

Comment Summary

Project 2014-04 Physical Security

The Project 2014-04 Physical Security Standard Authorization Request (SAR) was posted for a 7-day public comment period from March 21, 2014 through March 28, 2014. Stakeholders were asked to provide feedback on the standards and associated documents through a special electronic comment form.

Index to Questions, Comments, and Responses

1. Do you agree with the scope and contents of the SAR? If not, please provide specific comments and suggestions for SDT consideration.10

2. Are you aware of any regional variances associated with approved NERC Reliability Standards that will be needed as a result of this project? If yes, please identify the Regional Variance30

3. Are you aware of any Canadian provincial or other regulatory requirements that may need to be considered during this project in order to develop a continent-wide approach to the standard(s)? If yes, please identify the jurisdiction and specific regulatory requirements.....35

4. Are there any other concerns with this SAR?40

The Industry Segments are:

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

Group/Individual		Commenter	Organization	Registered Ballot Body Segment									
				1	2	3	4	5	6	7	8	9	10
1.	Group	Lee Pedowicz	Northeast Power Coordinating Council										X
Additional Member		Additional Organization	Region	Segment Selection									
1.	Alan Adamson	New York State Reliability Council, LLC	NPCC	10									
2.	David Burke	Orange and Rockland Utilities Inc.	NPCC	3									
3.	Greg Campoli	New York Independent System Operator	NPCC	2									
4.	Sylvain Clermont	Hydro-Quebec TransEnergie	NPCC	1									
5.	Ben Wu	Orange and Rockland Utilities Inc.	NPCC	1									
6.	Gerry Dunbar	Northeast Power Coordinating Council	NPCC	10									
7.	Mike Garton	Dominion Resources Services, Inc.	NPCC	5									
8.	Kathleen Goodman	ISO - New England	NPCC	2									
9.	Ayesha Sabouba	Hydro One Networks, Inc.	NPCC	1									
10.	Mark Kenny	Northeast Utilities	NPCC	1									

Group/Individual	Commenter	Organization	Registered Ballot Body Segment											
			1	2	3	4	5	6	7	8	9	10		
11. Christina Koncz	PSEG Power LLC	NPCC 5												
12. Helen Lainis	Independent Electricity System Operator	NPCC 2												
13. Michael Lombardi	Northeast Power Coordinating Council	NPCC 10												
14. Alan MacNaughton	New Brunswick Power Corporation	NPCC 9												
15. Bruce Metruck	New York Power Authority	NPCC 6												
16. Silvia Parada Mitchell	NextEra energy, LLC	NPCC 5												
17. Lee Pedowicz	Northeast Power Coordinating Council	NPCC 10												
18. Robert Pellegrini	The United Illuminating Company	NPCC 1												
19. Si Truc Phan	Hydro-Quebec TransEnergie	NPCC 1												
20. David Ramkalawan	Ontario Power Generation, Inc.	NPCC 5												
21. Wayne Sipperly	New York Power Authority	NPCC 5												
2.	Group	Richard Hoag	FirstEnergy Corp.	X		X	X	X	X					
Additional Member			Additional Organization	Region	Segment Selection									
1.	William Smith	FirstEnergy Corp	1											
2.	Cindy Stewart	FirstEnergy Corp	3											
3.	Doug Hohlbaugh	Ohio Edison	4											
4.	Ken Dresner	FirstEnergy Solutions	5											
5.	Kevin Querry	FirstEnergy Solutions	6											
6.	Richard Hoag	FirstEnergy Corp	NA											
3.	Group	Jared Shakespeare	Peak Reliability	X										
No Additional Responses.														
4.	Group	Connie Lowe	Dominion	X		X		X	X					
Additional Member			Additional Organization	Region	Segment Selection									
1.	Larry Nash	Dominion	SERC	1, 3, 5, 6										
2.	Mike Garton	Dominion	NPCC	5, 6										
3.	Randi Heise	Dominion	MRO	6										
4.	Louis Slade	Dominion	RFC	5, 6										
5.	Group	Marcus Pelt	Southern Company; Southern Company Services, Inc; Alabama Power Company; Georgia Power Company; Gulf Power Company; Mississippi Power Company;	X		X		X	X					

Group/Individual		Commenter	Organization	Registered Ballot Body Segment									
				1	2	3	4	5	6	7	8	9	10
			Southern Company Generation and Energy Marketing										
No Additional Responses													
6.	Group	Colby Bellville	Duke Energy	X		X		X	X				
		Additional Member	Additional Organization	Region	Segment	Selection							
1.	Doug Hils	Duke Energy	RFC	1									
2.	Lee Schuster	Duke Energy	FRCC	3									
3.	Dale Goodwine	Duke Energy	SERC	5									
4.	Greg Cecil	Duke Energy	RFC	6									
7.	Group	Dennis Chastain	Tennessee Valley Authority	X		X		X	X				
		Additional Member	Additional Organization	Region	Segment	Selection							
1.	DeWayne Scott		SERC	1									
2.	Ian Grant		SERC	3									
3.	David Thompson		SERC	5									
4.	Marjorie Parsons		SERC	6									
8.	Group	Greg Campoli	ISO RTO standards Review Committee		X								
		Additional Member	Additional Organization	Region	Segment	Selection							
1.	Lori Spence	MISO	MRO	2									
2.	Cheryl Moseley	ERCOT	ERCOT	2									
3.	Matt Goldberg	ISONE	NPCC	2									
4.	Charles Yeung	SPP	SPP	2									
5.	Ben Li	IESO	NPCC	2									
6.	Tom Bowe	PJM	RFC	2									
7.	Ali Miremadi	CAISO	WECC	2									
9.	Group	Warren Cross	ACES Standards Collaborators						X				
		Additional Member	Additional Organization	Region	Segment	Selection							
1.	Old Dominion Electric Cooperative		SERC	3, 4									
2.	Brazos Electric Power Cooperative		ERCOT	1, 5									
3.	Golden Spread Electric Cooperative		ERCOT	5									
4.	Sunflower Electric Power Corporation		SPP	1									

Group/Individual		Commenter	Organization	Registered Ballot Body Segment									
				1	2	3	4	5	6	7	8	9	10
5. Great River Energy			MRO	1, 3, 5, 6									
6. Hoosier Energy Rural Electric Cooperative			RFC	1									
10.	Group	Robert Rhodes	SPP Standards Review Group		X								
	Additional Member	Additional Organization	Region	Segment Selection									
1.	Matthew Bordelon	Cleco Power	SPP	1, 3, 5, 6									
2.	Chris Carlson	Grand River Dam Authority	SPP	1									
3.	Phil Clark	Grand River Dam Authority	SPP	1									
4.	Michelle Corley	Cleco Power	SPP	1, 3, 5, 6									
5.	Tony Eddleman	Nebraska Public Power District	MRO	1, 3, 5									
6.	Louis Guidry	Cleco Power	SPP	1, 3, 5, 6									
7.	Robert Hirchak	Cleco Power	SPP	1, 3, 5, 6									
8.	Kyle McMenamin	Xcel Energy	SPP	1, 3, 5, 6									
9.	Fred Meyer	Empire Electric District	SPP	1, 3, 5									
10.	Shannon Mickens	Southwest Power Pool	SPP	2									
11.	Pat Morrill	Kansas City Board of Public Utilities	SPP	3									
12.	James Nail	City of Independence, MO	SPP	3									
13.	Dennis Sauriol	American Electric Power	SERC	1, 3, 5									
14.	Don Schmit	Nebraska Public Power District	MRO	1, 3, 5									
15.	Angela Summer	Southwestern Power Administration	SPP	1									
16.	Tracey Stewart	Southwestern Power Administration	SPP	1									
17.	Ellen Watkins	Sunflower Electric Power Corporation	SPP	1									
11.	Group	Andrea Jessup	Bonneville Power Administration		X		X		X	X			
	Additional Member	Additional Organization	Region	Segment Selection									
1.	Jeff Millenor	Physical Security	WECC	1									
2.	Richard Becker	Substation Engineering	WECC	1									
12.	Group	William Harris	Foundation for Resilient Societies									X	
No Additional Responses													
13.	Individual	Dan Inman	Minnkota Power Cooperative		X								
14.	Individual	Oliver Burke	Entergy Services, Inc.		X								
15.	Individual	Peter Scalici	NPCC										

