.2, R1.9, R2, R3, R4, R4.1, R5, R5.1, R5.2 (deleted and merged into R5.1), R6, R7.1 (deleted and merged into R7), R8, R8.1 (deleted and merged into R8), R9, and R9.1.

The following measurements have been changed due to industry comments:

EOP-005: M3, M4, M5, M6, M10 (deleted), M14, M15, and M18.

EOP-006: M5.

The following VSLs have been changed due to industry comments:

EOP-005: R1, R2, R3, R4, R5, R6, R8, R9, R10 (deleted), R11, R12, R14, R15, R16, R17, and R18.

EOP-006: R1, R2, R4, R9, and R10.

In addition, the SDT has listened to the industry as to the complexity of the proposed Implementation Plan and has adjusted the plan so that all changes take effect 24 months following regulatory approval.

If you feel that your comment has been overlooked, please let us know immediately. Our goal is to give every comment serious consideration in this process! If you feel there has been an error or omission, you can contact the Vice President and Director of Standards, Gerry Adamski, at 609-452-8060 or at gerry.adamski@nerc.net. In addition, there is a NERC Reliability Standards Appeals Process.[1]

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

Index to Questions, Comments, and Responses

Consideration of Comments on 3rd Draft of EOP Standards — Project 2006-03

The Industry Segments are:

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

Commenter		Organization	Industry Segment									
			1	2	3	4	5	6	7	8	9	10
1.	Anita Lee (I) (G1)	AESO		x								
2.	Robert Loy	Allegheny Energy					x					
3.	Paul D. Dare	Ameren	x									
4.	Thad Ness	American Electric Power										
5.	Jason Shaver	American Transmission Co.	x									
6.	J. Andrew Dodge / William Keagle / Ed Carmen	Baltimore Gas and Electric Co.	x									
7.	Dave Rudolph (G8)	Basin Electric Power Cooperative	x		x		x	x				
8.	Denise Koehn	Bonneville Power Administration	x		x		x	x				
9.	Jim Burns (G2)	Bonneville Power Administration	x									
10.	Brian Tuck (G2)	Bonneville Power Administration	x									
11.	Sally Long (G2)	Bonneville Power Administration	x									
12.	Brent Kingsford (G1)	California ISO		x								
13.	Ed Thompson (G3)	ConEd Company of New York, Inc.	x									
14.	Mark D. Paschke	Consumers Energy Company			x	x						
15.	Jack Kerr	Dominion Virginia Power	x		x		x	x				
16.	Greg Rowland	Duke Energy Corporation	x		x		x	x				
17.	Greg Mason (G6)	Dynegy					x					
18.	Ed Davis	Entergy Services, Inc.	x									
19.	Will Franklin	Entergy Services, Inc.										
20.	Steve Myers (G1)	ERCOT		x								
21.	Sam Ciccone (G4)	FirstEnergy Corp.	x		x		x	x				
22.	Doug Hohlbaugh (G4)	FirstEnergy Corp.	x		x		x	x				
23.	Dave Folk (G4)	FirstEnergy Corp.	x		x		x	x				
24.	Ken Dresner (G4)	FirstEnergy Corp.	x		x		x	x				
25.	John Reed (G4)	FirstEnergy Corp.	x		x		x	x				
26.	John Stephens (G4)	FirstEnergy Corp.	x		x		x	x				
27.	Eugene Blick (G4)	FirstEnergy Corp.	x		x		x	x				
28.	Ed Stein (G4)	FirstEnergy Corp.	x		x		x	x				
29.	Ed Baznik (G4)	FirstEnergy Corp.	x		x		x	x				
30.	Joseph Knight	Great River Energy	x		x		x	x				
31.	David Kiguel (G3)	Hydro One Networks, Inc.	x									
32.	Ken Goldsmith	IES Utilities Inc.				x						
33.	Ron Falsetti (G1)	IESO		x								

Commenter		Organization	Industry Segment									
			1	2	3	4	5	6	7	8	9	10
34.	Matt Goldberg (G1)	ISO New England		x								
35.	Mark Bradley	ITC Holdings	x									
36.	Michael Gammon (I) (G7)	Kansas City Power & Light	x									
37.	Eric Ruskamp	Lincoln Electric System	x		x		x	x				
38.	Joseph DePoorter	Madison Gas and Electric Co.			x	x	x	x				
39.	Craig McLean	Manitoba Hydro	x		x		x	x				
40.	Tom Mielnik	Midamerican Energy Company	x		x		x	x				
41.	Jason L. Marshall (G6)	Midwest ISO		x								
42.	Bill Phillips (G1)	Midwest ISO		x								
43.	Terry Bilke	Midwest ISO		x								
44.	Larry Brusseau	Midwest Reliability Organization										x
45.	Michael Brytowski	Midwest Reliability Organization										x
46.	Carol Gerou	Minnesota Power	x		x		x	x				
47.	Ellen Oswald	NERC Standards Interface Cmte.										
48.	Randy McDonald (G3)	New Brunswick System Operator		x								
49.	Jim Castle (G1)	New York ISO		x								
50.	Ralph Rufrano (G3)	New York Power Authority					x					
51.	Guy Zito (G3)	Northeast Power Coordinating Council										x
52.	Lee Pedowicz (G3)	Northeast Power Coordinating Council										x
53.	Rick White	Northeast Utilities	x									
54.	Al Adamson (G3)	NY State Reliability Council									x	
55.	Don Hargrove (G7)	Oklahoma Gas and Electric	x		x		x					
56.	Lauri Jones	Pacific Gas and Electric Co.	x		x		x					
57.	Patrick Brown (G1)	PJM Interconnection		x								
58.	Tom Bradish	Reliant Energy Inc.					x	x				
59.	Terry L. Blackwell (G5)	Santee Cooper	x									
60.	S.T. Abrams (G5)	Santee Cooper	x									
61.	Glenn Stephens (G5)	Santee Cooper	x									
62.	René Free (G5)	Santee Cooper	x									
63.	Kristi Boland (G5)	Santee Cooper	x									
64.	Vicky Budreau (G5)	Santee Cooper	x									
65.	Roman Carter	Southern Company Transmission	x									
66.	Robert Rhodes (G7)	Southwest Power Pool	x	x	x		x					x
67.	Charles Yeung	Southwest Power Pool		x								
68.	Kyle McMenamin (G7)	Southwestern Public Service	x		x		x					
69.	Stephen Joseph	Tampa Electric Company	x		x		x					
70.	Jim Haigh	WAPA	x					x				
71.	Barb Kedrowski (G6)	We Energies			x							
72.	Allen Klassen (G7)	Westar Energy	x		x		x					
73.	Neal Balu	WPS			x	x	x	x				
74.	Pan Oreschnick	Xcel Energy	x		x		x	x				
75.	Alice Druffel	Xcel Energy	x		x		x	x				
76.	John Troha	SERC OC SRC		x								
77.	Ed Stein	First Energy	x		x		x	x				

G1 — ISO/RTO Council
G2 — Bonneville Power Administration
G3 — NPCC Regional Standards Group

October 15, 2008

G4 — FirstEnergy Corp.
G5 — Santee Cooper
G6 — MISO Stakeholders Collaborative
G7 — SPP Operating Reliability Working Group
G8 — Midwest Reliability Organization NERC Standards Review Subcommittee

1. The SDT has made numerous changes to the text of both EOP-005 and EOP-006 in an attempt to clarify requirements based on industry comments from the second posting. Do you agree with the changes that were made? If not, please provide specific suggestions for change.

Summary Consideration: The SDT has made numerous changes for clarity due to the industry comments received. EOP-005-2, R10 has been deleted. 'Control room personnel' has been changed to 'System Operators'. 'Procedures' has been changed to 'Process'. Several sub-requirements have been rolled up into the main requirement to eliminate redundancies. EOP-006-2, R4 was deleted but the main concept was merged into R5.

The following definition was revised due to industry comments:

Blackstart Resource: A ~~generation Facility~~ generating unit(s) and its associated set of equipment which has the ability to be started without support from the System or is designed to remain energized without connection to the remainder of the System, with the ability to energize a bus, meeting the Transmission Operator's restoration plan needs for real and reactive power capability, frequency and voltage control, and that has been included in the Transmission Operator's restoration plan.

The Purpose statement was changed due to industry comments:

Ensure plans, ~~and~~ Facilities ~~are established~~, and personnel are prepared to enable System restoration from Blackstart Resources to ~~ensure~~ assure reliability is maintained during restoration and priority is placed on restoring the Interconnection.

The following requirements have been changed due to industry comments:

EOP-005-2:

R1.2: A description of the manner in which all Agreements or mutually agreed upon procedures or protocols for off-site power requirements of nuclear power plants, including priority of restoration, will be fulfilled during System restoration.

R1.3: Procedures for restoring ~~the integrity of the Interconnection~~ interconnections with other Transmission Operators under the direction of the Reliability Coordinator.

R1.4 Identification of each Blackstart Resource and its characteristics including but not limited to the following: the name of the Blackstart Resource, location, megawatt and megavar capacity, and type of unit.

R1.7 Operating ~~Procedures~~ Processes to reestablish connections within the Transmission Operator's System for areas that have ~~become separated~~ been restored and are prepared for reconnection.

R1.8 Operating ~~Procedures~~ Processes to restore Loads required to restore the System, such as station service for substations, units to be restarted or stabilized, the Load needed to stabilize generation and frequency, and provide voltage control ~~for restoring the System~~.

R1.9 Criteria for transferring operations and authority back to the Balancing Authority.

R2 ~~Each Transmission Operator shall distribute its approved restoration plan to the reliability-related operational entities identified in its restoration plan within thirty calendar days of having received approval from its Reliability Coordinator.~~ Each Transmission Operator shall provide the operational entities identified in its approved restoration plan with a description of any changes to their roles and specific tasks prior to the implementation date of the plan.

R4 Each Transmission Operator shall update its restoration plan within ninety calendar days after identifying any unplanned permanent System modifications, or prior to implementing a planned System modification, that would change the implementation of its restoration plan.

R4.1 Each Transmission Operator shall submit its revised restoration plan to its Reliability Coordinator for approval within the same ninety calendar day period.

R5 Each Transmission Operator shall have a copy of its latest Reliability Coordinator approved restoration plan within ~~each of~~ its primary and backup control ~~centers~~ rooms and available to all of its ~~control room personnel~~ System Operators prior to its implementation date.

R6 Each Transmission Operator shall verify through analysis of actual events, steady state and dynamic simulations, or testing that its ~~documented~~ restoration plan accomplishes its intended function. This shall be completed every five years at a minimum. Such analysis, simulations or testing shall ~~analyze~~ verify:

R7 Following a Disturbance in which one or more areas of the BES shuts down and the use of Blackstart Resources is required to restore the shut down area to service, each affected Transmission Operator shall implement its restoration plan. If the restoration plan cannot be executed as expected because actual conditions do not match the studied conditions, the Transmission Operator shall utilize its restoration plan strategies to facilitate restoration.

R11 Each Transmission Operator shall include within its operations training program, annual System restoration training to its System Operators to ~~ensure~~ assure the proper execution of its restoration plan. This training program shall include training on the following:

R11.1 System restoration ~~philosophy~~ plan including coordination with the Reliability Coordinator and Generator Operators included in the restoration plan.

R14~~3~~ Each Transmission Operator and Generator Operator with a Blackstart Resource shall have ~~a~~ written Blackstart Resource Agreements or mutually agreed upon procedures or protocols, specifying the terms and conditions of their arrangement. Such Agreements shall include references to the ~~blackstart~~ Blackstart Resource testing requirements.

R17~~6~~ Each Generator Operator ~~of~~ with a Blackstart Resource shall perform Blackstart Resource tests, and maintain records of such testing, in accordance with the testing requirements set by the Transmission Operator to verify that the Blackstart Resource can perform as specified in the restoration plan.

~~R18.1~~ 17.1. System restoration ~~philosophy~~ plan including coordination with the Transmission Operator.

EOP-006-2:

R1 Each Reliability Coordinator shall have a Reliability Coordinator Area restoration plan. The scope of the Reliability Coordinator's restoration plan starts when Blackstart Resources are utilized to re-energize a shut down area of the Bulk Electric System (BES), or separation has occurred between neighboring Reliability Coordinators, or an energized island has been formed on the ~~Bulk Electric System (~~BES~~)~~ within the Reliability Coordinator Area. The scope of the Reliability Coordinator's restoration plan ends when all of its Transmission Operators are interconnected and ~~it~~ its Reliability Coordinator Area is connected to all of its neighboring Reliability Coordinator~~s~~ Areas. The restoration plan shall include:

R1.2 ~~Procedures~~ Processes for restoring ~~the integrity of~~ the Interconnection.

R3 Each Reliability Coordinator shall review its restoration plan ~~every twelve~~ within thirteen months of the last review.

R4 Each Reliability Coordinator shall ~~update its restoration plan within ninety calendar days after identifying changes to one of its Transmission Operator's restoration plans or upon~~ review~~ing~~ ~~a~~ their neighboring Reliability Coordinator's restoration plans ~~that would necessitate a change in their coordination tasks or responsibilities~~.

R4.1 If the Reliability Coordinator finds conflicts between its restoration plans and any of its neighbors, the conflicts shall be resolved in thirty days.

R5 Each Reliability Coordinator shall review the ~~Transmission Operator~~ restoration plans ~~as defined in~~ required by EOP-005 of the Transmission Operators within its Reliability Coordinator Area, and neighboring Reliability Coordinators, when received.

R5.1 The Reliability Coordinator shall determine whether the Transmission Operator's restoration plan is coordinated and compatible with the Reliability Coordinator's restoration plan ~~as well as being compatible with~~ and other Transmission Operators' restoration plans within its Reliability Coordinator Area. The Reliability Coordinator shall approve or disapprove, with stated reasons, the Transmission Operator's submitted restoration plan within thirty calendar days following the receipt of the restoration plan from the Transmission Operator.

R5.2 deleted and merged into R5.1.

R6 Each Reliability Coordinator shall have a copy of its latest restoration plan and copies of the latest approved restoration plan of each Transmission Operator in its Reliability Coordinator Area within ~~each of~~ its primary and backup control ~~centers~~ rooms and available to all of its ~~control room personnel~~ System Operators prior to the implementation date.

R7 Each Reliability Coordinator shall work with its affected ~~Balancing Authorities,~~ Generator Operators~~,~~ and Transmission Operators as well as neighboring Reliability Coordinators to monitor restoration progress, coordinate restoration, and take actions to restore the BES frequency within acceptable operating limits. If the restoration plan cannot be completed as expected because actual conditions do not match the studied conditions, the Reliability Coordinator shall utilize its restoration plan strategies to facilitate System restoration. ~~Such actions may include but not be limited to adjusting generation, placing additional generators on line, or shedding Load.~~

R7.1 deleted and merged into R7.

R8 The Reliability Coordinator shall coordinate or authorize ~~and coordinate~~ resynchronizing islanded areas that bridge boundaries between Transmission Operators or Reliability Coordinators. If the resynchronization cannot be completed as expected because actual conditions do not match the studied conditions, the Reliability Coordinator shall utilize its restoration plan strategies to facilitate resynchronization.

R8.1 deleted and merged into R8.

R9 Each Reliability Coordinator shall include within its operations training program, annual System restoration training for its System Operators to ~~ensure~~ assure the proper execution of its restoration plan. This training program shall ~~include~~ address the following:

R9.1 ~~System restoration philosophy including t~~The coordination role of the Reliability Coordinator.

The following measures have been changed due to industry comments:

EOP-005-2:

M4 Each Transmission Operator shall have documentation such as dated review signature sheets, revision histories, e-mails with receipts, or registered mail receipts, that it has updated its restoration plan ~~with~~ and submitted it to its Reliability Coordinator in accordance with Requirement R4.

M5 Each Transmission Operator shall have documentation ~~such as e-mail receipts~~ that it has made the latest Reliability Coordinator approved copy of its restoration plan available in ~~each of~~ its primary and backup control rooms and to each of its ~~control room personnel~~ System Operators prior to its implementation date in accordance with Requirement R5.

M~~18~~17 Each Generator Operator with a Blackstart Resource shall have an electronic or hard copy of the training program material provided to its operating personnel responsible for the startup and synchronization of its Blackstart Resource

generation units and a copy of its dated training records including training dates and durations showing that it has provided training in accordance with Requirement R18.

Organization	Question 1:	Question 1 Comments:
Baltimore Gas and Electric Company	No	All comments below pertain to EOP-005-2 R1.1 - existing wording is not clear. Suggest modifying to read "Procedures for restoring off-site power requirements of nuclear power plants during system restoration per agreements. R2 - SDT needs to define the term "reliability-related operational entities". It is not clear who is a "reliability-related operational entity".
Response: R1.1 (old) = R1.2 (new) - Reference to an agreement with a Nuclear Plant Generator Operator could be used as evidence per Measurement 1. R1.2: A description of the manner in which all Agreements or mutually agreed upon procedures or protocols for off-site power requirements of nuclear power plants, including priority of restoration, will be fulfilled during System restoration. R2 - The requirement has been revised to address the comment. R2: ~~Each Transmission Operator shall distribute its approved restoration plan to the reliability-related operational entities identified in its restoration plan within thirty calendar days of having received approval from its Reliability Coordinator.~~ Each Transmission Operator shall provide the operational entities identified in its approved restoration plan with a description of any changes to their roles and specific tasks prior to the implementation date of the plan.		
Bonneville Power Administration	No	It was good to clean up the duplication. EOP-005-2R1: Is this also intended to cover what the removed R7.2 in version EOP-005-1? R2: reliability-related entities identified Restoration Plan would be the associated BAs of the TO and the coordinated TO/TOP? R6: R6.1 -delete "location and magnitude". M6: remove "such as power flow outputs," or add the additional verification language from R6 description. R10: Due to Operational AND NATIONAL Security sensitivities do NOT post Blackstart Plans publicly.

Organization	Question 1:	Question 1 Comments:
		R12: We agree with the change from 1 year to 2 year interval. Rather than require 2 hours of system restoration training however, suggest focusing the requirement on providing training that addresses the "unique tasks" field personnel are expected to perform. This could be done with a performance measure or check off sheet showing that competency in performing the tasks has been verified. (measure M12 and the VSL for R12 would need to be changed accordingly) R13/19: Suggest changing the requirement to participation 2x annually in RC exercises rather than every time TOP/GOP is requested by RC. This would provide greater flexibility to the TOP/GOP for meeting staffing requirements for both real-time personnel training staff.
Response: EOP-005-1 did not have an R7.2. R2 – The requirement has been rewritten to clarify the intent. R2: ~~Each Transmission Operator shall distribute its approved restoration plan to the reliability-related operational entities identified in its restoration plan within thirty calendar days of having received approval from its Reliability Coordinator.~~ Each Transmission Operator shall provide the operational entities identified in its approved restoration plan with a description of any changes to their roles and specific tasks prior to the implementation date of the plan. 6.1 – The SDT believes that you meant R6.2 and believes this is a necessary condition. No change made. M6 – The phrase is only an example and no change was made. R10 – These are testing requirements, not plans R12 – The SDT believes that 2 hours of training is a minimum for familiarity with the purpose and risks associated with specific tasks. The TOP is free to use performance measures or check off sheets. R13/19 – EOP-006-2, R10 requires the RC to conduct two drills per year. The comment is already addressed in the required coordination between these two standards.		
Xcel Energy	No	The title and purpose of each standard does not clarify what the term "restoration" means as used in these standards. It should be placed in the Purpose, or as a Definition, rather than being embedded in the requirements.EOP-005-2 Purpose says the standard establishes Facilities. Xcel Energy suggests it identifies or establishes requirements for Facilities. EOP-005-2 R7.3 and EOP-006-2 R7.1 appear to be feel-good statements telling the Transmission Operator to do the right thing if the plan doesn't work. Xcel Energy does not see the value in these requirements. EOP-005-2, R10, Xcel Energy questions the need to post Blackstart Resource testing

Organization	Question 1:	Question 1 Comments:
		requirements to a "freely accessible public forum". We fail to see the reliability need for this and feel that the requirements can be incorporated into Interconnection Agreements or communicated through the Blackstart Resource Agreement required in R14. EOP-005-2, R14, This requirement places the responsibility of the Blackstart Resource Agreement on BOTH the Transmission Operator and Generator Operator. The requirement should be rewritten as such "Each Transmission Operator will have a written Blackstart Resource Agreement specifying the terms and conditions, including testing requirements, with each Generator Operator of a Blackstart Resource." EOP-005-2 Xcel Energy questions the need to have a 2 hour requirement on the training requirement in R12 and R18. A training module along with the exercises, drills, and periodic testing that adequately covers the information specified in these requirements would seem to be sufficient. If a specific time requirement is retained, would time spent participating in drills, and Blackstart Resource testing qualify as part of this training?

Response: The Purpose does not state that the standard establishes Facilities, but that established Facilities must enable restoration. Wording changed for clarity. EOP-005-2, R7.3 and EOP-006-2 R7.1 (now moved into R7 in the revised drafts) accommodate compliance if conditions do not permit the system to be restored as described in the plan.

R7: Following a Disturbance in which one or more areas of the BES shuts down and the use of Blackstart Resources is required to restore the shut down area to service, each affected Transmission Operator shall implement its restoration plan. If the restoration plan cannot be executed as expected because actual conditions do not match the studied conditions, the Transmission Operator shall utilize its restoration plan strategies to facilitate restoration.

Purpose: Ensure plans, ~~and~~ Facilities ~~are established~~, and personnel are prepared to enable System restoration from Blackstart Resources to ~~ensure~~ assure reliability is maintained during restoration and priority is placed on restoring the Interconnection.

R10 – Requirement has been deleted.
R14 – Wording changed to provide clarity. (R14 now R13)

R13: Each Transmission Operator and Generator Operator with a Blackstart Resource shall have ~~a~~ written Blackstart Resource Agreements or mutually agreed upon procedures or protocols, specifying the terms and conditions of their arrangement. Such Agreements shall include references to the ~~blackstart~~ Blackstart Resource testing requirements.

Organization	Question 1:	Question 1 Comments:
R12 and R18 (now R11 and R17)- The SDT believes that 2 hours of training is a minimum for familiarity with the purpose and risks associated with specific tasks.		
NPCC	No	EOP-005 R1.2 Procedures for restoring the integrity of the Interconnection under the direction of the Reliability Coordinator. Comment: What is meant by "integrity" of the interconnection? How would this be assessed as an element in the plan? R1.6 There should be some consideration for the size and location of the area isolated. Perhaps this should apply to only those areas for which designated black start units are located. Because of the many possibilities for creating an island, the plan should be as generic as possible so that its general restoration philosophy will work during any scenario. R1.7 Operating Procedures to restore Loads, such as station service for substations, units to be restarted or stabilized, the Load needed to stabilize generation and frequency, and provide voltage control for restoring the System. Comment: Perhaps should read: Procedures to restore loads associated with initial stages of restoration, such as.....There comes a time in restoration where loads are simply restored in a typical fashion for which a procedure is not required. R5Latest Approved? I assume that this means RC approved. The requirement should specifically state RC approved. R7.3 Consider adding a need to communicate/review with the RC when deviating from the plan. R9.2For those units “designed to remain energized” testing should include successful and sustained islanded operation either through testing or an actual event within the testing requirement timeline. R10What is the purpose for public posting of blackstart resource testing? This should not be in a reliability standard. EOP-006R1 (SCOPE) 1) The size and location of the island should be a consideration. Area restoration plans should only consider only those islands that contain the designated black start resources. 2) The SCOPE should not include the separation of two RCs unless the affected RC has been completely unconnected from all other RCs. R1.1 "Integrity of the Interconnection" should be clarified.

Organization	Question 1:	Question 1 Comments:
Response: R1.1 (old) **=** R1.2 (new)– integrity has been removed. R1.2: Procedures for restoring ~~the integrity of the Interconnection~~ interconnections with other Transmission Operators under the direction of the Reliability Coordinator. R1.6 (old) = R1.7 (new)– The requirement has been revised to clarify intent. R1.7: Operating ~~Procedures~~ Processes to reestablish connections within the Transmission Operator's System for areas that have ~~become separated~~ been restored and are prepared for reconnection. R1.7 (old) = R1.8 (new) – The requirement has been revised to clarify intent. Restoration as described in this standard ends as stated in R1. R1.8: Operating ~~Procedures~~ Processes to restore Loads required to restore the System, such as station service for substations, units to be restarted or stabilized, the Load needed to stabilize generation and frequency, and provide voltage control ~~for restoring the System~~ R5 – The requirement has been revised. R5: Each Transmission Operator shall have a copy of its latest Reliability Coordinator approved restoration plan within ~~each of~~ its primary and backup control ~~centers~~ rooms and available to all of its ~~control room personnel~~ System Operators prior to its implementation date R7.3 – EOP-006-2, R1.2 covers this issue. R9.2 – The TOP is permitted to determine testing requirements needed to support its restoration plan. No change made. R10 – requirement was deleted. EOP-006-2, R1, the scope is meant to cover all situations not just those requiring Blackstart Resources. No change made. R1.1 (old) = R1.2 (new) – integrity has been removed. R1.2: A description of the manner in which all Agreements or mutually agreed upon procedures or protocols for off-site power requirements of nuclear power plants, including priority of restoration, will be fulfilled during System restoration.		
Southern Company	No	Comments on Draft 3 — EOP-00 5R1.1 — Where the TOP and the GOP are the same entity formal Agreements should not be required. NUC-001 as approved by FERC currently allow

Organization	Question 1:	Question 1 Comments:
Transmission		arrangement/procedures to fulfill this requirement. – R1.6 — This requirement for "Operating Procedures" would seem to be difficult to achieve if taken too literally. The NERC Glossary indicates an "Operating Procedure" "identifies specific steps or tasks that should be taken by one or more specific operating positions to achieve specific operating goal(s)". Due to the unknown nature by which areas may become separated, developing sufficient (from a compliance perspective) operating procedures to reestablish connections for all possibilities is impractical. If the Drafting Team agrees these procedures to be more generic in nature, the generic meaning should be captured here using the term "Operating Process" rather than the "specific" nature of the Glossary definition for Operating Procedure. – R1.7 — Similar comment as for R1.6 relative to the degree of specificity required. In addition, the phrasing of the sentence is unclear due to the position of the commas. Please see if it can be cleaned up using parentheses, semi-colons, rewording or some other device. Using the term "such as" makes it hard to understand exactly what is required. For example, what other loads are being referred to beyond "station service for substations". R2, R3 — It appears the requirements 2 and 3 should be reversed to better reflect what takes place chronologically. R4.1 — The requirement does not mention but it is accurate to expect the TOP to resubmit the revised restoration plan to the RC for approval? "R6" It is unclear to what extent the analysis/simulations/testing of the plan should be carried out, particularly in R6.2. Also, this requirement could be interpreted to apply to the entire Interconnection rather than just those loads for a particular area. At what point are there enough studies to satisfy that the TOP has done enough for compliance for this requirement? The requirement should state that any of the options: actual event, simulation, or testing is sufficient to meet the requirement and not all three are being required. The contents of requirements 6.1-6.3 should be consistent with the contents of R1.7. R1.7 describes what your plan should include, and R 6.1-6.3 describes ways of simulating or testing the content in 1.7.

Organization	Question 1:	Question 1 Comments:
		R7.2 - This requirement is not consistent with EOP-006, R1.6. EOP-005, R7.2 requires only notifying the RC on "progress" while EOP-006, R1.6 refers to "reporting requirements". The SDT should consider removing the word "progress" in EOP-005, R7.2, or perhaps change to "Each affected TOP shall report during a restoration event to the RC as required in the RC restoration plan". R7.3 - The use of the word "philosophies" should be replaced with the word "practices" to make it clearer to the reader. All other references should also be changed. R10 - The term "freely accessible public forum" is vague. Testing requirements should be accessible by parties involved, but the place to post them should be a "business practice". ”R11” The expectation of training to “ensure the proper execution of its restoration plan” is unrealistic. Training can not ensure that proper execution occurs for every instance. Remove the words after System Operators and end the sentence there. Then pick up the next sentence as it is currently written with "This training program shall include"....,etc.; Should the drafting team decide to leave it in then the wording should be changed to say only "knowledgeable execution can result" from training. R14 - The term "Blackstart Resource Agreement" is capitalized meaning it is a defined term. However, it is not defined in the NERC Glossary or in this standard. Remove the capitalization of Agreement in the Blackstart Resource Agreement. Also, if the TOP and the GOP are same entity, formal agreements are not required with itself. Internal Entity procedures and MOUs are adequate. ”R16” Is the phrase “changes to the capabilities” referring to only Blackstart capabilities or to any capabilities of the resource? It is expected to mean Blackstart capabilities and recommend putting Blackstart before capabilities. Also, recommend including the word "permanent" in front of changes. M5 - Does the term "e-mail receipts" refer to e-mail "read" receipts showing the recipient had opened the e-mail? I am assuming other means are also acceptable? For example, intranet sites and electronic and hard copies in the control room should be acceptable.

Organization	Question 1:	Question 1 Comments:
		”M18” It is assumed that this measurement is referring to Generator Operator of a Blackstart Resource. For consistency with the style in M15 and M16 this clarification is suggested. Comments on Draft 3 – EOP-006R1 — We recommend including the word "Areas" in the scope statement of R1 as follows: separation has occurred between neighboring Reliability Coordinator Areas, or an.... R1.4 Should "neighboring" be inserted before Reliability Coordinators Areas to make the requirement clearer? R1.7 If the Balancing Authority is disseminated information about restoration, should the BA be included in the applicability section? Since the BA plays no part in the restoration process (according to the drafting team), is the BA being disseminated information during the restoration process or after restoration has been achieved? “R7” In previous drafts, the Drafting Team has remained steadfast in its position that there was no applicability of System Restoration requirements to Balancing Authorities. In light of this why are Balancing Authorities included in this requirement to “work with” their RC. What does “work with” involve on the part of the BA and is this not a required activity on the part of Balancing Authorities during a System Restoration. The Drafting Team was quite clear in its previous comments that the BAs had no role in monitoring restoration progress, coordinating restoration, and taking action to restore BES frequency within acceptable limits that this requirement contains. R7.1 - The content of R7.1 is exactly the same as R8.1. Would it not be better to only include the requirement once? Also, replace the word "philosophies" with "practices" throughout the document. Finally, we recommend breaking out this sub-requirement into a stand alone requirement. It does not depend on the information of R7 to exist. ”R9“ The expectation of training to “ensure the proper execution of its restoration plan” is unrealistic. Training can not ensure that proper execution occurs for every instance. Remove the words after System Operators and end the sentence there. Then pick up the next sentence as it is currently written with "This training program shall include"....,etc.; Should the drafting

Organization	Question 1:	Question 1 Comments:
		team decide to leave it in then the wording should be changed to say only "knowledgeable execution can result" from training

Response: R1.1 (old) **=** R1.2 (new) – Requirement was revised.

R1.2: A description of the manner in which all Agreements or mutually agreed upon procedures or protocols for off-site power requirements of nuclear power plants, including priority of restoration, will be fulfilled during System restoration.

R1.6 (old) = R1.7 (new) - The term has been changed to Operating Process.

R1.7: Operating ~~Procedures~~ Processes to reestablish connections within the Transmission Operator's System for areas that have ~~become separated~~ been restored and are prepared for reconnection.

R1.7 (old) = R1.8 (new) - The requirement has been revised to clarify intent.

R1.8: Operating ~~Procedures~~ Processes to restore Loads required to restore the System, such as station service for substations, units to be restarted or stabilized, the Load needed to stabilize generation and frequency, and provide voltage control ~~for restoring the System~~

R2, R3 – Chronological order is not important. No change made.
R4.1 – The requirement states "submit its revised restoration plan to its Reliability Coordinator". No change made.
R6 – The conjunction "or" indicates not all are required. The verification is for the plan, which is intended to cover restoration to "to a state whereby the choice of the next Load to be restored is not driven by the need to control frequency or voltage…".
R7 has been revised to address the concern.

R7: Following a Disturbance in which one or more areas of the BES shuts down and the use of Blackstart Resources is required to restore the shut down area to service, each affected Transmission Operator shall implement its restoration plan. If the restoration plan cannot be executed as expected because actual conditions do not match the studied conditions, the Transmission Operator shall utilize its restoration plan strategies to facilitate restoration.

R10 – requirement has been deleted.
R11 – wording changed to provide clarity. (now R10)

R10: Each Transmission Operator shall include within its operations training program, annual System restoration training to its System Operators to ~~ensure~~ assure the proper execution of its restoration plan. This training program shall

Organization	Question 1:	Question 1 Comments:

include training on the following:

R14 – wording changed for clarity. (now R13)

R13: Each Transmission Operator and Generator Operator with a Blackstart Resource shall have ~~a~~ written Blackstart Resource Agreements or mutually agreed upon procedures or protocols, specifying the terms and conditions of their arrangement. Such Agreements shall include references to the ~~blackstart~~ Blackstart Resource testing requirements.

R16 (now R15) – The SDT believes the requirement is unambiguous as written. If short term changes affect the TOP's plan, the TOP needs to know.
M5 – reference to e-mail has been deleted.

M5: Each Transmission Operator shall have documentation ~~such as e-mail receipts~~ that it has made the latest Reliability Coordinator approved copy of its restoration plan available in ~~each of~~ its primary and backup control rooms and to each of its ~~control room personnel~~ System Operators prior to its implementation date in accordance with Requirement R5.

M18 – The measure has been revised. (now M17)

M17: Each Generator Operator with a Blackstart Resource shall have an electronic or hard copy of the training program material provided to its operating personnel responsible for the startup and synchronization of its Blackstart Resource generation units and a copy of its dated training records including training dates and durations showing that it has provided training in accordance with Requirement R18.

EOP-006 R1 – The requirement has been revised to address the concern.

R1: Each Reliability Coordinator shall have a Reliability Coordinator Area restoration plan. The scope of the Reliability Coordinator's restoration plan starts when Blackstart Resources are utilized to re-energize a shut down area of the Bulk Electric System (BES), or separation has occurred between neighboring Reliability Coordinators, or an energized island has been formed on the ~~Bulk Electric System (~~BES~~)~~ within the Reliability Coordinator Area. The scope of the Reliability Coordinator's restoration plan ends when all of its Transmission Operators are interconnected and ~~it~~ its Reliability Coordinator Area is connected to all of its neighboring Reliability Coordinator~~s~~ Areas. The restoration plan shall include:

R1.4 – The SDT believes it is obvious from the context. No change made.
R1.7 – No, this does not make the BA an applicable entity. The RC determines when the BA is informed.

Organization	Question 1:	Question 1 Comments:
R7 – The BA has been removed. R7: Each Reliability Coordinator shall work with its affected ~~Balancing Authorities,~~ Generator Operators~~,~~ and Transmission Operators as well as neighboring Reliability Coordinators to monitor restoration progress, coordinate restoration, and take actions to restore the BES frequency within acceptable operating limits. If the restoration plan cannot be completed as expected because actual conditions do not match the studied conditions, the Reliability Coordinator shall utilize its restoration plan strategies to facilitate System restoration. ~~Such actions may include but not be limited to adjusting generation, placing additional generators on line, or shedding Load.~~ R7.1 – R8 has been changed for clarity. R8: The Reliability Coordinator shall coordinate or authorize ~~and coordinate~~ resynchronizing islanded areas that bridge boundaries between Transmission Operators or Reliability Coordinators. If the resynchronization cannot be completed as expected because actual conditions do not match the studied conditions, the Reliability Coordinator shall utilize its restoration plan strategies to facilitate resynchronization. R9 –The word has been changed to “assure”. R9: Each Reliability Coordinator shall include within its operations training program, annual System restoration training for its System Operators to ~~ensure~~ assure the proper execution of its restoration plan. This training program shall ~~include~~ address the following:		
Manitoba Hydro	Yes	EOP-006-2 R8.1 is redundant with R7.1, this could result in non-compliance to 2 requirements when it should only be to one.
Response: R7.1 was deleted – R8 has been changed. R8: The Reliability Coordinator shall coordinate or authorize ~~and coordinate~~ resynchronizing islanded areas that bridge boundaries between Transmission Operators or Reliability Coordinators. If the resynchronization cannot be completed as expected because actual conditions do not match the studied conditions, the Reliability Coordinator shall utilize its restoration plan strategies to facilitate resynchronization.		
Northeast Utilities	Yes	EOP-005-2R2. — Suggest the following rewording; "Each Transmission Operator shall distribute, consistent with its Critical Energy Infrastructure Information protocol, its approved ?". R4. — Changing "identifying" to "implementing", or removing it altogether, better

Organization	Question 1:	Question 1 Comments:
		communicates what may be adequate for this requirement; and eliminates confusion in circumstances where a modification is identified 2 years (for example) prior to implementation, or sometime after implementation of the modification . R6. — The technical data required for such studies is difficult to obtain in a de-regulated environment. May need to add a requirement for Generator Operators to supply this data. R6.2. — The wording is awkward implying loads control voltage or frequency, specifically. Suggest: "The location and magnitude of Loads inherent in controlling voltages and frequency ? "R12. ? The requirement needs to recognize that in many cases switching personnel work for the TO, not the TOP. The TOP is not in a position to "provide" the training. Perhaps the TOP should "ensure" the training; or the possibility the TO is responsible should be recognized. Further, use of a Systematic Approach to Training should define necessary training requirements. The standard should not impose a mandated time (2 hrs).