Group/Individual		Commenter	Organization	Registered Ballot Body Segment									
				1	2	3	4	5	6	7	8	9	10
16.	Individual	Debra R Warner	Self								X		
17.	Individual	Steve Hamburg	Encari	X									
18.	Individual	Chris Scanlon	Exelon	X		X	X	X	X				
19.	Individual	Harold Dalson	Consumers Energy		X	X	X						
20.	Individual	Kevin Weber	Energy Services, Inc.	X		X							
21.	Individual	Tim Reagan	Ameren	X									
22.	Individual	Gary Pagel	Idaho Power Co.	X									
23.	Individual	Karen Webb	City of Tallahassee - Electric Utility					X					
24.	Individual	David Kiguel	David Kiguel								X		
25.	Individual	Ralph Meyer	The Empire District Electric Company	X		X		X					
26.	Individual	mike kidwell	the empire district electric company					X					
27.	Individual	Kalem Long	The Empire District Electric Company			X							
28.	Individual	Megan Wagner	Westar Energy	X		X	X	X	X				
29.	Individual	Aaron Staley	Orlando Utilities Commission	X		X		X					
30.	Individual	Michelle R D'Antuono	Occidental Energy Ventures Corp.			X		X		X			
31.	Individual	Martyn Turner	LCRA Transmission Services Corporation	X									
32.	Individual	Shannon Fair	Colorado Springs Utilities	X				X					
33.	Individual	Bill Fowler	City of Tallahassee			X							
34.	Individual	Scott Langston	City of Tallahassee	X									
35.	Individual	Michael Falvo	Independent Electricity System Operator		X								
36.	Individual	Joseph DePoorter	Madison Gas and Electric Company				X						
37.	Individual	Nazra Gladu	Manitoba Hydro	X		X		X	X				
38.	Individual	Thomas Foltz	American Electric Power	X		X		X	X				
39.	Individual	David Ramkalawan	OPG					X					
40.	Individual	Lisa Martin	City of Austin dba Austin Energy	X		X	X	X	X				
41.	Individual	Ayesha Sabouba	Hydro One	X		X							

Group/Individual		Commenter	Organization	Registered Ballot Body Segment									
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42.	Individual	Andrew Z. Pusztai	American Transmission Company, LLC	X									
43.	Individual	Bill Temple	Northeast Utilities	X									
44.	Individual	Amy Casuscelli	Xcel Energy Inc.	X			X	X	X				
45.	Individual	Brian Evans-Mongeon	Utility Services, Inc								X		
46.	Individual	Tony Eddleman	Nebraska Public Power District	X		X		X					
47.	Individual	David Jendras	Ameren	X		X		X	X				
48.	Individual	Alan MacNaughton	New Brunswick Power Corporation	X	X	X		X					
49.	Individual	Sergio Banuelos	Tri-State Generation and Transmission Association, Inc.	X		X		X					
50.	Individual	Bob Steiger	Salt River Project	X		X		X	X				
51.	Individual	Jennifer Flandermeyer	Kansas City Power & Light	X		X		X	X				

If you support the comments submitted by another entity and would like to indicate you agree with their comments, please select "agree" below and enter the entity's name in the comment section (please provide the name of the organization, trade association, group, or committee, rather than the name of the individual submitter).

Organization	Agree	Supporting Comments of "Entity Name"
NPCC	Agree	
Ameren	Agree	Eric ScottAmeren

1. Do you agree with the scope and contents of the SAR? If not, please provide specific comments and suggestions for SDT consideration.

Organization	Yes or No	Question 1 Comment
Tennessee Valley Authority	No	<p>The SDT should consider expanding the applicable entities identified in the SAR. For instance, the type of system risk assessment that FERC suggests in the March 7 order is likely to be conducted by the Transmission Planner / Planning Authority. The Reliability Coordinator might also have information that is pertinent to such a risk assessment from a wide area operations viewpoint. In the event that a generating plant or associated transmission switchyard is identified as a critical facility, the Generator Owner / Generator Operator should be involved in the process of evaluating potential threats and vulnerabilities to those facilities and the development and implementation of the security plan. The following standards should be added to the list of relevant standards to be reviewed by the SDT: CIP-002-3 (R1, R1.2); CIP-002-5.1 (R1 and Attachment 1, Impact Rating Criteria for BES Cyber Systems); FAC-010-2.1 (addresses the Planning Authority (Coordinator) methodology for identifying IROLs); FAC-011-2 (addresses the Reliability Coordinator methodology for identifying IROLs); FAC-014-2 (R5.1.1, use of “critical” in reference to Facility(ies) used to derive an IROL); IRO-002-2 (R5, use of “critical” in reference to BES elements); IRO-003-2 (R2, use of “critical facilities”); IRO-008-1 / IRO-009-1 / IRO-010-1a / TOP-001-2 / TOP-004-2 (the purpose statement for these standards includes “to prevent instability, uncontrolled separation, or cascading outages”, which is language used in the FERC order for identifying critical facilities); TPL-001-4 (R6, addresses the criteria or methodology used by the TP and PC to identify System instability) The SDT should also consider the definition of Interconnection Reliability Operating Limit (IROL) in</p>

Organization	Yes or No	Question 1 Comment
		development of the physical security standard. This definition includes language used in the FERC order to describe a “critical facility”.
SPP Standards Review Group	No	The FERC order references facilities which we assume are then tied to the existing definition of Critical Assets as defined in the Glossary of Terms. This definition is scheduled to be retired on March 31, 2016. How does one then determine the list of ‘critical’ facilities if that definition no longer exists? The distinction between critical facility and critical asset needs to be figured out. Also, FERC’s interpretation of ‘facility’ isn’t consistent with the NERC definition of Facility since FERC implies a control center is a facility in Footnote 6 on Page 3 of the order. We need to come to some resolution of terms in order to determine where the playing field lies. The SAR refers only to TOs and TOPs with no reference to GOs and GOPs who also own and operate facilities on the BES. Why were they left out? Also, BAs and RCs are not listed as applicable entities. Shouldn’t they be included also? Will FERC accept a standard without these entities being included? While the SAR refers to the entire order being incorporated into the SAR we suggest that the SDT specifically list each of the directives in bullet fashion in the SAR such that the stakeholders can be assured that they have all been included and will then be addressed by the SDT.
Bonneville Power Administration	No	BPA believes that generally, this type of standard would be useful to the electric industry. The biggest issue for the SAR is the scope is loosely defined. As described, the objective of protecting critical facilities of the BES is stated too broadly and it is not apparent what countermeasures would be considered adequate or sufficient. ...”Then, owners or operators of those identified critical facilities should develop, validate and implement plans to protect against physical attacks that may compromise the operability or recovery of such facilities.” BPA believes that there are also many questions and issues to resolve to get to an acceptable level of risk that is lower than what may be in place today, and the 90 day drafting

Organization	Yes or No	Question 1 Comment
		<p>period may not be long enough to define adequate expectations. A phased development approach may be more conducive to obtaining the benefits desired - - for example, assessment and ranking standard(s) first followed by mitigation options and requirements standard(s) to address gaps identified by the assessment.</p>
Foundation for Resilient Societies	No	<p>SAR Only includes Transmission Owners and Operators. This does not include all critical facilities.</p>
Self	No	<p>After reviewing the SAR, where in the Reliability and Market Interface Principles the box 5 for facilities for communication monitoring and control are referenced, I believe that the Reliability Coordinator Function should have been checked also. Is this an oversight in the draft SAR?</p>
Consumers Energy	No	<p>The information contained in the attached PDF files seems very vague and open ended. I would specifically point ot page 2, under the Industry Need section 2nd paragraph, line 3:"will require certain registered entities" I believe the term certain should be changed to a term of greater focus such as "entities that meet a predetermined set of criteria used to determine local, regional, and national criticality."2nd paragraph, line 8:"may compromise", again I think there needs to be some "degree" of compromise contained in this section. Example a chunk of stolen copper, to some degree can compromise a system, just as a VBIED can compromise a system. In areas where a "compromise" could cause a consequence at a local level, and the primary identified risk is trespass and copper theft this SAR as written suggests we 'Mitigate" the risk of compromise, not the cause of compromise coupled with the identified consequence of the compromise. An owner should have the ability to identify the risk, the consequence, and the mitigations to "prevent" that type of compromise in areas or sections of the system that would impact local, and perhaps to some degree regional consequences. If in fact an owner has assets that</p>

Organization	Yes or No	Question 1 Comment
		could, if compromised cause cascading events that impact areas outside of their system operational area, those assets would show a greater consequence area and would require a greater level of protection.
City of Tallahassee - Electric Utility	No	TAL has concerns with the expedited nature of the timeline. The issue of physical security has been known for quite some time. The timeline of this directive appears to be solely in reaction to the publishing of the Metcalf incident. This directive and expedited time line precludes the dialog from occurring that needs to take place to truly understand what is expected to satisfy the Commission’s desires. TAL believes this directive will yield a standard that is difficult to enforce with little benefit to the large majority of the BES. Additionally, the publicizing of certain “known” studies indicating that as little as nine substations will cause a large blackout is problematic.
David Kiguel	No	<p>1. The SAR should include other entities in the applicability section such as Generator Owners (GO) and Generator Operators (GOP). The FERC Directive indicates that the proposed Reliability Standards should require owners or operators of the Bulk-Power System, as appropriate, to identify facilities on the Bulk-Power System that are critical to the reliable operation of the Bulk-Power System. It is clear that GOs and GOPs also own and operate Bulk-Power System facilities.</p> <p>2. The FERC Directive requires that a risk assessment of the systems to identify their “critical facilities” be performed. In many cases, the entity that would be in the best position to perform such assessment would be the RC or the PC. It is suggested one of these be added in the SAR so the SDT can assign this responsibility to one of these functional entities.</p> <p>3. The FERC Directive contains a requirement that NERC includes in the Reliability Standards a procedure that will ensure confidential treatment of sensitive or confidential information but still allow for the Commission, NERC and the Regional Entities to review and inspect any information that is needed to ensure compliance with the Reliability</p>

Organization	Yes or No	Question 1 Comment
		Standards. Review and inspect such information on the part of the Commission should be limited to entities that are under FERC's jurisdiction. Canadian and/or Mexican data should be provided to regulators in the respective jurisdiction only, unless aggregated in a manner that will not allow to identify individual entities.
The Empire District Electric Company	No	The FERC order references facilities which we assume are then tied to the existing definition of Critical Assets as defined in the Glossary of Terms. This definition is scheduled to be retired on March 31, 2016. How does one then determine the list of 'critical' facilities if that definition no longer exists? The distinction between critical facility and critical asset needs to be addressed so that the expectation of a critical facility is clear to entities. Also, FERC's interpretation of 'facility' isn't consistent with the NERC definition of Facility since FERC implies a control center is a facility in Footnote 6 on Page 3 of the order. There needs to be some resolution of terms in order to determine where FERC's concern is focused so that a proper solution can be developed. The SAR refers only to TOs and TOPs with no reference to GOs and GOPs who also own and operate facilities on the BES. These may be considered? Also, BAs and RCs are not listed as applicable entities-shouldn't they be included also as they have the overall ability to direct and control the BES? Will FERC accept a standard without these entities being included? While the SAR refers to the entire order being incorporated into the SAR we suggest that the SDT specifically list each of the directives in bullet fashion in the SAR such that the stakeholders can be assured that they have all been included and will then be addressed by the SDT.
the empire district electric company	No	The FERC order references facilities which we assume are then tied to the existing definition of Critical Assets as defined in the Glossary of Terms. This definition is scheduled to be retired on March 31, 2016. How does one then determine the list of 'critical' facilities if that definition no longer exists? The distinction between critical facility and critical asset needs to be figured out.

Organization	Yes or No	Question 1 Comment
		<p>Also, FERC’s interpretation of ‘facility’ isn’t consistent with the NERC definition of Facility since FERC implies a control center is a facility in Footnote 6 on Page 3 of the order. We need to come to some resolution of terms in order to determine where the playing field lies. The SAR refers only to TOs and TOPs with no reference to GOs and GOPs who also own and operate facilities on the BES. Why were they left out? Also, BAs and RCs are not listed as applicable entities. Shouldn’t they be included also? Will FERC accept a standard without these entities being included? While the SAR refers to the entire order being incorporated into the SAR we suggest that the SDT specifically list each of the directives in bullet fashion in the SAR such that the stakeholders can be assured that they have all been included and will then be addressed by the SDT.</p>
The Empire District Electric Company	No	<p>The FERC order references facilities which we assume are then tied to the existing definition of Critical Assets as defined in the Glossary of Terms. This definition is scheduled to be retired on March 31, 2016. How does one then determine the list of ‘critical’ facilities if that definition no longer exists? The distinction between critical facility and critical asset needs to be figured out. Also, FERC’s interpretation of ‘facility’ isn’t consistent with the NERC definition of Facility since FERC implies a control center is a facility in Footnote 6 on Page 3 of the order. We need to come to some resolution of terms in order to determine where the playing field lies. The SAR refers only to TOs and TOPs with no reference to GOs and GOPs who also own and operate facilities on the BES. Why were they left out? Also, BAs and RCs are not listed as applicable entities. Shouldn’t they be included also? Will FERC accept a standard without these entities being included? While the SAR refers to the entire order being incorporated into the SAR we suggest that the SDT specifically list each of the directives in bullet fashion in the SAR such that the stakeholders can be assured that they have all been included and will then be addressed by the SDT.</p>

Organization	Yes or No	Question 1 Comment
Westar Energy	No	The SAR refers only to TOs and TOPs with no reference to other registered functions. Should the applicability be expanded to include all registered functions who own and operate facilities on the BES and would be involved in the assessment process?
Colorado Springs Utilities	No	The SAR refers to the entire order being incorporated into the SAR we suggest that the SDT specifically list each of the directives in bullet fashion in the SAR such that the stakeholders can be assured that they have all been included and will then be addressed by the SDT. We would recommend Brightline Criteria For the identification of critical Bulk Electric System Facilities, based on either the Transmission Planning Standard TPL-004a or identification of the largest single contingency for each interconnection. If we need a single number, including only Facilities that provide or control over 3000 MW of generation or transmission or transmission operating at 300 kV and above. Case-specific analysis and consideration of exceptions will be needed, but we need to start with a high lower limit.
City of Tallahassee	No	TAL has concerns with the expedited nature of the timeline. The issue of physical security has been known for quite some time. The timeline of this directive appears to be solely in reaction to the publishing of the Metcalf incident. This directive and expedited time line precludes the dialog from occurring that needs to take place to truly understand what is expected to satisfy the Commission’s desires. TAL believes this directive will yield a standard that is difficult to enforce with little benefit to the large majority of the BES. Additionally, the publicizing of certain “known” studies indicating that as little as nine substations will cause a large blackout is problematic.