Response: R2 - The requirement has been revised to address the comment.

R2: ~~Each Transmission Operator shall distribute its approved restoration plan to the reliability-related operational entities identified in its restoration plan within thirty calendar days of having received approval from its Reliability Coordinator.~~ Each Transmission Operator shall provide the operational entities identified in its approved restoration plan with a description of any changes to their roles and specific tasks prior to the implementation date of the plan.

R4 - requirement has been revised.

R4: Each Transmission Operator shall update its restoration plan within ninety calendar days after identifying any unplanned permanent System modifications, or prior to implementing a planned System modification, that would change the implementation of its restoration plan

R6 – The TOP can include a requirement for generator data in its Blackstart Resource Agreement.
R6.2 – The SDT considers the wording to be equivalent. No change made.
R12 – (now R11) The TOP can assign tasks to the TO (for example) including the requirement for training. While the TOP is still responsible, the relationship can be addressed through an Agreement. The SDT believes that 2 hours of training is a minimum for familiarity with the purpose and risks associated with specific tasks.

Organization	Question 1:	Question 1 Comments:
Consumers Energy Company	No	The definition of a Blackstart Resource and R9.2.2 have been revised to remove the requirement for energizing a dead bus. The ability to energize a dead bus is an essential requirement of being a blackstart unit. This requirement should not have been removed.
Response: The definition of the Blackstart Resource requires the ability to energize a bus. Only a dead bus can be energized.		
FirstEnergy	No	EOP-005-2: Definitions — The proposed definition of a Blackstart Resource leaves room for various interpretations. Since this definition will lay the foundation for how Blackstart Resources are defined in the NERC Reliability Standards, it is crucial that it be written clearly as the definition will impact other reliability standards (i.e. CIP-002) as well as potential blackstart tariff applications within a RTO construct. To aid the SRB SDT's understanding of FE's concerns, we have prepared supplemental documentation which summarizes how we believe the existing Blackstart Resource definition can lead to differing interpretations. Additionally, we have provided suggested changes to the definition which we believe will benefit industry in this regard. This supplemental information has been provided to the NERC standards process manager for review by the SRB SDT. R1 — As written, R1 has two embedded requirements within a lengthy paragraph. For improved readability it is suggested that the requirement be rewritten with the use of sub-requirements and that a portion of the text be moved to a new Standards Glossary definition describing Complete Restoration. If our suggested is adopted, the existing R1 sub-requirements would be re-numbered in sequence. The following describes the proposed change:"R1. Each Transmission Operator shall have a restoration plan approved by its Reliability Coordinator. The restoration plan shall: R1.1 Allow for restoring the Transmission Operator's System following a Disturbance in which one or more areas of the Bulk Electric System (BES) shuts down R1.2 Describe the Blackstart Resources required to restore the shut down area to service, to a state of Complete Restoration. "Add to the Definitions Section: "Complete Restoration — The point in the restoration process whereby the choice of the next Load to be restored is not driven by the need to control frequency or voltage regardless of whether the Blackstart Resource is located within the Transmission Operator's System or an adjacent system." R1.1 - The term Agreement as defined in the NERC glossary is, "A contract or arrangement, either written or verbal and sometimes enforceable by law." However, the approved NUC-001 standard allows for procedures and protocols as equivalents to an Agreement. The drafting team should add the same footnote to the term "Agreement" as the footnote included in R2 of

Organization	Question 1:	Question 1 Comments:
		NUC-001-1. In addition, is a citing of the NPIR's sufficient to be in compliance or must an entity repeat all of the information contained in the NPIR's? R1.5 — Should be revised to include synchronization angle limits to aid operators in the restoration process. R1.6 - The drafting team stated that this standard, or at least R1 addresses total system restoration, but requires Operating procedures to reestablish connections within the Transmission Operator's System for "areas that have become separated". This should be revised to state "areas that have been restored and are prepared for reconnection". R2 — Replace "distribute its approved restoration plan to the reliability-related operational entities identified" with "distribute applicable sections of its approved restoration plan to the NERC registered reliability-related operational entities identified". R5 - Should be revised to state "a copy of its latest approved restoration plan within its primary and backup control centers". Entities that own two or more control centers may have facilities that do not neighbor each other. Nor do these facilities provide backup for each other. They should not be required to have restoration plans in facilities that may have no use for them. R9.1 — A minimum amount of units should be tested each year to avoid all units being tested in the third year. R12 — FE has commented against this requirement in prior drafts and we still object to the need. While we recognize the SDT has added the phrase "unique tasks" to the requirement, in an attempt to address FE's and others concern, the use of the word "unique" is subjective and open to interpretation. While FE may believe there is nothing "unique", an auditor may have a different opinion. The SDT has failed to justify that a significant reliability improvement will result from the significant cost and effort to train thousands of field substation switching personnel throughout industry. FE's field switching personnel do not independently perform transmission switching without taking direction from our transmission operations staff. It is FE's view that our field personnel do not need to be trained in the "big picture view" of system restoration and that the tasks required of them would not be significantly different than

Organization	Question 1:	Question 1 Comments:
		switching steps performed during normal operations. If the team does not agree with our rationale to remove training requirements for switching personnel, then at the least, the length of the training should not be specified by the standard. To provide two full hours of this training would be impossible in many cases; training on one or two "unique" tasks would probably take 20 minutes. Therefore, we believe the duration of this testing should be removed from the standard and be left up to the entity to determine. R13 - This requirement's use of "simulations" as an option is inconsistent with the requirements being developed by the SPT SDT in revisions to PER-005. In PER-005, the team is requiring "simulators", and it is not optional. R14 - Similar to our comment regarding "Agreements" in R1.1, this term should be lower case "agreements" and should reference the same footnote as stated in R2 of NUC-001-1. R16 - We agree that the originally proposed timeframe of 90-days was unnecessarily long, but also feel that the newly proposed 24-hour timeframe is too quick. We suggest this be changed to "seventy-two hours". EOP-006-2:R3 - The phrase "every twelve months" poses an unwarranted time constraint and should be changed to "annually". This change would be consistent with EOP-005-2 and several other standards currently being developed by NERC. R6 - Should be revised to state "a copy of its latest approved restoration plan within its primary and backup control centers". Entities that own two or more control centers may have facilities that do not neighbor each other. Nor do these facilities provide backup for each other. They should not be required to have restoration plans in facilities that may have no use for them. R9 - The SDT response to our request for the inclusion of a sub-requirement for "Review of the restoration plan" in the previous draft was, "Response: EOP-006-2, R10.3: The SDT believes inclusion of system restoration philosophy covers this concern". However in EOP-005 the drafting team retained two requirements the first being R11.1 System Restoration philosophy... and R11.5 Review of the restoration plan. This would

Organization	Question 1:	Question 1 Comments:
		seem to indicate that the drafting team was inconsistent in its application of the equality of these two statements. We suggest adding requirement R9.3. Review of the restoration plan. We believe a review of the plan is prudent and necessary to insure that all operating personnel know the sequence of the application of the restoration philosophies.

Response: Definitions – definition has been changed to provide clarity.

> **Blackstart Resource:** A ~~generation Facility~~ generating unit(s) and its associated set of equipment which has the ability to be started without support from the System or is designed to remain energized without connection to the remainder of the System, with the ability to energize a bus, meeting the Transmission Operator's restoration plan needs for real and reactive power capability, frequency and voltage control, and that has been included in the Transmission Operator's restoration plan.

R1 - The SDT set up EOP-005 to cover restoration from Blackstart Resources. Other types of restoration are covered by EOP-006. The SDT does not feel that this structure should be changed. The definition for Complete Restoration is not required.
R1.1 (old) = R1.2 (new) – requirement has been changed.

> R1.2: A description of the manner in which all Agreements or mutually agreed upon procedures or protocols for off-site power requirements of nuclear power plants, including priority of restoration, will be fulfilled during System restoration.

R1.5 - This can be included at the discretion of the RC in EOP-006-2, R1.4.
R1.6 (old) = R1.7 (new) - The SDT has made the suggested change.

> R1.7: Operating ~~Procedures~~ Processes to reestablish connections within the Transmission Operator's System for areas that have ~~become separated~~ been restored and are prepared for reconnection.

R2 – The requirement has been changed.

> R2: ~~Each Transmission Operator shall distribute its approved restoration plan to the reliability-related operational entities identified in its restoration plan within thirty calendar days of having received approval from its Reliability Coordinator.~~ Each Transmission Operator shall provide the operational entities identified in its approved restoration plan with a description of any changes to their roles and specific tasks prior to the implementation date of the plan.

R5 - The requirement has been changed as suggested.

Organization	Question 1:	Question 1 Comments:

R5: Each Transmission Operator shall have a copy of its latest Reliability Coordinator approved restoration plan within ~~each of~~ its primary and backup control ~~centers~~ rooms and available to all of its ~~control room personnel~~ System Operators prior to its implementation date

R9.1 – The SDT believes this is a TOP scheduling issue. No change made.
R12 – (now R11) The standard gives the TOP full capability to define the unique tasks. The SDT believes that normal tasks performed during restoration, such as switching, are not unique. As an example considered by the SDT, synchronization would generally be considered a unique task unless it were included in the field employee's normal duties. Additionally, the SDT does not believe that every field employee would need to be trained. No change made.
R13 – (Now R12) The requirement is to participate in drills. Simulators are a tool that may be used in a drill.
R14 – (Now R13) wording changed for clarity.

R13: Each Transmission Operator and Generator Operator with a Blackstart Resource shall have ~~a~~ written Blackstart Resource Agreements or mutually agreed upon procedures or protocols, specifying the terms and conditions of their arrangement. Such Agreements shall include references to the ~~blackstart~~ Blackstart Resource testing requirements.

R16 – (Now R15) The SDT believes that within 24 hours of a known change is not unduly burdensome. No change made.

EOP-006-2:
R3 – change made as suggested.

R3: Each Reliability Coordinator shall review its restoration plan ~~every twelve~~ within thirteen months of the last review

R6 - The requirement has been changed as suggested.

R6: Each Transmission Operator shall verify through analysis of actual events, steady state and dynamic simulations, or testing that its ~~documented~~ restoration plan accomplishes its intended function. This shall be completed every five years at a minimum. Such analysis, simulations or testing shall ~~analyze~~ verify:

R9 - The requirement has been changed as suggested.

R9: Each Reliability Coordinator shall include within its operations training program, annual System restoration training for its System Operators to ~~ensure~~ assure the proper execution of its restoration plan. This training program shall ~~include~~ address the following:

Organization	Question 1:	Question 1 Comments:
R11.1, R11.5 – The SDT believes the concerns have been addressed through the revisions to R9.		
ITC Holdings	No	R1 still references Blackstart Resources being located external to TOP system. Problematic when islanded.
Response: R1 - Islands will not necessarily be bounded by a TOP Area's boundary. Additionally, the most useful Blackstart Resource may be in an adjacent TOP's Area. The purpose is to assure that any system restoration using a Blackstart Resource uses a reliable restoration process.		
Ameren	No	EOP-005 R4.1 Add "for approval" between "Coordinator" and "within". EOP-005 R6.2 Delete this entire section. An unlimited number of studies would need to be conducted. Also, while dynamic model data for generators and excitation systems should be readily available as part of annual model development efforts, dynamic representations for various motor loads at each plant which would presumably be utilized in dynamic motor starting simulations would not be readily available, and would require some effort to develop. EOP-005 R7.3 Replace "philosophies" with either "concepts" or "practices". EOP-005 R10 Eliminate this requirement from EOP-005. It is a market issue and should be located in a business practice. EOP-005 R11.1 Replace "philosophies" with either "concepts" or "practices". EOP-005 R12 Eliminate this requirement. If a blackout were to occur there might be those who are certainly capable of aiding restoration who did not have training in particular tasks. The risk of having violations after the fact might prevent quick restoration if someone like a supervisor or another well trained person was used in place of the person who normally does the switching. EOP-005 R13 Add "at least one of" between "in" and "its". EOP-005 R14 Clarification should be given to what is actually an Agreement. Is this necessary in a vertically integrated company or can some other commitment serve as an Agreement?

Organization	Question 1:	Question 1 Comments:
		EOP-005 R18.1 Replace “philosophies” with either “concepts” or “practices”. EOP-005 M2 Remove “such as e-mails with receipts or registered mail receipts,”. Note: “such as” statements are too prescriptive and need to be separated from the requirements. If examples are to be provided, they should be identified as options in a footnote. EOP-005 M3 Remove “such as dated review signature sheets, revision histories, e-mails with receipts, or registered mail receipts,”. Note: “such as” statements are too prescriptive and need to be separated from the requirements. If examples are to be provided, they should be identified as options in a footnote.EOP-005 M4 Remove “such as e-mail receipts”. Note: “such as” statements are too prescriptive and need to be separated from the requirements. If examples are to be provided, they should be identified as options in a footnote. EOP-005 M5 Remove “such as power flow outputs,”. Note: “such as” statements are too prescriptive and need to be separated from the requirements. If examples are to be provided, they should be identified as options in a footnote. Also, it is not the responsibility of the TO to determine that the receiving entity read the information it received. The TO should only be responsible for sending the information. Additionally, remove “and to each of its control room personnel”. EOP-005 M7 Remove “such as voice recordings, e-mail, dated computer printouts, or operator logs”. Note: “such as” statements are too prescriptive and need to be separated from the requirements. If examples are to be provided, they should be identified as options in a footnote. Also change “that it implemented” to “that it coordinated with the Reliability Coordinator in implementation of”. EOP-005 M8 Remove “, such as voice recordings, e-mail, dated computer printouts, or operator logs,” Note: “such as” statements are too prescriptive and need to be separated from the requirements. If examples are to be provided, they should be identified as options in a footnote. EOP-005 M10 Remove this w/ the removal of the requirement R10. EOP-005 M12 Remove ?and the corresponding training records including training date sand duration?.

Organization	Question 1:	Question 1 Comments:
		EOP-005 M13 Remove "such as training records". Note: "such as" statements are too prescriptive and need to be separated from the requirements. If examples are to be provided, they should be identified as options in a footnote. EOP-005 M16 Remove "such as e-mails with receipts or registered mail receipts,?. Note: "such as" statements are too prescriptive and need to be separated from the requirements. If examples are to be provided, they should be identified as options in a footnote. EOP-005 M17 Remove "such as e-mails with receipts or registered mail receipts,". Note: "such as" statements are too prescriptive and need to be separated from the requirements. If examples are to be provided, they should be identified as options in a footnote. EOP-005 M18 Should read "Each Generator Operator shall have a copy of its training program material showing that it has provided training in accordance with Requirement R18." EOP-005 M19 Remove "such as dated training records,". Note: "such as" statements are too prescriptive and need to be separated from the requirements. If examples are to be provided, they should be identified as options in a footnote. EOP-006 R1.1 Eliminate this. Isn't this what the plan is? EOP-006 R3 Replace "every twelve months" with "on an annual basis". EOP-006 R4. There is a concern that if several TOs made changes in their restoration plan and submitted these changes within a short time of each other the RC might not have the flexibility to include all these changes in one revision of their plan without being "late" on the issuance of the first changes.EOP-006 R6 Remove "and available to all of its control room personnel". EOP-006 R7.1 Replace "philosophies" with either "concepts" or "practices". EOP-006 R8.1 Replace "philosophies" with either "concepts" or "practices". EOP-006 R9.1 Replace "philosophies" with either "concepts" or "practices".

Organization	Question 1:	Question 1 Comments:
		EOP-006 R10 Change "two System restorations drills, exercises or simulations" with "or participate in at least one System restorations drill, exercise or simulation". EOP-006 M2 Remove "such as e-mails with receipts or registered mail receipts," Note: "such as" statements are too prescriptive and need to be separated from the requirements. If examples are to be provided, they should be identified as options in a footnote. EOP-006 M3 Remove "such as a review signature sheet, or revision histories,". Note: "such as" statements are too prescriptive and need to be separated from the requirements. If examples are to be provided, they should be identified as options in a footnote. EOP-006 M4 Remove "such as dated review signature sheets, or revision histories,". Note: "such as" statements are too prescriptive and need to be separated from the requirements. If examples are to be provided, they should be identified as options in a footnote. EOP-006 M5 Remove "such as a review signature sheet,". Note: "such as" statements are too prescriptive and need to be separated from the requirements. If examples are to be provided, they should be identified as options in a footnote. EOP-006 M6 Remove "such as e-mail receipts". Note: "such as" statements are too prescriptive and need to be separated from the requirements. If examples are to be provided, they should be identified as options in a footnote. EOP-006 M7 Remove such as voice recordings, e-mail, dated computer printouts, or operator logs,?. Note: such as statements are too prescriptive and need to be separated from the requirements. If examples are to be provided, they should be identified as options in a footnote. EOP-006 M8 Remove "such such as voice recordings, e-mail, or operator logs," Note: "such as" statements are too prescriptive and need to be separated from the requirements. If examples are to be provided, they should be identified as options in a footnote. EOP-006 M10. Change "two System restorations drills, exercises or simulations" with "or

Organization	Question 1:	Question 1 Comments:
		participate in at least one System restorations drill, exercise or simulation".

Response: R4.1 – The requirement has been revised.

R4.1: Each Transmission Operator shall submit its revised restoration plan to its Reliability Coordinator for approval within the same ninety calendar day period.

R6.2 - The requirement has been deleted.
R7.3 - The requirement has been deleted.
R10 – requirement deleted.
R11.1 - The requirement has been revised. (Now R10.1)

R10.1: System restoration ~~philosophy~~ plan including coordination with the Reliability Coordinator and Generator Operators included in the restoration plan.

R12 – (Now R11) This is a training requirement, not a requirement to be followed during actual restoration.
R13 – (Now R12) EOP-006-2, R10 requires the RC to conduct two drills per year. The SDT believes that it is important to reliability for the TOP to participate as requested. The requirement is for the TOP as an entity and not for individual operators. No change made.
R14 – (Now R13) wording changed for clarity.

R13: Each Transmission Operator and Generator Operator with a Blackstart Resource shall have ~~a~~ written Blackstart Resource Agreements or mutually agreed upon procedures or protocols, specifying the terms and conditions of their arrangement. Such Agreements shall include references to the ~~blackstart~~ Blackstart Resource testing requirements.

R18.1 - The requirement has been revised. (Now R17.1)

R17.1: System restoration ~~philosophy~~ plan including coordination with the Transmission Operator.

M3-M8, M12, M13, M16, M17, M19 – The wording of the measure is consistent with NERC requirements. These are just examples.
M10 – requirement and measurement deleted.
M18 – The measure has been revised. (Now M17)

M17: Each Generator Operator with a Blackstart Resource shall have an electronic or hard copy of the training program

Organization	Question 1:	Question 1 Comments:
		material provided to its operating personnel responsible for the startup and synchronization of its Blackstart Resource generation units and a copy of its dated training records including training dates and durations showing that it has provided training in accordance with Requirement R18. EOP-006-2 R1.1 (old) = R1.2 (new) – The sub-requirements describe required elements of the plan. No change made. R3 – wording change made. R3: Each Reliability Coordinator shall review its restoration plan ~~every twelve~~ within thirteen months of the last review R4 – requirement deleted. R6 – The SDT does not see this as a legitimate concern. The SDT believes it is necessary to have the restoration plan readily available. No change made. R7.1 – The requirement has been deleted and merged into R7. R8. 1 – The requirement has been deleted and merged into R8. R9. 1 – The requirement has been revised. R9.1: ~~System restoration philosophy including~~ ~~t~~The coordination role of the Reliability Coordinator. R10 – The SDT does not see any problem with the RC conducting 2 drills per year and requiring participation at least every two years. Comments from RCs do not indicate any intent to run constant and recurring drills. No change made. M2-M8 The wording of the measure is consistent with NERC requirements M10 – Please see comment above for R10. No change made.
Entergy Services	No	EOP-006 R4 suggested rewording: Each Reliability Coordinator shall update its restoration plan within ninety calendar days after identifying a necessary change in their coordination tasks or responsibilities. Updates may be necessitated due to changes to one of its Transmission Operator's restoration plans or a neighboring Reliability Coordinator's restoration plan. EOP-006-2 R1.7 is unclear EOP-006-2 R1 - in stating the scope of the RC plan (when it begins and when it ends), the wording is not clear on whether the scope ends when at least one connection is made between separated TOPs/RCs or do all connections need to be in place? It seems to imply that one connection between each will suffice. This doesn't necessarily seem optimal for all

Organization	Question 1:	Question 1 Comments:
		circumstances. In fact, I find the concept of defining the scope very difficult and not at all a "one size fits all." What is the purpose of trying to define a one size fits all scope?
Response: R4 - The requirement has been deleted. R1.7 (old) = R1.8 (new) – The SDT disagrees – no other entity has raised this issue. No change made. R1 – The SDT believes that as worded, this is at least one connection to each RC Area. The intent was to provide a clear measure of the end of the 'restoration' period.		
Operating Reliability Working Group (ORWG)	No	EOP-005R1. Including the definition of a restored state in R1 does not add to the requirement. If it is necessary to include this definition, it could be incorporated into the standard as a sub-requirement of R1. We suggest ending the second sentence of the requirement with '?the shut down area to service.' and deleting the remainder of the sentence. R11. Replace 'to' with 'for' in the first sentence: '?System restoration training for its System Operators?'. R16. The 24-hour notification requirement is not consistent with the 30-minute notification requirement in R3 of VAR-002-1a. This requirement should be changed to bring it in line with existing reporting requirements.EOP-006R1. Similar to what we proposed with R1 in EOP-005 we suggest either deleting the second sentence of R1 or include it as a sub-requirement.M1. The measure asks for a 'dated' copy of the restoration plan but R1 does not specifically require the plan to be dated. Either add the requirement that the plan be dated or delete 'dated' in M1.
Response: R1 - The SDT has carefully defined the scope of restoration covered by these two standards. No change made. R11 – The SDT believes "to" is the correct term. R16 – The presumption in VAR-002-1a is that the associated generator is on-line. The presumption of EOP-005-2 is that the unit is not on-line but may be needed. EOP-006-2 R1 - The SDT has carefully defined the scope of restoration covered by these two standards. No change made. M1 – The SDT believes that all evidence of compliance must be dated.		
ISO RTO Council/Standards Review Committee	No	EOP-005 R1.1: This subrequirement is redundant to NUC-001-1 R9.3 and its subrequirements, which implicitly requires that an agreement shall be in place to ensure backup supply is provided to the nuclear power plant. We suggest to remove R1.1.

Organization	Question 1:	Question 1 Comments:
		R1.2: The term "integrity of the Interconnection" is not defined nor is it measurable. We suggest to revise R1.2 to: "Procedures for restoring interconnection with other Transmission Operator areas under the direction of the Reliability Coordinator." R9.2.1: We do not agree to the changes made to EOP-005-2 R9.2.1 in this draft. From a practical standpoint it is not possible to test a unit's ability to remain online indefinitely after every imaginable disturbance. We suggest this requirement be revised to specify a definite test time period, say 1 to 2 hours, long enough to fulfill the intended task to energize off-potential facilities and supply some loads. R10: Posting the requirements for testing Blackstart resources is not a reliability requirement, but communicating the testing requirements to the GOP is. We suggest to change R10 to: "Each Transmission Operator shall communicate its Blackstart Resource testing requirements to the Generator Operator in its area that has a Blackstart Resource." R14: This is an unnecessary requirement. Since the TOP must have a restoration plan as mandated by R1, the TOP will need to contract for Blackstart services to meet R1. It follows that the TOP must have a contractual agreement with the GOP that has the Blackstart resource. R14 is thus redundant, and we suggest to remove it. EOP-006 R1.1: The term "integrity of the Interconnection" is not defined nor is it measurable. We suggest to revise R1.2 to: "Procedures for restoring interconnection with other Reliability Coordinator areas." R8: This requirement as written can result in finding the RC non-compliant for not authorizing re-synchronization for any reason, such as reliability concerns. We suggest to revise this to read: ""The Reliability Coordinator shall authorize and coordinate resynchronizing islanded areas that bridge boundaries between Transmission Operators or Reliability Coordinators, provided that the resynchronization does not jeopardize the reliability of either of the areas to be synchronized."
Alberta Electric System Operator	No	We supports comments by the IRC/SRC.

Organization	Question 1:	Question 1 Comments:
Response: R1.1 (old) = R1.2 (new) – The SDT believes that it is necessary to reference support of nuclear units in the restoration plan. R1.2 (old) = R1.3 (new) - The requirement has been revised as suggested. R1.3: Procedures for restoring ~~the integrity of the Interconnection~~ interconnections with other Transmission Operators under the direction of the Reliability Coordinator. R9.2.1 – The requirement does not specify a time. R9 states the test must "verify that each Blackstart Resource is capable of meeting the requirements of its restoration plan." R10 – requirement was deleted. R14 – The SDT believes that R1 does not require the TOP to have a contract. No change made. EOP-006-2 R1.1 (old) = R1.2 (new) – integrity deleted. R1.2: ~~Procedures~~ Processes for restoring ~~the integrity of~~ the Interconnection. R8 – wording changed for clarity. R8: The Reliability Coordinator shall coordinate or authorize ~~and coordinate~~ resynchronizing islanded areas that bridge boundaries between Transmission Operators or Reliability Coordinators. If the resynchronization cannot be completed as expected because actual conditions do not match the studied conditions, the Reliability Coordinator shall utilize its restoration plan strategies to facilitate resynchronization.		
AEP	No	R3.1 Replace "that it has reviewed it's" with "that the Transmission Operator has reviewed it's "EOP 005-R5 - Suggest adding a date requirement. Each Transmission Operator shall have a copy of its latest approved restoration plan within each of its control centers and available to all of it control room personnel within 15 days of being approved. Presently only the VSL has a date requirement. EOP 006-2R8 ? Change ?The Reliability Coordinator shall? to "The Reliability Coordinators shall" to address seams issues in system restoration between RC / RC and TO / TO are as. Compliance 1.4 Data Retention R1 / M1 Who approves the RC's restoration plan?

Organization	Question 1:	Question 1 Comments:
		R13 of EOP-005 should better agree with the text of R10.1 of EOP-006, which requires TO participation in the RC restoration/black-start drills at least every two calendar years. R13 of EOP-005 just says the TO will participate "as requested by its RC", which could be interpreted as an unlimited number of requests from the RC, for example if the RC requests 10 drills, the TO would have to participate in 10 drills. We believe R13 of EOP-005 should read?. "Each Transmission Operator shall participate in its Reliability Coordinator's restoration drills, exercises, or simulations at least every two calendar years". M13 of EOP-005, in correspondence to the above for R13 of EOP-005, should include the two calendar year reference for measurement, such as, "Each Transmission Operator shall have evidence, such as training records, that it participated in the Reliability Coordinator's restoration drills, exercises, or simulations, at least every two calendar years in accordance with Requirement R13".
Response: R3.1 – While the SDT does not feel that the requirement is ambiguous, any possible ambiguities should be clarified by the change made to R3. R5 – The requirement has been revised. R5: Each Transmission Operator shall have a copy of its latest Reliability Coordinator approved restoration plan within ~~each of~~ its primary and backup control ~~centers~~ rooms and available to all of its ~~control room personnel~~ System Operators prior to its implementation date. EOP-006-2 R8 – Standards apply to individual registered entities. No change made. M1 – There is no formal approval but peers do receive copies. No change made. R10.1 and EOP-005-2 R13 – The SDT does not see any inconsistency with the RC conducting 2 drills per year and requiring participation at least every two years. Comments from RCs do not indicate any intent to run constant and recurring drills.		
Dominion Virginia Power	No	We endorse the comments submitted by the SERC Operating Committee. In addition, we reiterate our previous position on the requirement regarding training of switching personnel currently defined in R12 of standard EOP-005. Like many other TOs, our training and recertification program for field switching personnel is on a three year cycle. This switching recertification training is not a requirement in any NERC Reliability Standard yet we provide it because we believe it to be Good Utility Practice. We also believe that specific training on

Organization	Question 1:	Question 1 Comments:
		restoration-related switching tasks for field personnel will also be Good Utility Practice, and we see good reason to incorporate such training into our three year program. This program has proven to be more than adequate, and we see no basis or compelling reason for having to establish a separate training program (on a different cycle) specifically for restoration-related switching tasks instead of being allowed to incorporate such training into our established three year program. Our switchmen have proven by their performance in the field that our three year recertification program has provided excellent training. We request that Requirement R12 be revised to read: R12. Each Transmission Operator shall provide a minimum of 2 hours of System Restoration training as part of their regular training and recertification program for field switching personnel identified as performing unique tasks associated with its restoration plan and outside of their normal tasks.
Response: R12 – The SDT does not see training every two years as unduly burdensome. The standard gives the TOP full capability to define the unique tasks. The SDT believes that normal tasks performed during restoration, such as switching, are not unique. As an example considered by the SDT, synchronization would generally be considered a unique task unless it were included in the field employee's normal duties. Additionally, the SDT does not believe that every field employee would need to be trained. It would be impossible for an interconnection-wide standard to fit every existing practice.		
Pacific Gas and Electric Company	No	EOP-005-2 R1.1 — Formal approval by FERC currently include agreements and procedures to meet this requirement in NUC-001. The wording as stated is not clear, what would an auditor be looking for in the ?description of the manner in which all Agreements ...?? R1.4 - Cranking Path? is not a term utilized throughout the industry. If an entity has few blackstart generators that are located close to major generating stations, then the term would fit. However, if there are numerous blackstart units with multiple options for how to get from the blackstart to the major generating stations, then the term may not apply. If the blackstart resources are capable of restoring significant portions of a system then the term "cranking path" is not utilized. Suggest terminology which will apply across the industry . R2 — The interpretation of the term "reliability-related operational entities" is not defined. Who is a "reliability-related operational entity; the RC, BA, TO, in some cases the LSE??? R5 — Not sure why a "copy" is necessary, if the operator knows where the electronic version is. A lot of company's are going paperless and do not want a lot of books around the control room. Suggest adding terminology for access to the electronic version.

Organization	Question 1:	Question 1 Comments:
		R6 — Does this requirement to apply to the entire Interconnection rather than just those loads for a particular area? Why are all three options being required? The requirement should state that any of the options: actual event, simulation, or testing is sufficient to meet the requirement. The criteria for the studies are not defined as to what constitutes the meeting compliance for this requirement? R7 — Why aren't the Balancing Authorities included in this requirement to "work with" their RC. If the BA is disseminating information about restoration, shouldn't they be included in the applicability section? At what point does the BA get notified their system has been restored and the BA can resume their function?? R7.1 "Philosophies" end with the experience retiring or leaving. We suggest replacing it with "practices" and this would apply throughout the document. R7.2 — The word "progress" is open to interpretation by each RC. We suggest rewording so that EOP-005, R7.2 aligns with "reporting requirements?? in EOP-006, R1. R7.3 - The use of the word "philosophies" should be replaced with the word "practices" to make it clearer to the reader. All other references should also be changed. R10: What is the definition of "public forum" With the current state of National Security, this requirement seems like a violation. Sharing with your neighbors and the RC should be the only requirement. R11 — Training in of itself does not "ensure" anything. The expectation of training to "ensure the proper execution of its restoration plan" is not accurate. Training does not "ensure that proper execution" occurs for every event. Suggest ending the statement at training. "This training program shall include"...., etc.; should the drafting team decide to leave it in then the wording should be changed to say only "knowledgeable execution can result" from training. R11.1 "Philosophies" end with the experience retiring or leaving. We suggest replacing it with "practices" and this would apply throughout the document. R11.3 — Cranking Path? is not a term utilized throughout the industry. Suggest different

Organization	Question 1:	Question 1 Comments:
		terminology which will apply across the industry. R12 — This seems very limiting. Since it is unknown what might lead to a blackout, we would not want to be limited on our manpower and depending on occurred to take us down, there may not be enough "field switching personnel" who attend the training to assist. There could be those who are capable of aiding in the restoration, i.e. a supervisor or another well trained person, who have not been trained in a particular task. R13 — It is not really clear on the meaning of "Each Transmission Operator…" Does this mean the registered entity or each operator, as in all the operators from each TO? M2 — M8 "such as" statements are too prescriptive and need to be separated from the requirements. If examples are to be provided, they should be identified as options in a footnote. M16 — M17 "such as" statements are too prescriptive and need to be separated from the requirements. If examples are to be provided, they should be identified as options in a footnote.

Response: R1.1 (now R1.2) – wording changed.

R1.2: A description of the manner in which all Agreements or mutually agreed upon procedures or protocols for off-site power requirements of nuclear power plants, including priority of restoration, will be fulfilled during System restoration.

R1.4 – Cranking Path is a defined term in the NERC Glossary of Terms. Nothing requires the TOP to have multiple Cranking Paths, only that if there are multiple paths, they be identified.

R2 – The requirement has been revised.

R2: ~~Each Transmission Operator shall distribute its approved restoration plan to the reliability-related operational entities identified in its restoration plan within thirty calendar days of having received approval from its Reliability Coordinator.~~ Each Transmission Operator shall provide the operational entities identified in its approved restoration plan with a description of any changes to their roles and specific tasks prior to the implementation date of the plan.

R5 – The SDT believes it is necessary to have a paper copy to cover the potential loss of access to electronic copies.

Organization	Question 1:	Question 1 Comments:
R6 - The scope of the TOP's restoration is described in R1 as "to a state whereby the choice of the next Load to be restored is not driven by the need to control frequency or voltage regardless of whether the Blackstart Resource is located within the Transmission Operator's System." The use of the conjunction "or" indicates these are options, not individually required methods. M6 would be used for compliance. R7 - Please see new Requirement R1.9 for treatment of the BA. R1.9 - Criteria for transferring operations and authority back to the Balancing Authority. R7.1 and R7.2 have been deleted, R7.3 has been moved into the requirement, "philosophies" has been replaced with "strategies". R10 – requirement deleted. R11 – "ensure" has been replaced by "assure". (Now R10) R10: Each Transmission Operator shall include within its operations training program, annual System restoration training to its System Operators to ~~ensure~~ assure the proper execution of its restoration plan. This training program shall include training on the following: R11.1 – The requirement has been revised. (Now R10.1) R10.1: System restoration ~~philosophy~~ plan including coordination with the Reliability Coordinator and Generator Operators included in the restoration plan. R11.3 - Cranking Path is a defined term in the NERC Glossary of Terms. R12 – The standard gives the TOP full capability to define the unique tasks. The SDT believes that normal tasks performed during restoration, such as switching, are not unique. As an example considered by the SDT, synchronization would generally be considered a unique task unless it were included in the field employee's normal duties. Additionally, the SDT does not believe that every field employee would need to be trained. This is a requirement for preparation, not actions during restoration. R13 – Transmission Operator is a registered entity. The TOP does not need to have every System Operator participate in a drill to assure its participation as a TOP entity. M2-M8 The wording of the measure is consistent with NERC requirements. No change made. M16, M17 - The wording of the measures is consistent with NERC requirements. No change made.		
Duke Energy	No	In EOP-005-2 requirement R10, the SDT creates a new system by requiring that the Blackstart

Organization	Question 1:	Question 1 Comments:
Corporation		Test requirements be placed in a public forum. What advantage is there in having these requirements in a public forum? Why must there be added expense to the TO to maintain this public site? Why can they not be submitted to the generators that have blackstart capability? The answer for the public forum is not the OASIS, for that is not the purpose of that site to distribute test requirements to generators. In EOP-005 requirement R14, if the TO and the GO are the same entity, why is an agreement required? If they are the same entity, then R14 should be "not applicable", or alternatively, the terms and conditions of the arrangement could be included in the Restoration Plan. EOP-005-2 requirements R13 and R19 mandate that TOs and GOs participate in drills, exercises or simulations as requested by the RC. However the related EOP-006-2 requirements R10 and R10.1 are confusing. R10 requires the RC to conduct two drills, exercises or simulations per year, while R10.1 requires the RC to request participation from each TO and GO at least every two calendar years. The RC could require every TO and GO to participate in two drills per year, which seems excessive.
Response: R10 – requirement deleted. R14 – wording revised. (now R13) R13: Each Transmission Operator and Generator Operator with a Blackstart Resource shall have ~~a~~ written Blackstart Resource Agreements or mutually agreed upon procedures or protocols, specifying the terms and conditions of their arrangement. Such Agreements shall include references to the ~~blackstart~~ Blackstart Resource testing requirements. R13-R19 – It is possible for the RC to request participation two times per year. The SDT believes this is not an undue burden.		
Santee Cooper	No	Suggested changes for Standard EOP-005-2: R1. Santee Cooper recommends splitting the second sentence of R1 into two sentences. Suggestion is to add a period after "restore the shutdown area to service." The last sentence would read as "The end of restoration is a state whereby the choice of the next Load to be ?. "Capitalization of Operating Procedures in R1.6 and R1.7 requires a company to have specific steps and tasks to achieve a specific operating goal. It is impossible to develop Operating Procedures for every possible scenario that may require system restoration. Recommend changing "Operating Procedure" to the defined term "Operating Process" in R1.6 and R1.7.