Organization	Yes or No	Question 1 Comment
City of Tallahassee	No	<p>TAL has concerns with the expedited nature of the timeline. The issue of physical security has been known for quite some time. The timeline of this directive appears to be solely in reaction to the publishing of the Metcalf incident. This directive and expedited timeline precludes the dialog from occurring that needs to take place to truly understand what is expected to satisfy the Commission’s desires. TAL believes this directive will yield a standard that is difficult to enforce with little benefit to the large majority of the BES. Additionally, the publicizing of certain “known” studies indicating that as little as nine substations will cause a large blackout is problematic.</p>
Independent Electricity System Operator	No	<p>We generally agree with the purpose and scope of the SAR, but we disagree with the applicability. The purpose of this project is develop a standard that will require owners and/or operators of the Bulk-Power System, as appropriate, to identify facilities on the Bulk-Power System that are critical to the reliable operation of the Bulk-Power System. Then, owners or operators of those identified critical facilities should develop, validate and implement plans to protect against physical attacks that may compromise the operability or recovery of such facilities. We interpret the “identify facilities” part in the first sentence to mean assessing the reliability impacts of the facilities which, if deemed inoperable, can result in instability, uncontrolled separation or cascading failures on the Bulk-Power System. Such tasks will thus require power system analysis not unlike the type required for transmission planning assessment, with a focus on losing the all the facilities at a location (e.g. a transmission substation, a large power plant, a right of way, etc.). These tasks will likely involve the Planning Coordinator and/or the Reliability Coordinator. This interpretation is also inferred from Para. 6 and Footnote #6 of the Order. Below is an excerpt of Para. 6 and FN#6:6. First, the Reliability Standards should require owners or operators of the Bulk-Power System to perform a risk assessment of their</p>

Organization	Yes or No	Question 1 Comment
		<p>systems to identify their “critical facilities.” A critical facility is one that, if rendered inoperable or damaged, could have a critical impact on the operation of the interconnection through instability, uncontrolled separation or cascading failures on the Bulk-Power System. Methodologies to determine these facilities should be based on objective analysis, technical expertise, and experienced judgment. The Commission is not requiring NERC to adopt a specific type of risk assessment, nor is the Commission requiring that a mandatory number of facilities be identified as critical facilities under the Reliability Standards. (FN#6) Instead, the Commission is directing NERC to develop Reliability Standards that will ensure that owners or operators of the Bulk-Power System identify those facilities that are critical to the reliable operation of the Bulk-Power System.FN#6 says: However, the Commission expects that critical facilities generally will include, but not be limited to, critical substations and critical control centers.Two key points:a. FN#6 clearly indicates that it is the Commission’s expectation that control centres are critical facilities. The most critical control centres are those of the RCs. Hence, the RC’s inclusion in the standard appears to be very likely.b. Para 6 suggests that critical facilities are necessary those that if rendered not operable, they have wide-area reliability impact associated with instability, uncontrolled separation or cascading failures. We fully expect the standard to require responsible entities to have a process and criteria in place with which to identify the critical facilities from a wide-area reliability impact point of view. Such tasks will involve reliability assessments that are normally performed by the Planning Coordinator and Reliability Coordinator, depending on the time frame. In the Applicability Section, however, neither the PC’s nor the RC’s box is checked. We suggest the SAR be revised to include at least these two entities as potential applicable entities so that the drafting team does not foreclose the possibility that reliability assessments need to be conducted to aid the identification of critical facilities. Further, we believe Generator</p>

Organization	Yes or No	Question 1 Comment
		<p>Owners and Generator Operators may also be involved since critical facilities may not be just limited to transmission facilities of control centres. Large power plants, if deemed inoperable, can also result in wide-area reliability concerns. We suggest the SAR be revised to include these two entities as potential applicable entities.</p>
American Electric Power	No	<p>Please see comments provided in response to Question 4.</p>
Hydro One	No	<p>The SAR does not ask the SDT to identify timelines by which the third-party verification, following the completion of the risk assessment, would be required. The FERC Order also does not specify timelines for how soon the third-party verification must be completed after the completion of the risk assessment. The scope of the standard should be limited to protection against physical attacks. Identifying which physical facilities are critical facilities should be determined through a BPS assessment of risk and the methodology by which this assessment is conducted should be identified in the standard. The assessment of risk or vulnerabilities should consider other standards including CIP and the new GMD Stage 2 project which will be a new TPL standard.</p>
American Transmission Company, LLC	No	<p>Currently, only Transmission Owners (TOs) and Transmission Operators (TOPs) are applicable Reliability Functions checked on the SAR on page 4. ATC believes those having experience in performing risk assessments and identifying critical facilities should also be included, which would be Planning Coordinators(PCs), Reliability Coordinators(RCs), and Transmission Planners(TPs). (and checked as applicable in the SAR for Reliability Functions on pp. 3 and 4) The basis for making PCs, RCs, and TPs applicable to the SAR and new Standard is also implied by one of the FERC Directives below addressing the need for a risk assessment: The following is an excerpt from the FERC Order:..... the Reliability Standards should require owners or operators of the Bulk-Power System to perform a risk</p>

Organization	Yes or No	Question 1 Comment
		<p>assessment of their systems to identify their “critical facilities.” A critical facility is one that, if rendered inoperable or damaged, could have a critical impact on the operation of the interconnection through instability, uncontrolled separation or cascading failures on the Bulk-Power System.⁵ Methodologies to determine these facilities should be based on objective analysis, technical expertise, and experienced judgment. The Commission is not requiring NERC to adopt a specific type of risk assessment, nor is the Commission requiring that a mandatory number of facilities be identified as critical facilities under the Reliability Standards.⁶ Instead, the Commission is directing NERC to develop Reliability Standards that will ensure that owners or operators of the Bulk-Power System identify those facilities that are critical to the reliable operation of the Bulk-Power System such that if those facilities are rendered inoperable or damaged, instability, uncontrolled separation or cascading failures could result on the Bulk-Power System and thereby warrant the directive imposed here. In addition, ATC believes that Generator Owners (GOs) and Generator Operators (GOPs) should be added to the Reliability Functions of the SAR. The FERC Order states that “The proposed Reliability Standards should require owners or operators of the Bulk-Power System, as appropriate, to identify facilities on the Bulk-Power System that are critical to the reliable operation of the Bulk-Power System. Then, owners or operators of those identified critical facilities should develop, validate and implement plans to protect against physical attacks that may compromise the operability or recovery of such facilities.” To address owners and operators of generation facilities that are part of the Bulk-Power System, GOs and GOPs should be included in the Reliability Functions of the SAR. With the above justification, ATC is recommending that the GOs, GOPs, PCs, RCs and TPs be checked on the SAR as applicable Reliability Functions.</p>
Utility Services, Inc	No	The SAR attempts to address the Commission’s directive by requiring only Transmission Owners and Transmission Operators to protect certain types

Organization	Yes or No	Question 1 Comment
		<p>of facilities , however this may not fully address the directives. The Commission is seeking to physically protect BPS facilities that will impact to the reliable operation of the BPS. Generation is recognized to be a part of maintaining the reliability and resiliency of the BPS. Based on several factors, including but not limited to location and operating profile, a significant generation facility could have a huge effect on the reliable operation of the BPS. The SAR should, at a minimum, examine whether generating stations consisting of 3000 MW or more need to be included in the applicability of this project. This matches up to the treatment of the other types of assets being contemplated herein.</p>
Nebraska Public Power District	No	<p>If a list of the most critical substations exists, why are we trying to develop a new process to determine the list without first getting to see the list? The draft standard is due to FERC within 90 days, but we are being asked to develop a process to match their list, when we don't even know what is on the list. Shouldn't Congress get involved and pass a law within 90 days to require the military to protect the substations? No, just as we shouldn't have to draft a new standard within 90 days. Our NERC standard development process, similar to the process Congress uses to pass new federal requirements is intentionally designed with checks and balances, plus adequate time for review to prevent knee-jerk reactions to events. We need to spend time to get this right and not rush something through. This expedited standard development has the potential to derail our entire NERC standard development process. I feel like we have been blind folded and put into a room and told to hit a small target with a dart and we don't even know which wall or direction to throw the dart. We work in a very complex industry with very talented staff across North America. FERC's staff is more appropriately aligned toward oversight, without the technical expertise to understand the full impact of implementation of new rules and regulations. Why are we jeopardizing our entire process for this standard? Is there an imminent threat? If so, our leaders should find a more</p>

Organization	Yes or No	Question 1 Comment
		<p>appropriate path for a solution (i.e., deploy our military). We already have multiple NERC requirements to identify and designate our facilities as critical. Introducing a new requirement to identify critical facilities will create confusion and unintended consequences. The CIP standards have been through several iterations of identifying critical facilities and continue to evolve. This has been a moving target, so why introduce yet another process to determine critical facilities. Our planning standards require us to study our systems and methodically improve the infrastructure to prevent cascading outages. Do those planning standards need to be modified to consider physical attacks? Would that be a more appropriate path to a solution for this issue?</p>
Ameren	No	<p>1) The related standards section of the SAR should include CIP-002-5 so that the criteria to determine which facilities are critical as a preliminary list for the new physical security standard will not conflict with the bright-line criteria in CIP-002-5.</p>
Tri-State Generation and Transmission Association, Inc.	No	<p>TSGT does not agree that Transmission Operators should be included in the Reliability Functions. The March 7, 2014 FERC Order, paragraph 1, states "...owners or operators of the Bulk-Power System, as appropriate...". Transmission Owners have the legal and/or contractual ability to dictate how physical environments within a facility are addressed. There is nothing within the TOP function that formally allows the entity to dictate or ensure that any physical security concerns are met under this standard, unless otherwise dictated by contracts and/or agreements. If Transmission Operators are kept as a Reliability Function under this standard, the standard should clearly define which TOPS versus TOs should be included to ensure the "appropriate" entity is included and that the same facilities are not repeatedly reported by multiple entities.</p>

Organization	Yes or No	Question 1 Comment
Salt River Project	No	The SAR, under the section “Related Standards” lists only CIP-006-5, CIP-008-5 and CIP-009-5. It should also consider additional related standards CIP-002-5, CIP-002-3, CIP-006-3, CIP-008-3, CIP-009-3, EOP-004-1, and the TPL family of standards. The SAR should work both to avoid inconsistencies between any new standard and the existing standards and also avoid redundancies as well.
Kansas City Power & Light	No	The FERC order references facilities and it is assumed this is linked to the existing definition of Critical Assets as defined in the Glossary of Terms. This definition is scheduled to be retired on March 31, 2016. There are many references to critical in the standards. Clarity as well as consistency is needed in the definition of critical and expressly for what purpose (reliability, security, resiliency, etc.). If the definition of critical facilities will be retired, common understanding of this term should be defined somewhere for consistent language between ERO staff and registered entities. The distinction between critical facility and critical asset should also be defined. Also, FERC’s interpretation of facility is inconsistent with the NERC definition of Facility as FERC implies a control center is a facility in Footnote 6 on Page 3 of the order. Before this would become mandatory and enforceable, resolution of definition of terms is required to ensure consistency in application. The SAR reference determines applicability only to the TO and TOP functions. Whether based on the registry criteria or functional model activities, the determination of critical can be impacted or influenced by Transmission Planners, Generator Owners and Generator Operators who also model, plan, own and operate facilities on the BES. Applicability should be considered for Balancing Authorities, Planning Coordinators, and Reliability Coordinators depending on criticality for the purpose of reliability, security and resiliency. While the SAR refers to the entire order being incorporated into the SAR, KCP&L recommends that the SDT specifically list each of the directives in the SAR such that the

Organization	Yes or No	Question 1 Comment
		stakeholders can be assured that they have all been included and will then be addressed by the SDT.
Northeast Power Coordinating Council	Yes	<p>Agree generally with the scope. Care must be taken that the requirements developed are consistent with the applicable reliability functions as noted in the SAR. The scope of the standard should be limited to protection against physical attacks. The determination of which physical facilities to protect (identified to be “critical”) should come through a BPS assessment of risk that will need to be defined in the Standard, and depending on how that is done, might involve other types of registered entities or work done under other standards (e.g., CIP or even the GMD Stage 2 effort in which a new TPL Standard is under development, for similar reasons of determining what system risks to address). Regarding the Applicability, the purpose of this project is develop a standard that will require owners and/or operators of the Bulk Power System, as appropriate, to identify facilities on the Bulk Power System that are critical to the reliable operation of the Bulk Power System. Then, owners or operators of those identified critical facilities should develop, validate and implement plans to protect against physical attacks that may compromise the operability or recovery of such facilities. Such tasks might require power system impact analyses not unlike the type required for system impact assessments, with a focus on losing all the facilities at a location (e.g. a transmission substation, a large power plant, a right of way, etc.). We do not disagree with the applicable entities as specified in the proposed SAR, but are looking for clarification on how the assessments are obtained, and whether other functional entities might be asked for input from owners/operators. Put another way, depending on the types of impacts the Standard will seek to protect against, entities within the entire Interconnection, or maybe even specific regions within the Interconnection, might need to be included in the Standard. Can NERC or the SDT provide guidance on whether the loss of generating facilities might have interconnection or area wide impacts that the Standard needs to</p>

Organization	Yes or No	Question 1 Comment
		<p>protect against happening?To avoid compromising operations as stated in the SAR, we believe that consideration should be given to entities focusing more on the resiliency and the redundancy of the network rather than on additional physical security measures. Attacks may not be able to be prevented, but the consequences of an attack can be mitigated. This is the type of assessment that is best performed using the techniques in the TPL standards.Furthermore, according to the SAR, the SDT is to develop a standard that addresses risk factors, levels of acceptable security and the implementation of a protection plan. We believe that these elements can not be standardized as threat assessments are not the same from one entity to another. Consequently, the acceptable levels of safety cannot be identical. All of these factors lead us to believe that the development of fixed criteria regarding levels of acceptable risk and security cannot be identical from one entity to another. The SDT also has to consider and address the standard with respect to Canadian differences.</p>
Duke Energy	Yes	(1)Duke Energy agrees with the scope and contents of the SAR.
ISO RTO standards Review Committee	Yes	<p>We generally agree with the purpose and scope of the SAR, but we ask for clarification on how the SAR will address certain aspects of the FERC Order. Based upon the FERC Order for Physical Security Standards, we understand the task for NERC and the industry is to develop a standard that will require owners and/or operators of the Bulkâ€Power System, as appropriate, to identify facilities on the Bulkâ€Power System that are critical to the reliable operation of the Bulkâ€Power System. Then, owners or operators of those identified critical facilities should develop, validate and implement plans to protect against physical attacks that may compromise the operability or recovery of such facilities. Such tasks may require power system analysis not unlike the type required for transmission planning assessment, with a focus on loss of all the facilities at a physical location (e.g. a transmission substation, a large power plant, a right of way, etc.). We</p>

Organization	Yes or No	Question 1 Comment
		do not disagree with the applicable entities as denoted in the proposed SAR and are not seeking to expand the SAR to apply to Planning Authority (PA) and Reliability Coordinator (RC). However, we ask for clarification of how the assessments are obtained. Depending on the nature of the type of risk assessment developed under this Standard, certain tasks may need to involve the PA and/or the RC. Moreover, while the identification of “critical facilities” might not be the same as what may be identified under CIP-002-5 effective April 1, 2016 for High and Medium impact systems), CIP-002-5 (or PRC-023) might provide a model to use for RC/PA providing information to asset owners. We ask if these requirements can and will be relied upon.
ACES Standards Collaborators	Yes	ACES supports Project 2014-04 Physical Security SAR and NERC’s efforts to protect the BES from either a cyber or physical security attack. NERC guidance should be developed to provide industry with examples of acceptable protections against various threat vectors and what level of resiliency should be in place. We support the drafting team in its development of a consistent and effective physical security standard for impacted registered entities across the regions. We also caution the drafting team to consider and minimize unintended consequences of these standards. For example, if the standards require visual impairments to prevent a Metcalf style attack could such visual impairments become projectiles during a storm. If so, would such visual impairments improve reliability in areas prone to many storms and tornadoes?
Exelon	Yes	Yes, Exelon agrees the primary goal is to develop a standard with clear unambiguous requirements that address the FERC directives.
Occidental Energy Ventures Corp.	Yes	Occidental Energy Ventures Corp. (“OEV”) agrees that the SAR properly captures the language and intent of FERC’s order to address physical attacks on the BES. In addition, it is appropriate to limit the scope to high priority transmission assets - which we believe pose the most difficult