Organization	Question 1:	Question 1 Comments:
		This term is defined as a document that identifies general steps for achieving a generic operating goal and better suits these requirements. R5. Recommend removal of "and available to all of its control room personnel". This seems redundant - if the copy of the restoration plan is within the control centers, then it is available to control room personnel. R6. Santee Cooper recommends that R6 be rewritten to reflect that a restoration plan needs to be developed in such a manner that it provides guidance and allows for flexibility to address many different sets of conditions and events. Restoration plans that are developed for one specific set of conditions will probably bear no resemblance to what actually occurs. We recommend R6.2 be removed. This requirement as written appears to require dynamic simulations for an infinite number of possibilities of the system to satisfy compliance requirements. R10. We recommend R10 be removed from the Standard and put in a Business Practice since this is a market function. R12. Santee Cooper recommends that R12 be rewritten to state that "Each Transmission Operator shall provide System Restoration training to field switching personnel identified as performing unique tasks." Where does this specific time allotment come from? In Order 693, the Commission did not specify an amount of hours to train. R14. Santee Cooper suggests that vertically integrated utilities be exempt from this Requirement. A statement should be added to R14 to that effect. R18. Santee Cooper recommends that R18 be rewritten to state that "Each Generator Operator of a Blackstart Resource shall provide training to each of its operating personnel responsible for the startup and synchronization of its Blackstart Resource generation units." Where does this specific time allotment come from? In Order 693, the Commission did not specify an amount of hours to train. Santee Cooper suggest deleting the "such as" and language following from all the measures. If the SDT wants to provide examples then we suggest including words "such as but not limited to".

Organization	Question 1:	Question 1 Comments:
		M10. This measure should be deleted should be removed along with R10 - this is a market function that should be relocated to a business practice. M12. Santee Cooper recommends deleting "and the corresponding training records including training dates and duration" from this measure. We feel this measure is going beyond the scope of the requirement. A roster of the attendees from the required training program should be sufficient to meet the requirement. M18. Suggest rewording of this measure as follows: Each Generator Operator shall have a copy of the roster of the attendees of the required training program should be sufficient to meet the requirement. Suggested changes for Standard EOP-006-2:R5.2 Santee Cooper believes restoration plans should be tailored for each particular system, and its particular circumstances, and therefore should not require approval by a Reliability Coordinator as long as all of the requirements associated with the related NERC standards are satisfied (i.e., the RC should not perform a compliance monitoring). We believe they should be allowed input into a TOP's plan. If an RC fails to approve a TOP's plan, does that make you non-compliant? The standard should contemplate this as a possibility. R6. Recommend removal of "and available to all of its control room personnel". This seems redundant - if the copy of the restoration plan is within the control centers, then it is available to control room personnel. R10. Santee Cooper recommends changing shall conduct to "shall conduct or participate in". This allows an RC to participate in a System Restoration drill with a neighboring entity or on a regional level. Santee Cooper suggests deleting the "such as" from all the measures.
Response: R1 - The SDT believes R1 is correct as written – the intent is to define the scope of the restoration plan. R1.6, R1.7 (now R1.7 and R1.8) – "procedures" has been replaced with "processes". R1.7: Operating ~~Procedures~~ Processes to reestablish connections within the Transmission Operator's System for areas that have ~~become separated~~ been restored and are prepared for reconnection. R1.8: Operating ~~Procedures~~ Processes to restore Loads required to restore the System, such as station service for substations, units to be restarted or stabilized, the Load needed to stabilize generation and frequency, and provide		

Organization	Question 1:	Question 1 Comments:

voltage control ~~for restoring the System.~~

R5 – The requirement has been revised. The SDT believes the intent is better met by retaining the phrase.

R5: Each Transmission Operator shall have a copy of its latest Reliability Coordinator approved restoration plan within ~~each of~~ its primary and backup control ~~centers~~ rooms and available to all of its ~~control room personnel~~ System Operators prior to its implementation date.

R6 – The SDT believes that the restoration plan should provide a complete example of how the system can be restored as defined in the scope described in Requirement 1. Requirement 7 is meant to cover the reasonable expectation that the system cannot be restored precisely as described in the plan. No change made.
R6.2 does not require any specific simulation. R6 requires verification through a set of optional methods. No change made.
R10 – requirement deleted.
R12 – The standard gives the TOP full capability to define the unique tasks. The SDT believes that normal tasks performed during restoration, such as switching, are not unique. As an example considered by the SDT, synchronization would generally be considered a unique task unless it were included in the field employee's normal duties. Additionally, the SDT does not believe that every field employee would need to be trained. The SDT believes that 2 hours of training is a minimum for familiarity with the purpose and risks associated with specific tasks.

R14 – wording changed. (now R13)

R13: Each Transmission Operator and Generator Operator with a Blackstart Resource shall have ~~a~~ written Blackstart Resource Agreements or mutually agreed upon procedures or protocols, specifying the terms and conditions of their arrangement. Such Agreements shall include references to the ~~blackstart~~ Blackstart Resource testing requirements.

R18 - The SDT believes that 2 hours of training is a minimum for familiarity with the purpose and risks associated with specific tasks.
M10 – R10 was deleted.
M12, M18 - The SDT believes that all evidence of compliance must be dated. Since there is a time requirement, then the duration must be documented.

EOP-006-2
R5.2 – The SDT has written EOP-005-2 and EOP-006-2 to permit the RC to have input to the TOP's restoration plan. The RC does not approve for compliance but for coordination with the RC's plan. The plan must be approved by the RC. The SDT

Organization	Question 1:	Question 1 Comments:
believes that every TOP will have an approved plan at the end of the implementation plan. R6 - The SDT believes it is necessary to have the restoration plan readily available but changes were made for clarity. R6: Each Reliability Coordinator shall have a copy of its latest restoration plan and copies of the latest approved restoration plan of each Transmission Operator in its Reliability Coordinator Area within ~~each of~~ its primary and backup control ~~centers~~ rooms and available to all of its ~~control room personnel~~ System Operators prior to the implementation date. R10 – RC's may jointly conduct drills and meet the requirement. Measures - The wording of the measures is consistent with NERC requirements.		
Midwest ISO Stakeholders Standards Collaborators	No	For EOP-005:R1.1 is redundant to NUC-001-1 R9.3 and its subrequirements. It should be struck. R1.2 is superfluous, is not measurable and should be struck. R1.6 and R1.7 together accomplish the intention of this requirement. You can't measure the integrity of the interconnection. Integrity is a relative term. Relative terms should be avoided in writing standards. R10 is not a reliability requirement. It appears to focus more on meeting market principles (non-discriminatory access). While reliability standards can't conflict with market principles, they neither should be used to establish or uphold market principles. Removing this requirement will not create an impediment to any markets for blackstart resources. If the TOP needs to have Blackstart Resources, they will make this known appropriately and other rules (orders 888, 889, and 890) exist to incent the TOP to make the information publicly available. The minimum time duration of training for R12 and R18 should be removed and replaced with a requirement to establish a training objective. There is no justification for the minimum time duration. To meet the training objectives may take a longer or shorter amount of time to train field switching personnel that will perform unique tasks during restoration that are outside their normal tasks. If two hours of training is not enough to train the field switching personnel particular to a TOP's restoration plan, reliability would not be served by measuring the duration. One can measure whether training objectives have been met. The System Personnel Training standards drafting team has focused on a system approach to training.

Organization	Question 1:	Question 1 Comments:
		This systematic approach focuses on objectives first and foremost. For consistency, this draft standard should focus on meeting training objectives also rather than minimum time duration. R14 is an unnecessary requirement. Because the TOP must have a restoration plan R1, the TOP will contract for Blackstart services to meet R1. The incentive is given by the potential for penalties for $1,000,000/day/event. The TOP won't be able to meet R1 without the agreements so this is really an opportunity for double jeopardy. Requirement 14 is also written presuming that if a Blackstart resource exists, the GOP must have an agreement. What if the resource is not needed? It is also written stating that a TOP has blackstart resources. TOPs don't have blackstart resources GOPs do. It would appear though to assume that the TOP needs access to all blackstart resources on their System. They may not. For R16, why should a GOP be allowed to wait 24 hours before notifying the TOP of changes to the capability of a blackstart resource. There is no justification for the GOP not notifying the TOP within one hour. For EOP-006:R1 - All but the first sentence of R1 should be struck. The RC's restoration plan will define the scope. Everything after the first sentence is prescriptive and tells the RC how to do his job not what his job is. The requirement should specify what not how. It would be appropriate to have these extra sentences in an attachment though to explain what the scope of the RC restoration plan might look like. R1.1 is superfluous, is not measurable and should be struck. You can't measure the integrity of the interconnection. Integrity is a relative term. Relative terms should be avoided in writing standards. R8 as written will cause an RC to be non-compliant for not authorizing re-synchronization for any reason. Obviously, there are reliability reasons not to authorize re-synchronization. Some language needs to be added so that a refusal for reliability reasons is not a compliance violation.
Response: R1.1 (old) = R1.2 (new)– The SDT believes the requirement is valid but wording changed for clarity. R1.2: A description of the manner in which all Agreements or mutually agreed upon procedures or protocols for off-site power requirements of nuclear power plants, including priority of restoration, will be fulfilled during System restoration.		

Organization	Question 1:	Question 1 Comments:

R1.2 (old) = R1.3 (new) – The requirement has been revised.

R1.3: Procedures for restoring ~~the integrity of the Interconnection~~ interconnections with other Transmission Operators under the direction of the Reliability Coordinator.

R1.6 & R1.7 (old) = R1.7 & R1.8 (new) – The requirements have been revised.

R1.7: Operating ~~Procedures~~ Processes to reestablish connections within the Transmission Operator's System for areas that have ~~become separated~~ been restored and are prepared for reconnection.
R1.8: Operating ~~Procedures~~ Processes to restore Loads required to restore the System, such as station service for substations, units to be restarted or stabilized, the Load needed to stabilize generation and frequency, and provide voltage control ~~for restoring the System~~

R10 – requirement deleted.
R12 and R18 - The SDT believes that 2 hours of training is a minimum for familiarity with the purpose and risks associated with specific tasks.
R14 – The intent is to assure reliability in areas where the TOP may be a separate legal entity from the GOP. If a Blackstart Resource is not needed, this standard does not apply. Further, the definition of Blackstart Resource requires that it "has been included in the Transmission Operator's restoration plan." If a unit with blackstart capability exists but is not included in the plan, then it is not a Blackstart Resource. A TOP determines the Blackstart Resources in its area.

R14: Each Transmission Operator and Generator Operator with a Blackstart Resource shall have ~~a~~ written Blackstart Resource Agreements or mutually agreed upon procedures or protocols, specifying the terms and conditions of their arrangement. Such Agreements shall include references to the ~~blackstart~~ Blackstart Resource testing requirements.

R16 – The SDT believes that 24 hours is a minimum requirement.

EOP-006-2
R1 - EOP-006-2 describes the scope of the RC's restoration plan beginning when "…or separation has occurred between neighboring Reliability Coordinators, or an energized island has been formed on the Bulk Electric System (BES) within the Reliability Coordinator Area. The scope of the Reliability Coordinator's restoration plan ends when all of its Transmission Operators are interconnected and its Reliability Coordinator Area is connected to all of its neighboring Reliability Coordinator Areas." The scope covers what has been called "partial shutdown" as well as restoration using Blackstart Resources.

Organization	Question 1:	Question 1 Comments:
R1.1 (old) = R1.2 (new – wording changed for clarity. R1.2: ~~Procedures~~ Processes for restoring ~~the integrity of~~ the Interconnection. R8 – The RC can establish processes and conditions for synchronization – it does not need to explicitly authorize every single synchronization. No change made.		
American Transmission Company	No	Requirement 1 should be broken into two requirements. New Requirement 1: The TOP shall have a restoration plan that is accepted by its Reliability Coordinator. The use of the word "approved" gives the impression that the RC is approving compliance with EOP-005-2, when in practice the RC is determining whether the TOP's restoration plan is coordinated with the RC's restoration plan as well as being compatible with other TOP's restoration plans. Using the word accepted more accurately identifies the role of the RC in reviewing the TOP's restoration plan. Requirement 2: The TOP's restoration plan shall allow for restoring the Transmission Operator's System following a Disturbance in which one or more areas of the Bulk Electric System (BES) shuts down and the use of Blackstart Resources is required to restore the shut down area to service, to a state whereby the choice of the next Load to restore is not driven by the need to control frequency or voltage. The restoration plan shall include: The proposed separation better represents the goal of the standard while not changing the importance of getting the RC to accept a TOP's restoration plan. Modification to 1.3 (existing numbering) Blackstart Resource information: New Requirement 1.3.1: Name of the Blackstart Resource(s) New Requirement 1.3.2: Location of the Blackstart Resource(s) New Requirement 1.3.3: Megawatt and megavar capacity of each Blackstart Resource(s) New Requirement 1.3.4: Type of unit of the Blackstart Resource(s)The change more accurately represents the goal of this requirement. The current language requires that the TOP include all those items identified along with something else. ATC is concern that without the change the TOP will have to include some other characteristics which has not been listed. Requirement 1.4 (existing numbering) Identification of the Cranking Path(s) and initial switching requirements between each Blackstart Resource and the unit(s) to be started. The small change indicates that a TOP can have one or more paths. Without this change the

Organization	Question 1:	Question 1 Comments:
		standard is requiring multiple paths for each unit to be started. This change should also be in Requirement 6.1. Requirement 4: (existing numbering)ATC understands what the SDT is attempting to achieve in Requirement 4 but believes that compliance enforcement will be problematic. ATC does not offer a change to the requirement but believes that it should be deleted. Requirement 5: (existing numbering) The term "control center personnel" is currently not defined and needs clarity. Who in a TOP organization is covered under the term "control center personnel"? Suggestion: Each TOP shall have a copy of its latest restoration plan within its control center(s).General Comment: ATC agree with the change from "rolling 365" to "annually". (Requirements 3 and 3.1)EOP-006-2Requirement 3In EOP-005-2 the SDT uses the phrase "annual review" but Requirement 3 uses the phrase "every twelve months". Why the difference in language for the review interval? ATC prefers the phrase "annually review" over "every twelve months". Requirement 5.2 (Proposed Modification)The RC shall accept or reject the TOP's restoration plan based on requirement 5.1 within thirty calendar days following the receipt of the restoration plan from the TOP. Requirement 5.3The RC shall provide written notification to the TOP of its decision. New Requirement 5.3.1If the TOP's restoration plan is rejected the RC shall provide the specific reason for the rejection(s). Requirement 6: (existing numbering)The term "control center personnel" is currently not defined and needs clarity. Who in a RC's organization is covered under the term "control center personnel"? Suggestion: Each RC shall have a copy of its latest restoration plan and the latest restoration plan of each TOP in its Reliability Coordinator Area, within its control center(s).
Response: R1 - The SDT believes R1 is correct as written – the intent is to define the scope of the restoration plan. No change made. R1.3 (old) = R1.4 (new) – The wording was changed for clarity.		

Organization	Question 1:	Question 1 Comments:
		R1.4: Identification of each Blackstart Resource and its characteristics including but not limited to the following: the name of the Blackstart Resource, location, megawatt and megavar capacity, and type of unit. R1.4 (old) = R1.5 (new) – Cranking Path is a defined term in the NERC Glossary of Terms. Nothing requires the TOP to have multiple Cranking Paths, only that if there are multiple paths, they be identified. R4 – The SDT believes the requirement is needed. R5 – wording changed. R5: Each Transmission Operator shall have a copy of its latest Reliability Coordinator approved restoration plan within ~~each of~~ its primary and backup control ~~centers~~ rooms and available to all of its ~~control room personnel~~ System Operators prior to its implementation date EOP-006-2 R3 – wording changed. R3: Each Reliability Coordinator shall review its restoration plan ~~every twelve~~ within thirteen months of the last review R5 – Requirement R5.2 was merged into R5.1. R5.1: The Reliability Coordinator shall determine whether the Transmission Operator's restoration plan is coordinated and compatible with the Reliability Coordinator's restoration plan ~~as well as being compatible with~~ and other Transmission Operators' restoration plans within its Reliability Coordinator Area. The Reliability Coordinator shall approve or disapprove, with stated reasons, the Transmission Operator's submitted restoration plan within thirty calendar days following the receipt of the restoration plan from the Transmission Operator. R6 – wording changed. R6: Each Reliability Coordinator shall have a copy of its latest restoration plan and copies of the latest approved restoration plan of each Transmission Operator in its Reliability Coordinator Area within ~~each of~~ its primary and backup control ~~centers~~ rooms and available to all of its ~~control room personnel~~ System Operators prior to the implementation date.
Entergy Services, Inc. System	No	EOP-005R1.2 the requirement "restoring the integrity of the Interconnection" is too vague as written; additionally, GOs and TOPs cannot restore the integrity of the Interconnection, only

Organization	Question 1:	Question 1 Comments:
Planning & Operation (Generation)		those elements under their control. R3 the "mutually agreed predetermined schedule" adds unnecessary complexity. The requirement should state that the TOP review and submit for approval its procedure to their RC once per calendar year. R4 90 days seems too long for a emergency procedure to possibly contain incorrect information.R5 should state "RC" approved rather than just "approved"; "control room personnel" should be changed to "System Operators" as these are the individuals responsible for taking the actions. For those control centers not staffed by System Operators consider defining and using the term "field operators" or similar.R6 remove the term "documented" prior to "restoration plan". "RC approved" would be more appropriate if any qualifier is used. Insert the term "analysis" in the last sentence: "Such analysis, simulation, or testing shall analyze:?" R8 does "or in accordance with the established procedures of the RC" imply that the TOP can resynchronize with neighboring TOP areas without authorization from the RC? R10 serves no obvious reliability purpose and should be eliminated. R11 remove the words "to ensure the proper execution of its restoration plan" as they are not necessary.R11.1 refers to philosophies however the philosophy of a restoration plan is not a required part of the plan as specified in R1, consider adding it as a component in R1 or rephrasing/eliminating the requirement. R15 consider adding words similar to "?as directed by their TOP or RC." R16 should this requirement direct the TOP to notify the RC of changes? R17 eliminate the words "?to verify that the Blackstart Resource can perform as specified in the restoration plan." as they serve no purpose.R18 should include a sub requirement to review procedures. R18.1 refers to philosophies however the philosophy of a restoration plan is not a required part

Organization	Question 1:	Question 1 Comments:
		of the plan as specified in R15, consider adding it as a component in R15 or rephrasing/eliminating the requirement. M4 consider changing the wording to state "that is has updated and submitted its revised restoration plan to its Reliability coordinator in accordance with Requirement 4."M16 add voice recordings as an example of evidence. M18 add attendance list to records to be retained.EOP-006R1 use the term Reliability Coordinator "Areas". R1 also does not account for the possibility that an entity may have extensive damage to transmission lines and cannot restore an connection with one or more of its neighboring TOPs (BAs) for a long time, so is the restoration plan still in effect? R1.1 should be more specific and state "?integrity of the Reliability Coordinator Area."R4 should be a shorter time frame (e.g. 30 days) as 90 seems too long to have an incorrect plan in effect. R6 should state "RC" approved rather than just "approved"; "control room personnel" should be changed to "System Operators" as these are the individuals responsible for taking the actions. For those control centers not staffed by System Operators consider defining and using the term "field operators" or similar.

Response: R1.2 (old) = R1.3 (new) - The requirement has been revised.

R1.3: Procedures for restoring ~~the integrity of the Interconnection~~ interconnections with other Transmission Operators under the direction of the Reliability Coordinator.

R3 – The SDT believes a mutually agreed schedule is beneficial to all parties. No change made.
R4 – The SDT believes that a 90 day period allows thorough review and revision. No change made.
R5 – The requirement has been revised to address the first comment. The SDT does not understand the comment for 'field operator'.

R5: Each Transmission Operator shall have a copy of its latest Reliability Coordinator approved restoration plan within ~~each of~~ its primary and backup control ~~centers~~ rooms and available to all of its ~~control room personnel~~ System Operators

Organization	Question 1:	Question 1 Comments:

prior to its implementation date

R6 - The requirement has been revised to address the comment.

R6: Each Transmission Operator shall verify through analysis of actual events, steady state and dynamic simulations, or testing that its ~~documented~~ restoration plan accomplishes its intended function. This shall be completed every five years at a minimum. Such analysis, simulations or testing shall ~~analyze~~ verify:

R8 – The RC can establish processes and conditions for synchronization – it does not need to explicitly authorize every single synchronization.
R10 – requirement has been deleted.
R11, R11.1 – The requirements have been revised. (Now R10 and R10.1)

R10: Each Transmission Operator shall include within its operations training program, annual System restoration training to its System Operators to ~~ensure~~ assure the proper execution of its restoration plan. This training program shall include training on the following:

R10.1: System restoration ~~philosophy~~ plan including coordination with the Reliability Coordinator and Generator Operators included in the restoration plan.

R15 – This can be addressed in the Agreement if needed. No change made.
R16 – The SDT has reviewed the requirement and believes that it is correctly stated. The GOP should notify the TOP. The TOP would then notify the RC as necessary and as indicated in Requirement R3.
R17 – The requirement has been revised. (Now R16)

R16: Each Generator Operator ~~of~~ with a Blackstart Resource shall perform Blackstart Resource tests, and maintain records of such testing, in accordance with the testing requirements set by the Transmission Operator to verify that the Blackstart Resource can perform as specified in the restoration plan.

R18.1 – The requirement has been revised. (Now R17.1)

R17.1: System restoration ~~philosophy~~ plan including coordination with the Transmission Operator

M4 – The measure has been revised.

Organization	Question 1:	Question 1 Comments:
		M4: Each Transmission Operator shall have documentation such as dated review signature sheets, revision histories, e-mails with receipts, or registered mail receipts, that it has updated its restoration plan ~~with~~ and submitted it to its Reliability Coordinator in accordance with Requirement R4 M16 – The list is not exhaustive. M18 – The SDT believes that the measure is sufficient as written. EOP-006-2 R1 – The requirement has been revised. The second comment is covered by R7 & R8. R1: Each Reliability Coordinator shall have a Reliability Coordinator Area restoration plan. The scope of the Reliability Coordinator's restoration plan starts when Blackstart Resources are utilized to re-energize a shut down area of the Bulk Electric System (BES), or separation has occurred between neighboring Reliability Coordinators, or an energized island has been formed on the ~~Bulk Electric System (~~BES~~)~~ within the Reliability Coordinator Area. The scope of the Reliability Coordinator's restoration plan ends when all of its Transmission Operators are interconnected and ~~it~~ its Reliability Coordinator Area is connected to all of its neighboring Reliability Coordinator~~s~~ Areas. The restoration plan shall include: R1.1 (old) = R1.2 (new) - The scope of the Reliability Coordinator's restoration plan ends when all of its Transmission Operators are interconnected and its Reliability Coordinator Area is connected to all of its neighboring Reliability Coordinator Areas." The scope covers what has been called "partial shutdown" as well as restoration using Blackstart Resources. No change made. R4 – R4 has been incorporated into R5 and changed to 30 days. R4: Each Transmission Operator shall update its restoration plan within ninety calendar days after identifying any unplanned permanent System modifications, or prior to implementing a planned System modification, that would change the implementation of its restoration plan. R6 – The requirement has been revised. R6: Each Reliability Coordinator shall have a copy of its latest restoration plan and copies of the latest approved restoration plan of each Transmission Operator in its Reliability Coordinator Area within ~~each of~~ its primary and backup control ~~centers~~ rooms and available to all of its ~~control room personnel~~ System Operators prior to the implementation date.
MRO NERC	No	Is the goal of Project 2006-03 to eliminate system restoration from a non-blackstart scenario?

Organization	Question 1:	Question 1 Comments:
Standards Review Subcommittee		Currently, EOP-005-1 and EOP-006-1 pertaining to system restoration in general and EOP-007-0 and EOP-009-0 pertaining specifically to Blackstart Restoration. In the MRO's opinion, these are two separate operating conditions. In EOP-005-2_R1_R7_R8 the "terms shuts down" should be replaced with more appropriate terms such as "becomes de-energized" and "de-energized". Also in order to make EOP-005-2_R1 read better, there should be a comma after Disturbance. In EOP-006-2_R1 the term "shuts down" should be replaced with a more appropriate term such as "de-energized". Also, replace the words, "a area" with "an area". EOP-005-2, R10, The MRO questions the need to post Blackstart Resource testing requirements to a "freely accessible public forum". Per NERC Security Guidelines for the Electricity Sector, Threats and Incident Reporting (dated April 2008), under surveillance activities, Intelligence Gathering is Social Engineering. Also, isn't posting these documents on a freely accessible public forum against order 890A policies? EOP-005-2, R12, Please define what is meant by "unique task"? What if the entity does not have any unique task? Does this requirement still apply to the entity? EOP-005-2, R14, Since the Transmission Operator is responsible for the Blackstart plan, this requirement places the responsibility of the Blackstart Resource Agreement on BOTH the Transmission Operator and Generator Operator. The requirement should be rewritten as such "Each Transmission Operator will have a written Blackstart Resource Agreement specifying the terms and conditions with the Generator Operator with a Blackstart Resource." EOP-005-2 The MRO questions the need to have a 2 hour requirement on the training requirement in R12 and R18. EOP-005-2, R18.1 Does this sub requirement preclude the GOP from working with the BA when coordinating with the TOP?
Response: EOP-006-2 describes the scope of the RC's restoration plan beginning when "…or separation has occurred between neighboring Reliability Coordinators, or an energized island has been formed on the Bulk Electric System (BES) within the		

Organization	Question 1:	Question 1 Comments:
Reliability Coordinator Area. The scope of the Reliability Coordinator's restoration plan ends when all of its Transmission Operators are interconnected and its Reliability Coordinator Area is connected to all of its neighboring Reliability Coordinator Areas." The scope covers what has been called "partial shutdown" as well as restoration using Blackstart Resources. EOP-005-2: R1/R7/R8: Regional differences in terminology prohibit the use of 'de-energized'. No change made. R1 – A comma is not appropriate in this location. EOP-006-2 R1 – Regional differences in terminology prohibit the use of 'de-energized'. No change made. EOP_005-2 R10 – requirement deleted. R12 – The standard gives the TOP full capability to define the unique tasks. The SDT believes that normal tasks performed during restoration, such as switching, are not unique. As an example considered by the SDT, synchronization would generally be considered a unique task unless it were included in the field employee's normal duties. Additionally, the SDT does not believe that every field employee would need to be trained. R14 – Agreements are between at least two parties. R12 & R18 – The SDT believes that 2 hours of training is a minimum for familiarity with the purpose and risks associated with specific tasks. R18.1 – No, this is a training requirement.		
SERC OC SRC	No	EOP-005-2: Add **- Islanded Resource**: A generation Facility and associated set of equipment which is designed to remain energized without connection to the remainder of the System, with the ability to energize a dead (de-energized) bus, meeting the Transmission Operator's restoration plan needs for real and reactive power capability, frequency and voltage control, and that has been included in the Transmission Operator's restoration plan. **Purpose:** Ensure plans and Facilities are established, and personnel are prepared to enable System restoration from Blackstart Resources and/or Islanded resources to ensure the ability to restore critical loads identified in the Transmission Operator's restoration plan. R1.3 Identification of each Blackstart Resource or Islanded Resource and its characteristics including the following: the name of the resource, location, megawatt and megavar capacity, and type of unit.

Organization	Question 1:	Question 1 Comments:
		R1.6 Operating process to reestablish connections within the Transmission Operator's System for areas that have become separated. R1.7 Operating process to restore Loads, such as station service for substations, units to be restarted or stabilized, the Load needed to stabilize generation and frequency, and provide voltage control for restoring the System. R6.1 The capability of Blackstart Resources and Islanded Resource to meet the Real and Reactive Power requirements of the Cranking Paths and to supply initial Loads. R6.2 This requirement can be interpreted to require an unbounded amount of dynamic simulations of the entire system to satisfy compliance requirements. The first goal of restoration is to maintain off site power to nuclear plants and to pick up critical loads that have primary consideration in restoration procedures. Unbounded simulation requirements are unnecessary and unacceptable – we recommend that this requirement be deleted**.** R7**.** Following a Disturbance in which one or more areas of the BES shuts down and the use of Blackstart Resources or Islanded Resource is required to restore the shut down area to service, each affected Transmission Operator shall implement its restoration plan. R7.3 If the restoration plan cannot be completed as expected because actual conditions do not match the studied conditions, the Transmission Operator shall utilize its restoration plan concepts or practices to implement alternative measures for achieving System restoration. R8. Following a Disturbance in which one or more areas of the BES shuts down and the use of Blackstart Resources or Islanded Resources is required to restore the shut down area to service, the Transmission Operator shall resynchronize area(s) with neighboring Transmission Operator area(s) only with the authorization of the Reliability Coordinator or in accordance with the established procedures of the Reliability Coordinator. R9. Each Transmission Operator shall have Blackstart Resource and/or Islanded Resource e testing requirements to verify that each resource is capable of meeting the requirements of its restoration plan.

Organization	Question 1:	Question 1 Comments:
		R9.1 The frequency of testing such that each resource is tested at least once every three years. R9.2.1 The ability to start a blackstart unit when isolated with no support from the BES. R9.2.2 The ability of an Islanded Resource to remain energized without connection to the remainder of the system. (this requirement added) R10. We suggest this requirement should be removed – this is a market function that should be relocated to a business practice. R11. System restoration concepts or practices including coordination with the Reliability Coordinator and Generator Operators included in the restoration plan. R12. While we see the intention of this requirement, we think that it could have the unintended consequence of delaying restoration. In a system restoration, others that normally don't perform switching will be called into service (i.e., relay technicians, linemen, management, etc.). Would we not allow switching to proceed in a restoration because someone did not have the 2 hour training requirement? Would this be a Standard violation? This would also be a compliance nightmare. R13. Each Transmission Operator shall participate in at least one of its Reliability Coordinator's restoration drills, exercises, or simulations as requested by its Reliability Coordinator. R14. Each Transmission Operator and Generator Operator with a Blackstart Resource or Islanded Resource shall have a written Agreement specifying the terms and conditions of their arrangement. Such Agreements shall include references to the testing requirements. (Note: Blackstart resources agreement is not defined) R15. Each Generator Operator with a Blackstart Resource or Islanded Resource shall have documented procedures for starting/islanding the resource and energizing a bus. R16. Each Generator Operator of a Blackstart Resource or Islanding Resource shall notify its Transmission Operator of any known changes to the blackstart or islanding capabilities of

Organization	Question 1:	Question 1 Comments:
		either resource within twenty-four hours following such change. R17. Each Generator Operator of a Blackstart Resource or Islanded Resource shall perform tests, and maintain records of such testing, in accordance with the testing requirements set by the Transmission Operator to verify that the Blackstart Resource can perform as specified in the restoration plan. R17.1 Testing records shall include at a minimum: name of the resource, unit tested, date of the test, duration of the test, time required to start the unit, an indication of any testing requirements not met under Requirement R9. R17.2 Each Generator Operator shall provide the test results within thirty calendar days following a request from its Reliability Coordinator or Transmission Operator. R18. Each Generator Operator of a Blackstart Resource or Islanded Resource shall provide training every two years to each of its operating personnel responsible for the startup and synchronization of its resource. R18.1 System restoration concepts or practices including coordination with the Transmission Operator. R19. Each Generator Operator of a Blackstart Resource or Islanded Resource shall participate in at least one of the Reliability Coordinator's restoration drills, exercises, or simulations as requested by the Reliability Coordinator. EOP-006: R1.1 Note: this denotes the restoration plan – should be eliminated. R3. Each Reliability Coordinator shall review its restoration plan on an annual basis. R4. Each Reliability Coordinator, if necessary, shall update its restoration plan within ninety calendar days after identifying changes to one of its Transmission Operator's restoration plans or a neighboring Reliability Coordinator's restoration plan that would require a change in its coordination tasks or responsibilities.

Organization	Question 1:	Question 1 Comments:
		R6. Delete 'and available to all of its control room personnel' at the end of the sentence. R7.1 If the restoration plan cannot be completed as expected because actual conditions do not match the studied conditions, the Reliability Coordinator shall utilize its restoration plan concepts or practices to implement alternative measures for achieving System restoration. R8.1 If the restoration plan cannot be completed as expected because actual conditions do not match the studied conditions, the Reliability Coordinator shall utilize its restoration plan concepts or practices to implement alternative measures for achieving System restoration. R9. Delete 'to ensure the proper execution of its restoration plan' from the end of sentence one. R9.1 System restoration concepts and practices including the coordination role of the Reliability Coordinator. R10. Each Reliability Coordinator shall conduct or participate in at least one System restoration drill, exercise, or simulation per calendar year, which shall include the Transmission Operators and Generator Operators as dictated by the particular scope of the drill, exercise, or simulation that is being conducted.

Response: Added definition – The SDT does not believe a separate definition is required.
Purpose – the purpose is correct – the goal is more than restoring critical loads.
R1.3 (old) = R1.4 (new) – term was not added – no change made.
R1.6 (old) = R1.7 (new) – The requirement has been revised.

R1.7: Operating ~~Procedures~~ Processes to reestablish connections within the Transmission Operator's System for areas that have ~~become separated~~ been restored and are prepared for reconnection.

R1.7 (old) = R1.8 (new) – The requirement has been revised.

R1.8: Operating ~~Procedures~~ Processes to restore Loads required to restore the System, such as station service for substations, units to be restarted or stabilized, the Load needed to stabilize generation and frequency, and provide voltage control ~~for restoring the System~~

Organization	Question 1:	Question 1 Comments:

R6.1 - The SDT does not believe a separate definition is required.
R6.2 – The scope of the simulations is defined in Requirement 1. No change made.
R7 - The SDT does not believe a separate definition is required.
R7.3 – The requirement has been revised and incorporated into the main requirement.

> R7: Following a Disturbance in which one or more areas of the BES shuts down and the use of Blackstart Resources is required to restore the shut down area to service, each affected Transmission Operator shall implement its restoration plan. If the restoration plan cannot be executed as expected because actual conditions do not match the studied conditions, the Transmission Operator shall utilize its restoration plan strategies to facilitate restoration.

R8 - The SDT does not believe a separate definition is required.
R9-R9.2.2 - The SDT does not believe a separate definition is required.
R10 – requirement deleted.
R11.1 – The requirement has been revised. (Now R10.1)

> R10.1 - System restoration ~~philosophy~~ plan including coordination with the Reliability Coordinator and Generator Operators included in the restoration plan.

R12 – The standard gives the TOP full capability to define the unique tasks. The SDT believes that normal tasks performed during restoration, such as switching, are not unique. As an example considered by the SDT, synchronization would generally be considered a unique task unless it were included in the field employee's normal duties. Additionally, the SDT does not believe that every field employee would need to be trained.
R13 - EOP-006-2, R10 requires the RC to conduct two drills per year. The SDT believes that it is important to reliability for the TOP to participate as requested. The requirement is for the TOP as an entity and not for individual operators. No change made
R14 - The SDT does not believe a separate definition is required. Blackstart Resources and Agreement are separate defined terms in the NERC Glossary of Terms. (Blackstart Resources will be added upon adoption of this standard.)
R15 - The SDT does not believe a separate definition is required.
R16 - The SDT does not believe a separate definition is required.
R17-R17.1 - The SDT does not believe a separate definition is required.
R17.2 – The SDT does not believe a separate definition is required.
R18 - The SDT does not believe a separate definition is required.