Organization	Yes or No	Question 1 Comment
		<p>logistical challenges based upon their sheer number and wide geographic distribution. Having said that, there is a concern that the 90 day turn around interval mandated by the Commission could introduce flaws that would normally be caught in the vetting process. We realize that FERC has the legal authority to compel an expedited time frame, but would prefer that the SAR clearly indicate a commitment to risk-based principles that will allow flexibility to the industry and CEA community alike. For example, it may be appropriate at this time to require entities to develop strategies that engage law enforcement and the FBI when a threat appears - whereas a requirement to fortify substations and/or control rooms would not be. As the industry gains experience with protective techniques through exercises and actual experience, the best-in-class strategies can be encoded in a standard - but not before.</p>
Madison Gas and Electric Company	Yes	<p>The SAR seems to directly reflect the FERC Order but to assure system reliability and perform adequate studies the PC and TP may need to be added to the applicability section, since they have the ability to perform reliability studies. Plus studies could be used within the TPL Standards.</p>
OPG	Yes	<p>The reliability functions identified in the SAR are TO (Transmission Owner) and TOP (Transmission Operator). GO (Generator Owner) and GOP (Generator Operator) are not identified and this makes good sense. BPS impacted equipment that may be owned by a GO is contained within a plant environment and are already protected by existing Physical Security Measures in place to protect the plant.</p>
City of Austin dba Austin Energy	Yes	<p>City of Austin dba Austin Energy (AE) agrees with the scope and contents of the SAR; however, we think it is appropriate to include #7 in the list of Applicable Reliability Principles. #7 states “The security of the</p>

Organization	Yes or No	Question 1 Comment
		interconnected bulk power systems shall be assessed, monitored and maintained on a wide area basis.”
Northeast Utilities	Yes	NU agrees with scope and applicability. NU urges the SDT to take care that the requirements developed are consistent with the applicable reliability functions (TO & TOP) as noted in the SAR.
FirstEnergy Corp.	Yes	
Peak Reliability	Yes	
Dominion	Yes	
Southern Company; Southern Company Services, Inc; Alabama Power Company; Georgia Power Company; Gulf Power Company; Mississippi Power Company; Southern Company Generation and Energy Marketing	Yes	
Minnkota Power Cooperative	Yes	
Entergy Services, Inc.	Yes	
Encari	Yes	
Entergy Services, Inc.	Yes	
Idaho Power Co.	Yes	
Orlando Utilities Commission	Yes	

Organization	Yes or No	Question 1 Comment
LCRA Transmission Services Corporation	Yes	
Manitoba Hydro	Yes	

2. Are you aware of any regional variances associated with approved NERC Reliability Standards that will be needed as a result of this project? If yes, please identify the Regional Variance

Organization	Yes or No	Question 2 Comment
FirstEnergy Corp.	No	
Peak Reliability	No	
Dominion	No	
Southern Company; Southern Company Services, Inc; Alabama Power Company; Georgia Power Company; Gulf Power Company; Mississippi Power Company; Southern Company Generation and Energy Marketing	No	
Duke Energy	No	
Tennessee Valley Authority	No	
ISO RTO standards Review Committee	No	
ACES Standards Collaborators	No	
Bonneville Power Administration	No	

Organization	Yes or No	Question 2 Comment
Foundation for Resilient Societies	No	
Minnkota Power Cooperative	No	
Entergy Services, Inc.	No	
Self	No	
Encari	No	
Exelon	No	
Consumers Energy	No	
Entergy Services, Inc.	No	
Idaho Power Co.	No	
City of Tallahassee - Electric Utility	No	
Westar Energy	No	
Orlando Utilities Commission	No	
Occidental Energy Ventures Corp.	No	
LCRA Transmission Services Corporation	No	

Organization	Yes or No	Question 2 Comment
Colorado Springs Utilities	No	
City of Tallahassee	No	
City of Tallahassee	No	
Madison Gas and Electric Company	No	
Manitoba Hydro	No	
American Electric Power	No	American Electric Power is not currently aware of any regional variances associated with approved NERC Reliability Standards that will be needed as a result of this project.
OPG	No	
City of Austin dba Austin Energy	No	
Hydro One	No	
American Transmission Company, LLC	No	
Northeast Utilities	No	
Xcel Energy Inc.	No	
Utility Services, Inc	No	

Organization	Yes or No	Question 2 Comment
Ameren	No	
Tri-State Generation and Transmission Association, Inc.	No	
Salt River Project	No	
Northeast Power Coordinating Council	Yes	There are regional differences in Quebec. The SDT should not establish predefined criteria for risk assessment since it cannot be the same for different entities. Each entity should have its basis of a threat and security level defined accordingly.
SPP Standards Review Group	Yes	Regional variances may need to be incorporated into the standards simply due to geographical differences across the regions which will need to be factored into the standards themselves. It may be necessary to give special consideration to specific situations.
The Empire District Electric Company	Yes	Regional variances may need to be incorporated into the standards simply due to geographical differences across the regions which will need to be factored into the standards themselves. It may be necessary to give special consideration to specific situations.
the empire district electric company	Yes	Regional variances may need to be incorporated into the standards simply due to geographical differences across the regions which will need to be factored into the standards themselves. It may be necessary to give special consideration to specific situations.
The Empire District Electric Company	Yes	Regional variances may need to be incorporated into the standards simply due to geographical differences across the regions which will need to be factored into the standards themselves. It may be necessary to give special consideration to specific situations.

Organization	Yes or No	Question 2 Comment
Kansas City Power & Light	Yes	Regional variances may need to be incorporated into the standards simply due to geographical differences across the regions which will need to be factored into the standards themselves - topography, climate, vegetation, etc.

3. Are you aware of any Canadian provincial or other regulatory requirements that may need to be considered during this project in order to develop a continent-wide approach to the standard(s)? If yes, please identify the jurisdiction and specific regulatory requirements.

Organization	Yes or No	Question 3 Comment
ISO RTO standards Review Committee	No	At this time, we are not aware of any jurisdictional issues that need to be considered by the drafting team and addressed in the standard. In addition, if the standard should involve protection of nuclear power plants, then there are differences in nuclear power plant regulations between the USA and Canada that may require recognition by the proposed standard.
American Electric Power	No	American Electric Power is not currently aware of any Canadian provincial or other regulatory requirements that may need to be considered during this project in order to develop a continent-wide approach to the standard.
Dominion	No	
Southern Company; Southern Company Services, Inc; Alabama Power Company; Georgia Power Company; Gulf Power Company; Mississippi Power Company; Southern Company Generation and Energy Marketing	No	
Tennessee Valley Authority	No	
ACES Standards Collaborators	No	

Organization	Yes or No	Question 3 Comment
Bonneville Power Administration	No	
Foundation for Resilient Societies	No	
Minnkota Power Cooperative	No	
Entergy Services, Inc.	No	
Self	No	
Encari	No	
Exelon	No	
Consumers Energy	No	
Entergy Services, Inc.	No	
Idaho Power Co.	No	
City of Tallahassee - Electric Utility	No	
The Empire District Electric Company	No	
the empire district electric company	No	

Organization	Yes or No	Question 3 Comment
The Empire District Electric Company	No	
Orlando Utilities Commission	No	
Occidental Energy Ventures Corp.	No	
LCRA Transmission Services Corporation	No	
Colorado Springs Utilities	No	
City of Tallahassee	No	
City of Tallahassee	No	
Madison Gas and Electric Company	No	
Manitoba Hydro	No	
OPG	No	
City of Austin dba Austin Energy	No	
American Transmission Company, LLC	No	
Northeast Utilities	No	

Organization	Yes or No	Question 3 Comment
Xcel Energy Inc.	No	
Utility Services, Inc	No	
Ameren	No	
Tri-State Generation and Transmission Association, Inc.	No	
Salt River Project	No	
Kansas City Power & Light	No	
Northeast Power Coordinating Council	Yes	At this time, it is uncertain whether or not there are any jurisdictional issues that need to be considered by the Standard Drafting Team and addressed in the standard. It depends on the proposed requirements as they relate to detection, protection and reporting of potential physical risks to safeguard physical security. In addition, if the standard should involve protection of nuclear power plants, then there are differences in nuclear power plant regulations between the United States and Canada that may require recognition by the proposed standard.
Duke Energy	Yes	(1)The SDT should ensure that facilities regulated by the Nuclear Regulatory Commission or Canadian Nuclear Safety Commission are considered for exemption in the drafting of a Physical Security standard.
David Kiguel	Yes	Please see my comment with respect to confidential information above (Question 1).
Hydro One	Yes	As well, there may be provincial regulations in Ontario that require government-owned entities such as utilities to follow procurement rules and if the new standard included timelines by which assessments must be verified by third-party, these utilities may not be able to go through procurement processes for normal work (i.e.

Organization	Yes or No	Question 3 Comment
		not emergency or restoration work) quickly enough if the timelines are insufficient. (I am looking into this to confirm).

4. Are there any other concerns with this SAR?

Organization	Yes or No	Question 4 Comment
FirstEnergy Corp.	No	
Peak Reliability	No	
Dominion	No	
Southern Company; Southern Company Services, Inc; Alabama Power Company; Georgia Power Company; Gulf Power Company; Mississippi Power Company; Southern Company Generation and Energy Marketing	No	
Self	No	
Exelon	No	
Consumers Energy	No	
Entergy Services, Inc.	No	
City of Tallahassee - Electric Utility	No	
Orlando Utilities Commission	No	

Organization	Yes or No	Question 4 Comment
LCRA Transmission Services Corporation	No	
City of Tallahassee	No	
OPG	No	
City of Austin dba Austin Energy	No	
Northeast Power Coordinating Council	Yes	<p>The Standard Drafting Team is urged to not be too prescriptive in the development of these requirements. Operators should be able to conduct a vulnerability assessment and implement any mitigation actions that were deemed appropriate by the entity. The Standard Drafting team should carefully consider the cost impact that the standard will have on entities to implement and therefore limit the site selection. Minimum vulnerabilities should be defined to be included in vulnerability assessments. Critical facilities determination are recommended to be carried out via a TPL standard based assessment. Timing should be provided for the effective date of standard versus the time required to conduct assessments and implement the mitigation actions identified. It has to be considered that electrical analysis and physical analysis are related, but are not one in the same. For example, using an electrical criteria, e.g., >3,000MVA, does not take into account that multiple voltages can reside on a single site, within a single footprint and fence. "Substations" is not a stand alone term. The SAR needs to recognize that there is not a total correlation between Cyber Security (CIP-002-5.1) and Physical Security (CIP-014-1). They are related, but different, and may need to use identical and as well as some different criteria. The current proposal for CIP-014 is to use the same criteria as those specifying a Medium Asset in CIP-002-5.1. This may represent an over simplification. Physical Security is different. You do not need access in order to violate physical security. A TPL standards based assessment is a better approach. The SDT</p>

Organization	Yes or No	Question 4 Comment
		<p>must ensure that the scope of this standard and applicability of facilities subject to the standard is consistent with existing CIP standards. Furthermore, consider the impact of this standard on the existing standard EOP-004-2 and ensure the coordination with the EOP-004-2 standard. We believe that the SDT should consider network redundancy in the case of an attack, the potential consequences associated with a physical attack and threats specific to each entity before imposing a standard level of acceptance for all. The SDT should define how the verification of the risk assessment used by the owner or operator of critical facilities will be completed. The standard should identify the methodology by which critical facilities were identified. Once the methodology is determined, then the SAR should also define the methodology for doing this verification. The definition of the methodology for review should be applied to the review of all three of the identification of critical facilities, determination of threats and vulnerabilities, and mitigation plans, and that the standard should clarify whether the mitigation plans also have to be reviewed by a third party. The SDT should ensure that the new standard does not call for requirements that will impact or impede the normal operational capacity, access for maintenance or restoration, or the safety of people or equipment. The standard should clearly define the timelines for conducting assessments and implementing the mitigation actions identified with respect to when the standard becomes effective. Timelines for assessment of risk or vulnerabilities in this new standard should coincide with the timelines for which assessment of risk or vulnerabilities for other standards including the CIP and the new GMD Stage 2 project which will be a new TPL standard.</p>
Duke Energy	Yes	<p>(1)Duke Energy would like to reiterate to the SDT that any set of physical security standards need to provide the specific deliverables and that the requirements developed are clear and concise. We ask that the SDT proceed with caution and focus its attention on all potential physical threats and vulnerabilities to transmission substations, and not solely focus its attention on the recent activities in California and elsewhere. Also, stakeholders should have the flexibility to implement a staged level approach of security measures that are appropriate for the criticality of the facility</p>

Organization	Yes or No	Question 4 Comment
		and the assessment of the vulnerabilities at a facility.(2)In addition to the CIP standards identified in the SAR for review of consistency in language and terminology, Duke Energy recommends the SDT review CIP-002-5 and EOP-004-2 as well.
Tennessee Valley Authority	Yes	While not stated in the SAR, it appears the SDT is preparing to develop an initial draft physical security standard as CIP-014-1 based on the ballot pool title. We agree that physical security of critical power system facilities can be considered a critical infrastructure protection issue; however we are concerned that development and implementation of a physical security standard (as outlined in the FERC order) under the CIP family of standards during the transition period from CIP version 3 to CIP version 5 will create an unnecessary distraction from the ongoing industry efforts to protect Cyber Assets under a changing regulatory framework. We respectfully request the SDT to consider developing the physical security standard for critical facilities (as outlined in the FERC order) under the FAC standards group to maintain a distinction from the CIP version 5 standards that are more focused on BES Cyber Assets and the associated protection of those Cyber Assets.
ISO RTO standards Review Committee	Yes	The IRC SRC is committed to working under this extremely expedited standards process timeline to provide our resources and technical expertise to help develop a standard that satisfies the FERC directive and above all, is effective and adds value to the numerous in effect reliability standards and practices that are designed to protect the Bulk-Power System from instability, uncontrolled separation and cascading failures. We do ask the standards drafting team to be aware that many facility owners already have physical protections in place for facilities they have determined to be critical. A NERC standard for physical security needs to be flexible so that it not only increases protections where they may be deficient - but also does not hinder or disincents the continued use of any protections already in place which have been effective.

Organization	Yes or No	Question 4 Comment
ACES Standards Collaborators	Yes	<p>(1) FERC has stated in their order that they want grid owners and operators to “consider resilience of the grid” when identifying critical facilities. We recommend that the drafting team provide additional guidance to what level of resilience is needed, how will this be measured for each type of facility, and the level of resilience based upon risk to the BES. (2) FERC is requiring that an applicable entity must have “NERC, the relevant Regional Entity, a Reliability Coordinator, or another entity” review the process for identifying a critical facility. Given that only a TO and TOP have been identified as potential applicable functions, we question if this directive has been considered appropriately in the SAR.(3) Given that third parties may evaluate critical facility information, further guidance is needed and controls are required to address this highly sensitive level information. Is this information subject to the Freedom of Information Act? This will need to be clear as to how information, data, and protection plans are to be reviewed, secured and monitored.Thank you for your time and consideration.</p>
SPP Standards Review Group	Yes	<p>The 90-day response requested by FERC is well short of the normal standard development time at NERC. This process is an established, ANSI accredited and transparent process which is intended to consider all technical considerations and to establish a broad stakeholder consensus. To drastically reduce the process to a 90-day turnaround will present a challenge to developing a broad industry consensus and achieving the best technical solution.If the apparent driver behind this effort, the Metcalf event referenced in the WSJ article, truly raises a credible threat to the reliability of the Bulk Electric System(BES), it should be addressed logically in a well, thought-out process to reach the right conclusion and not be done in haste. The credibility of the analysis referred to in the WSJ article, pointing to a limited set of substations in North America causing a widespread outage, must be vetted by industry experts to first determine if there is a reliability gap in existing NERC standards. This is an appropriate scientific and logical approach to establishing a benchmark for developing any additional standards to further protect the North American electric grid from harm.We request that in order to give this project the</p>

Organization	Yes or No	Question 4 Comment
		<p>proper thought and effort that it deserves, NERC should reconsider seeking an extension from FERC in order to allow more time for a broader cross section of industry and as many technical experts as possible to participate in developing a product which will be more effective at maintaining the reliability of the BES. What does RISC say about the need for this standard? Have they been consulted? Also, what about the Independent Expert Review Panel? Have these parties voiced an opinion? Do the studies referenced in Table 1 of the TPL standards point to the list of the limited set of substations which this project is intended to address? Are the substations tied to these studies in any manner? The order mentions facilities being inoperable or not available but there was no reference to misuse as there is in the CIPs standards. Can we assume that cyber-type attacks on substations are already adequately accounted for in the CIPs standards and therefore do not need to be factored into the Physical Security standard?</p>
<p>Bonneville Power Administration</p>	<p>Yes</p>	<p>BPA believes it is virtually impossible to fully protect all critical BES facilities from attack by a determined foe. The means to damage BES facilities is readily available, constructible, and implementable regardless of what level of physical hardening is implemented. There are many question and issues to resolve, and the 90 day drafting period may not be long enough to address them all. The biggest general question to answer is what will be considered adequate protection. Will we need a 24 hour on site armed security force because the location is too remote to augment detection technology with fast response that will minimize the scale of impact to an acceptable level of loss? Will we need security walls constructed to be as impervious as those of a maximum security prison? The list of potential risk mitigation barriers is endless, as is the cost of building and maintaining elaborate barriers for facilities that cover acres of ground. It will be interesting to see what a standard of this type will prescribe as required to obtain a level of risk that is significantly lower than the current state potential for experiencing another Metcalf type event. BPA has concerns that the compressed time frame will impact quality and thoroughness of the dialog needed to develop “unambiguous” standards.</p>