Organization	Question 1:	Question 1 Comments:

R18.1 –wording changed for clarity. (ow R17.1)

R17.1: System restoration ~~philosophy~~ plan including coordination with the Transmission Operator

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R19 - The SDT does not believe a separate definition is required.

EOP-006-2

R1.1 (old) = R1.2 (new) – The scope of the standard is defined in Requirement 1. Other standards cover what is expected of the RC once the scope has been met.

R3 – wording changed for clarity.

R3: Each Reliability Coordinator shall review its restoration plan ~~every twelve~~ within thirteen months of the last review

R4 – wording changed.

R4 - Each Reliability Coordinator shall ~~update its restoration plan within ninety calendar days after identifying changes to one of its Transmission Operator's restoration plans or upon~~ review~~ing~~ ~~a~~ their neighboring Reliability Coordinator's restoration plans ~~that would necessitate a change in their coordination tasks or responsibilities~~

R6 - The SDT believes it is necessary to have the restoration plan readily available. Wording changed for clarity.

R6: Each Reliability Coordinator shall have a copy of its latest restoration plan and copies of the latest approved restoration plan of each Transmission Operator in its Reliability Coordinator Area within ~~each of~~ its primary and backup control ~~centers~~ rooms and available to all of its ~~control room personnel~~ System Operators prior to the implementation date.

R7.1 – The requirement has been revised and incorporated into R7.

R7: Each Reliability Coordinator shall work with its affected ~~Balancing Authorities,~~ Generator Operators~~,~~ and Transmission Operators as well as neighboring Reliability Coordinators to monitor restoration progress, coordinate restoration, and take actions to restore the BES frequency within acceptable operating limits. If the restoration plan cannot be completed as expected because actual conditions do not match the studied conditions, the Reliability Coordinator shall utilize its restoration plan strategies to facilitate System restoration. ~~Such actions may include but not be limited to adjusting generation, placing additional generators on line, or shedding Load.~~

Organization	Question 1:	Question 1 Comments:
R8.1 – merged into R8. R8: The Reliability Coordinator shall coordinate or authorize ~~and coordinate~~ resynchronizing islanded areas that bridge boundaries between Transmission Operators or Reliability Coordinators. If the resynchronization cannot be completed as expected because actual conditions do not match the studied conditions, the Reliability Coordinator shall utilize its restoration plan strategies to facilitate resynchronization. R9 – The SDT believes that the phrase is valid. Wording changed for clarity. R9: Each Reliability Coordinator shall include within its operations training program, annual System restoration training for its System Operators to ~~ensure~~ assure the proper execution of its restoration plan. This training program shall ~~include~~ address the following: R9.1 – wording changed for clarity. R9.1: ~~System restoration philosophy including~~ ~~t~~The coordination role of the Reliability Coordinator. R10 - RC's may jointly conduct drills and meet the requirement.		
Tampa Electric Company	Yes	
Standards Interface Subcommittee	Yes	
Kansas City Power & Light	Yes	
Allegheny Energy	Yes	
Reliant Energy Inc.	Yes	
Response: Thank you for your response.		

2. The SDT has completely re-worked the Implementation Plan based on industry comments from the second posting. Do you agree with the changes that were made? If not, please provide specific suggestions for change.

Summary Consideration: Due to industry comments received, the SDT now realizes that the proposed Implementation Plan was far too complex. The SDT has decided that there is no reasonable way to look at individual requirements with different implementation dates. The Implementation Plan has been revised so that all requirements will take effect on the first calendar day of the first calendar quarter that is twenty-four months after regulatory approvals – or in those jurisdictions where no regulatory approval is required on the first calendar day of the first calendar quarter that is twenty-four months after Board of Trustees adoption.

Organization	Question 2:	Question 2 Comments:
Bonneville Power Administration	No	EOP-005-2 R6 the additional verification elements added to this requirement make it a new requirement, rather than existing. change to 12 months. R9 change to 3 months (new requirement). R14: change to 12 mos. to allow rewriting of agreements.
Xcel Energy	No	As written, the Implementation Plan is overly complicated, confusing, and does not provide the applicable entities with a clear direction to follow. Xcel Energy agrees with the MRO that within the first year following the standards effective date, the applicable entities must revise, approve, and distribute their restoration plan. The following year the applicable entities must review, test, train, and perform all other requirements. Please keep the Implementation Plan clear and concise. For EOP-005-2 R3, which part of the requirement is existing and which part is effective after 3 months following regulatory approval?
FirstEnergy	No	The implementation plan only provides 3 months to get Transmission Operator and Generator Operator agreements in place prior to compliance sanctions. This timeframe is insufficient and should be adjusted to allow for 6 months or more to complete the agreement negotiations.
Kansas City Power & Light	No	EOP-005-2:Recommend R1 & R14 be at least 6 months. Developing agreements between parties required by R1.1 & R14 takes time and 3 months is too short. If R1 is changed, then recommend R2 be R1 + 3 months. Recommend R3 be R1 + 12 months as this requirement is to review the document developed in R1 for updates.

Organization	Question 2:	Question 2 Comments:
		EOP-006-2:Recommend R1 be at least 6 months. R1.7 requires the RC to develop information sharing criteria with other entities. There are a lot of entities and this takes time to develop. Recommend R2 be R1 + 3 months if R1 is changed. Recommend R3 be R1 + 12 months since this is an annual review of the document developed in R1.
Response: The SDT realizes the transition plan posted with Draft 3 was not consistent with the reassignment of responsibilities and the time periods of the new requirements. The transition plan has been revised.		
Entergy Services	No	It seems logical to require the RC plan requirement (EOP-006 R1) and the dissemination of that plan to the entities covered by/affected by the plan (EOP-006 R2) prior to the TOP plan requirement (EOP-005 R1). Since there are items in the RC plan that the TOP plan must address and be compliant with, the TOPs would need to have the RC plan before they can finalize their plans. However, the current implementation schedule has both EOP-005 R1 and EOP-006 R1 being effective at 3 months after regulatory approval. While I realize that coordination between the RC and the TOPs must be ongoing during the restoration and blackstart plans development, it seems appropriate to provide at least an additional 30 days (preferably 60) before EOP-005 R1 is effective. Also, since EOP-005 R1 requires that the TOP have a "plan approved by its Reliability Coordinator," it seems that EOP-005 R3 need to be effective prior to EOP-005 R1. The RC has a month to do the approval, so EOP-005 R3 should have an effective date one month in advance of EOP-005 R1. EOP-005 R9 could be moved out to 3 months after regulatory approval without impacting the generators since their requirements are all set at 24 months. In addition, the testing frequency is every 3 years which allows additional flexibility. R14 could also benefit from more implementation time. We feel that the extra time for R14 would be beneficial since agreements/contracts can require a substantial amount of time to finalize. The implementation time for EOP-006 R5 needs to coordinate with the implementation time of EOP-005 R1. Since EOP-005 R1 requires a "plan approved by its Reliability Coordinator," then EOP-006 R5 must be required prior to EOP-005 R1 being effective (also taking into consideration the 30 day approval time that the RC has to approve/disapprove the plan.)The retirement dates should be changed to coordinate with any changes made to the implementation schedule.

Organization	Question 2:	Question 2 Comments:
Response: The SDT realizes the transition plan posted with Draft 3 was not consistent with the reassignment of responsibilities and the time periods of the new requirements. The transition plan has been revised.		
Operating Reliability Working Group (ORWG)	No	EOP-005R1. Due to the complexities associated with obtaining binding agreements, especially agreements with a nuclear facility, a 3-month plan for implementation seems almost impossible. Implementation of this standard should coincide with the proposed nuclear standard that also requires the agreements. A 24-month lead time may not be unreasonable. R14. Agreements will also be the critical path for implementation of this requirement. argument again. Depending upon the number of Blackstart Resources involved, 24 months may not be an unreasonable lead time. EOP-006R1. Due to the complexities associated with developing a data specification the 3-month plan for implementation is a bit optimistic. We would suggest a minimum of 6 months to implement R1.R2. Add an additional month to the implementation time for R1 to bring the total to 7 months for R2. R3, R4, R6, R7, R8, R9, R10. - Since practically all of these requirements are existing requirements or off-shoots of existing requirements, they should be able to be implemented fairly quickly, possibly as soon as 3 months following regulatory approval.
AEP	No	EOP 005 R1 Suggest grandfathering pre-EOP 005-1 plans as being ?approved? by the RC. This will eliminate the attendant back log of plans needing initially approval. The SDT needs to identify the requirement sections being retired in EOP 005-1, EOP 006-1, EOP 007-0, and EOP 009-0 by the phased in plan in EOP 005-2 for R1,R2,R3,R6,R9, and R14 and in EOP 006-2 R1,R2,R3,R4,and R5.
Duke Energy Corporation	No	The implementation plan for EOP-005-2 assumes that Agreements will be in place within the first 3 months after this standard is approved. FERC has yet to approve NUC-001, and if this Standard is not approved or FERC has not issued the Final Rule in Docket No. RM08-3-000, these agreements will not be in place. How will it be possible to implement EOP-001 R1 in three months time? The SDT in EOP-005-2 R6 believes that Immediate is appropriate implementation plan because it is believed that this information already exists. However, the SDT added a new requirement in 6.2 that states that the location and magnitude must be verified that these loads will control voltages and frequency. This is a new requirement and therefore, more time must be given in order to Implement. Duke Energy recommends at least a full year.

Organization	Question 2:	Question 2 Comments:
		In EOP-006 R5, the SDT has put a new requirement on the Reliability Coordinator to review and APPROVE all Emergency Plans in its area. The SDT believes that this can be accomplished within 5 months assuming that all members in its area submit their plans in a timely manner. This timeframe may only allow a Reliability Coordinator enough time to do a cursory review of the plans, especially since the Reliability Coordinator only has 30 days to respond as stated in the Standard. Recommend that this time be no less than one year to implement.
Santee Cooper	No	The Implementation Plan with the phased in compliance is complicated and confusing.
Entergy Services, Inc. System Planning & Operation (Generation)	No	The implementation plan contains too many different timelines for the various the requirements. This is overly complicating the entire process (compliance, tracking, etc). Recommend having no more than "immediate", "1 yr" and "2 yr" effective dates for requirements.
MRO NERC Standards Review Subcommittee	No	As written, the Implementation Plan is overly complicated, confusing, and does not provided the applicable entities with a clear direction to follow. The MRO suggests that within the first year following the standards effective date, the applicable entities must revise, approve, and distribute their restoration plan. The following year the applicable entities must review, test, train, and perform all other requirements. Please keep the Implementation Plan clear and concise. For EOP-005-2 R3, which part of the requirement is existing and which part is effective after 3 months following regulatory approval?
Midwest ISO Stakeholders Standards Collaborators	No	Assuming the requirements are deleted as specified in question 1, we agree with the implementation plan.
SERC OC SRC	No	Depends on resolution of comments offered and further clarification of effective date of Implementation Plan per phased in compliance as stated which is ambigous and unclear: "Existing standards will remain in effect unless individual requirements are superseded by new requirements that are phased in prior to the twenty-four month completion timeframe in the Implementation Plan at which time the existing standards (EOP-001-0, R3.4; EOP-005-1, EOP-006-1, EOP-007-0, and EOP-009-0) will be retired. The assumption used by the SDT in establishing this Implementation Plan is that all entities perform as specified during the transitional period. This Implementation Plan starts from the TOP restoration plans required by the existing standards. EOP-006 – System Restoration from Blackstart Resources —

Organization	Question 2:	Question 2 Comments:
		Coordination All requirements: 18 months after applicable. In particular, we are confused by the portion that reads "unless individual requirements are superseded by new requirements that are phased in prior to the twenty-four month completion timeframe…… at which time the existing standards …….. will be retired". Does this mean that 24 months is the nominal implementation time, unless there is an 'X' in the one of the earlier implementation times (Immediate 1 mo. 3 mos. 5 mos. 6 mos. 8 mos.)?
Northeast Utilities	Yes	EOP-005-2 The Implementation Plan for R3. indicates both immediate and 3 mos. effective dates.
Response: The SDT has decided that there is no reasonable way to look at individual requirements with different implementation dates. The Implementation Plan has been revised so that all requirements will take effect twenty-four months after regulatory approvals.		
NPCC	No	
American Transmission Company	Yes	
Pacific Gas and Electric Company	Yes	
Allegheny Energy	Yes	
Baltimore Gas and Electric Company	Yes	
Southern Company Transmission	Yes	
Manitoba Hydro	Yes	
Tampa Electric Company	Yes	
Ameren	Yes	
Standards Interface Subcommittee	Yes	
Reliant Energy Inc.	Yes	
Response: Thank you for your response. However, the SDT has decided that there is no reasonable way to look at individual		

Organization	Question 2:	Question 2 Comments:
requirements with different implementation dates. The Implementation Plan has been revised so that all requirements will take effect twenty-four months after regulatory approvals.		

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

Summary Consideration: The SDT changed numerous requirements, measures, and VSL due to industry comments as highlighted in the following lists**.**

The following requirements have been changed due to industry comments:

EOP-005:

R5. Each Transmission Operator shall have a copy of its latest Reliability Coordinator approved restoration plan within ~~each of~~ its primary and backup control ~~centers~~ rooms and available to all of its ~~control room personnel~~ System Operators prior to its implementation date.

R7. Following a Disturbance in which one or more areas of the BES shuts down and the use of Blackstart Resources is required to restore the shut down area to service, each affected Transmission Operator shall implement its restoration plan. If the restoration plan cannot be executed as expected because actual conditions do not match the studied conditions, the Transmission Operator shall utilize its restoration plan strategies to facilitate restoration.

R~~11~~.10. Each Transmission Operator shall include within its operations training program, annual System restoration training to its System Operators to ~~ensure~~ assure the proper execution of its restoration plan. This training program shall include training on the following:

R~~11.1.~~10.1. System restoration ~~philosophy~~ plan including coordination with the Reliability Coordinator and Generator Operators included in the restoration plan.

R~~14~~13. Each Transmission Operator and Generator Operator with a Blackstart Resource shall have ~~a~~ written Blackstart Resource Agreements or mutually agreed upon procedures or protocols, specifying the terms and conditions of their arrangement. Such Agreements shall include references to the ~~blackstart~~ Blackstart Resource testing requirements.

R~~15~~14. Each Generator Operator with a Blackstart Resource shall have documented procedures for starting ~~the~~ each Blackstart Resource and energizing a bus.

R~~18~~17. Each Generator Operator ~~of~~ with a Blackstart Resource shall provide a minimum of two hours of training every two years to each of its operating personnel responsible for the startup ~~and synchronization~~ of its Blackstart Resource generation units and energizing a bus. The training program shall include training on the following:

EOP-006:

R2. The Reliability Coordinator shall distribute its most recent Reliability Coordinator Area restoration plan to each of its Transmission Operators~~, Balancing Authorities,~~ and neighboring Reliability Coordinators within thirty calendar days of creation or revision.

R3. Each Reliability Coordinator shall review its restoration plan ~~every twelve~~ within thirteen months of the last review.

R4. Each Reliability Coordinator shall ~~update its restoration plan within ninety calendar days after identifying changes to one of its Transmission Operator's restoration plans or upon~~ review~~ing~~ ~~a~~ their neighboring Reliability Coordinator's restoration plans ~~that would necessitate a change in their coordination tasks or responsibilities~~.

R5. Each Reliability Coordinator shall review the ~~Transmission Operator~~ restoration plans ~~as defined in~~ required by EOP-005 of the Transmission Operators within its Reliability Coordinator Area and neighboring Reliability Coordinators, when received.

R6. Each Reliability Coordinator shall have a copy of its latest restoration plan and copies of the latest approved restoration plan of each Transmission Operator in its Reliability Coordinator Area within ~~each of~~ its primary and backup control ~~centers~~ rooms and available to all of its ~~control room personnel~~ System Operators prior to the implementation date.

R8. The Reliability Coordinator shall coordinate or authorize ~~and coordinate~~ resynchronizing islanded areas that bridge boundaries between Transmission Operators or Reliability Coordinators. If the resynchronization cannot be completed as expected because actual conditions do not match the studied conditions, the Reliability Coordinator shall utilize its restoration plan strategies to facilitate resynchronization.

R9. Each Reliability Coordinator shall include within its operations training program, annual System restoration training for its System Operators to ~~ensure~~ assure the proper execution of its restoration plan. This training program shall ~~include~~ address the following:

The following measurements have been changed due to industry comments:

EOP-005:

M6. Each Transmission Operator shall have documentation, such as power flow outputs, that it has verified that its latest restoration plan will accomplish~~es~~ its intended function in accordance with Requirement R6.

M~~15~~14. Each Generator Operator with a Blackstart Resource shall have dated documented procedures on file for starting ~~the~~ each unit and energizing a bus in accordance with Requirement R~~15~~14.

M~~18~~17. Each Generator Operator with a Blackstart Resource shall have an electronic or hard copy of the training program material provided to its operating personnel responsible for the startup and synchronization of its Blackstart Resource generation units and a copy of its dated training records including training dates and durations showing that it has provided training in accordance with Requirement R~~18~~17.

EOP-006:

M5. Each Reliability Coordinator shall provide evidence, such as a review signature sheet or emails, that it has reviewed, approved or disapproved, and notified its Transmission Operator's and reviewed its neighboring Reliability Coordinator's submitted restoration plan(s) and updated its restoration plan, if necessary, in accordance with Requirement R5.

The following VSLs have been changed due to industry comments:

EOP-005:

R1.	The Transmission Operator failed to comply with ~~less than 25% of the number~~ one of the sub-~~components~~requirements within the requirement.	The Transmission Operator failed to comply with ~~25% or more and less than 50% of the number~~ two of the sub-~~components~~requirements within the requirement.	The Transmission Operator has failed to comply with ~~50% or more and less than 75% of the number~~ three of the sub-~~components~~requirements within the requirement.	The Transmission Operator has failed to comply with ~~75%~~ four or more of the ~~number of~~ sub-~~components~~requirements within the requirement.
R2.	The Transmission Operator failed to ~~distribute the information to an entity identified within the restoration plan within the required timeframe~~ provide one of the operational entities identified in its approved restoration plan with a description of any changes to their roles and specific tasks prior to the implementation date of the plan. Or The Transmission Operator ~~distributed~~ provided the information to all entities	The Transmission Operator failed to ~~distribute the information to two entities identified within the restoration plan within the required timeframe~~ provide two of the operational entities identified in its approved restoration plan with a description of any changes to their roles and specific tasks prior to the implementation date of the plan. Or The Transmission Operator ~~distributed~~ provided the information to all entities	The Transmission Operator failed to ~~distribute the information to three entities identified within the restoration plan within the required timeframe~~ provide three of the operational entities identified in its approved restoration plan with a description of any changes to their roles and specific tasks prior to the implementation date of the plan. Or The Transmission Operator ~~distributed~~ provided the information to all entities	The Transmission Operator failed to ~~distribute the information to four or more entities identified within the restoration plan within the required timeframe~~ provide four or more of the operational entities identified in its approved restoration plan with a description of any changes to their roles and specific tasks prior to the implementation date of the plan. Or The Transmission Operator ~~distributed~~ provided the

	but was thirty days late in doing so~~.~~	but was sixty days or more late in doing so~~.~~	but was ninety days or more late in doing so.	information to all entities but was 120 days or more late in doing so.
R3.	The Transmission Operator did not submit the ~~required information~~ reviewed restoration plan or confirmation of no change within twenty-nine calendar days of the pre-determined schedule. ~~Or, the Transmission Operator did not complete the review within thirty days of the pre-determined schedule~~.	The Transmission Operator did not submit the ~~required information~~ reviewed restoration plan or confirmation of no change within thirty to fifty-nine calendar days of the pre-determined schedule. ~~Or, the Transmission Operator did not complete the review within sixty days of the pre-determined schedule~~.	The Transmission Operator did not submit the ~~required information~~ reviewed restoration plan or confirmation of no change within sixty to eighty-nine calendar days of the pre-determined schedule. ~~Or, the Transmission Operator did not complete the review within ninety days of the pre-determined schedule.~~	The Transmission Operator did not submit the ~~required information~~ reviewed restoration plan or confirmation of no change within ninety calendar days of the pre-determined schedule. ~~Or, the Transmission Operator did not complete the review within 120 days of the pre-determined schedule.~~
R4.	The Transmission Operator failed to ~~comply~~ update and submit its restoration plan to the Reliability Coordinator within ninety calendar days of the change.	The Transmission Operator failed to ~~comply~~ update and submit its restoration plan to the Reliability Coordinator within 120 calendar days of the change.	The Transmission Operator has failed to ~~comply~~ update and submit its restoration plan to the Reliability Coordinator within 150 calendar days of the change.	The Transmission Operator has failed to ~~comply~~ update and submit its restoration plan to the Reliability Coordinator within 180 calendar days of the change.
R5.	~~The Transmission Operator did not make the latest approved restoration plan available in its control rooms within fifteen calendar days of its approval~~. N/A	~~The Transmission Operator did not make the latest approved restoration plan available in its control rooms within twenty calendar days of its approval.~~ N/A	~~The Transmission Operator did not make the latest approved restoration plan available in its control rooms within twenty-five calendar days of its approval~~. N/A	The Transmission Operator did not make the latest Reliability Coordinator approved restoration plan available in its primary and backup control rooms ~~within thirty calendar days of its~~

				~~approval.~~ and available to all of its System Operators prior to its implementation date.
R6.	~~N/A~~ The Transmission Operator performed the verification but did not complete it within the five year period.	N/A	N/A	The Transmission Operator did not perform the verification ~~within the prescribed timeframe~~ or it took more than six years to complete the verification.
R8.	N/A	N/A	N/A	The Transmission Operator resynchronized without approval of the Reliability Coordinator or not in accordance with the established procedures of the Reliability Coordinator following a Disturbance in which Blackstart Resources have been utilized in restoring the shut down area of the System to service.
R9.	~~The Transmission Operator's testing requirements do not address one of the subrequirements~~. N/A	N/A.	~~The Transmission Operator's testing requirements do not address two of the subrequirements~~. N/A	~~The Transmission Operator does not have the testing requirements~~. The Transmission Operator's Blackstart Resource testing requirements do not

				address one or more of the sub-requirements of Requirement R9.

R~~11~~10.	The Transmission Operator's training ~~is missing~~ does not address one of the ~~topics mentioned in the~~ sub-requirements of Requirement R10.	The Transmission Operator's training ~~is missing~~ does not address two of the ~~topics mentioned in the~~ sub-requirements of Requirement R10.	The Transmission Operator's training ~~is missing~~ does not address three or more of the ~~topics mentioned in the~~ sub-requirements of Requirement R10.	The Transmission Operator has not included System restoration training in its operations training program.
R~~12~~11.	~~The Transmission Operator only supplied 1.5 hours of training within a two year period~~. N/A	N/A	~~The Transmission Operator only supplied one hour of training within a two year period~~. N/A	The Transmission Operator applicable Transmission Owner, or applicable Distribution Provider did not supply any training to the personnel required by Requirement R11 within a two year period.

R~~14~~13.	~~The Transmission Operator does not have a Blackstart Resource Agreement for one of its Blackstart Resources~~. N/A	~~The Transmission Operator does not have Blackstart Resource Agreements for 25% of Blackstart Resources~~. The Transmission Operator and Generator Operator with a Blackstart Resource do not reference Blackstart Resource Testing requirements in their	~~The Transmission Operator does not have Blackstart Resource Agreements for 50% of Blackstart Resources~~. N/A	~~The Transmission Operator does not have Blackstart Resource Agreements for more than 50% of Blackstart Resources~~. The Transmission Operator and Generator Operator with a Blackstart resource do not have a written Blackstart Resource Agreement or mutually agreed upon

		written Blackstart Resource Agreements or mutually agreed upon procedures or protocols.		procedures or protocols.
R~~15~~14.	~~The Generator Operator does not have dated documented procedures for one Blackstart Resource or the procedures do not contain both elements specified in the requirement~~. N/A	~~The Generator Operator does not have dated documented procedures for two Blackstart Resources~~. N/A	~~The Generator Operator does not have dated documented procedures for three Blackstart Resources~~. N/A	The Generator Operator does not have ~~dated~~ documented starting and bus energizing procedures for ~~any of its~~ each Blackstart Resource~~s~~.
R~~16~~15.	The Generator Operator with a Blackstart Resource did not notify the Transmission Operator of a change in Blackstart Resource capability within twenty-four hours.	The Generator Operator with a Blackstart Resource did not notify the Transmission Operator of a change in Blackstart Resource capability within ~~three days~~ seventy-two hours.	The Generator Operator with a Blackstart Resource did not notify the Transmission Operator of a change in Blackstart Resource capability within ~~four days~~ ninety-six hours.	The Generator Operator with a Blackstart Resource did not notify the Transmission Operator of a change in Blackstart Resource capability for more than ~~four days~~ ninety-six hours.
R~~17~~16.	The Generator Operator with a Blackstart Resource did not maintain testing records for one of the requirements for a Blackstart Resource. ~~o~~Or The Generator Operator with a Blackstart Resource did	The Generator Operator with a Blackstart Resource did not maintain testing records for two of the requirements for a Blackstart Resource. ~~O~~ Or The Generator Operator	The Generator Operator with a Blackstart Resource did not maintain testing records for three of the requirements for a Blackstart Resource. ~~O~~ Or The Generator Operator	The Generator Operator with a Blackstart Resource did not maintain testing records for a Blackstart Resource. ~~O~~ Or The Generator Operator with a Blackstart Resource

	not supply ~~them~~ the Blackstart Resource testing records as requested within fifty-nine calendar days of the request ~~the required timeframe~~.	with a Blackstart Resource did not supply ~~them~~ the Blackstart Resource testing records as requested for sixty days to eighty-nine calendar days after the request ~~required timeframe~~.	with a Blackstart Resource did not supply ~~them~~ the Blackstart Resource testing records as requested for ninety to 119 calendar days after the request ~~required timeframe~~.	did not supply ~~them~~ the Blackstart Resource testing records as requested for 120 days or more after the request ~~required timeframe~~.
R~~18~~17.	~~The Generator Operator only supplied 1.5 hours of training within a two year period~~. N/A	N/A	~~The Generator Operator only supplied one hour of training within a two year period~~. N/A	The Generator Operator with a Blackstart Resource did not supply any of the training required by Requirement R17 within a two year period to each operator responsible for startup of its Blackstart Resource generation units and energizing a bus.

EOP-006:

R1.	The Reliability Coordinator failed to ~~comply with less than 25% of the number of~~ include one sub-~~components~~requirement of Requirement R1 within ~~this requirement~~ its restoration plan.	The Reliability Coordinator failed to ~~comply with 25% or more and less than 50% of the number of~~ include two sub-~~components~~requirements of requirement R1 within ~~this requirement.~~its restoration plan.	The Reliability Coordinator ~~has~~ failed to include ~~comply with 50% or more and less than 75% of the number of~~ three of the sub-~~components~~requirements of Requirement R1 within ~~this requirement~~ its restoration plan.~~-~~.	The Reliability Coordinator ~~has~~ failed to ~~comply with 75% or more of the number~~ include four or more of the sub-~~components~~requirements within ~~this requirement~~ its restoration plan.

R2.	The Reliability Coordinator ~~did not~~ distributed the ~~required information~~ most recent Reliability Coordinator Area restoration plan to ~~one entity~~ the entities identified in ~~the~~ ~~r~~Requirement R2 ~~within the required timeframe. Or, the Reliability Coordinator distributed the required information to all entities~~ but was more than thirty calendar days late.	The Reliability Coordinator ~~did not~~ distributed the ~~required information~~ most recent Reliability Coordinator Area restoration plan to ~~two entities~~ the entities identified in ~~the~~ ~~r~~Requirement R2 ~~within the prescribed timeframe. Or, the Reliability Coordinator distributed the required information to all entities~~ but was more than sixty calendar days late.	The Reliability Coordinator ~~did not~~ distributed the ~~required information~~ most recent Reliability Coordinator Area restoration plan to ~~three~~ the entities identified in ~~the~~ ~~r~~Requirement R2 ~~within the prescribed timeframe. Or, the Reliability Coordinator distributed the required information to all entities~~ but was more than ninety calendar days late.	The Reliability Coordinator ~~did not~~ distributed the ~~required information~~ most recent Reliability Coordinator Area restoration plan to ~~four or more~~ entities identified in ~~the~~ ~~r~~Requirement R2 ~~within the prescribed timeframe. Or, the Reliability Coordinator distributed the required information to all entities~~ but was more than 120 calendar days late.

R3.	~~The Reliability Coordinator did not review its restoration plan within twelve months.~~ N/A	~~The Reliability Coordinator did not review its restoration plan within thirteen months.~~ N/A	~~The Reliability Coordinator did not review its restoration plan within fourteen months.~~ N/A	The Reliability Coordinator did not review its restoration plan within ~~fifteen~~ thirteen months of the last review.

R4.	~~The Reliability Coordinator failed to comply within ninety calendar days of the change.~~ The Reliability Coordinator did not review and resolve conflicts with the submitted restoration plans from its neighboring Reliability Coordinators within thirty days.	~~The Reliability Coordinator failed to comply within 120 calendar days of the change.~~ The Reliability Coordinator did not review and resolve conflicts with the submitted restoration plans from its neighboring Reliability Coordinators within sixty days.	~~The Reliability Coordinator has failed to comply within 150 calendar days of the change. .~~ The Reliability Coordinator did not review and resolve conflicts with the submitted restoration plans from its neighboring Reliability Coordinators within ninety days.	~~The Reliability Coordinator has failed to comply within 180 calendar days of the change.~~ The Reliability Coordinator did not review and resolve conflicts with the submitted restoration plans from its neighboring Reliability Coordinators within 120 days.

R5.	The Reliability Coordinator did not review and approve/disapprove the submitted restoration plans from its Transmission Operators and neighboring Reliability Coordinators ~~within the pre-determined schedule~~ within thirty calendar days of receipt. Or~~, t~~ The Reliability Coordinator failed to notify the Transmission Operator ~~in writing~~ of its approval or disapproval with stated reasons for disapproval within thirty calendar days of receipt.	The Reliability Coordinator did not review and approve/disapprove the submitted restoration plans from its Transmission Operators and neighboring Reliability Coordinators within forty-five calendar days of ~~the pre-determined schedule~~receipt. Or The Reliability Coordinator failed to notify the Transmission Operator of its approval or disapproval with stated reasons for disapproval within forty-five calendar days of receipt.	The Reliability Coordinator did not review and approve/disapprove the submitted restoration plans from its Transmission Operators and neighboring Reliability Coordinators within sixty calendar days of ~~the pre-determined schedule~~receipt. Or The Reliability Coordinator failed to notify the Transmission Operator of its approval or disapproval with stated reasons for disapproval within sixty days of receipt. Or the Reliability Coordinator failed to revise its restoration plan after identifying changes required by new or revised restoration plans received from its Transmission Operators and neighboring Reliability Coordinators within ninety calendar days of receipt.	The Reliability Coordinator did not review and approve/disapprove the submitted restoration plans from its Transmission Operators and neighboring Reliability Coordinators within ninety calendar days of ~~the pre-determined schedule~~ receipt. Or The Reliability Coordinator failed to notify the Transmission Operator of its approval or disapproval with stated reasons for disapproval within ninety days of receipt. Or the Reliability Coordinator failed to revise its restoration plan after identifying changes required by new or revised restoration plans received from its Transmission Operators and neighboring Reliability Coordinators within 150 calendar days of receipt.

R9.	~~The Reliability Coordinator supplied the necessary training but not within the required timeframe.~~ N/A	~~The Reliability Coordinator supplied training but did not address both sub-requirements~~. N/A	N/A	~~The Reliability Coordinator has not included System restoration training in its operations training program.~~ . The Reliability Coordinator supplied annual System restoration training but did not address both of the sub-requirements. Or The Reliability Coordinator supplied the required System restoration training but it was over two calendar years from the last training offered.

R10.	The Reliability Coordinator only held one restoration drill, exercise, or simulation during the calendar year.	The Reliability Coordinator ~~held the correct number of restoration drills, exercises, or simulations but~~ did not invite ~~each~~ a Transmission Operator ~~and~~ or Generator Operator identified in its restoration plan to participate in a drill, exercise, or simulation ~~at least every~~ within two calendar years.	N/A	The Reliability Coordinator did not hold a restoration drill, exercise, or simulation during the calendar year.

Organization	**Question 3:**	**Question 3 Comments:**
Bonneville Power	No	EOP-005-2 — change R1 to give the number of requirements similar to what

<table>
<tr><th>Organization</th><th>Question 3:</th><th>Question 3 Comments:</th></tr>
<tr><td>Administration</td><td></td><td>was done for R11 (lower: failed to comply with 1 sub-component, moderate: failed to comply with 2 or 3 sub-components, high: failed to comply with 4 or 5 subcomponents, severe: failed to comply with >6 subcomponents).</td></tr>
<tr><td colspan="3">Response: The VSLs for R1 have been modified to address your comment.

<table>
<tr><td>R1.</td><td>The Transmission Operator failed to comply with ~~less than 25% of the number~~ one of the sub-~~components~~requirements within the requirement.</td><td>The Transmission Operator failed to comply with ~~25% or more and less than 50% of the number~~ two of the sub-~~components~~requirements within the requirement.</td><td>The Transmission Operator has failed to comply with ~~50% or more and less than 75% of the number~~ three of the sub-~~components~~requirements within the requirement.</td><td>The Transmission Operator has failed to comply with ~~75%~~ four or more of the ~~number of~~ sub-~~components~~requirements within the requirement.</td></tr>
</table></td></tr>
<tr><td>Xcel Energy</td><td>No</td><td>EOP-005, R6, There needs to be a Lower, Moderate and High VSL. Lower VSL should read the Transmission Operator did not perform one of the sub requirements, Moderate VSL should read the Transmission Operator did not complete two of the sub requirements, High VSL should read the Transmission Operator did not complete three of the sub requirements.

EOP-005, R9, Move the High VSL (as written) to the Moderate VSL position. The High VSL (as written) should be rewritten to "?address three of the sub requirements."

EOP-005, R10, Should be deleted, see question one (1) above. If R10 is retained, Xcel Energy suggests that one or more lower level VSLs be added to incorporate the possibility that testing requirements may be posted, but be out-of-date.

EOP-005, R15, The word "dated" should be removed from all four VSLs. The requirement states that Generator Operator needs to have documented procedures for Blackstart Resources and energizing a bus. A missed date will not cause the procedure to be obsolete or hinder the Generator Operator from starting the resource.</td></tr>
</table>

Organization	Question 3:	Question 3 Comments:
		EOP-005-2 R7 VSLs Given all the conditions in R7, the VSLs for this requirement should be spread out more and not just listed in the severe level. There are several conditions R7 perhaps some of these conditions could be assigned to different levels of VSLs. For example: Failure to work with others could be assigned a lower VSL or Failure to notify the RC could be assigned a moderate VSL. EOP-005-2 R8 Severe VSL The text "not" should be added between the text "The Transmission Operator resynchronized without approval of the Reliability Coordinator or" and the text "in accordance with the established procedures of the Reliability Coordinator following a disturbance ?" EOP-005-2 R14 VSL What if an entity does not have an agreement for 1 out of 4 of its Blackstart Resources, which VSL is assigned ("Lower" or "Moderate")? EOP-006-2 R5Which latest approved restoration plan should be made available? Should both be made available as indicated in the requirement? Should one be made available as indicated in the VSLs? Should there be VSLs which address the timeframe of distributing restoration plans to the System Operator personnel?

Response:

R6 - After reviewing your comments, the SDT did feel that the VSL needed to be changed but a Lower and Severe seemed most appropriate for the situation.

R6.	~~N/A~~ The Transmission Operator performed the verification but did not complete it within the five year period.	N/A	N/A	The Transmission Operator did not perform the verification ~~within the prescribed timeframe~~ or it took more than six years to complete the verification.

R9 – The SDT believes that not having any one of the sub-requirements of R9 would completely invalidate the Blackstart

Organization	Question 3:	Question 3 Comments:		
Resource testing requirements. The VSLs for R9 have been modified removing all VSLs except Severe.				
R9.	~~The Transmission Operator's testing requirements do not address one of the subrequirements~~. N/A	N/A.	~~The Transmission Operator's testing requirements do not address two of the subrequirements~~. N/A	~~The Transmission Operator does not have the testing requirements~~. The Transmission Operator's Blackstart Resource testing requirements do not address one or more of the sub-requirements of Requirement R9.

R10 – requirement was deleted.
R15 – The SDT believes that "dated" needs to be retained in M15. Audits require dated documentation. R15 and its VSLs have also been modified to make it clear that it does not apply to a fleet of Blackstart Resources but rather to each Blackstart Resource. (Now R14 and M14)

R14: Each Generator Operator with a Blackstart Resource shall have documented procedures for starting ~~the~~ each Blackstart Resource and energizing a bus.

M14: Each Generator Operator with a Blackstart Resource shall have dated documented procedures on file for starting ~~the~~ each unit and energizing a bus in accordance with Requirement R15.

~~R15~~ 14.	~~The Generator Operator does not have dated documented procedures for one Blackstart Resource or the procedures do not contain both elements specified in the requirement~~. N/A	~~The Generator Operator does not have dated documented procedures for two Blackstart Resources~~. N/A	~~The Generator Operator does not have dated documented procedures for three Blackstart Resources~~. N/A	The Generator Operator does not have ~~dated~~ documented starting and bus energizing procedures for ~~any of its~~ each Blackstart Resources.

Organization	Question 3:	Question 3 Comments:

R7 – R7 has been modified to remove the first two sub-requirements since they essentially fall under following the restoration plan covered by R7. The third sub-requirement has been rolled into R7 since it is an exception to following the restoration plan. The VSL remains unchanged.

> R7**:** Following a Disturbance in which one or more areas of the BES shuts down and the use of Blackstart Resources is required to restore the shut down area to service, each affected Transmission Operator shall implement its restoration plan. If the restoration plan cannot be executed as expected because actual conditions do not match the studied conditions, the Transmission Operator shall utilize its restoration plan strategies to facilitate restoration.

R8 – Agreed. The VSL has been modified**.**

R8.	N/A	N/A	N/A	The Transmission Operator resynchronized without approval of the Reliability Coordinator or not in accordance with the established procedures of the Reliability Coordinator following a Disturbance in which Blackstart Resources have been utilized in restoring the shut down area of the System to service.

R14 –R14 has been modified to clarify that only one agreement is needed between each TOP and GOP having Blackstart Resources included in the restoration plan. It is implied that the requirement covers every Blackstart Resource but having multiple Blackstart Resources in one agreement is OK too. A Moderate VSL is established to cover the one specific requirement mentioned in R14 having to do with testing**.** (Now R13)

Organization	Question 3:	Question 3 Comments:

R13: Each Transmission Operator and Generator Operator with a Blackstart Resource shall have ~~a~~ written Blackstart Resource Agreements or mutually agreed upon procedures or protocols, specifying the terms and conditions of their arrangement. Such Agreements shall include references to the ~~blackstart~~ Blackstart Resource testing requirements.

~~R14~~ 13.	~~The Transmission Operator does not have a Blackstart Resource Agreement for one of its Blackstart Resources~~. N/A	~~The Transmission Operator does not have Blackstart Resource Agreements for 25% of Blackstart Resources~~. The Transmission Operator and Generator Operator with a Blackstart Resource do not reference Blackstart Resource Testing requirements in their written Blackstart Resource Agreements or mutually agreed upon procedures or protocols.	~~The Transmission Operator does not have Blackstart Resource Agreements for 50% of Blackstart Resources~~. N/A	~~The Transmission Operator does not have Blackstart Resource Agreements for more than 50% of Blackstart Resources~~. The Transmission Operator and Generator Operator with a Blackstart resource do not have a written Blackstart Resource Agreement or mutually agreed upon procedures or protocols.

EOP-006
R5 – From the context of your comment, we believe you mean R6. The R6 VSLs have been modified to include making Transmission Operator restoration plans available in the control rooms of the Reliability Coordinator.

NPCC	Yes	VSL R5 — Why are time limits being introduced in the VSL that are not included in the requirement? If it is the desire to have a time limit then this should be added to the requirement. R18— This VSL does not include the percentage of operators trained. What about course attendance itself?

Organization	Question 3:	Question 3 Comments:
Response: R5 – The 15 day timeframe has been deleted in favor of an implementation date approach. **R5:** Each Transmission Operator shall have a copy of its latest Reliability Coordinator approved restoration plan within ~~each of~~ its primary and backup control ~~centers~~ rooms and available to all of its ~~control room personnel~~ System Operators prior to its implementation date		

Organization	Question 3:	Question 3 Comments:		
R5.	The Reliability Coordinator did not review and approve/disapprove the submitted restoration plans from its Transmission Operators and neighboring Reliability Coordinators ~~within the pre-determined~~ schedule within thirty calendar days of receipt. Or, t The Reliability Coordinator failed to notify the Transmission Operator in ~~writing~~ of its approval or disapproval with stated reasons for disapproval within thirty calendar days of receipt.	The Reliability Coordinator did not review and approve/disapprove the submitted restoration plans from its Transmission Operators and neighboring Reliability Coordinators within forty-five calendar days of the pre-determined ~~schedule~~receipt. Or The Reliability Coordinator failed to notify the Transmission Operator of its approval or disapproval with stated reasons for disapproval within forty-five calendar days of receipt.	The Reliability Coordinator did not review and approve/disapprove the submitted restoration plans from its Transmission Operators and neighboring Reliability Coordinators within sixty calendar days of the pre-determined ~~schedule~~receipt. Or The Reliability Coordinator failed to notify the Transmission Operator of its approval or disapproval with stated reasons for disapproval within sixty days of receipt. Or the Reliability Coordinator failed to revise its restoration plan after identifying changes required by new or revised restoration plans received from its Transmission Operators and neighboring Reliability Coordinators within ninety calendar days of receipt.	The Reliability Coordinator did not review and approve/disapprove the submitted restoration plans from its Transmission Operators and neighboring Reliability Coordinators within ninety calendar days of the pre-determined ~~schedule~~ receipt. Or The Reliability Coordinator failed to notify the Transmission Operator of its approval or disapproval with stated reasons for disapproval within ninety days of receipt. Or the Reliability Coordinator failed to revise its restoration plan after identifying changes required by new or revised restoration plans received from its Transmission Operators and neighboring Reliability Coordinators within 150 calendar days of receipt.

R18 – The R18 VSL judges the training of each operator required by R18 under a separate compliance review. No change has been made to the VSL.

FirstEnergy	No	General comment for EOP-005 and EOP-006 VSLs: The VSLs as written do not

Organization	Question 3:	Question 3 Comments:
		include specific information relating to the standard to be as valuable as they could be. As an example, the Lower VSL for R4 states the Transmission Operator failed to comply within 90 calendar days. Presumably they failed to comply with R4, but that is not explicitly stated. This should be revised to state that they "failed to update their restoration plan within 90 days of identifying any permanent System modifications that would change the implementation of its restoration plan." The VSLs should be reviewed by the drafting team and specificity added. EOP-005-2:R1 - VSL for R1 does not include any measure for not having your restoration plan approved by your RC. It should be added. R5 - VSL for R5 place an additional requirement for minimum time period of when the plan must be placed in the control center. The requirement and measure only say you have to have the plan in the control center, which is correct since it would not be possible to measure from an audit standpoint as to when it was placed in the control center. There should only be one level of violation which states simply that the plan was not found in the control center. R12 - Pursuant to our comment in question 1 regarding the suggested removal of the 2-hour duration, the proposed Lower and High VSL should be removed. Also, the Severe VSL should be clarified as follows: "The TOP did not supply training within a two year period to field switching personnel that perform unique tasks during system restoration."

~~R12~~11.	~~The Transmission Operator only supplied 1.5 hours of training within a two year period~~. N/A	N/A	~~The Transmission Operator only supplied one hour of training within a two year period~~. N/A	The Transmission Operator applicable Transmission Owner, or applicable Distribution Provider did not supply any training to the personnel required by Requirement R11 within a two year period.

Response:

The VSLs were not written to stand by themselves. They must be viewed as part of the entire standard. A repeat of the requirement would make the VSLs extremely lengthy. The VSL for R4 has been modified to make it clearer.

R4.	The Transmission Operator failed to ~~comply~~ update and submit its restoration plan to the Reliability Coordinator within ninety calendar days of the change.	The Transmission Operator failed to ~~comply~~ update and submit its restoration plan to the Reliability Coordinator within 120 calendar days of the change.	The Transmission Operator has failed to ~~comply~~ update and submit its restoration plan to the Reliability Coordinator within 150 calendar days of the change.	The Transmission Operator has failed to ~~comply~~ update and submit its restoration plan to the Reliability Coordinator within 180 calendar days of the change.

R1 – The R1 VSL has not been modified to cover the approval by the Reliability Coordinator. The SDT believes that after the implementation plan has been completed, every TOP will have an approved plan.

R5 – The 15 day timeframe has been deleted in favor of an implementation date approach. The SDT changed the VSL to show only a Severe VSL.

R5.	~~The Transmission Operator did not make the latest approved restoration plan available in its control rooms within fifteen calendar days of its approval~~. N/A	~~The Transmission Operator did not make the latest approved restoration plan available in its control rooms within twenty calendar days of its approval.~~ N/A	~~The Transmission Operator did not make the latest approved restoration plan available in its control rooms within twenty-five calendar days of its approval~~. N/A	The Transmission Operator did not make the latest Reliability Coordinator approved restoration plan available in its primary and backup control rooms ~~within thirty calendar days of its approval.~~ and available to all of its System Operators prior to its implementation date.

R12 – The SDT believes that this training is still needed. The VSL for R12 has been clarified.

ITC Holdings	No	005, R-10 Should not be severe for "failure to post" if info is available and just not posted should be a lower penalty related to reliability.
Response: R10 was deleted.		
Ameren	No	EOP-006 Remove VSL for R10 due to the removal of R10 and M10.
Response: – The SDT believes that this requirement and VSL are still needed so that Generator Operators can access the TOP's testing requirements.		
Standards Interface Subcommittee	No	EOP-005 Requirement R1 The primary attribute of this requirement is that it includes each of the elements listed as a sub-requirement. There are seven items listed — the increment included in the VSL should be whole numbers, in addition "subcomponents" may result in some confusion in the requirement interpretation, suggest changing to ?sub-requirement? CEDRP Proposed VSL The Transmission Operator failed to meet one of the sub-requirements. CEDRP Proposed VSL The Transmission Operator failed to meet 2or 3 of the sub-requirements. CEDRP Proposed VSL The Transmission Operator failed to meet 4or 5 of the sub-requirements. CEDRP Proposed VSL The Transmission Operator failed to meet more than 5 of the sub-requirements. Standard EOP-005Requirement R2 The requirement includes timing and the requirement to distribute to all entities — as such timing and possible omission should be the primary reason(s) for incrementing the VSLs. In addition because the numbers on impacted entities will be based on the RC and its plan — using percentages for this VSL makes sense. CEDRP Proposed VSL The Transmission Operator failed to distribute the information to 1% to 25% of entities identified within the restoration plan within the required

		timeframe. Or, the Transmission Operator distributed the information to all entities but was 1 to 30 days late in doing so CEDRP Proposed VSL The Transmission Operator failed to distribute the information 26% to 50% of the entities identified within the restoration plan within the required timeframe. Or, the Transmission Operator distributed the information to all entities but was 31 to 60 days late in doing so. CEDRP Proposed VSL The Transmission Operator failed to distribute the information to 51% to 75% of the entities identified within the restoration plan within the required timeframe. Or, the Transmission Operator distributed the information to all entities but was 61 to 90 ninety days late in doing so. CEDRP Proposed VSL The Transmission Operator failed to distribute the information to 76% or more of the entities identified within the restoration plan within the required timeframe. Or, the Transmission Operator distributed the information to all entities but was 91 days or more late in doing so. Standard EOP-005 Requirement R3 The attribute of this requirement is based on the timing of the required communication and should increment the VSL based on timing issues. CEDRP Proposed VSL The Transmission Operator did not review and submit the required information within 1 to 30 calendar days of the pre-determined schedule. CEDRP Proposed VSL The Transmission Operator did not review and submit the required information within 31 to 90 calendar days of the pre-determined schedule. CEDRP Proposed VSL The Transmission Operator did not review and submit the required information within 91 to 120 calendar days of the pre-determined schedule. CEDRP Proposed VSL The Transmission Operator did not review submit the required information within 121 calendar days of the pre-determined schedule.

		Standard EOP-005 Requirement R4 The attribute of this requirement is based on the timing of the required communication and should increment the VSL based on timing issues. CEDRP Proposed VSL The Transmission Operator failed to update or submit the plan within 91 to 120 days of the system modification. CEDRP Proposed VSL The Transmission Operator failed to update or submit the plan within 121 to 150 calendar days of the system modification. CEDRP Proposed VSL The Transmission Operator failed to update or submit the plan within 151 to 180 calendar days of the system modification. CEDRP Proposed VSL The Transmission Operator failed to update or submit the plan within 181 calendar days of the system modification. Standard EOP-005 Requirement R5 This requirement's main attribute is a timing issue and should increment the VSL based on not meeting the timing requirement. The CEDRP suggests assigning high and low limits (days) to each of the VSLs. In addition the SDT may want to consider the number of days between final approval and posting/providing to the control room, recognizing that they may always be a lag time between approval and issue (e.g., does the lower VSL need to have a window of 5 to 15 calendar days?) ? should the timing be included in the requirement itself? CEDRP Proposed VSL The Transmission Operator made the latest approved restoration plan available in its control rooms one to fifteen calendar days after its final approval. CEDRP Proposed VSL The Transmission Operator made the latest approved restoration plan available in its control rooms sixteen to twenty calendar days after its final approval.

		CEDRP Proposed VSL The Transmission Operator made the latest approved restoration plan available in its control rooms twenty-one to twenty-five calendar days after its final approval. CEDRP Proposed VSL The Transmission Operator made the latest approved restoration plan available in its control rooms more than twenty-five calendar days after its final approval. Standard EOP-005 Requirement R7 Based on the requirement as written ? it appears that the failure to perform any single associated requirement would result in the failure to meet the intent of the requirement. CEDRP Proposed Severe VSL The Transmission Operator did not implement its restoration plan following a Disturbance in which Blackstart Resources have been utilized in restoring the shut down area of the System in accordance with R7 Standard EOP-005 Requirement R9 The CEDRP felt that missing any single requirement (sub requirement) for this requirement would result in the applicable entities failure to meet the intent of this requirement. As a result the CEDRP felt this requirement should be treated as a binary requirement. SDT Proposed Lower VSL The Transmission Operator's testing requirements do not address one of the subrequirements. CEDRP Proposed VSLCEDRP ? suggest no Lower VSL for this requirement SDT Proposed High VSL The Transmission Operator's testing requirements do not address two of the subrequirements. CEDRP Proposed VSL CEDRP — suggest no High VSL for this requirement SDT Proposed Severe VSL The Transmission Operator does not have the testing requirements. CEDRP Proposed VSL The Transmission Operator does not have the

		testing requirements or the testing requirements are incomplete. Standard EOP-005 Requirement R11 This requirement includes a number of sub-requirement, and should be incremented to higher VSL levels if any (or multiple) sub requirements are omitted. SDT Proposed Lower VSL The Transmission Operator's training is missing one of the topics mentioned in the subrequirements. CEDRP Proposed VSL The Transmission Operator's training program does not address one of the sub-requirements. SDT Proposed Moderate VSL The Transmission Operator's training is missing two of the topics mentioned in the subrequirements. CEDRP Proposed VSL The Transmission Operator's training program does not address two of the sub-requirements. SDT Proposed High VSL The Transmission Operator's training is missing three or more of the topics mentioned in the sub-requirements. CEDRP Proposed VSL The Transmission Operator's training program does not address three or more of the sub-requirements. Standard EOP-005 Requirement R12 This requirement includes a number of requirements that if any one were omitted would result in a possible finding of non-compliance. The CEDRP felt that this requirement presented a number of challenges 1) identification of "field switching personnel" and 2) "unique tasks" that would need to be defined and identified as a part of determining compliance. As a result the CEDRP provide minor suggested changes to the SDT's proposed compliance elements, but believe the requirement should be reviewed for revision. SDT Proposed Lower VSL The Transmission Operator only supplied 1.5 hours of training within a two year period. CEDRP Proposed VSL The Transmission Operator provided 2 hour of training on

		unique tasks to more than 90%, but less than 100% of the applicable field switching personnel. SDT Proposed Moderate VSL N/A CEDRP Proposed VSL The Transmission Operator provided 2 hour of training on unique tasks to more than 80%, but less than 90% of the applicable field switching personnel. SDT Proposed High VSL The Transmission Operator only supplied one hour of training within a two year period. CEDRP Proposed VSL The Transmission Operator provided 2 hour of training on unique tasks to more than 70%, but less than 80% of the applicable field switching personnel. SDT Proposed Severe VSL The Transmission Operator did not supply any training within a two year period. CEDRP Proposed VSL The Transmission Operator provided 2 hour of training on unique tasks to less than 70% of the applicable field switching personnel. Standard EOP-005 Requirement R14 The requirement includes the requirement to have agreements in place, with all resources and include a reference to testing requirements (quality). SDT Proposed Lower VSL The Transmission Operator does not have a Blackstart Resource Agreement for one of its Blackstart Resources. CEDRP Proposed VSL VSLs should be percentage based — the entities may have many or very few blackstart resources. The Transmission Operator does not have Blackstart Resource Agreements for up to 10% of its Blackstart Resources. SDT Proposed Moderate VSL The Transmission Operator does not have Blackstart Resource Agreements for 25% of Blackstart Resources. CEDRP Proposed VSL The Transmission Operator does not have Blackstart Resource Agreements for more than 10%, but less than 25% of Blackstart Resources.

		SDT Proposed High VSL The Transmission Operator does not have Blackstart Resource Agreements for 50% of Blackstart Resources. CEDRP Proposed VSL The Transmission Operator does not have Blackstart Resource Agreements for more than 25%, but less than 50% of Blackstart Resources. Standard EOP-005 Requirement R15 Although this requirement has a number of elements, the CEDRP felt that missing only one of the attributes would result in a failure to meet the intent of the requirement ? as a result the CEDRP felt this requirement meets the criteria of a binary (go/no go) requirement. SDT Proposed Lower VSL The Generator Operator does not have dated documented procedures for one Blackstart Resource or the procedures do not contain both elements specified in the requirement. CEDRP Proposed VSL The CEDRP suggest only a Severe VSL for this requirement SDT Proposed Moderate VSL The Generator Operator does not have dated documented procedures for two Blackstart Resources. CEDRP Proposed VSL The CEDRP suggest only a Severe VSL for this requirement SDT Proposed High VSL The Generator Operator does not have dated documented procedures for three Blackstart Resources. CEDRP Proposed VSL The CEDRP suggest only a Severe VSL for this requirement SDT Proposed Severe VSL The Generator Operator does not have dated documented procedures for any of its Blackstart Resources. CEDRP Proposed VSL The Generator Operator does not have dated documented procedures for one Blackstart Resource or the procedures do not contain both elements specified in the requirement. Standard EOP-005 Requirement R16 The CEDRP pool views this requirement as a timing issue that would increment, as the timing notification window grows larger.

		In addition the pool participants noted the use of the term "capability" in requirement, capability can mean a 1 or 2 MW derate (or uprate),or a change in start up time (slower or faster). We suspect the SDT intended this requirement to address the ability of the blackstart resource to meet obligation as a "blackstart resource". We suggest the SDT consider re-wording this requirement for the sake of clarity. SDT Proposed Lower VSL The Generator Operator did not notify the Transmission Operator within twenty-four hours. CEDRP Proposed VSL The CEDRP suggest including a timing window for the VSLs The Generator Operator competed notification of the Transmission Operator but notification was completed after twenty-four hours, but and less than seventy-two hours. SDT Proposed Moderate VSL The Generator Operator did not notify the Transmission Operator within three days. CEDRP Proposed VSL The Generator Operator competed notification of the Transmission Operator but notification was completed after seventy-two hours, but in less than ninety-six hours. SDT Proposed High VSL The Generator Operator did not notify the Transmission Operator within four days. CEDRP Proposed VSL The Generator Operator competed notification of the Transmission Operator but notification was completed after ninety-six hours, but in less than one hundred twenty hours SDT Proposed Severe VSL The Generator Operator did not notify the Transmission Operator for more than four days. CEDRP Proposed VSL The Generator Operator competed notification of the Transmission Operator but notification was completed after one hundred twenty hours or more.

		Standard EOP-005 Requirement R17 The attributes of this requirement include a testing requirement, data that should be recorded and timing of providing the test results to the TOP. As a result the VSL should increment based on any omissions in the test data and timing of when records are provided. SDT Proposed Lower VSL The Generator Operator did not maintain testing records for one of the requirements for a Blackstart Resource or did not supply them as requested within the required timeframe. CEDRP Proposed VSL The Generator Operator test data or records were incomplete or did not supply them as requested within 30 calendar days. SDT Proposed Moderate VSL The Generator Operator did not maintain testing records for two of the requirements for a Blackstart Resource or did not supply them as requested for sixty days after the required timeframe. CEDRP Proposed VSL The Generator Operator test records were incomplete and requested records were provided 31 to 60 calendar days after requested. SDT Proposed High VSL The Generator Operator did not maintain testing records for three of the requirements for a Blackstart Resource or did not supply them as requested for ninety days after required timeframe. CEDRP Proposed VSL The Generator Operator test records were incomplete and requested records were provided 61 to 90 calendar days after requested. SDT Proposed Severe VSL The Generator Operator did not maintain testing records for a Blackstart Resource or did not supply them as requested for 120 days or more after the required

		timeframe. CEDRP Proposed VSL The Generator Operator did not maintain testing records for a Blackstart Resource or requested records were provided 91 or more calendar days after requested. Standard EOP-005 Requirement R18 The attributes of this requirement are generally that of omission, any one missing sub-requirement should result in incrementing the VSLs, and not providing the training at all (less than 2 hours) should be treated as a significant omission. SDT Proposed Lower VSL The Generator Operator only supplied 1.5 hours of training within a two year period. CEDRP Proposed VSL The Generator Operator provided 2 hours of training to at least 90%, but less than 100% of the applicable operating personnel. SDT Proposed Moderate VSL N/A CEDRP Proposed VSL The Generator Operator provided 2 hours of training to at least 80%, but less than 90% of the applicable operating personnel. SDT Proposed High VSL The Generator Operator only supplied one hour of training within a two year period. CEDRP Proposed VSL The Generator Operator provided 2 hours of training to at least 70%, but less than 80% of the applicable operating personnel. SDT Proposed Severe VSL The Generator Operator did not supply any training within a two year period. CEDRP Proposed VSL The Generator Operator did not provide 2 hours of training or provided 2 hours of

		training to less than 70% of the applicable operating personnel. Standard EOP-006 Requirement R1 Although the measure for this Standard appears to include a timing component – (dated copy) R1 appears be a statement of elements that must be included in the plan – as such an "omission" of any sub-requirement would result in possible non-compliance. Proposed Lower VSL We would recommend elimination of "percentages" whole numbers can easily be used, in addition "sub-components" may be interpreted as pieces within each sub-requirement, we would recommend replacing the term subcomponents with sub-requirements. Proposed VSL The Reliability Coordinator failed to comply with 1or 2 of the sub-requirements within this requirement. Proposed Moderate VSL VSL Resource Pool Comments Proposed VSL The Reliability Coordinator failed to comply with 3 or 4 of the sub-requirements within this requirement. Proposed High VSL VSL Resource Pool Comments Proposed VSL The Reliability Coordinator failed to comply with 5 or 6 of the sub-requirements within this requirement. Proposed Severe VSL VSL Resource Pool Comments Proposed VSL The Reliability Coordinator failed to comply with 7 or more of the sub-requirements within this requirement.

		Standard EOP-006 Requirement R2 This requirements appears to focus on distribution to all applicable entities – as such we would expect possible non-compliance finding if the plan were not distributed (communicated) to all applicable entities (note – no observed timing requirement) Proposed Lower VSL CAE Resource Pool Comments As the requirement is currently written a timing cannot be included in the VSL , in addition because the audience may vary based on the RC area and the number of entities it oversees it would be more effective to use percentages in this VSL Proposed VSL The Reliability Coordinator failed to distribute the information to 1% to 25% of the entities identified. Proposed Moderate VSL CAE Resource Pool Comments Proposed VSL The Reliability Coordinator failed to distribute the information to 26% to 50% of the entities identified. Proposed High VSL CAE Resource Pool Comments Proposed VSL The Reliability Coordinator failed to distribute the information to 51% to 75% of the entities identified. Proposed Severe VSL CAE Resource Pool Comments Proposed VSL The Reliability Coordinator failed to distribute the information to 76% or more of the entities identified.

		Standard EOP-006 Requirement R4 This requirement contains two attributes (within 90 calendar days/items that necessitate a change) that should be incremented into a higher level if either are not satisfied. Although the intent of the requirement is clear, it is not clear when the 90-day clock would start. Would the clock start when the RC receives the new plan? Or would it start when the RC completed their review of the plan and determined an update to their plan is necessary? Because the VSL's are based on timing, the Resource pool does not feel valid VSL's can be written for this requirement as currently written. The CAE would suggest revisiting the requirement, for now the pool feels the best option is to make this a yes/no VSL based on the RC recognizing the need to update their plan. Proposed Lower VSL CAE Resource Pool Comments N/A Proposed Moderate VSL CAE Resource Pool Comments N/A Proposed High VSL CAE Resource Pool Comments N/A Proposed Severe VSL CAE Resource Pool Comments Proposed VSL The Reliability Coordinator failed to make a necessary update its restoration plan to reflect changes to Transmission Operator's or neighboring Reliability Coordinator restoration plans. Standard EOP-006 Requirement R5

		This requirement includes a timing component (within 30 days), notification component, as well as several attributes that if omitted would result in possible findings of non-compliance if any single element were omitted. Proposed Lower VSL CAE Resource Pool Comments The CAE would suggest that the lower VSL include the administrative issue (notification in writing) and increment the VSL higher as more elements of this requirement are omitted (including the timing issue). Proposed VSL The Reliability Coordinator failed to notify the Transmission Operator in writing of its reasons for disapproval OR the approval/disapproval was completed 1 to 30 after the due date. Proposed Moderate VSL CAE Resource Pool Comments Proposed VSL The Reliability Coordinator review failed to consider if the Transmission Operator's plan was compatible with other Transmission Operator plans within its Reliability Coordinator Area, OR the approval/disapproval was completed 31 to 60 after the due date. Proposed High VSL CAE Resource Pool Comments Proposed VSL The Reliability Coordinator review failed to consider all coordination aspects of the Transmission Operator's plan with the Reliability Coordinator's plan, OR the approval/disapproval was completed 61 to 90 after the due date. Proposed Severe VSL CAE Resource Pool Comments Proposed VSL The Reliability Coordinator review failed to perform it required review of the

		Transmission Operator's restoration plan. Standard EOP-006 Requirement R9 This requirement includes a timing requirement (annual) as well as items that must be included in the training program. As a result, if timing requirements are not met or attributes of training are missing the VSL's for this requirement can increment to higher levels. Proposed Moderate VSL CAE Resource Pool Comments Proposed VSL The Reliability Coordinator supplied training but did not address one of the sub-requirements. Proposed High VSL CAE Resource Pool Comments Proposed VSL The Reliability Coordinator supplied training but did not address either of the sub-requirements. Standard EOP-006 Requirement R10 This requirement includes timing requirements (2 drill, exercises or simulations per year) and a requirement of "shall include" for participants (based on the scope of the drill). The sub-requirement may be more effective if it referred to EOP-005 (R13). Proposed Moderate VSL CAE Resource Pool Comments Proposed VSL The Reliability Coordinator held the correct number of restoration drills, exercises, or simulations but did not invite one of the Transmission Operators or Generator Operators identified in its restoration plan to participate in a drill, exercise, or simulation at least every two calendar years.

		Proposed High VSL CAE Resource Pool Comments Proposed VSL The Reliability Coordinator held the correct number of restoration drills, exercises, or simulations but did not invite two or more of the Transmission Operators or Generator Operators identified in its restoration plan to participate in a drill, exercise, or simulation at least every two calendar years.

Response:

EOP-005

R1 - VSLs for R1 have been modified to address your comment.

R1.	The Transmission Operator failed to comply with ~~less than 25% of the number~~ one of the sub-~~components~~requirements within the requirement.	The Transmission Operator failed to comply with ~~25% or more and less than 50% of the number~~ two of the sub-~~components~~requirements within the requirement.	The Transmission Operator has failed to comply with ~~50% or more and less than 75% of the number~~ three of the sub-~~components~~requirements within the requirement.	The Transmission Operator has failed to comply with ~~75%~~ four or more of the ~~number of~~ sub-~~components~~requirements within the requirement.

R2 – The SDT has simplified the VSLs for R2 by requiring judgment of each entity required to be sent the restoration plan individually instead of as a group.

R2.	The Transmission Operator failed to ~~distribute the information to an entity identified within the restoration plan within the required timeframe~~ provide one of the operational entities identified in its approved restoration plan with a description of any	The Transmission Operator failed to ~~distribute the information to two entities identified within the restoration plan within the required timeframe~~ provide two of the operational entities identified in its approved restoration plan with a description of any	The Transmission Operator failed to ~~distribute the information to three entities identified within the restoration plan within the required timeframe~~ provide three of the operational entities identified in its approved restoration plan with a description of any	The Transmission Operator failed to ~~distribute the information to four or more entities identified within the restoration plan within the required timeframe~~ provide four or more of the operational entities identified in its approved restoration plan with a

	changes to their roles and specific tasks prior to the implementation date of the plan. Or~~,~~ ~~t~~ The Transmission Operator ~~distributed~~ provided the information to all entities but was thirty calendar days late in doing so~~.~~	changes to their roles and specific tasks prior to the implementation date of the plan. Or~~,~~ ~~t~~ The Transmission Operator ~~distributed~~ provided the information to all entities but was sixty calendar days or more late in doing so~~.~~	changes to their roles and specific tasks prior to the implementation date of the plan. Or~~,~~t The Transmission Operator ~~distributed~~ provided the information to all entities but was ninety calendar days or more late in doing so.	description of any changes to their roles and specific tasks prior to the implementation date of the plan. Or~~,~~ ~~t~~ The Transmission Operator ~~distributed~~ provided the information to all entities but was 120 calendar days or more late in doing so.

R3 – The VSLs for R3 have been modified in a manner similar to your comment.

R3.	The Transmission Operator did not submit the ~~required information~~ reviewed restoration plan or confirmation of no change within twenty-nine calendar days of the pre-determined schedule. ~~Or, the Transmission Operator did not complete the review within thirty days of the pre-determined schedule~~.	The Transmission Operator did not submit the ~~required information~~ reviewed restoration plan or confirmation of no change within thirty to fifty-nine calendar days of the pre-determined schedule. ~~Or, the Transmission Operator did not complete the review within sixty days of the pre-determined schedule~~.	The Transmission Operator did not submit the ~~required information~~ reviewed restoration plan or confirmation of no change within sixty to eighty-nine calendar days of the pre-determined schedule. ~~Or, the Transmission Operator did not complete the review within ninety days of the pre-determined schedule.~~	The Transmission Operator did not submit the ~~required information~~ reviewed restoration plan or confirmation of no change within ninety calendar days of the pre-determined schedule. ~~Or, the Transmission Operator did not complete the review within 120 days of the pre-determined schedule.~~

R4 - VSLs for R4 have been modified because of comments similar to yours to make it clearer.

R4.	The Transmission Operator failed to ~~comply~~ update and submit its restoration plan	The Transmission Operator failed to ~~comply~~ update and submit its restoration plan	The Transmission Operator has failed to ~~comply~~ update and submit its restoration	The Transmission Operator has failed to ~~comply~~ update and submit its restoration

	to the Reliability Coordinator within ninety calendar days of the change.	to the Reliability Coordinator within 120 calendar days of the change.	plan to the Reliability Coordinator within 150 calendar days of the change. .	plan to the Reliability Coordinator within 180 calendar days of the change.

R5 – R5 is now tied to an implementation date.

> **R5:** Each Transmission Operator shall have a copy of its latest Reliability Coordinator approved restoration plan within ~~each of~~ its primary and backup control ~~centers~~ rooms and available to all of its ~~control room personnel~~ System Operators prior to its implementation date

R7 – R7 has been significantly modified to clarify that it is just judging implementation of the restoration plan or use of alternative measures.

> R7: Following a Disturbance in which one or more areas of the BES shuts down and the use of Blackstart Resources is required to restore the shut down area to service, each affected Transmission Operator shall implement its restoration plan. If the restoration plan cannot be executed as expected because actual conditions do not match the studied conditions, the Transmission Operator shall utilize its restoration plan strategies to facilitate restoration.

R9 – The SDT agrees that not having any one of the sub-requirements of R9 would completely invalidate the Blackstart Resource testing requirements. The VSLs for R9 have been modified removing all VSLs except Severe.

R9.	~~The Transmission Operator's testing requirements do not address one of the subrequirements~~. N/A	N/A.	~~The Transmission Operator's testing requirements do not address two of the subrequirements~~. N/A	~~The Transmission Operator does not have the testing requirements~~. The Transmission Operator's Blackstart Resource testing requirements do not address one or more of the sub-requirements of Requirement R9.

R11 – The VSLs for R11 have been modified reflecting your comments. (now R10)

R~~11~~ 10.	The Transmission Operator's training ~~is missing~~ does not address one of the ~~topics mentioned in the~~ sub-requirements of Requirement R11.	The Transmission Operator's training ~~is missing~~ does not address two of the ~~topics mentioned in the~~ sub-requirements of Requirement R11.	The Transmission Operator's training ~~is missing~~ does not address three or more of the ~~topics mentioned in the~~ sub-requirements of Requirement R11.	The Transmission Operator has not included System restoration training in its operations training program.

R12 – The SDT believes that this training is still needed. The VSL for R12 has been clarified. (now R11)

R~~12~~11.	~~The Transmission Operator only supplied 1.5 hours of training within a two year period~~. N/A	N/A	~~The Transmission Operator only supplied one hour of training within a two year period~~. N/A	The Transmission Operator did not supply any training to the personnel required by Requirement R12 within a two year period.

R14 – R14 has been modified to clarify that only one agreement is needed between each TOP and GOP having Blackstart Resources included in the restoration plan. It is implied that the requirement covers every Blackstart Resource but having multiple Blackstart Resources in one agreement is OK too. A Moderate VSL is established to cover the one specific requirement mentioned in R14 having to do with testing. (Now R13)

R13: Each Transmission Operator and Generator Operator with a Blackstart Resource shall have ~~a~~ written Blackstart Resource Agreements or mutually agreed upon procedures or protocols, specifying the terms and conditions of their arrangement. Such Agreements shall include references to the ~~blackstart~~ Blackstart Resource testing requirements.

R~~14~~13.	~~The Transmission Operator~~	~~The Transmission Operator~~	~~The Transmission Operator~~	~~The Transmission Operator~~

	~~does not have a Blackstart Resource Agreement for one of its Blackstart Resources~~. N/A	~~does not have Blackstart Resource Agreements for 25% of Blackstart Resources~~. The Transmission Operator and Generator Operator with a Blackstart Resource do not reference Blackstart Resource Testing requirements in their written Blackstart Resource Agreements or mutually agreed upon procedures or protocols.	~~does not have Blackstart Resource Agreements for 50% of Blackstart Resources~~. N/A	~~does not have Blackstart Resource Agreements for more than 50% of Blackstart Resources~~. The Transmission Operator and Generator Operator with a Blackstart resource do not have a written Blackstart Resource Agreement or mutually agreed upon procedures or protocols.

R15 - R15 and its VSLs have also been modified to make it clear that it does not apply to a fleet of Blackstart Resources but rather to each Blackstart Resource. The SDT believes that not having either "starting the Blackstart Resource" or "energizing the bus" would completely invalidate the Blackstart Resource documented procedures. The VSLs for R15 have been modified removing all VSLs except Severe**.** (Now R14 and M14)

R15**:** Each Generator Operator with a Blackstart Resource shall have documented procedures for starting ~~the~~ each Blackstart Resource and energizing a bus**.**

M14: Each Generator Operator with a Blackstart Resource shall have dated documented procedures on file for starting ~~the~~ each unit and energizing a bus in accordance with Requirement R15.

~~R15~~14.	~~The Generator Operator does not have dated documented procedures for one Blackstart Resource or the procedures do not contain both elements specified in the~~	~~The Generator Operator does not have dated documented procedures for two Blackstart Resources~~. N/A	~~The Generator Operator does not have dated documented procedures for three Blackstart Resources~~. N/A	The Generator Operator does not have ~~dated~~ documented starting and bus energizing procedures for ~~any of its~~ each Blackstart Resources.

	~~requirement~~. N/A			

R16 – The SDT believes that a change in any capability of the Blackstart Resource requires notification. A rerating can affect the plans of how that Blackstart Resource can be used. The VSLs for R16 now consistently use hours for time measurement**.** (Now R15)

R~~16~~15.	The Generator Operator with a Blackstart Resource did not notify the Transmission Operator of a change in Blackstart Resource capability within twenty-four hours.	The Generator Operator with a Blackstart Resource did not notify the Transmission Operator of a change in Blackstart Resource capability within ~~three days~~ seventy-two hours.	The Generator Operator with a Blackstart Resource did not notify the Transmission Operator of a change in Blackstart Resource capability within ~~four days~~ ninety-six hours.	The Generator Operator with a Blackstart Resource did not notify the Transmission Operator of a change in Blackstart Resource capability for more than ~~four days~~ ninety-six hours.

R17 – The SDT believes that a judgment of incompleteness (R17.1) of the testing record is needed in the VSLs. There is an understanding that the most severe Violation Severity Level will be applied, if applicable. Therefore listing a single bound in the VSL is sufficient.

R18 - R18 and its VSLs have also been modified to make it clear that it does not apply to a group of Blackstart Resource operating personnel but rather to each person operator responsible for startup and synchronization of Blackstart Resources**. (Now R17)**

R~~18~~ 17.	~~The Generator Operator only supplied 1.5 hours of training within a two year period~~. N/A	N/A	~~The Generator Operator only supplied one hour of training within a two year period~~. N/A	The Generator Operator with a Blackstart Resource did not supply any of the training required by Requirement R17 within a two year period to each operator responsible for startup of its Blackstart Resource generation units and energizing a bus.

EOP-006
R1 –The SDT feels that 'dated' is required. In the VSLs for R1, "sub-components" has been changed to "sub-requirements". Percentages have been removed in favor of a discrete number of sub-requirements.

R1.	The Reliability Coordinator failed to ~~comply with less than 25% of the number of~~ include one sub-~~components~~requirement of Requirement R1 within ~~this requirement~~ its restoration plan.	The Reliability Coordinator failed to ~~comply with 25% or more and less than 50% of the number of~~ include two sub-~~components~~requirements of requirement R1 within ~~this requirement.~~its restoration plan.	The Reliability Coordinator ~~has~~ failed to include ~~comply with 50% or more and less than 75% of the number of~~ three of the sub-~~components~~requirements of Requirement R1 within ~~this requirement~~ its restoration plan.~~–~~.	The Reliability Coordinator ~~has~~ failed to ~~comply with 75% or more of the number~~ include four or more of the sub-~~components~~requirements within ~~this requirement~~ its restoration plan.

R2 – A 30-day time requirement has been added to R2. R2 and its VSLs have also been modified to make it clear that it does not apply to a group of distribution recipients but rather to each recipient individually.

R2: The Reliability Coordinator shall distribute its most recent Reliability Coordinator Area restoration plan to each of its Transmission Operators~~,~~ ~~Balancing Authorities,~~ and neighboring Reliability Coordinators within thirty calendar days.

R2.	The Reliability Coordinator ~~did not~~ distributed the ~~required information~~ most recent Reliability Coordinator Area restoration plan to ~~one entity~~ the entities identified in ~~the~~ ~~r~~Requirement R2 ~~within the required timeframe. Or, the Reliability Coordinator~~	The Reliability Coordinator ~~did not~~ distributed the ~~required information~~ most recent Reliability Coordinator Area restoration plan to ~~two entities~~ the entities identified in ~~the~~ ~~r~~Requirement R2 ~~within the prescribed timeframe. Or, the Reliability Coordinator~~	The Reliability Coordinator ~~did not~~ distributed the ~~required information~~ most recent Reliability Coordinator Area restoration plan to ~~three~~ the entities identified in ~~the~~ ~~r~~Requirement R2 ~~within the prescribed timeframe. Or, the Reliability Coordinator distributed the required~~	The Reliability Coordinator ~~did not~~ distributed the ~~required information~~ most recent Reliability Coordinator Area restoration plan to ~~four or more~~ entities identified in ~~the~~ ~~r~~Requirement R2 ~~within the prescribed timeframe. Or, the Reliability Coordinator distributed the required information to all~~

	~~distributed the required information to all entities~~ but was more than thirty calendar days late.	~~distributed the required information to all entities~~ but was more than sixty calendar days late.	~~information to all entities~~ but was more than ninety calendar days late.	~~entities~~ but was more than 120 calendar days late.

R4 – Wording changed for clarity.

R4: Each Reliability Coordinator shall ~~update its restoration plan within ninety calendar days after identifying changes to one of its Transmission Operator's restoration plans or upon~~ review~~ing~~ ~~a~~ their neighboring Reliability Coordinator's restoration plans ~~that would necessitate a change in their coordination tasks or responsibilities~~.

R5 – R5.1 and R5.2 have been combined. It was difficult to measure compliance to the old R5.1 review requirement. R4 has also been added to R5. M5 has also been modified to reflect changes in R5.

M5: Each Reliability Coordinator shall provide evidence, such as a review signature sheet or emails, that it has reviewed, approved or disapproved, and notified its Transmission Operator's, and reviewed its neighboring Reliability Coordinator's, submitted restoration plan(s) and updated its restoration plan, if necessary, in accordance with Requirement R5.

R9 – The SDT believes that the changes made obviate the need for timing and boundaries

R9.	~~The Reliability Coordinator supplied the necessary training but not within the required timeframe.~~ N/A	~~The Reliability Coordinator supplied training but did not address both sub-requirements~~. N/A	N/A	~~The Reliability Coordinator has not included System restoration training in its operations training program.~~ The Reliability Coordinator supplied annual System restoration training but did not address both of the sub-requirements. Or The Reliability Coordinator supplied the required

				System restoration training but it was over two calendar years from the last training offered.

R10 – The SDT feels that inviting participants is a straight forward process and that the VSL is correct but has made wording changes for clarity.

R10.	The Reliability Coordinator only held one restoration drill, exercise, or simulation during the calendar year.	The Reliability Coordinator ~~held the correct number of restoration drills, exercises, or simulations but~~ did not invite ~~each~~ a Transmission Operator ~~and~~ or Generator Operator identified in its restoration plan to participate in a drill, exercise, or simulation ~~at least every~~ within two calendar years.	N/A	The Reliability Coordinator did not hold a restoration drill, exercise, or simulation during the calendar year.

Kansas City Power & Light	No	EOP-005-2: R1 - recommend eliminating percentages and choosing fixed numbers. 25% of 7 subcomponents is 1.75, 50% is 3.5, etc. Propose the following: Lower - The Transmission Operator failed to comply with 1 of the of sub-requirements within the requirement. Moderate - The Transmission Operator failed to comply with 2 of the of sub-requirements within the requirement. High - The Transmission Operator failed to comply with 3 of the of sub-requirements within the requirement. Severe - The Transmission Operator failed to comply 4 or more of the of sub-requirements within the requirement. R2 - Either an entity provided the information on time, was late in providing the

		information or it did not provide it all at the time of an audit. The addition of time in the VSLs not in the requirement makes for debate. Propose the following: Lower - The Transmission Operator failed to distribute the information to an entity identified within the restoration plan within the thirty (30) day required timeframe. Moderate - The Transmission Operator failed to distribute the information to one of the entities identified within the restoration plan. High - The Transmission Operator failed to distribute the information to two of the entities identified within the restoration plan. Severe - The Transmission Operator failed to distribute the information to three or more of the entities identified within the restoration plan. R3 - The most important part of this standard is the review. At the time of an audit, either the entity reviewed late or not at all or submitted late or not at all at the time of an audit. The VSL should reflect these. Propose the following: Lower - The Transmission Operator submitted the required information but was late in the submission. Moderate - The Transmission Operator failed to submit the required information within the predetermined schedule. High - Transmission Operator completed a review but the review was completed beyond predetermined schedule. Severe - Transmission Operator failed to complete a review within the predetermined schedule. R4 - Either the entity completed a review outside the 90 days or it did not complete a review within the 90 days at the time of an audit. Propose the following: Lower - OK as proposed. Moderate - NA High - NA Severe - The Transmission Operator failed to complete a review within the 90 days of the change. R5 - provision of copies is an administrative requirement and should not have a VSL higher than Moderate. The proposed VSL specifies a time frame when there is none in the requirement. Propose the following: Lower - The Transmission Operator did not make the latest approved restoration

		plan available in its control rooms. Moderate - NA High - NA Severe - NA R10 - Posting the testing plan is an administrative requirement and the VSL's should not be any higher than Moderate. Propose the following: Lower - The Transmission Operator failed to post the Blackstart Resource testing requirements. Moderate - OK as is. High - OK as is. Severe - NA R12 - This is only 2 hours of training. The proposed VSL's can be simplified. Propose the following: Lower - NA Moderate - NA High - The Transmission Operator completed the required 2 hours of training for identified personnel, but failed to provide the training within the 2 year time frame. Severe - The Transmission Operator failed to completed the required 2 hours of training for identified personnel. R14 - Recommend removing percentages from the VSL's and going to specific numbers to improve compliance parameters. Propose the following: Lower - OK as is. Moderate - The Transmission Operator does not have Blackstart Resource Agreements for 2 of its Blackstart Resources. High - The Transmission Operator does not have Blackstart Resource Agreements for 3 of its Blackstart Resources. Severe - The Transmission Operator does not have Blackstart Resource Agreements for 4 or more of its Blackstart Resources. R16 - VSL's should not specify timing requirements that are not in the requirement. Either the Generator Operator reported on time, it reported but late or it did not report. Propose the following:

		Lower - NA Moderate - NA High - The Generator Operator did not notify the Transmission Operator within twenty-four hours. Severe - The Generator Operator failed to notify the Transmission Operator. R18 - Same comment as in R12 for training. Propose the following: Lower - NA Moderate - OK as is. High - The Generator Operator provided two hours of training but failed to provide the training within a two year period. Severe - The Generator Operator failed to provide two hours of training. EOP-006-2 R2 - The VSL is introducing a timing requirement when there is none in the requirement. Propose the following: Lower - The Reliability Coordinator did not distribute the required information to one entity identified in the requirement. Moderate - The Reliability Coordinator did not distribute the required information to two entities identified in the requirement. High - The Reliability Coordinator did not distribute the required information to three entities identified in the requirement. Severe - The Reliability Coordinator did not distribute the required information to four or more entities identified in the requirement. R3 - VSL's should not provide additional timing beyond the timing required. Either the entity met the timing or it did not. Propose the following: Lower - The Reliability Coordinator completed a review of its restoration plan but failed to complete the review within twelve months. Moderate - NA High - NA Severe - The Reliability Coordinator failed to complete a review of its restoration plan. R4 - VSL's should not provide additional timing beyond the timing required. Either

		the entity met the timing or it did not. Propose the following: Lower - NA Moderate - NA High - The Reliability Coordinator failed to comply within ninety calendar days of the change. Severe - The Reliability Coordinator failed to update its plan due to a change. R5 - VSL's should not provide additional timing beyond the timing required. Either the entity met the timing or it did not. Propose the following: Lower - The Reliability Coordinator completed a review but failed to notify the Transmission Operator in writing of its approval/disapproval and reasons for disapproval within 90 days. Moderate - The Reliability Coordinator failed to complete a review of one Transmission Operator plan. High - The Reliability Coordinator failed to complete a review of two Transmission Operator's plans. Severe - The Reliability Coordinator failed to complete a review of three or more Transmission Operator's plans. R6 - This is administrative and should not be any higher than Moderate. The VSL introduces timing requirements not in the standard. Propose the following: Lower - The Reliability Coordinator did not make the latest approved restoration plan available in its control rooms. Moderate - NA High - NA Severe - NA

Response:

EOP-005

R1 - VSLs for R1 have been modified to address your comment.

R1.	The Transmission Operator failed to comply with ~~less than 25% of the number~~ one of the sub-	The Transmission Operator failed to comply with ~~25% or more and less than 50% of the number~~ two of the	The Transmission Operator has failed to comply with ~~50% or more and less than 75% of the number~~ three of	The Transmission Operator has failed to comply with ~~75%~~ four or more of the ~~number of~~ sub-

	~~components~~requirements within the requirement.	sub-~~components~~requirements within the requirement.	the sub-~~components~~requirements within the requirement.	~~components~~requirements within the requirement.

R2 – Concerning your comment, it's difficult to judge the difference between "late" and "not at all" since "not at all" can never be judged as compared to very late. Also the "thirty-day" requirement was in the last posted version of EOP-005 R2. The Standard and VSLs are written to apply to each entity separately. The R2 VSLs have been clarified.

R2.	The Transmission Operator failed to ~~distribute the information to an entity identified within the restoration plan within the required timeframe~~ provide one of the operational entities identified in its approved restoration plan with a description of any changes to their roles and specific tasks prior to the implementation date of the plan. Or~~, t~~ The Transmission Operator ~~distributed~~ provided the information to all entities but was thirty calendar days late in doing so~~.~~	The Transmission Operator failed to ~~distribute the information to two entities identified within the restoration plan within the required timeframe~~ provide two of the operational entities identified in its approved restoration plan with a description of any changes to their roles and specific tasks prior to the implementation date of the plan. Or~~, t~~ The Transmission Operator ~~distributed~~ provided the information to all entities but was sixty calendar days or more late in doing so~~.~~	The Transmission Operator failed to ~~distribute the information to three entities identified within the restoration plan within the required timeframe~~ provide three of the operational entities identified in its approved restoration plan with a description of any changes to their roles and specific tasks prior to the implementation date of the plan. Or~~,~~ t The Transmission Operator ~~distributed~~ provided the information to all entities but was ninety calendar days or more late in doing so.	The Transmission Operator failed to ~~distribute the information to four or more entities identified within the restoration plan within the required timeframe~~ provide four or more of the operational entities identified in its approved restoration plan with a description of any changes to their roles and specific tasks prior to the implementation date of the plan. Or~~, t~~ The Transmission Operator ~~distributed~~ provided the information to all entities but was 120 calendar days or more late in doing so.

R3 – The VSLs judge the severity of non-compliance. Judging how far past the required submittal date information was submitted is a valid way of handling this type of requirement. The R3 VSLs have been clarified.

R3.	The Transmission Operator did not submit the ~~required information~~ reviewed restoration plan or confirmation of no change within twenty-nine calendar days of the pre-determined schedule. ~~Or, the Transmission Operator did not complete the review within thirty days of the pre-determined schedule~~.	The Transmission Operator did not submit the ~~required information~~ reviewed restoration plan or confirmation of no change within thirty to fifty-nine calendar days of the pre-determined schedule. ~~Or, the Transmission Operator did not complete the review within sixty days of the pre-determined schedule~~.	The Transmission Operator did not submit the ~~required information~~ reviewed restoration plan or confirmation of no change within sixty to eighty-nine calendar days of the pre-determined schedule. ~~Or, the Transmission Operator did not complete the review within ninety days of the pre-determined schedule.~~	The Transmission Operator did not submit the ~~required information~~ reviewed restoration plan or confirmation of no change within ninety calendar days of the pre-determined schedule. ~~Or, the Transmission Operator did not complete the review within 120 days of the pre-determined schedule.~~

R4 - The VSLs judge the severity of non-compliance. Judging how far past the required submittal date information was submitted is a valid way of handling this type of requirement. The R4 VSLs have been clarified.

R4.	The Transmission Operator failed to ~~comply~~ update and submit its restoration plan to the Reliability Coordinator within ninety calendar days of the change.	The Transmission Operator failed to ~~comply~~ update and submit its restoration plan to the Reliability Coordinator within 120 calendar days of the change.	The Transmission Operator has failed to ~~comply~~ update and submit its restoration plan to the Reliability Coordinator within 150 calendar days of the change.	The Transmission Operator has failed to ~~comply~~ update and submit its restoration plan to the Reliability Coordinator within 180 calendar days of the change.

R5 - The VSLs judge the severity of non-compliance. Violation Risk Factors indicates importance to reliability for each requirement. Aligning with your comment, the VRF for R5 is Lower.

R10 –requirement has been deleted.

R12 – VSL has been modified based on your suggestion to make the Lower VSL “N/A” as well as other suggestions indicating that the

High VSL should also be "N/A". (now R11)

~~R12~~11.	~~The Transmission Operator only supplied 1.5 hours of training within a two year period~~. N/A	N/A	~~The Transmission Operator only supplied one hour of training within a two year period~~. N/A	The Transmission Operator applicable Transmission Owner, or applicable Distribution Provider did not supply any training to the personnel required by Requirement R11 within a two year period.

R14 – The requirement has been modified and the VSLs have been modified to include a Moderate VSL for exclusion of the Testing Requirements and a Severe VSL for a non-existent Agreement. (Now R13)

R13: Each Transmission Operator and Generator Operator with a Blackstart Resource shall have ~~a~~ written Blackstart Resource Agreements or mutually agreed upon procedures or protocols, specifying the terms and conditions of their arrangement. Such Agreements shall include references to the ~~blackstart~~ Blackstart Resource testing requirements.

~~R14~~13.	~~The Transmission Operator does not have a Blackstart Resource Agreement for one of its Blackstart Resources~~. N/A	~~The Transmission Operator does not have Blackstart Resource Agreements for 25% of Blackstart Resources~~. The Transmission Operator and Generator Operator with a Blackstart Resource do not reference Blackstart Resource Testing requirements in their written Blackstart Resource Agreements or mutually agreed upon procedures or protocols.	~~The Transmission Operator does not have Blackstart Resource Agreements for 50% of Blackstart Resources~~. N/A	~~The Transmission Operator does not have Blackstart Resource Agreements for more than 50% of Blackstart Resources~~. The Transmission Operator and Generator Operator with a Blackstart resource do not have a written Blackstart Resource Agreement or mutually agreed upon procedures or protocols.

R16 - The VSLs judge the severity of non-compliance. Judging how far past the required submittal date information was submitted is a valid way of handling this type of requirement. The R16 VSLs have been clarified.

R16.	The Generator Operator with a Blackstart Resource did not notify the Transmission Operator of a change in Blackstart Resource capability within twenty-four hours.	The Generator Operator with a Blackstart Resource did not notify the Transmission Operator of a change in Blackstart Resource capability within ~~three days~~ seventy-two hours.	The Generator Operator with a Blackstart Resource did not notify the Transmission Operator of a change in Blackstart Resource capability within ~~four days~~ ninety-six hours.	The Generator Operator with a Blackstart Resource did not notify the Transmission Operator of a change in Blackstart Resource capability for more than ~~four days~~ ninety-six hours.

R18 – VSL has been modified to align with the modifications to the VSLs for R12. (now R17)

~~R18~~17.	~~The Generator Operator only supplied 1.5 hours of training within a two year period~~. N/A	N/A	~~The Generator Operator only supplied one hour of training within a two year period~~. N/A	The Generator Operator with a Blackstart Resource did not supply any of the training required by Requirement R17 within a two year period to each operator responsible for startup of its Blackstart Resource generation units and energizing a bus.

EOP-006
R2 - A 30-day time requirement has been added to R2. R2 and its VSLs have also been modified to make it clear that it does not apply to a group of distribution recipients but rather to each recipient individually.

R2: The Reliability Coordinator shall distribute its most recent Reliability Coordinator Area restoration plan to each of its Transmission Operators~~, Balancing Authorities,~~ and neighboring Reliability Coordinators within thirty calendar days of creation or revision.

R2.	The Reliability Coordinator ~~did not~~ distributed the ~~required information~~ most recent Reliability Coordinator Area restoration plan to ~~one entity~~ the entities identified in ~~the~~ ~~r~~Requirement R2 ~~within the required timeframe. Or, the Reliability Coordinator distributed the required information to all entities~~ but was more than thirty days late.	The Reliability Coordinator ~~did not~~ distributed the ~~required information~~ most recent Reliability Coordinator Area restoration plan to ~~two entities~~ the entities identified in ~~the~~ ~~r~~Requirement R2 ~~within the prescribed timeframe. Or, the Reliability Coordinator distributed the required information to all entities~~ but was more than sixty days late.	The Reliability Coordinator ~~did not~~ distributed the ~~required information~~ most recent Reliability Coordinator Area restoration plan to ~~three~~ the entities identified in ~~the~~ ~~r~~Requirement R2 ~~within the prescribed timeframe. Or, the Reliability Coordinator distributed the required information to all entities~~ but was more than ninety days late.	The Reliability Coordinator ~~did not~~ distributed the ~~required information~~ most recent Reliability Coordinator Area restoration plan to ~~four or more~~ entities identified in ~~the~~ ~~r~~Requirement R2 ~~within the prescribed timeframe. Or, the Reliability Coordinator distributed the required information to all entities~~ but was more than 120 days late.

R3 - The VSLs judge the severity of non-compliance. Judging how far past the required submittal date information was submitted is a valid way of handling this type of requirement.

R4 – Wording changed for clarity.

R4 Each Reliability Coordinator shall ~~update its restoration plan within ninety calendar days after identifying changes to one of its Transmission Operator's restoration plans or upon~~ review~~ing~~ ~~a~~ their neighboring Reliability Coordinator's restoration plans ~~that would necessitate a change in their coordination tasks or responsibilities~~.

R5 - The VSLs judge the severity of non-compliance. Judging how far past the required submittal date information was submitted is a valid way of handling this type of requirement. R5.1 and R5.2 have been combined. It was difficult to measure compliance to the old R5.1 review requirement. R4 is now part of R5. M5 has also been modified to reflect changes in R5. M5: Each Reliability Coordinator shall provide evidence, such as a review signature sheet or emails, that it has reviewed, approved or disapproved, and notified its Transmission Operator's, and reviewed its neighboring Reliability Coordinator's, submitted restoration plan(s) and updated its restoration plan, if necessary, in accordance with Requirement R5. R6 - The VSLs judge the severity of non-compliance. Violation Risk Factors indicates importance to reliability for each requirement. Aligning with your comment, the VRF for R6 is Lower.		
Operating Reliability Working Group (ORWG)	No	EOP-005R1. We suggest the following: Lower - The Transmission Operator failed to comply with one (1) of the sub-requirements of R1.Moderate - The Transmission Operator failed to comply with two (2) of the sub-requirements of R1.High - The Transmission Operator failed to comply with three (3) of the sub-requirements of R1.Severe - The Transmission Operator failed to comply with four (4) or more of the sub-requirements of R1. R2. We suggest the following: Lower - The Transmission Operator distributed the information to all entities identified within the restoration plan but failed to meet the timing requirements for at least one entity. Moderate - The Transmission Operator failed to distribute the information to one (1) entity identified within the restoration plan. High - The Transmission Operator failed to distribute the information to two (2) entities identified within the restoration plan. Severe - The Transmission Operator failed to distribute the information to three (3) or more entities identified within the restoration plan. R3. We suggest the following: Lower - The Transmission Operator reviewed the plan but did not submit it within the specified time. Moderate - The Transmission Operator reviewed the plan but not within the specified time. Severe - The Transmission Operator did not review the plan. R4. We suggest adding a Severe VSL as follows: Severe - The Transmission Operator did not revise the plan. R5. There is no timing requirement in the R5, therefore references to 15, 20, 25

		and 30 days should be removed from the VSLs. We suggest keeping the Lower VSL, as modified below, and deleting the remaining VSLs. Lower - The Transmission Operator did not make the latest approved restoration plan available in its control rooms. R9. We suggest the following: Lower - The Transmission Operator's testing requirements do not address one (1) of the sub-requirements or sub-sub-requirements, collectively. Moderate - The Transmission Operator's testing requirements do not address two (2) of the sub-requirements or sub-sub-requirements, collectively. High - The Transmission Operator's testing requirements do not address three (3) of the sub-requirements or sub-sub-requirements, collectively. Severe - The Transmission Operator's testing requirements do not address four (4) or more of the sub-requirements or sub-sub-requirements, collectively. R10. We suggest moving the single VSL to Lower. R12. We suggest deleting the Lower and High VSL, modify the Severe VSL as indicated below and move it to Moderate. Moderate - The Transmission Operator did not provide the required training as specified in R12. R14. We suggest the following: Lower - The Transmission Operator does not have a Blackstart Resource Agreement for one (1) of its Blackstart Resources. Moderate - The Transmission Operator does not have a Blackstart Resource Agreement for two (2) of its Blackstart Resources. High - The Transmission Operator does not have a Blackstart Resource Agreement for three (3) of its Blackstart Resources. Severe - The Transmission Operator does not have a Blackstart Resource Agreement for four (4) or more of its Blackstart Resources. R15. The inclusion of the word 'dated' in the VSLs adds a requirement that is not contained in R15. Either delete the 'dated' in the VSLs or add 'dated' to the requirement. We would also suggest modifying the end of the Severe VSL to '?procedures for four (4) or more of its Blackstart Resources.'. R16. We suggest the following: Lower – delete Moderate – delete High - The

		Generator Operator did not notify the Transmission Operator within the time specified in R16.Severe - The Generator Operator failed to notify the Transmission Operator. R17. More emphasis is placed on record keeping than actually performing the required tests. We suggest the following: Lower - The Generator Operator tested all its Blackstart Resources but failed to provide the testing documents on time. Moderate - The Generator Operator tested all its Blackstart Resources but failed to provide any testing documentation. High - The Generator Operator failed to test its Blackstart Resources within the required timeframe. Severe - The Generator Operator failed to test its Blackstart Resources. R18. We suggest deleting the Lower and High VSL, modify the Severe VSL as indicated below and move it to Moderate. Moderate - The Transmission Operator did not provide the required training as specified in R12. EOP-006R1. We suggest the following: Lower - The Reliability Coordinator failed to comply with one (1) of the sub-requirements of R1.Moderate - The Reliability Coordinator failed to comply with two (2) of the sub-requirements of R1.High - The Reliability Coordinator failed to comply with three (3) of the sub-requirements of R1.Severe - The Reliability Coordinator failed to comply with four (4) or more of the sub-requirements of R1. R2. The requirement does not contain a timing requirement, therefore the references to 30, 60, 90 and 120 days in the VSLs should be deleted. Additionally, we propose the following: Lower - The Reliability Coordinator did not distribute the required information to one (1) entity identified in R2.Moderate - The Reliability Coordinator did not distribute the required information to two (2) entities identified in R2.High - The Reliability Coordinator did not distribute the required information to three (3) entities identified in R2.Severe - The Reliability Coordinator did not distribute the required information to four (4) or more entities identified in R2. R3. We suggest the following: Lower - The Reliability Coordinator failed to review its restoration plan within twelve months. Moderate – delete High – delete Severe

		- The Reliability Coordinator failed to review its restoration plan. R4. We suggest the following: Lower – delete Moderate – delete High - The Reliability Coordinator updated its restoration plan but not within the ninety day timeframe required in R4.Severe - The Reliability Coordinator failed to update its restoration plan.R5. We suggest the following: Lower - The Reliability Coordinator reviewed and approved/disapproved the restoration plans within the predetermined schedule but failed to notify the Transmission Operator in writing of its approval/disapproval. Moderate - The Reliability Coordinator did not review and approve/disapprove the restoration plans of one (1) Transmission Operator within its Reliability Coordinator Area. High - The Reliability Coordinator did not review and approve/disapprove the restoration plans of two (2) Transmission Operators within its Reliability Coordinator Area. Severe - The Reliability Coordinator did not review and approve/disapprove the restoration plans of three (3) or more Transmission Operators within its Reliability Coordinator Area. R6. There is no timing requirement in the R6, therefore the references to 15, 20, 25 and 30 days should be deleted from the VSLs. We propose the following for the Lower VSL and recommend deleting the remaining VSLs. Lower - The Reliability Coordinator did not make the latest approved restoration plan available in its control rooms.

Response:

R1 - VSLs for R1 have been modified to address your comment.

R1.	The Transmission Operator failed to comply with ~~less than 25% of the number~~ one of the sub-~~components~~requirements within the requirement.	The Transmission Operator failed to comply with ~~25% or more and less than 50% of the number~~ two of the sub-~~components~~requirements within the requirement.	The Transmission Operator has failed to comply with ~~50% or more and less than 75% of the number~~ three of the sub-~~components~~requirements within the requirement.	The Transmission Operator has failed to comply with ~~75%~~ four or more of the ~~number of~~ sub-~~components~~requirements within the requirement.

R2 - The Standard and VSLs are written to apply to each entity separately. The R2 VSLs have been clarified.

R2.	The Transmission Operator failed to ~~distribute the information to an entity identified within the restoration plan within the required timeframe~~ provide one of the operational entities identified in its approved restoration plan with a description of any changes to their roles and specific tasks prior to the implementation date of the plan. Or The Transmission Operator ~~distributed~~ provided the information to all entities but was thirty days late in doing so~~.~~	The Transmission Operator failed to ~~distribute the information to two entities identified within the restoration plan within the required timeframe~~ provide two of the operational entities identified in its approved restoration plan with a description of any changes to their roles and specific tasks prior to the implementation date of the plan. Or The Transmission Operator ~~distributed~~ provided the information to all entities but was sixty days or more late in doing so~~.~~	The Transmission Operator failed to ~~distribute the information to three entities identified within the restoration plan within the required timeframe~~ provide three of the operational entities identified in its approved restoration plan with a description of any changes to their roles and specific tasks prior to the implementation date of the plan. Or The Transmission Operator ~~distributed~~ provided the information to all entities but was ninety days or more late in doing so.	The Transmission Operator failed to ~~distribute the information to four or more entities identified within the restoration plan within the required timeframe~~ provide four or more of the operational entities identified in its approved restoration plan with a description of any changes to their roles and specific tasks prior to the implementation date of the plan. Or The Transmission Operator ~~distributed~~ provided the information to all entities but was 120 days or more late in doing so.

R3 - The VSLs judge the severity of non-compliance. Judging how far past the required submittal date information was submitted is a valid way of handling this type of requirement. The R3 VSLs have been clarified**.**

R3.	The Transmission Operator did not submit the ~~required information~~ reviewed restoration plan or confirmation of no change within twenty-nine calendar days of the pre-determined	The Transmission Operator did not submit the ~~required information~~ reviewed restoration plan or confirmation of no change within thirty to fifty-nine calendar days of the pre-	The Transmission Operator did not submit the ~~required information~~ reviewed restoration plan or confirmation of no change within sixty to eighty-nine calendar days of the pre-	The Transmission Operator did not submit the ~~required information~~ reviewed restoration plan or confirmation of no change within ninety calendar days of the pre-determined

	schedule. ~~Or, the Transmission Operator did not complete the review within thirty days of the pre-determined schedule~~.	determined schedule. ~~Or, the Transmission Operator did not complete the review within sixty days of the pre-determined schedule~~.	determined schedule. ~~Or, the Transmission Operator did not complete the review within ninety days of the pre-determined schedule.~~	schedule. ~~Or, the Transmission Operator did not complete the review within 120 days of the pre-determined schedule.~~

R4 - Concerning your comment, it's difficult to judge the difference between "late" and "not at all" since "not at all" can never be judged as compared to very late. Judging how far past the required submittal date information was submitted is a valid way of handling this type of requirement. The R4 VSLs have been clarified.

R4.	The Transmission Operator failed to ~~comply~~ update and submit its restoration plan to the Reliability Coordinator within ninety calendar days of the change.	The Transmission Operator failed to ~~comply~~ update and submit its restoration plan to the Reliability Coordinator within 120 calendar days of the change.	The Transmission Operator has failed to ~~comply~~ update and submit its restoration plan to the Reliability Coordinator within 150 calendar days of the change.	The Transmission Operator has failed to ~~comply~~ update and submit its restoration plan to the Reliability Coordinator within 180 calendar days of the change.

R5 – R5 has been modified to refer to implementation date.

R5: Each Transmission Operator shall have a copy of its latest Reliability Coordinator approved restoration plan within ~~each of~~ its primary and backup control ~~centers~~ rooms and available to all of its ~~control room personnel~~ System Operators prior to its implementation date.

R9 - The SDT agrees with a previous commenter that not having any one of the sub-requirements of R9 would completely invalidate the Blackstart Resource testing requirements. The VSLs for R9 have been modified removing all VSLs except Severe.

R9.	~~The Transmission Operator's testing requirements do not~~	N/A.	~~The Transmission Operator's testing requirements do not~~	~~The Transmission Operator does not have the testing requirements~~. The

	~~address one of the subrequirements~~. N/A		~~address two of the subrequirements~~. N/A	Transmission Operator's Blackstart Resource testing requirements do not address one or more of the sub-requirements of Requirement R9.

R10 –requirement has been deleted.

R12 – The SDT has reviewed the VSL and believes that this is an 'all or nothing' requirement**.** (now R11)

~~R12~~ 11.	~~The Transmission Operator only supplied 1.5 hours of training within a two year period~~. N/A	N/A	~~The Transmission Operator only supplied one hour of training within a two year period~~. N/A	The Transmission Operator did not supply any training to the personnel required by Requirement R11 within a two year period.

R14 - The requirement has been modified and the VSLs have been modified to include a Moderate level VSL for exclusion of the Testing Requirements and a Severe VSL for a non-existent Agreement**.** (now R13)

R13**:** Each Transmission Operator and Generator Operator with a Blackstart Resource shall have ~~a~~ written Blackstart Resource Agreements or mutually agreed upon procedures or protocols, specifying the terms and conditions of their arrangement. Such Agreements shall include references to the ~~blackstart~~ Blackstart Resource testing requirements.

~~R14~~13.	~~The Transmission Operator does not have a Blackstart Resource Agreement for one of its Blackstart Resources~~. N/A	~~The Transmission Operator does not have Blackstart Resource Agreements for 25% of Blackstart Resources~~. The Transmission Operator and	~~The Transmission Operator does not have Blackstart Resource Agreements for 50% of Blackstart Resources~~. N/A	~~The Transmission Operator does not have Blackstart Resource Agreements for more than 50% of Blackstart Resources~~. The Transmission Operator and

		Generator Operator with a Blackstart Resource do not reference Blackstart Resource Testing requirements in their written Blackstart Resource Agreements or mutually agreed upon procedures or protocols.		Generator Operator with a Blackstart resource do not have a written Blackstart Resource Agreement or mutually agreed upon procedures or protocols.

R15 - R15 and its VSLs have also been modified to make it clear that it does not apply to a fleet of Blackstart Resources but rather to each Blackstart Resource. The SDT believes that not having either starting the Blackstart Resource or energizing the bus would completely invalidate the Blackstart Resource documented procedures. The VSLs for R15 have been modified removing all VSLs except Severe**.** (now R14)

R14**:** Each Generator Operator with a Blackstart Resource shall have documented procedures for starting ~~the~~ each Blackstart Resource and energizing a bus.

R15.	~~The Generator Operator does not have dated documented procedures for one Blackstart Resource or the procedures do not contain both elements specified in the requirement~~. N/A	~~The Generator Operator does not have dated documented procedures for two Blackstart Resources~~. N/A	~~The Generator Operator does not have dated documented procedures for three Blackstart Resources~~. N/A	The Generator Operator does not have ~~dated~~ documented starting and bus energizing procedures for ~~any of its~~ each Blackstart Resources.

R16 - The VSLs judge the severity of non-compliance. Judging how far past the required submittal date information was submitted is a valid way of handling this type of requirement. The R16 VSLs have been clarified**.** (now R15)

~~R16~~ 15.	The Generator Operator with a Blackstart Resource did not notify the Transmission Operator of a change in Blackstart Resource capability within twenty-four hours.	The Generator Operator with a Blackstart Resource did not notify the Transmission Operator of a change in Blackstart Resource capability within ~~three days~~ seventy-two hours.	The Generator Operator with a Blackstart Resource did not notify the Transmission Operator of a change in Blackstart Resource capability within ~~four days~~ ninety-six hours.	The Generator Operator with a Blackstart Resource did not notify the Transmission Operator of a change in Blackstart Resource capability for more than ~~four days~~ ninety-six hours.

R17 – To an auditor, it would be impossible to tell if tests were performed without records so the requirement concentrates on those records. The SDT believes that a judgment of incompleteness (R17.1) of the testing record is needed in the VSLs. The Standard and VSLs are written to apply to each Blackstart Resource separately as a response to other comments received.

R18 – VSL has been modified to remove the Lower VSL as proposed – however a failure to provide the training is a total failure to comply with the requirement and meets the criteria for a Severe VSL. (now R17)

~~R18~~ 17.	~~The Generator Operator only supplied 1.5 hours of training within a two year period~~. N/A	N/A	~~The Generator Operator only supplied one hour of training within a two year period~~. N/A	The Generator Operator with a Blackstart Resource did not supply any of the training required by Requirement R17 within a two year period to each operator responsible for startup of its Blackstart Resource generation units and energizing a bus.

EOP-006
R1 - In the VSLs for R1, “sub-components” has been changed to ”sub-requirements”. Percentages have been removed in favor of discrete numbers of sub-requirements.

R1.	The Reliability Coordinator failed to ~~comply with less than 25% of the number of~~ include one sub-~~components~~requirement of Requirement R1 within ~~this requirement~~ its restoration plan.	The Reliability Coordinator failed to ~~comply with 25% or more and less than 50% of the number of~~ include two sub-~~components~~requirements of requirement R1 within ~~this requirement.~~its restoration plan.	The Reliability Coordinator ~~has~~ failed to include ~~comply with 50% or more and less than 75% of the number of~~ three of the sub-~~components~~requirements of Requirement R1 within ~~this requirement~~ its restoration plan.~~–~~.	The Reliability Coordinator ~~has~~ failed to ~~comply with 75% or more of the number~~ include four or more of the sub-~~components~~requirements within ~~this requirement~~ its restoration plan.

R2 - A 30-day time requirement has been added to R2. R2 and its VSLs have also been modified to make it clear that it does not apply to a group of distribution recipients but rather to each recipient individually**.**

R2**:** The Reliability Coordinator shall distribute its most recent Reliability Coordinator Area restoration plan to each of its Transmission Operators~~,~~ ~~Balancing Authorities,~~ and neighboring Reliability Coordinators within thirty calendar days of creation or revision.

R2.	The Reliability Coordinator ~~did not~~ distributed the ~~required information~~ most recent Reliability Coordinator Area restoration plan to ~~one entity~~ the entities identified in ~~the~~ ~~r~~Requirement R2 ~~within the required timeframe. Or, the Reliability Coordinator distributed the required information to all entities~~ but was more than thirty calendar days late.	The Reliability Coordinator ~~did not~~ distributed the ~~required information~~ most recent Reliability Coordinator Area restoration plan to ~~two entities~~ the entities identified in ~~the~~ ~~r~~Requirement R2 ~~within the prescribed timeframe. Or, the Reliability Coordinator distributed the required information to all entities~~ but was more than sixty calendar days late.	The Reliability Coordinator ~~did not~~ distributed the ~~required information~~ most recent Reliability Coordinator Area restoration plan to ~~three~~ the entities identified in ~~the~~ ~~r~~Requirement R2 ~~within the prescribed timeframe. Or, the Reliability Coordinator distributed the required information to all entities~~ but was more than ninety calendar days late.	The Reliability Coordinator ~~did not~~ distributed the ~~required information~~ most recent Reliability Coordinator Area restoration plan to ~~four or more~~ entities identified in ~~the~~ ~~r~~Requirement R2 ~~within the prescribed timeframe. Or, the Reliability Coordinator distributed the required information to all entities~~ but was more than 120 calendar days late.

R3 - The VSLs judge the severity of non-compliance. Judging how far past the required submittal date information was submitted is a valid way of handling this type of requirement.

R4 - R4 was made part of R5.

R5: Each Reliability Coordinator shall review the ~~Transmission Operator~~ restoration plans ~~as defined in~~ required by EOP-005 of the Transmission Operators within its Reliability Coordinator Area and neighboring Reliability Coordinators, when received.

R6- The VSLs judge the severity of non-compliance. Judging how far past the required submittal date information was submitted is a valid way of handling this type of requirement.

Reliant Energy Inc.	Yes	I suggest that the SDT revise the wording in 18.1 and 18.2 to the following:18.1 Change the phrase "restoration philosophy" to "restoration plan" in 18.1 and anywhere else "restoration philosophy" is used. Restoration plan is a more common industry term to describe the steps to be taken in restoring the grid. 18.2 Procedure to be followed in starting the black start unit without power from the grid.

Response: R18 has been modified to reflect your comments. (now R17)

R17: Each Generator Operator ~~of~~ with a Blackstart Resource shall provide a minimum of two hours of training every two years to each of its operating personnel responsible for the startup ~~and synchronization~~ of its Blackstart Resource generation units and energizing a bus. The training program shall include training on the following:

"Philosophy" has been changed to "plan" in EOP-005, R11.1 (now R10.1) and EOP-006, R9.

R10.1: System restoration ~~philosophy~~ plan including coordination with the Reliability Coordinator and Generator Operators included in the restoration plan.

ISO RTO Council/Standards Review Committee	No	EOP-005R14 — The VSLs as written apply to the GOP only, but R14 applies to both TOP and GOP. VSLs need to be modified. EOP-006R9 and R10 - The VSLs do not appear to follow any of the categories identified in the VSL Guidelines document developed by the VSL drafting team. Rather it appears to be an amalgamation of multiple categories. We suggest the

		SDT consult the VSL guideline and revise these VSLs accordingly.
Response: EOP-005 R14 R14 has been modified to clarify that only one agreement is needed between each TOP and GOP having Blackstart Resources included in the restoration plan. It is implied that the requirement covers every Blackstart Resource but having multiple Blackstart Resources in one agreement is OK too**.** (now R13) R13**:** Each Transmission Operator and Generator Operator with a Blackstart Resource shall have ~~a~~ written Blackstart Resource Agreements or mutually agreed upon procedures or protocols, specifying the terms and conditions of their arrangement. Such Agreements shall include references to the ~~blackstart~~ Blackstart Resource testing requirements. EOP-006 R9 and R10 R9 and R10 cover training and the conduction of drills. The SDT modified the VSLs for R9 to reflect that if any part of the requirement was missed, the intent of the requirement had not been met at all, and the VSL is "Severe." The SDT believes that the VSLs adequately reflect the requirements**.**		
AEP	No	The data retention requirements seem excessive for EOP 005-2 R2, R3,R4, R5, R11, and R12. It would take approximately six years for the data retention requirements to be fully meet. I.e.. 24 months + current year + 3 previous years ~ 6 years. Data retention requirement for EOP 005-2 R17 is more reasonable VSL for EOP-005, R13 should correspond with the above two calendar year requirement such as follows: "The Transmission Operator has failed to comply with participation in the Reliability Coordinator's restoration drills at least once every two years.
Response: Adequate time periods are necessary to allow creation, modification, review, and approval of required documents. The requirements mentioned do not require voluminous amounts of record retention so they will not be modified related to your comment. R13 – The SDT believes that the RC may request the TOPs to participate in more than one drill in the two year period. R13 is written so that the RC has the call on how often TOPs and GOPs need to participate but the minimum participation is required to be once every two years as mentioned in EOP-006 R10.1**.**		
Duke Energy Corporation	No	NERC has recently established an EOP VSL drafting team. That team should establish the VSLs for EOP-005-2 and EOP-006-2.
Response: The NERC VSL Team established VSLs for the standards contained in FERC Order 693 that did not contain such elements. It is not a standing team and the Standards Development Guidelines state that individual SDT must draft the VSLs for their project. The SRBSDT used guidelines created by the VSL Team in creating the VSL for this project.		

Santee Cooper	No	The VSLs need to contemplate larger and smaller entities as they are being developed. R10 should be removed from the VSL table as Santee Cooper has recommended the Requirement be removed from the proposed standard. R12 and R18 The Commission did not specify a specific number of hours for field switching personnel or generator operators to be trained. The VSL is based on a 2 hour requirement. We recommend removing the lower, moderate, and high VSL on these two requirements. The Severe VSL would be that no training has been provided. Currently, R12 does not consider the number of training participants on a per student basis. What if training is provided for all but one operator?
Response: The SDT agrees but doesn't believe that different sized entities are treated differently in the VSLs. R10 – requirement deleted. R12: The requirement is for the TOP to provide training. The VSLs were modified so that there is only a "Severe" VSL. R18 – This training is for each operator**.** The VSLs were modified so that there is only a "Severe" VSL. (now R17) R17**:** Each Generator Operator ~~of~~ with a Blackstart Resource shall provide a minimum of two hours of training every two years to each of its operating personnel responsible for the startup ~~and synchronization~~ of its Blackstart Resource generation units and energizing a bus. The training program shall include training on the following:		
Midwest ISO Stakeholders Standards Collaborators	No	For EOP-005:R2 - We suggest that the failure to distribute to entities be specified on a percentage basis similar to R1 as opposed by discrete numbers. This creates larger penalties for smaller TOPs since they will have fewer entities to distribute to which is contrary to FERC and NERC's premise that larger entities have greater reliability impact and should be subject to greater fines. Lower VSL needs to specify greater than 30 days. 30 days late is not a violation. 31 is. R3 - We suggest required information be replaced with restoration plan in all of the VSLs. R4 - We suggest changing "the Transmission Operator failed to comply" to " the Transmission Operator failed to update its restoration plan".

		R5 needs to be deleted. The VSLs make it obvious that the requirement is not measurable. How will an auditor know when the restoration plan was placed in the control center? R6 — Why did the drafting team not write multiple VSLs based on how late the verification was performed like some of the previous requirements? What is the justification for only one VSL? R7 should be deleted. See question 1. How can you measure if a restoration plan was implemented especially considering all restoration events are unique and never match the conditions in the restoration plan? R8 — The outcome of failing to following RC procedures or receiving RC authorization should be considered in the VSL. If no operating or reliability problems were caused, the VSL should lower. If additional outages, equipment damage or operational problems were caused, then a severe VSL would be appropriate. R9 - Since there are multiple subrequirements, the VSLs should be defined based on the percentage of sub-requirements not met in the testing standards. Four VSLs could then be defined based on quartile performance. R10 — This requirement should be deleted for reasons stated in question 1. R12 and R18 — Because these requirements should not focus on training duration but rather objectives met, the VSLs should be modified. However, if the drafting team does not modify the requirements, the moderate VSLs should be set that 1 hour of training was performed and the high VSLs should be set for 30 minutes of training performed. R14 - Requirement applies to both TOP and GOP. VSLs don't recognize application to GOP. For EOP-006: R2 — We suggest that the failure to distribute to entities be specified on a percentage basis similar to R1 as opposed by discrete numbers.

		This creates larger penalties for smaller TOPs since they will have fewer entities to distribute to which is contrary to FERC and NERC's premise that larger entities have greater reliability impact and should be subject to greater fines. Lower VSL needs to specify greater than 30 days. 30 days late is not a violation. 31 is. R6 needs to be deleted. The VSLs make it obvious that the requirement is not measurable. How will an auditor know when the restoration plan was placed in the control center? R8 as written will cause an RC to be non-compliant for not authorizing re-synchronization for any reason. Obviously, there are reliability reasons not to authorize re-synchronization. Some language needs to be added so that a refusal for reliability reasons is not a compliance violation. The VSLs will then need to be modified. R9 and R10 — The VSLs do not appear to follow any of the categories identified in the VSL Guidelines document developed by the VSL drafting team. Rather it appears to be an amalgamation of multiple categories.

Response:

EOP-005

R2 – The VSLs have been modified. The SDT has simplified the VSLs for R2 by requiring judgment of each entity required to be sent the restoration plan separately instead of as a group**.**

R2.	The Transmission Operator failed to ~~distribute the information to an entity identified within the restoration plan within the required timeframe~~ provide one of the operational entities identified in its approved restoration plan	The Transmission Operator failed to ~~distribute the information to two entities identified within the restoration plan within the required timeframe~~ provide two of the operational entities identified in its approved restoration plan	The Transmission Operator failed to ~~distribute the information to three entities identified within the restoration plan within the required timeframe~~ provide three of the operational entities identified in its approved restoration plan	The Transmission Operator failed to ~~distribute the information to four or more entities identified within the restoration plan within the required timeframe~~ provide four or more of the operational entities identified in its approved

	with a description of any changes to their roles and specific tasks prior to the implementation date of the plan. Or The Transmission Operator ~~distributed~~ provided the information to all entities but was thirty days late in doing so~~.~~	with a description of any changes to their roles and specific tasks prior to the implementation date of the plan. Or The Transmission Operator ~~distributed~~ provided the information to all entities but was sixty days or more late in doing so~~.~~	with a description of any changes to their roles and specific tasks prior to the implementation date of the plan. Or The Transmission Operator ~~distributed~~ provided the information to all entities but was ninety days or more late in doing so.	restoration plan with a description of any changes to their roles and specific tasks prior to the implementation date of the plan. Or The Transmission Operator ~~distributed~~ provided the information to all entities but was 120 days or more late in doing so.

R3 – The VSL has been modified reflecting your comment.

R3.	The Transmission Operator did not submit the ~~required information~~ reviewed restoration plan or confirmation of no change within twenty-nine calendar days of the pre-determined schedule. ~~Or, the Transmission Operator did not complete the review within thirty days of the pre-determined schedule~~.	The Transmission Operator did not submit the ~~required information~~ reviewed restoration plan or confirmation of no change within thirty to fifty-nine calendar days of the pre-determined schedule. ~~Or, the Transmission Operator did not complete the review within sixty days of the pre-determined schedule~~.	The Transmission Operator did not submit the ~~required information~~ reviewed restoration plan or confirmation of no change within sixty to eighty-nine calendar days of the pre-determined schedule. ~~Or, the Transmission Operator did not complete the review within ninety days of the pre-determined schedule.~~	The Transmission Operator did not submit the ~~required information~~ reviewed restoration plan or confirmation of no change within ninety calendar days of the pre-determined schedule. ~~Or, the Transmission Operator did not complete the review within 120 days of the pre-determined schedule.~~

R4 - The VSLs have been modified reflecting your comment.

R4.	The Transmission Operator	The Transmission Operator	The Transmission Operator	The Transmission Operator

	failed to ~~comply~~ update and submit its restoration plan to the Reliability Coordinator within ninety calendar days of the change.	failed to ~~comply~~ update and submit its restoration plan to the Reliability Coordinator within 120 calendar days of the change.	has failed to ~~comply~~ update and submit its restoration plan to the Reliability Coordinator within 150 calendar days of the change.	has failed to ~~comply~~ update and submit its restoration plan to the Reliability Coordinator within 180 calendar days of the change.

R5 – changed to refer to an implementation date.

R5: Each Transmission Operator shall have a copy of its latest Reliability Coordinator approved restoration plan within ~~each of~~ its primary and backup control ~~centers~~ rooms and available to all of its ~~control room personnel~~ System Operators prior to its implementation date

R6 – The SDT has added a Lower VSL.

R6.	~~N/A~~ The Transmission Operator performed the verification but did not complete it within the five year period.	N/A	N/A	The Transmission Operator did not perform the verification ~~within the prescribed timeframe~~ or it took more than six years to complete the verification.

R7 – requirement was revised to address the concern that each event is unique.

R7: Following a Disturbance in which one or more areas of the BES shuts down and the use of Blackstart Resources is required to restore the shut down area to service, each affected Transmission Operator shall implement its restoration plan. If the restoration plan cannot be executed as expected because actual conditions do not match the studied conditions, the Transmission Operator shall utilize its restoration plan strategies to facilitate restoration.

R8 – Violation of this requirement is serious and should never be taken lightly. After the fact review should not try to judge the severity of the event. The determination of compliance is related to communicating properly. No change has been made to R8 or its

VSLs.
R9 - The SDT agrees with a previous commenter that not having any one of the sub-requirements of R9 would completely invalidate the Blackstart Resource testing requirements. The VSLs for R9 have been modified removing all VSLs except Severe**.**

R9.	~~The Transmission Operator's testing requirements do not address one of the subrequirements~~. N/A	N/A.	~~The Transmission Operator's testing requirements do not address two of the subrequirements~~. N/A	~~The Transmission Operator does not have the testing requirements~~. The Transmission Operator's Blackstart Resource testing requirements do not address one or more of the sub-requirements of Requirement R9.

R10 – requirement deleted.
R12: The requirement is for the TOP to provide training. The VSLs were modified so that there is only a "Severe" VSL.
R18 – This training is for each operator**.** The VSLs were modified so that there is only a "Severe" VSL. (now R17)

> R17**:** Each Generator Operator ~~of~~ with a Blackstart Resource shall provide a minimum of two hours of training every two years to each of its operating personnel responsible for the startup ~~and synchronization~~ of its Blackstart Resource generation units and energizing a bus. The training program shall include training on the following:

R14 - R14 has been modified to clarify that only one agreement is needed between each TOP and GOP having Blackstart Resources included in the restoration plan. It is implied that the requirement covers every Blackstart Resource but having multiple Blackstart Resources in one agreement is OK too**. (now R13)**

> R13**:** Each Transmission Operator and Generator Operator with a Blackstart Resource shall have ~~a~~ written Blackstart Resource Agreements or mutually agreed upon procedures or protocols, specifying the terms and conditions of their arrangement. Such Agreements shall include references to the ~~blackstart~~ Blackstart Resource testing requirements.

EOP-006
R2 - A 30-day time requirement has been added to R2. R2 and its VSLs have also been modified to make it clear that it does not

apply to a group of distribution recipients but rather to each recipient individually.

R2: The Reliability Coordinator shall distribute its most recent Reliability Coordinator Area restoration plan to each of its Transmission Operators~~, Balancing Authorities,~~ and neighboring Reliability Coordinators within thirty calendar days of creation or revision.

R2.	The Reliability Coordinator ~~did not~~ distributed the ~~required information~~ most recent Reliability Coordinator Area restoration plan to ~~one entity~~ the entities identified in ~~the~~ ~~r~~Requirement R2 ~~within the required timeframe. Or, the Reliability Coordinator distributed the required information to all entities~~ but was more than thirty calendar days late.	The Reliability Coordinator ~~did not~~ distributed the ~~required information~~ most recent Reliability Coordinator Area restoration plan to ~~two entities~~ the entities identified in ~~the~~ ~~r~~Requirement R2 ~~within the prescribed timeframe. Or, the Reliability Coordinator distributed the required information to all entities~~ but was more than sixty calendar days late.	The Reliability Coordinator ~~did not~~ distributed the ~~required information~~ most recent Reliability Coordinator Area restoration plan to ~~three~~ the entities identified in ~~the~~ ~~r~~Requirement R2 ~~within the prescribed timeframe. Or, the Reliability Coordinator distributed the required information to all entities~~ but was more than ninety calendar days late.	The Reliability Coordinator ~~did not~~ distributed the ~~required information~~ most recent Reliability Coordinator Area restoration plan to ~~four or more~~ entities identified in ~~the~~ ~~r~~Requirement R2 ~~within the prescribed timeframe. Or, the Reliability Coordinator distributed the required information to all entities~~ but was more than 120 calendar days late.

R6 – requirement revised to refer to implementation date.

R6: Each Reliability Coordinator shall have a copy of its latest restoration plan and copies of the latest approved restoration plan of each Transmission Operator in its Reliability Coordinator Area within ~~each of~~ its primary and backup control ~~centers~~ rooms and available to all of its ~~control room personnel~~ System Operators prior to the implementation date.

R8 – requirement was modified.

R8: The Reliability Coordinator shall coordinate or authorize ~~and coordinate~~ resynchronizing islanded areas that bridge boundaries between Transmission Operators or Reliability Coordinators. If the resynchronization cannot be completed as expected because actual conditions do not match the studied conditions, the Reliability Coordinator shall utilize its restoration

plan strategies to facilitate resynchronization.

R8.	N/A	N/A	N/A	The Reliability Coordinator did not coordinate or authorize ~~and coordinate~~ resynchronizing islanded areas that bridge boundaries between Transmission Operators or Reliability Coordinators.

R9and R10 - R9 and R10 cover training and the conduction of drills. The SDT modified the VSLs for R9 to reflect that if any part of the requirement was missed, the intent of the requirement had not been met at all, and the VSL is "Severe." The SDT believe that the VSLs adequately reflect the requirements**.**

American Transmission Company	No	See our comments to question 1.
Response: See the response to Q1.		
Entergy Services, Inc. System Planning & Operation (Generation)	No	I disagree with several VSLs listed. One example is that R2 should not be graded based on number of days late. Either you are late or you are not.
Response: The VSLs judge the severity of non-compliance. Judging how far past the required submittal date information was submitted is a valid way of handling this type of requirement**.**		
MRO NERC Standards Review Subcommittee	No	EOP-005, R6, There needs to be a Lower, Moderate and High VSL. Lower VSL should read the Transmission Operator did not perform one of the sub requirements, Moderate VSL should read the Transmission Operator did not complete two of the sub requirements, High VSL should read the Transmission Operator did not complete three of the sub requirements. EOP-005, R9, Move the High VSL (as written) to the Moderate VSL position. The High VSL (as written) should be rewritten to "address three of the sub requirements."

		EOP-005, R10, Should be deleted, see question one (1) above. EOP-005, R15, The word "dated" should be removed from all four VSLs. The requirement states that Generator Operator needs to have a documented procedures for Blackstart Resources and energizing a bus. A missed date will not cause the procedure to be obsolete or hinder the Generator Operator from starting the resource. EOP-005-2 R3 VSLs The VSLs appear to be adding to the requirement. R3 does not mention 30 days plus, the agreement should indicate when the submittals are needed. EOP-005-2 R5 VSLs The VSLs should include that the Transmission Operator failed to making available the latest restoration plan to the system operator personnel. EOP-005-2 R7 VSLs Given all the conditions in R7, the VSLs for this requirement should be spread out more and not just listed in the severe level. There are several conditions R7 perhaps some of these conditions could be assigned to different levels of VSLs. For example: Failure to work with others could be assigned a lower VSL or Failure to notify the RC could be assigned a moderate VSL. EOP-005-2 R8 Severe VSL The text "not" should be added between the text "The Transmission Operator resynchronized without approval of the Reliability Coordinator or" and the text "in accordance with the established procedures of the Reliability Coordinator following a disturbance ?" EOP-005-2 R14 VSL What if an entity does not have an agreement for 1 out of 4 of its Blackstart Resources, which VSL is assigned ("Lower" or "Moderate")? EOP-005-2 R15 VSL Lower Shouldn't the condition that "the procedures do not contain both elements specified in the requirement" (R15) be in the "Severe VSL" and not in the "Lower VSL"

		EOP-006-2 R6Which latest approved restoration plan should be made available" Should both be made available as indicated in the requirement? Should one be made available as indicated in the VSLs? Should there be VSLs which address the timeframe of distributing restoration plans to the System Operator personnel? EOP-006-2 R7 Severe VSL This VSLs' conditions should be split up and spread out among the VSL levels. It seems rather extreme to list all of the conditions in the "Severe" VSL level.

Response:

EOP-005

R6 – The SDT has added a Lower VSL. The SDT believes that all verification steps need to be performed or the testing is so incomplete that it is a "Severe" VSL. Therefore, no Moderate or High VSLs were added as suggested.

R6.	~~N/A~~ The Transmission Operator performed the verification but did not complete it within the five year period.	N/A	N/A	The Transmission Operator did not perform the verification ~~within the prescribed timeframe~~ or it took more than six years to complete the verification.

R9 - The SDT agrees with a previous commenter that not having any one of the sub-requirements of R9 would completely invalidate the Blackstart Resource testing requirements. The VSLs for R9 have been modified removing all VSLs except Severe**.**

R9.	~~The Transmission Operator's testing requirements do not address one of the subrequirements~~. N/A	N/A.	~~The Transmission Operator's testing requirements do not address two of the subrequirements~~. N/A	~~The Transmission Operator does not have the testing requirements~~. The Transmission Operator's Blackstart Resource testing requirements do not address one or more of the sub-requirements of Requirement

				R9.

R10 – requirement deleted.
R15 – The SDT believes that 'dated' is required.
R3 – The VSLs judge the severity of non-compliance. Judging how far past the required submittal date information was submitted is a valid way of handling this type of requirement. The R3 VSLs have been clarified.

R3.	The Transmission Operator did not submit the ~~required information~~ reviewed restoration plan or confirmation of no change within twenty-nine calendar days of the pre-determined schedule. ~~Or, the Transmission Operator did not complete the review within thirty days of the pre-determined schedule~~.	The Transmission Operator did not submit the ~~required information~~ reviewed restoration plan or confirmation of no change within thirty to fifty-nine calendar days of the pre-determined schedule. ~~Or, the Transmission Operator did not complete the review within sixty days of the pre-determined schedule~~.	The Transmission Operator did not submit the ~~required information~~ reviewed restoration plan or confirmation of no change within sixty to eighty-nine calendar days of the pre-determined schedule. ~~Or, the Transmission Operator did not complete the review within ninety days of the pre-determined schedule.~~	The Transmission Operator did not submit the ~~required information~~ reviewed restoration plan or confirmation of no change within ninety calendar days of the pre-determined schedule. ~~Or, the Transmission Operator did not complete the review within 120 days of the pre-determined schedule.~~

R5 – requirement changed to refer to implementation date.

R5: Each Transmission Operator shall have a copy of its latest Reliability Coordinator approved restoration plan within ~~each of~~ its primary and backup control ~~centers~~ rooms and available to all of its ~~control room personnel~~ System Operators prior to its implementation date.

R7 – requirement has been clarified. If the responsible entity does not follow its plan or its strategies, then it has not met the intent of the requirement at all, and this qualifies as a "Severe" VSL. No new VSLs were added.

R7: Following a Disturbance in which one or more areas of the BES shuts down and the use of Blackstart Resources is required

to restore the shut down area to service, each affected Transmission Operator shall implement its restoration plan. If the restoration plan cannot be executed as expected because actual conditions do not match the studied conditions, the Transmission Operator shall utilize its restoration plan strategies to facilitate restoration.

R8 – "Not" has been added to the R8 VSL.

R8.	N/A	N/A	N/A	The Transmission Operator resynchronized without approval of the Reliability Coordinator or not in accordance with the established procedures of the Reliability Coordinator following a Disturbance in which Blackstart Resources have been utilized in restoring the shut down area of the System to service.

R14 - R14 has been modified to clarify that only one agreement is needed between each TOP and GOP having Blackstart Resources included in the restoration plan and makes the TOP the only responsible entity for having these agreements. It is implied that the requirement covers every Blackstart Resource but having multiple Blackstart Resources in one agreement is OK too. High VSL has been moved to Moderate.

R14: Each Transmission Operator and Generator Operator with a Blackstart Resource shall have ~~a~~ written Blackstart Resource Agreements or mutually agreed upon procedures or protocols, specifying the terms and conditions of their arrangement. Such Agreements shall include references to the ~~blackstart~~ Blackstart Resource testing requirements.

~~R14~~13.	~~The Transmission Operator does not have a Blackstart~~	~~The Transmission Operator does not have Blackstart~~	~~The Transmission Operator does not have Blackstart~~	~~The Transmission Operator does not have Blackstart~~

	~~Resource Agreement for one of its Blackstart Resources~~. N/A	~~Resource Agreements for 25% of Blackstart Resources~~. The Transmission Operator and Generator Operator with a Blackstart Resource do not reference Blackstart Resource Testing requirements in their written Blackstart Resource Agreements or mutually agreed upon procedures or protocols.	~~Resource Agreements for 50% of Blackstart Resources~~. N/A	~~Resource Agreements for more than 50% of Blackstart Resources~~. The Transmission Operator and Generator Operator with a Blackstart resource do not have a written Blackstart Resource Agreement or mutually agreed upon procedures or protocols.

R15 - The SDT believes that not having either "starting the Blackstart Resource" or "energizing the bus" would completely invalidate the Blackstart Resource documented procedures. The VSLs for R15 have been modified removing all VSLs except Severe.(now R14)

~~R15~~ 14.	~~The Generator Operator does not have dated documented procedures for one Blackstart Resource or the procedures do not contain both elements specified in the requirement~~. N/A	~~The Generator Operator does not have dated documented procedures for two Blackstart Resources~~. N/A	~~The Generator Operator does not have dated documented procedures for three Blackstart Resources~~. N/A	The Generator Operator does not have ~~dated~~ documented starting and bus energizing procedures for ~~any of its~~ each Blackstart Resources.

EOP-006
R6 – requirement changed to refer to implementation date.

R6: Each Reliability Coordinator shall have a copy of its latest restoration plan and copies of the latest approved restoration plan of each Transmission Operator in its Reliability Coordinator Area within ~~each of~~ its primary and backup control ~~centers~~ rooms and available to all of its ~~control room personnel~~ System Operators prior to the implementation date.

R7 – The SDT believes that this is a black and white situation and Severe is correct.

SERC OC SRC	No	EOP-005-2: Measures - (Note: "such as" statements are too prescriptive and need to be separated from the requirements. If examples are to be provided, they should be identified as options in a footnote) M5 - the requirement is on the transmission Operator to share its Restoration Plan – not to prove that everyone read it! M6 - Each Transmission Operator shall have documentation such as power flow outputs, that it has verified that its restoration plan will accomplish its intended function in accordance with Requirement R6. M7 - If there has been a Disturbance in which Blackstart Resources have been utilized in restoring the shut down area of the System to service, each Transmission Operator involved shall have evidence that it coordinated with the Reliability Coordinator in implementation of its restoration plan in accordance with Requirement R7. M10 - We suggest this measurement should be removed along with R10 – this is a market function that should be relocated to a business practice. M12 – Delete 'and the corresponding training records including training dates and duration'. M14 - Each Transmission Operator shall have dated Agreements with all Generator Operators providing Blackstart Resources included in its restoration plan in accordance with Requirement R14. M15 - Each Generator Operator with a Blackstart Resource or Islanded Resource shall have dated documented procedures on file for starting/islanding the unit and energizing a bus in accordance with Requirement R15. M16 - Each Generator Operator with a Blackstart Resource or Islanding resource shall provide evidence showing that it notified its Transmission Operator of any known changes to its blackstart or islanding capabilities within twenty-four hours

		of such changes in accordance with Requirement R16. M17. Each Generator Operator with a Blackstart Resource or Islanded Resource shall maintain dated documentation of its Blackstart Resource or Islanded resource test results and shall have evidence that it provided these records to its Reliability Coordinator and Transmission Operator when requested in accordance with Requirement R17. M18. Each Generator Operator with a Blackstart Resource or Islanded Resource shall have a copy of its training program material showing that it has provided training in accordance with Requirement R18. M19. Each Generator Operator with a Blackstart Resource or Islanded Resource shall have evidence that it participated in the Reliability Coordinator's restoration drills, exercises, or simulations if requested to do so in accordance with Requirement R19. EOP-005 data retention comments: 1. Current approved plus any in force since last audit. 2. Current approved plus any in force past 3 calendar years 3. Current year plus 3 prior calendar years 4. Current year plus 3 prior calendar years 5. Current year plus 3 prior calendar years 6. Current and previous approved 7. if implemented, 3 calendar years 8. if implemented, 3 calendar years 9. Verification results for current and previous test 10. Current plus preceding in use during past 3 years 11. 3 calendar years 12. 3 calendar years 13. Current agreement and any in force since last audit 14. Current agreement and any in force since last audit 15. Current documentation and any in force since last audit 16. Notification over last 3 calendar years 17. Verification results for current and previous test

		EOP-005 VSL: R1 Change figures to up to 25%, 25% to 50%, 51% to 75%, and 76% or more. R7 & R8 Severe delete 'Blackstart R12 Low & High N/A R14 Low The Transmission Operator does not have an Agreement for one of its Blackstart Resources or Islanded Resources. R14 Moderate The Transmission Operator does not have Agreements for up to 25% of Blackstart Resources or Islanded Resources. R14 High The Transmission Operator does not have Blackstart Resource Agreements for 26-50% of Blackstart Resources or Islanded Resources R14 Severe The Transmission Operator does not have Blackstart Resource Agreements for more than 50% of Blackstart Resources or Islanded Resources. R17 Add 'Islanded Resources' to all R18 Low & High N/A EOP-006: M6 - Note: the requirement is on the Reliability Coordinator to share its Restoration Plan – not to prove that everyone read it! M10. Each Reliability Coordinator shall have evidence that it conducted or participated in at least one System restoration drill, exercise, or simulation per year and that Transmission Operators and Generator Operators included in the Reliability Coordinator's restoration plan were invited in accordance with Requirement R10. EOP-006 data retention: 1. Current approved plus any in force since last audit 2. Current year plus 3 prior calendar years 3. Current year plus 3 prior calendar years 4. Current year plus 3 prior calendar years 5. Current year plus 3 prior calendar years 6. Current year plus 3 prior calendar years 7. if plan implemented rolling 12 months

		8. 3 calendar years 9. 3 calendar years 10. all records since last audit plus one audit Enter SERC VSL for EOP-006 here: R1. Low The Reliability Coordinator failed to comply with up to 25% of the number of sub-components within this requirement. R1. Moderate The Reliability Coordinator failed to comply with 26% to 50% of the number of sub-components within this requirement. R1 High The Reliability Coordinator has failed to comply with 51% to 75% of the number of sub-components within this requirement. R1 Severe The Reliability Coordinator has failed to comply with 76% or more of the number of sub-components within this requirement. R3 Change time periods to 18, 24, 30, and 36. R10 Low High N/A R10 Moderate The Reliability Coordinator conducted or participated the correct number of restoration drills, exercises, or simulations but did not invite each Transmission Operator and Generator Operator identified in its restoration plan to participate in a drill, exercise, or simulation at least every two calendar years. R10 Severe The Reliability Coordinator did not conduct or participate in a restoration drill, exercise, or simulation during the calendar year.

Response:

Measures – Listing examples in the measurements is common practice in NERC Standards. The Measurements have not been changed related to your comment.

EOP-005

M5 – The SDT agrees and believes the present wording of the requirement agrees with your comment.

M6 – M6 has been modified reflecting your comment**.**

> M6**:** Each Transmission Operator shall have documentation, such as power flow outputs, that it has verified that its latest restoration plan will accomplish~~es~~ its intended function in accordance with Requirement R6.

M7 – The SDT believes that the present wording of the measurement more closely reflects the requirements of R7 so M7 has not

been changed.
M10 – requirement deleted.
M12 – The SDT disagrees. The requirement requires training and the records provide the evidence.
M14 – The SDT disagrees. Wording is equivalent.
M15, M16, M17 – The SDT did not accept the need for a new definition of Islanded Resource.
M18 – Review of the training materials has been added to M18**.** (now M17)

> M17**:** Each Generator Operator with a Blackstart Resource shall have an electronic or hard copy of the training program material provided to its operating personnel responsible for the startup and synchronization of its Blackstart Resource generation units and a copy of its dated training records including training dates and durations showing that it has provided training in accordance with Requirement R18

M19 – The SDT did not accept the need for a new definition of Islanded Resource.

EOP-005 Data Retention comments – Could not determine your recommended changes. No changes made to Data Retention requirements.

EOP-005 VSL
R1 – The VSLs for R1 have been modified reflecting other comments**.**

R1.	The Transmission Operator failed to comply with ~~less than 25% of the number~~ one of the sub-~~components~~requirements within the requirement.	The Transmission Operator failed to comply with ~~25% or more and less than 50% of the number~~ two of the sub-~~components~~requirements within the requirement.	The Transmission Operator has failed to comply with ~~50% or more and less than 75% of the number~~ three of the sub-~~components~~requirements within the requirement.	The Transmission Operator has failed to comply with ~~75%~~ four or more of the ~~number of~~ sub-~~components~~requirements within the requirement.

R7 and R8 – R7 and R8 specifically refer to Blackstart Resources so the word Blackstart cannot be removed from the VSLs.
R12 – Only Severe remains**.** (now R11)

~~**R12**~~ **11.**	~~The Transmission Operator only supplied 1.5 hours of training within a two year~~	N/A	~~The Transmission Operator only supplied one hour of training within a two year~~	The Transmission Operator did not supply any training to the personnel required by

	~~period~~. N/A		~~period~~. N/A	Requirement R12 within a two year period.

R14 - The Standard and VSLs are written to apply to each entity separately related to other comments received. The requirement has been modified and the VSLs have been modified to include a Moderate VSL for exclusion of the Testing Requirements and a Severe VSL for non-existent Agreement**.** (now R13)

~~R14~~13.	~~The Transmission Operator does not have a Blackstart Resource Agreement for one of its Blackstart Resources~~. N/A	~~The Transmission Operator does not have Blackstart Resource Agreements for 25% of Blackstart Resources~~. The Transmission Operator and Generator Operator with a Blackstart Resource do not reference Blackstart Resource Testing requirements in their written Blackstart Resource Agreements or mutually agreed upon procedures or protocols.	~~The Transmission Operator does not have Blackstart Resource Agreements for 50% of Blackstart Resources~~. N/A	~~The Transmission Operator does not have Blackstart Resource Agreements for more than 50% of Blackstart Resources~~. The Transmission Operator and Generator Operator with a Blackstart resource do not have a written Blackstart Resource Agreement or mutually agreed upon procedures or protocols.

R17 – The SDT did not accept the need for a new definition of Islanded Resource.
R18 – Only Severe remains**.** (Now R17)

~~R18~~17.	~~The Generator Operator only supplied 1.5 hours of training within a two year period~~. N/A	N/A	~~The Generator Operator only supplied one hour of training within a two year period~~. N/A	The Generator Operator with a Blackstart Resource did not supply any of the training required by Requirement R17 within a two year period to

				each operator responsible for startup of its Blackstart Resource generation units and energizing a bus.

EOP-006
M6 – The SDT agrees and believe the present wording of the requirement agrees with your comment.

M10 – The SDT believes that the burden to conduct the drills is on the Reliability Coordinator. The TOPs and the GOPs participate in the RC's drills.

EOP-006 Data Retention comments – The SDT used the guidelines for data retention recommended by the compliance program.

R1 – The VSLs for R1 have been modified reflecting other comments.

R1.	The Reliability Coordinator failed to ~~comply with less than 25% of the number of~~ include one sub-~~components~~requirement of Requirement R1 within ~~this requirement~~ its restoration plan.	The Reliability Coordinator failed to ~~comply with 25% or more and less than 50% of the number of~~ include two sub-~~components~~requirements of requirement R1 within ~~this requirement.~~its restoration plan.	The Reliability Coordinator ~~has~~ failed to include ~~comply with 50% or more and less than 75% of the number of~~ three of the sub-~~components~~requirements of Requirement R1 within ~~this requirement~~ its restoration plan.~~–~~.	The Reliability Coordinator ~~has~~ failed to ~~comply with 75% or more of the number~~ include four or more of the sub-~~components~~requirements within ~~this requirement~~ its restoration plan.

R3 – requirement changed to 13 months from last review. VSL is Severe only.

R3: Each Reliability Coordinator shall review its restoration plan ~~every twelve~~ within thirteen months of the last review

R3.	~~The Reliability Coordinator did not review its restoration plan within~~	~~The Reliability Coordinator did not review its restoration plan within~~	~~The Reliability Coordinator did not review its restoration plan within~~	The Reliability Coordinator did not review its restoration plan within

	~~twelve months.~~ N/A	~~thirteen months.~~ N/A	~~fourteen months.~~ N/A	~~fifteen~~ thirteen months of the last review.

R10 – R10 requires two drills be conducted each year. The SDT believes judging partial compliance with this requirement related to the number of drills is valuable.

Alberta Electric System Operator	No	The data retention requirements in section D 1.4 are too prescriptive and should be abbreviated and be based on high level principles.
Response: D1.4 lists the evidence necessary for compliance. Most find this helpful when preparing for compliance.		
Pacific Gas and Electric Company	Yes	
Southern Company Transmission	Yes	
Manitoba Hydro	Yes	
Northeast Utilities	Yes	
Tampa Electric Company	Yes	
Allegheny Energy	Yes	
Entergy Services	Yes	
Response: Thank you for your response. Many of the VSLs were revised in support of stakeholder comments. Please see the Summary Consideration.		

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

Summary Consideration: The SDT has made numerous minor changes to the requirements and measures for clarification purposes based on the comments received as shown below:

EOP-006-2, R1.9 was added to clarify the role of the BA.

The following requirements were changed as a result of industry comment:

EOP-005-2:

R2. ~~Each Transmission Operator shall distribute its approved restoration plan to the reliability-related operational entities identified in its restoration plan within thirty calendar days of having received approval from its Reliability Coordinator.~~ Each Transmission Operator shall provide the operational entities identified in its approved restoration plan with a description of any changes to their roles and specific tasks prior to the implementation date of the plan.

R~~14~~13. Each Transmission Operator and Generator Operator with a Blackstart Resource shall have ~~a~~ written Blackstart Resource Agreements or mutually agreed upon procedures or protocols, specifying the terms and conditions of their arrangement. Such Agreements shall include references to the ~~blackstart~~ Blackstart Resource testing requirements.

R~~18~~17. Each Generator Operator ~~of~~ with a Blackstart Resource shall provide a minimum of two hours of training every two years to each of its operating personnel responsible for the startup ~~and synchronization~~ of its Blackstart Resource generation units and energizing a bus. The training program shall include training on the following:

R~~18.1~~17.1. System restoration ~~philosophy~~ plan including coordination with the Transmission Operator

R~~18.2~~17.2. ~~Special actions required to enable blackstart and synchronization to the System~~ The procedures documented in Requirement R14.

EOP-006-2:

R1.~~9~~10. Criteria for transferring operations and authority back to the Balancing Authority.

R2. The Reliability Coordinator shall distribute its most recent Reliability Coordinator Area restoration plan to each of its Transmission Operators~~, Balancing Authorities,~~ and neighboring Reliability Coordinators within thirty calendar days of creation or revision.

R8. The Reliability Coordinator shall coordinate or authorize ~~and coordinate~~ resynchronizing islanded areas that bridge boundaries between Transmission Operators or Reliability Coordinators. If the resynchronization cannot be completed as

expected because actual conditions do not match the studied conditions, the Reliability Coordinator shall utilize its restoration plan strategies to facilitate resynchronization.

The following measurements were changed as a result of industry comments:

EOP-005-2:

M3. Each Transmission Operator shall have documentation such as a dated review signature sheet, revision histories, e-mails with receipts, or registered mail receipts, that it has annually reviewed and submitted ~~its~~ the Transmission Operator's restoration plan to its Reliability Coordinator in accordance with Requirement R3.

M~~14~~13. Each Transmission Operator and Generator Operator with a Blackstart Resource shall have the dated Blackstart Resource Agreements or mutually agreed upon procedures or protocols ~~with all Generator Operators with Blackstart Resources included in its restoration plan~~ in accordance with Requirement R~~14~~13.

Organization	Question 4:	Question 4 Comments:
Baltimore Gas and Electric Company	Yes	All comments below pertain to EOP-005-2R2 - What is the criteria for a Reliability Coordinator to approve a restoration plan. R7 - existing wording is not clear. What is meant by "one or more areas of the BES"? What constitutes "areas of the BES"? Does this suggest one or more circuits, transformers, substations, etc.? Suggest modifying to read "When use of Blackstart Resources is required to restore the shut down area to service, each affected Transmission Operator shall implement its restoration plan". Remove the first part of the existing sentence "Following a Disturbance in which one or more areas of the BES shuts down and the". R8 - same suggestion as R7 above. Training requirements (R11, R12, & R18) should be consistent. R11 - should state that this is required of each system operator and include minimum hours of annual training time. R12 - should state that this is required of each field switching personnel identified as performing unique tasks associated with its restoration plan that are outside of their normal tasks and should be required on an annual basis.

Organization	Question 4:	Question 4 Comments:
		R18 - We strongly believe that each generator operator should be trained annually, and not every two years. Their role is critical to system restoration. M3 - should say "dated" review signature sheet to be consistent with M4. Data Retention Data retention requirements for Transmission Operators and Generator Operators should be consistent. Transmission Operators need to maintain records of drill participation since its last compliance audit as well as one previous compliance audit period for R13 / M13. This could be as much as 6 years of records. Generator Operators need to maintain records of participation since its last compliance audit for R19 / M19. This could be as much as 3 years of records.

Response: EOP-005-2

The SDT believes that the criteria for the RC to approve a restoration plan is as stated in EOP-006-2, R5.1

R7/R8: The SDT believes the statement is clear, meaning there could be one or more areas of the system that are blacked out at the same time. The requirement makes it clear that the shut down areas require the use of Blackstart Resources eliminating the possibility that it is only "one or more circuits, transformers, substations". The SDT believes the first part of the sentence is required as it determines that the use of Blackstart Resources is required.

R11: The SDT believes that it's the content of the training that's important more than the number of hours of training, which is why we specified the topics. (now R10)

R12: The SDT believes that the statement regarding unique tasks is clear in identifying the training needs. The SDT believes that a two year requirement for training is sufficient to properly train the affected personnel. (now R11)

R18: The requirement has been changed to 'each'. The SDT also believes that the Generator Operators are capable of supporting system restoration with training on a two year periodicity**.** (now R17)

> R18**:** Each Generator Operator ~~of~~ with a Blackstart Resource shall provide a minimum of two hours of training every two years to each of its operating personnel responsible for the startup ~~and synchronization~~ of its Blackstart Resource generation units and energizing a bus. The training program shall include training on the following:

M3: The wording has been changed to be consistent with M4**.**

Organization	Question 4:	Question 4 Comments:
M3: Each Transmission Operator shall have documentation such as a dated review signature sheet, revision histories, e-mails with receipts, or registered mail receipts, that it has annually reviewed and submitted ~~its~~ the Transmission Operator's restoration plan to its Reliability Coordinator in accordance with Requirement R3. Data Retention: The wording is consistent between R13/M13 (now R12/M12)and R19/M19 (now R19/M18). No change made.		
Bonneville Power Administration	Yes	ON R 10 IN EOP-005-2, Operation AND NATIONAL Security issues with public postings of Blackstart Plans, do NOT post. USE LANGUAGE THAT WAS DELETED IN APRIL 15, 2008, DRAFT SO R10 READS AS FOLLOWS: "EACH TRANSMISSION OPERATOR SHALL DISTRIBUTE ITS BLACKSTART RESOURCE TESTING REQUIREMENTS TO EACH GENERATOR OPERATOR IN ITS AREA THAT OPERATES A BLACKSTART RESOURCE. Clarify in wording OF R14 OF EOP-005-2 that Entity Agreements DO NOT NEED TO BE INCLUDED IN THE RESTORATION PLAN THAT IS DISTRIBUTED AS REQUIRED IN R2 OF THE STANDARD. R2 IN EOP-005-2 SHOULD BE MORE SPECIFIC REGARDING WHICH ENTITIES THE TO MUST PROVIDE WITH COPIES OF ITS APPROVED RESTORATION PLAN. THE REQUIREMENT SHOULD USE NERC-DEFINED TERMS SO THERE IS NO CONFUSION. LIST SPECIFICALLY THE ORGANIZATIONS THAT ARE TO BE PROVIDED WITH COPIES. BPA SUGGESTS THAT THE ENTITIES SHOULD BE THE TO'S BALANCING AUTHORITY, GENERATOR OPERATORS THAT PROVIDE BLACKSTART RESOURCES, THE TO'S RELIABILITY COORDINATOR, ADJACENT BALANCING AUTHORITIES, NEIGHBORING TRANSMISSION OPERATORS. R2 IN EOP-006-2 CLEARLY IDENTIFIES WHO SHOULD RECEIVE COPIES OF THE RC'S RESTORATION PLAN. R2 IN EOP-005-2 SHOULD BE AS CLEAR.EOP-005-2 AND EOP-006-2 BOTH EXCLUDE BALANCING AUTHORITIES FROM APPLICABILITY. WHAT, THEN, IS THE RELATIONSHIP BETWEEN TRANSMISSION AND GENERATOR OPERATORS AND THEIR BALANCING AUTHORITIES IN THE EVENT OF EMERGENCIES THAT REQUIRE SYSTEM RESTORATION FROM BLACKSTART RESOURCES? IT APPEARS THAT BALANCING AUTHORITIES MAY HAVE NO ROLE AND THAT THE RELIABILITY COORDINATOR HAS ALL OF THE COORDINATION RESPONSIBILITIES. THE NERC DEFINITION OF BALANCING AUTHORITY IS "THE RESPONSIBLE ENTITY THAT INTEGRATES RESOURCE PLANS AHEAD OF TIME, MAINTAINS LOAD-INTERCHANGE-GENERATION BALANCE WITHIN A

Organization	Question 4:	Question 4 Comments:
		BALANCING AUTHORITY AREA, AND SUPPORTS INTERCONNECTION FREQUENCY IN REAL TIME." WITHOUT A CHANGE IN THE DEFINITION AND ROLES/RESPONSIBILITIES OF BALANCING AUTHORITIES, THESE TWO STANDARDS AS DRAFTED APPEAR TO HAVE A BIG HOLE.

Response: EOP-005-2
R10: requirement deleted.
R2: requirement was changed.

R2: ~~Each Transmission Operator shall distribute its approved restoration plan to the reliability-related operational entities identified in its restoration plan within thirty calendar days of having received approval from its Reliability Coordinator.~~ Each Transmission Operator shall provide the operational entities identified in its approved restoration plan with a description of any changes to their roles and specific tasks prior to the implementation date of the plan.

R14: Agreements do not have to be in the plan. Measure has been changed. (now R13 and M13)

M14: Each Transmission Operator and Generator Operator with a Blackstart Resource shall have the dated Blackstart Resource Agreements or mutually agreed upon procedures or protocols ~~with all Generator Operators with Blackstart Resources included in its restoration plan~~ in accordance with Requirement R~~14~~13.

EOP_006-2
R2: requirement has been changed.

R2: The Reliability Coordinator shall distribute its most recent Reliability Coordinator Area restoration plan to each of its Transmission Operators~~, Balancing Authorities,~~ and neighboring Reliability Coordinators within thirty calendar days of creation or revision.

Lack of BA: During restoration the TOP is responsible for restoration, and generation and load balance. The BA does not become part of the restoration process until interchange is required. Requirement R1.10 has been added to clarify this situation.

R1.10: Criteria for transferring operations and authority back to the Balancing Authority.

Xcel Energy	Yes	In subrequirement R7.3 of EOP-005-2, if alternative measures are implemented, shouldn't an explanation after the fact be required?

Organization	Question 4:	Question 4 Comments:
		In M7 of EOP-005-2, what about evidence of taking alternative measures? In section 1.4 Data Retention pertaining to R9 & M9 of EOP-005-2, why isn't there a three year retention on this data (verification process and results for the current blackstart resource testing requirements)? In subrequirement R7.1, shouldn't these alternative measures and non studied conditions be noted or recorded somewhere to be included in the future restoration plan.
Response: EOP-005-2 R7.3: The SDT believes the explanation will be brought out in the disturbance report. R7.3 was combined in R7 in the latest revision. M7: This would be a part of R7, therefore it would be included in the evidence. Data Retention: M9 is for 3 years since it is since the last audit which is every 3 years for TOP. R7.1: The SDT believes that post-restoration disturbance reporting and investigations will document the actual alternative measures utilized.		
Manitoba Hydro	Yes	EOP-005-2 R14/M14 requirement to have a dated blackstart resource agreement included in the restoration plan, how do vertically integrated utilities handle this, do we need internal agreements? EOP-05-2 R10 - Entities' critical elements shouldn't be posted to public forums.
Response: R14 – requirement changed for clarity. (now R13) R13: Each Transmission Operator and Generator Operator with a Blackstart Resource shall have ~~a~~ written Blackstart Resource Agreements or mutually agreed upon procedures or protocols, specifying the terms and conditions of their arrangement. Such Agreements shall include references to the ~~blackstart~~ Blackstart Resource testing requirements. R10 – requirement deleted.		
FirstEnergy	Yes	EOP-005-2:Measure (M4) for R4 - The measure only requires proof from the TOP of the agreement between the TOP and GOP. Since this is a joint effort, both entities should show proof; VSL for R4 should include the GOP since the agreement is the responsibility of both entities.

Organization	Question 4:	Question 4 Comments:
		Most of the requirements require that the Reliability Coordinator perform some action with the Transmission Operators but not the Generator Operators. Requirement 10 requires the Reliability Coordinator to conduct two System restoration drills per year with the Transmission Operators and Generator Operators. My problem is that the Reliability Coordinator in R2 only shares the restoration plan with its Transmission Operators, Balancing Authorities and neighboring Reliability Coordinators and in not required to share the plan with its Generator Operators. The Reliability Coordinator in its Restoration Plan may require the Generator to perform a task and the Generator Operator can not physically do. This fact would not come out until the restoration drills are performed. Why the proposed EOP-006-02 does not include the Generator Operator except for performing the drills? I have heard a number of reasons why my concern is not valid from it is a Code of Conduct issue to it is covered in another standard. To me none of the reasons make any sense. This deals with emergency operations and there should be no Code of Conduct Issues especially when both the Transmission Operator and the Generator Operator are required to perform restoration drills. Even though Generator Operator involvement may be covered is other Standards, my concern is that as an RTO like MISO begins to take on more duties of the Transmission Operator, such as becoming a Balancing Authority in September 2008, the RTO will become both the Reliability Coordinator and the Transmission Operator similar to PJM. This will require that the Standards for both the Reliability Coordinator and Transmission Operator be well defined and documented. Here is my recommendation for EOP-006-2 Requirement 2; R2 The Reliability Coordinator shall distribute applicable portions of its Reliability Coordinator Area restoration plan to all of the reliability-related operational entities, including but not limited to the Transmission Operators, Generator Operators, Balancing Authorities and neighboring Reliability Coordinators, identified in its restoration plan. If R2 is changed the measurement M2 would have to also change based on the changes made to R2.
Response: EOP-005-2		

Organization	Question 4:	Question 4 Comments:
M4: The SDT believes that because the TOP is the owner of the restoration plan it makes sense they also hold the agreements. R4: The SDT believes you meant R14. The requirement has been changed for clarity. (now R13) R13: Each Transmission Operator and Generator Operator with a Blackstart Resource shall have ~~a~~ written Blackstart Resource Agreements or mutually agreed upon procedures or protocols, specifying the terms and conditions of their arrangement. Such Agreements shall include references to the ~~blackstart~~ Blackstart Resource testing requirements. EOP-006-2 R10/R2: The GOP takes its instructions from the TOP; it would not normally get involved with the RC unless the RC was acting as the BA. The RC plan revolves around coordination and tying systems together, which they would do through the TOP.		
ITC Holdings	Yes	005-R-9 weakened test requirements. Now GOs do not have to synch to a dead bus, just say they can by defeating relays. TOPs shall have testing to verify "that each Blackstart Resource is capable of meeting the requirements of it's restoration plan." As a Transmission Company ITC owns no generation. Our plan calls for energizing a generator to a deenergized bus. Are we to weaken the previous tests to allow the generator owner to say he can, rather than actually demonstrate?
Response: EOP-005-2 R9.2.2: The SDT believes the requirement is not weakened by the entity affirming (to confirm or ratify, maintain as true) that the unit has the capability to energize a bus, if it is not possible to energize a bus during the test.		
Kansas City Power & Light	Yes	EOP-005-2: R9 requires the Transmission Operator to have the testing requirements for blackstart resources. I think this would make more sense if this was directed to the entity that is responsible for the asset, the Generator Owner. R17 requires the Generator Owner to perform the test prescribed in the standard. Please consider changing R9 to be directed to the Generator Owner.
Response: EOP-005-2 R9/R17 (now R16): The SDT believes that because the TOP is the owner of the restoration plan it makes sense they also hold the agreements and set the requirements.		
Allegheny Energy	Yes	Request a more specific definition of the term "Generator Operator" as it applies to this standard:- Does this definition include entities (i.e. Dispatch Groups) that perform certain functions on behalf of a power station?

Organization	Question 4:	Question 4 Comments:
		R 18.1. Request clarification as to what is meant by "system restoration philosophy"?
Response: GOP def: "The entity that operates generating unit(s) and performs the functions of supplying energy and Interconnected Operations Services." – NERC glossary NERC Functional Model: GOP Real Time Provides real-time operating information to the Transmission Operator and the required Balancing Authority. Adjusts real and reactive power as directed by the Balancing Authority and Transmission Operator. The standard applies to all entities that meet the criteria for "generator operator" as defined in the NERC Statement of Compliance Registry Criteria. No change made. R18.1: requirement was changed. (now R17.1) R17.1: System restoration ~~philosophy~~ plan including coordination with the Transmission Operator		
Entergy Services	No	R12 would require a "minimum of two hours of System restoration training every two years to field switching personnel ? ". We have recommended in other standards and will continue to recommend here that field switching personnel that operate under the direction of a Transmission Operator should not be required to obtain additional training, especially System restoration training. Field switching personnel do not make independent decisions concerning local or System restoration. Therefore, we recommend R12 be deleted. If R12 is not deleted then we recommend the requirement be revised by adding the following sentence to the end of R12: "When field switching personnel follow procedures written by the Transmission Operator, the additional training of field switching personnel for system restoration shall not be required above that training ordinarily provided by the Transmission Operator.?
Response: EOP-005 The SDT has attempted to be completely clear in R12 (now R11). If there are no tasks for field switching personnel that are different from their normal tasks, then no system restoration training is required. It is completely within the TOP's control in developing their restoration plan to define those field switching personnel tasks that are different (unique) to system restoration.		
Reliant Energy Inc.	Yes	Since this is a reliability standard did the SDT discuss how to improve the probability that the black start unit would start in the event of a black out? Most of these units in PJM are 70?s vintage simple cycle CT?s. Because of their high heat rate these units are only called upon to run during high demand periods. It is not uncommon for these units to sit

Organization	Question 4:	Question 4 Comments:
		dormant for more than 90 days. Should this standard require the TOP to contract with the generator owner to run these machines at least every 90 days for at least 15 minutes? One other comment around this standard, the generator operator of a black start unit is a major player in the restoration of the grid. Yet we have been denied when we have requested transmission maps from our TO. It appears that these are considered by FERC to be critical infrastructure information. How can a generator operator be an important part of grid reliability and be denied access to transmission maps of the TO that its facilities are located?
Response: EOP-005-2 (1): The SDT believes that the standard covers this situation. The standard requires the TOP set the requirements of the blackstart units and also to have an Agreement with the GOP for Blackstart Resources. If starting a unit every 90 days is required to ensure that unit will start the TOP can place that requirement in their Agreement with the GOP. (2) This is beyond the scope of the SDT.		
ISO RTO Council/Standards Review Committee	Yes	EOP-005 (1) We suggest changing the definition of BlackStart resource to: Blackstart Resource: "A generation Facility and associated set of equipment which has the ability to be started without support from the System, with the ability to energize a bus, meeting the Transmission Operator's restoration plan needs for real and reactive power capability, frequency and voltage control, and that has been included in the Transmission Operator's restoration plan." (2) Propose to add another bullet under Item R6 which reads: R6.4. Each Generator Operator with restoration resources or other resources identified in the restoration plan of its Transmission Operator shall provide the Transmission Operator with the modeling information necessary for the Transmission Operator to conduct the studies described in R6. Propose adding text to R15 [additional text in {brackets}]: R15. Each Generator Operator with a Blackstart Resource shall have documented procedures for starting the Blackstart Resource and energizing a bus {and shall provide such procedures to their respective Transmission Operator}. [Violation Risk Factor =

Organization	Question 4:	Question 4 Comments:
		Medium] [Time Horizon = Operations Planning]
Response: EOP-005-2 (1) The SDT does not want to prohibit units that are designed to remain energized without connection to the remainder of the System as long as the TOP and RC are satisfied with the testing that is done. (2) The TOP can put these requirements in the Agreements. R15 (now R14). The Standard requires the TOP to have an Agreement with the resource. If the TOP determines a need to have the procedures from the Blackstart Resource, that should be covered in the Agreement.		
Duke Energy Corporation	Yes	The SDT has incorporated new Data Retention Requirements in this draft of EOP-005-2 and EOP-006-2 that require the keeping of old plans just to meet a compliance requirement over three years as seen in M1, M6, etc. This serves no purpose in maintaining or restoring the reliability of the interconnection of the system. As long as the entities demonstrate compliance to the Standard, why are three years worth of outdated plans needed to be maintained? The SDT in previous responses stated that these documents are not administrative requirements but are to show a planning function that goes into the creation of the document. Yet this data retention policy clearly shows administrative requirements that do not warrant a "Medium" VRF. For R5, M5, in order to meet this data retention requirement, you have to have older plans in a control room because they were in force prior to the update. Does the SDT not realize the danger of keeping outdated plans in the control room? The data retention of any emergency plan should be no more than the current plan itself. Furthermore, in the data retention requirement for training materials to be maintained for three years, why should not just the records be maintained that the training was taken? Training records requirements should all be located in the PER standards. Also, old training material provide another means to create issues during an actual event and should not be maintained other than what is current.
Response: The SDT followed published guidelines for data retention and VRF. The SDT believes the requirement (R5) is clear that only the latest approved plan is to be kept in the control room. The data retention indicates that the entity must maintain records of any previous plan (for the audit period) and records that the plan was made available in the control room in a timely manner. The data retention for previous plans does not mean that they need to be kept in the control room.		
Santee Cooper	Yes	For the data retention how does an entity prove to an auditor that previous versions of its System Restoration Plan were made available in the control room. The auditor can ask to see the current version during an audit and entity can certainly provide a copy of

Organization	Question 4:	Question 4 Comments:
		previous versions but it would not be prudent to keep three different versions of a plan in the control room just to prove compliance. Santee Cooper recommends that the SDT explore the possibility of combining some the measures together. Is it required to have a measure for every Requirement?
Response: The SDT believes the requirement (R5) is clear that only the latest approved plan is to be kept in the control room. The data retention indicates that the entity must maintain records of any previous plan (for the audit period) and records that the plan was made available in the control room in a timely manner. The data retention for previous plans does not mean that they need to be kept in the control room.		
Midwest ISO Stakeholders Standards Collaborators	Yes	The Balancing Authority has a role in restoration. The Balancing Authority has a role in determining the relative priority of units to be restored. The Balancing Authority is also aware of unit operating constraints such as minimum shutdown times, fuel availability, etc. Unfortunately, the drafting team's continued persistence to ignore these realities will result in a set of standards that actually decreases reliability because the TOP may restore a cranking path to a unit that is not immediately available due to these constraints. Considering the GOP is only required to notify the TOP within 24-hours of a change in the black start capability of a unit, the TOP very well may not know that the resource he was counting won't work.
The SDT continues to believe that restoration is an activity that is controlled by the TOP utilizing the GOP until the system is released for balancing as stated in EOP-005-2 & EOP-006-2, R1. As per EOP-006-2, R1.7, the BA is kept informed and should be ready to take over at the appropriate time. In an attempt to clarify this position, the SDT has added a new requirement, R1.10, to EOP-006-2. R1.10: Criteria for transferring operations and authority back to the Balancing Authority.		
MRO NERC Standards Review Subcommittee	Yes	EOP-005, R17.1, the words "unit tested" is redundant with "Blackstart Resource", unless the SDT meant to say "type of unit tested"? The SDT should reword the requirement or drop "unit tested". EOP-005, R18.2, should be moved to a sub requirement of R15. R15 talks about start up procedures and R18.2 talks about those special actions required to synch to the system, which should be written in the start up procedure document. In sub requirement R7.3 of EOP-005-2, if alternative measures are implemented, shouldn't an explanation after the fact be required?

Organization	Question 4:	Question 4 Comments:
		In M7 of EOP-005-2, what about evidence of taking alternative measures? In section 1.4 Data Retention pertaining to R9 & M9 of EOP-005-2, why isn't there a three year retention on this data (verification process and results for the current Blackstart resource testing requirements)? In sub requirement R7.1, shouldn't these alternative measures and non-studied conditions be noted or recorded somewhere to be included in the future restoration plan. In M6 of EOP-006-2, the following text should be inserted "and the latest approved restoration plan of each TOP in its control area" between the text "latest approved copy of its restoration plan" and the text "available in each of its control rooms and to each ?". In M7 of EOP-006-2, the text should be modified to read the following "Each Reliability Coordinator involved shall have evidence such as voice recordings, e-mail, dated computer printouts, or operator logs, that it monitored, coordinated, and took action to restore the BES in accordance with R7.". EOP-005-2, R9.2.2, "The ability to energize a bus". This sub requirement states that if you can't energize a bus, there is a requirement to affirm that the breaker close coil relay can be energized with voltage and frequency monitor controls disconnected. There are many "older" generating units that may be blackstartable but don't have the breaker close coil relay'. A possible addition to the sub requirement may be " ...to affirm that the breaker close coil relay can be energized with voltage and frequency monitor controls disconnected or to affirm through the Transmission Operator the Blackstart Resource can energize a bus." EOP-006-2, R8.1 ? The words ?restoration plan? in the first sentence should be replaced with ?resynchronization?.
Response: EOP-005-2 R17.1: The “unit tested” refers to the actual unit that was tested, if there are 3 units at a particular blackstart station and unit 2 was the one tested in 2008, then the “unit tested” is unit 2. (now R16.1) R18.2: This is a training requirement while R15 is a documentation requirement. Requirement has been clarified. (now R17.2)		

Organization	Question 4:	Question 4 Comments:
R17.2: ~~Special actions required to enable blackstart and synchronization to the System~~ The procedures documented in Requirement R15 R7.3/M7: The SDT believes the explanation will be brought out in the disturbance report. Data Retention: The SDT utilized the Guidelines in selecting the data retention periods. No change made. R7.1: The SDT believes that alternative measures will be dependent upon the current situation and it would be difficult to proactively identify all alternatives. The SDT further believes that post-restoration disturbance reporting and investigations will document the actual alternative measures utilized. EOP-006-2 M6: The SDT believes that the phrase 'in accordance with requirement R6' covers this situation. M7: The SDT believes that the phrase 'in accordance with requirement R7' covers this situation. EOP-005-2 R9.2: The SDT believes the statement is correct. No change made. EOP-006-2 R8.1: The SDT has revised R8 to include R8.1. R8: The Reliability Coordinator shall coordinate or authorize ~~and coordinate~~ resynchronizing islanded areas that bridge boundaries between Transmission Operators or Reliability Coordinators. If the resynchronization cannot be completed as expected because actual conditions do not match the studied conditions, the Reliability Coordinator shall utilize its restoration plan strategies to facilitate resynchronization.		
SERC OC SRC	Yes	The "such as" statements in the measures are too prescriptive and need to be separated from the requirements. If examples are to be provided they should be identified as options.
Response: These are just examples and not limiting conditions.		
Alberta Electric System Operator	Yes	1. Pertaining to the RC approving the TOP's restoration plan - the AESO will have to define the scope of such approval in order that the legislated autonomy/mandate of the Alberta ISO is maintained. 2. Pertaining to the "initial switching requirements" referred to in R4, we interpret that to mean a high level switching plan rather than a "breaker by breaker" type switching

Organization	Question 4:	Question 4 Comments:
		instructions. 3. We recommend that the training requirements be moved to the training standards.
Response: (1): When approving the TOP plans, the Reliability Coordinator determines whether the Transmission Operator's restoration plan coordinates with the Reliability Coordinator plan, and is compatible with other TOP restoration plans within its Reliability Coordinator Area. (2): The SDT assumes that you meant R1.4. The "initial switching requirements" needs to be of sufficient detail to enable the TOP to establish the Cranking Path. (3): The SDT supports FERC's recommendation in Order 693 that inclusion of periodic system restoration drills and training requirements in the EOP standards is the most effective way of achieving the desired level of system restoration training.		
NPCC	No	
Southern Company Transmission		
Northeast Utilities	No	
Consumers Energy Company		
Tampa Electric Company	No	
Ameren	No	
Standards Interface Subcommittee	No	
Operating Reliability Working Group (ORWG)	No	
AEP	No	
Pacific Gas and Electric Company	No	
American Transmission Company	No	

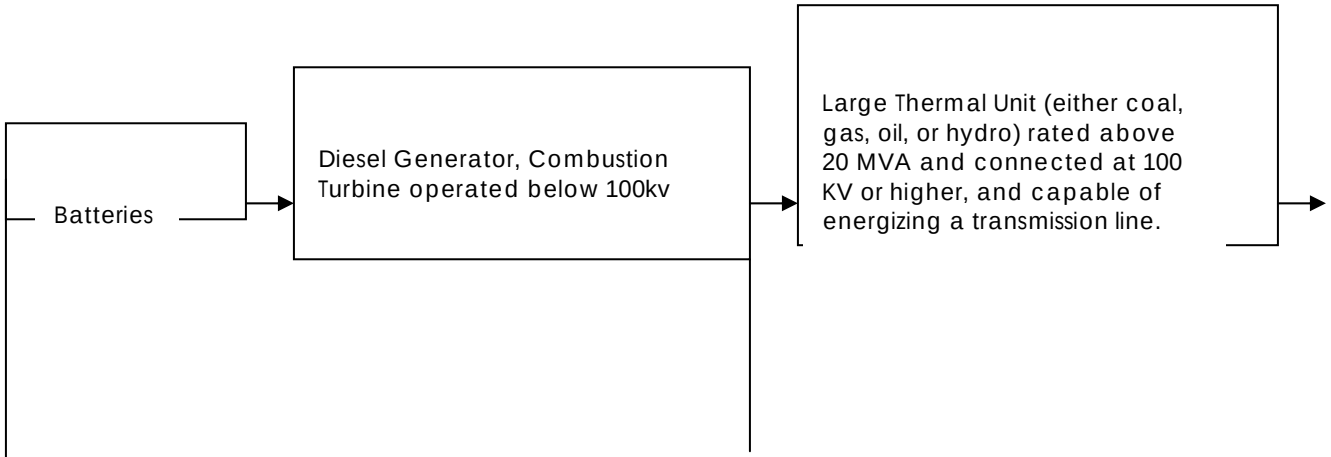
Organization	Question 4:	Question 4 Comments:
Response: Thank you for your response.		

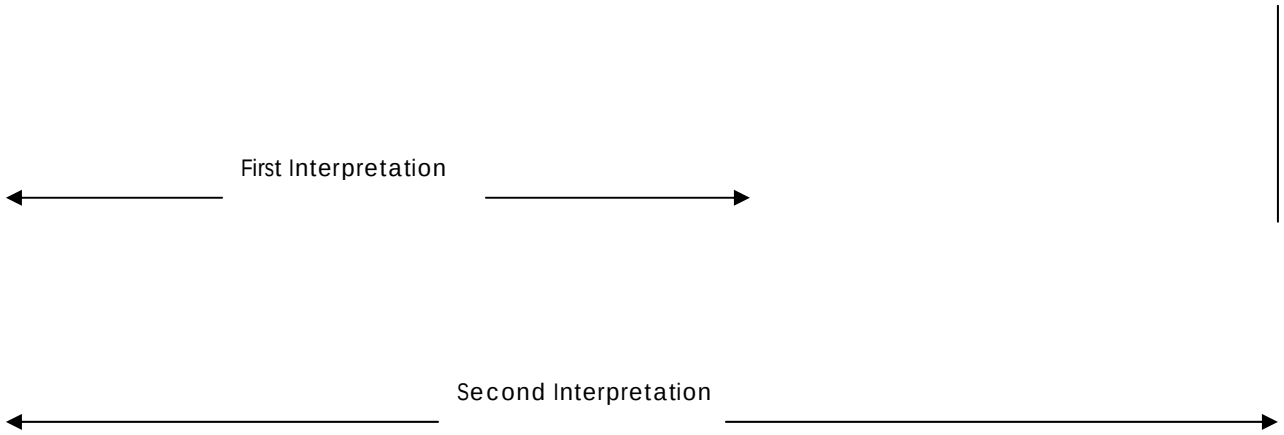
FE COMMENTS – DEFINITION OF BLACKSTART RESOURCE

The definition of a Blackstart Resource as proposed states: "A generation **Facility** and associated set of equipment which has the ability to be started without support from the System or is designed to remain energized without connection to the remainder of the System, with the ability to energize a bus, meeting the TOP restoration plan needs for real and reactive capability, frequency and voltage control, and that has been included in the TOP restoration plan."

The definition of **Facility** is "A set of electrical equipment that operates as a single Bulk Electric System element."

Therefore, according to the proposed definition, it follows that Blackstart Resources are **Bulk Electric System** elements which **generally operate above 100KV**. The diagram below depicts potential variations for interpretations related to the equipment to be included as Blackstart Resources.





Both interpretations of the definition could be rationalized to meet the needs of the TOP. Realistically, if the large thermal unit is not capable of closing on a bus without a sync signal and is not capable of varying voltage and frequency, the first interpretation of a Blackstart Resource would result. Is it the intent of the SDT that this first interpretation would be considered a valid Blackstart Resource in some instances? Under this first interpretation the large thermal unit would not be tested, only the small CT or diesel.

If the words “capable of energizing a transmission line to support load and supplying starting power to the next non-blackstart unit not at the same physical location” were added it would help eliminate the first interpretation, and more clearly define the actual Blackstart Resource being relied upon by the TOP.

Therefore we propose the following definition:

Blackstart Resource: A generation Facility and associated set of equipment which:

1. **Has the ability to be started without support from the System or is designed to remain energized without connection to the remainder of the System, and**
2. **Is capable of energizing a transmission line to support load and supplying starting power to the next non-blackstart unit not at the same physical location, and**
3. **Has the ability to energize a bus, meeting the Transmission Operator's restoration plan needs for real and reactive capability, frequency and voltage control, and**
4. **Has been included in the Transmission Operator's restoration plan.**

This definition is extremely important as it may influence many areas of compensation from Black start tariffs and other standards such as CIP-002. CIP-002 defines the criteria to review assets as critical. The CIP standard now refers to blackstart generators and not "Blackstart Resources". If a Generator Operator interprets the definition as the first interpretation he may not protect the large thermal unit from a cyber attack. Under that scenario the small diesel or CT would be of little use to energize the Bulk Electric System.