Organization	Yes or No	Question 4 Comment
<p>Foundation for Resilient Societies</p>	<p>Yes</p>	<p>Detectors for Intentional Electromagnetic Interference (IEMI) and Electromagnetic Pulse as a Physical Security Measure Because an IEMI attack would take place in the physical proximity of critical facilities of the bulk electric system, it should be considered a physical security vulnerability for standard-setting for FERC Order RD14-6-000, just as a kinetic attack or physical intrusion would be covered in a physical security standard. Electronic upsets and failures occur under normal operating circumstances, even in high-reliability equipment such as that supporting critical infrastructure. Intentional Electromagnetic Interference (IEMI) and other electromagnetic pulse (EMP) induced upsets and failures, however, are different from those encountered in the normal operation of infrastructure systems, and in fact have unique aspects not encountered under any other circumstances. A coordinated physical attack using IEMI could produce nearly simultaneous upset and damage of electronic equipment over wide geographic areas. Since such non-random upset and damage is not encountered in other circumstances, the normal experience of otherwise skilled system operators and others in positions of responsibility and authority will not prepare them to identify what has happened to the system, what actions to take to minimize further adverse consequences, and what actions must be carried out to restore the impacted systems as swiftly and effectively as possible. Special system capabilities and operator awareness, planning, training, and testing will be required to deal with IEMI/EMP-induced system impacts. The first requirement is for the operators of critical infrastructure systems to be able to determine that a IEMI/EMP attack has occurred. It will be necessary to distinguish high altitude nuclear EMP (HEMP) effects from localized IEMI effects that could be generated by a cruise missile or ground based vehicle employing non-nuclear intentional electronic interference devices. IEMI attacks have fast rise times measured in nanoseconds but limited geographic range; detectors can be designed to distinguish between nuclear EMP and IEMI. Indications of IEMI or EMP attack should be transmitted to electric grid control rooms so operators can gain a comprehensive picture and adjust operational response. Without electromagnetic sensors and</p>

Organization	Yes or No	Question 4 Comment
		associated telemetry and alarm systems, operators would be flying blind in case of IEMI/EMP attack.
Minnkota Power Cooperative	Yes	<p>a) On page 5 of the SAR, under the Related Standards section, there lists 3 CIP Reliability Standards (CIP-006-5, CIP008-5, and CIP-009-5), with an explanation to review them to ensure no language and terminology inconsistency with requirements developed under this project. CIP-011-1 - Cyber Security Information Protection should also be added to the list. Paragraph (10) of the FERC order describes the importance of guarding sensitive or confidential information. While CIP-011-1 is focused towards BES Cyber System Information, the information protection program entities may adopt could be hindered if CIP-011-1 was not considered when developing new standard(s) to address the directives in the March 7, 2014 FERC Order regarding the physical security of critical facilities on the Bulk-Power System.</p> <p>b) On page 3 of the SAR, under the Reliability Functions section, lists the Functions the Standard(s) would be applicable to (TO and TOP are checked). Shouldn't GO and GOP also be checked. The FERC order states the "proposed Reliability Standards should require owners or operators of the Bulk-Power System, as appropriate, to identify facilities on the Bulk-Power System that are critical to the reliable operation of the Bulk-Power System". The key words to note are "owners or operators". A generation plant, under the BES definition enforceable July 1, 2014, could be considered critical to the reliable operation of the Bulk-Power System.</p>
Entergy Services, Inc.	Yes	Compressed timeline will limit NERC's ability to acquire input from owners or operators of the Bulk-Power System.
Encari	Yes	If the proposed standard under this project takes effect and is implemented prior to 3/31/2016, then the proposed standard should take into account CIP-002-3 which has a process for identifying Critical Assets. After 3/31/2016, CIP-002-3 and the term "Critical Asset" become inactive.

Organization	Yes or No	Question 4 Comment
Idaho Power Co.	Yes	Related Standards. CIP-002-5 is not mentioned and as one of the instructions is 'to identify facilities on the Bulk-Power System that are critical to the reliable operation of the Bulk-Power System' unless we are going with another set of criteria and labelling the facilities differently, this seems to be what CIP-002-5 does.
The Empire District Electric Company	Yes	The 90-day response requested by FERC is well outside the normal standard development process at NERC. This process is an established, transparent process which incorporates stakeholder consensus. How will the industry be able to adequately respond to the directive when the process we use isn't designed for such a quick development time? Trying to respond within a 90-day period while maintaining some resemblance of our existing process will be difficult indeed. The apparent driver behind this effort, the WSJ article, seems a bit misdirected. The Metcalf event occurred over a year ago, yet the standard has been mandated to be issued within 90 days. If the issue was that critical, why hasn't something been done sooner? And if this is a truly critical situation, we need to be sure to move logically in a well, thought-out process to reach the right conclusion rather than respond with a "knee-jerk" reaction to a newspaper article. How was the list of 9 substations in the WSJ article determined? What studies were ran to make this determination? What process was used to validate the study? What were the credentials of those conducting the study? Numerous questions like these come to mind regarding the credibility of the analysis behind the study upon which the article is founded. The WSJ article referred to entire interconnections going down due to the loss of 9 substations across 3 interconnections. Four substations are credited with being able to bring down the entire EI. This is doubtful. This study must be vetted by industry experts to first establish if a reliability gap exists.
the empire district electric company	Yes	The 90-day response requested by FERC is well outside the normal standard development process at NERC. This process is an established, transparent process which incorporates stakeholder consensus. How will the industry be able to adequately respond to the directive when the process we use isn't geared to such a

Organization	Yes or No	Question 4 Comment
		<p>quick turn-around? Trying to respond within a 90-day period while maintaining some semblance of our existing process will be difficult indeed. It's literally like trying to hit a target that is hidden in the dark. The apparent driver behind this effort, the WSJ article, seems a bit misdirected. The Metcalf event occurred over a year ago, yet no action has been taken to date to address the situation. If the issue was that critical, why hasn't something been done sooner? And if this is a truly critical situation, we need to be sure to move logically in a well, thought-out process to reach the right conclusion rather than respond with a knee-jerk reaction to a newspaper article. How was the list of 9 substations in the WSJ article determined, what studies were ran to make this determination, what process was used to validate the study, what were the credentials of those conducting the study? Numerous questions like these come to mind regarding the credibility of the analysis behind the study upon which the article is founded. The WSJ article referred to entire interconnections going down due to the loss of 9 substations across 3 interconnections. Four substations are credited with being able to bring down the entire EI. This is doubtful. This study must be vetted by industry experts to first establish if a reliability gap exists. We request that in order to give this project the proper thought and effort that it deserves, NERC seek an extension from FERC which will allow more time to complete the project. Allowing more time and consideration will result in a better product which will be more effective at maintaining the reliability of the BES. What does RISC say about the need for this standard? Have they been consulted? Also, what about the Independent Expert Review Panel? Have these parties voiced an opinion? Do the studies referenced in Table 1 in the TPL standards point to the list of 'the 9 substations' mentioned? Are the substations tied to these studies in any manner? The order mentions facilities being inoperable or not available but there was no reference to misuse as there is in the CIPs standards. Can we assume that cyber-type attacks on substations are already adequately accounted for in the CIPs standards and therefore do not need to be factored into the Physical Security standard?</p>

Organization	Yes or No	Question 4 Comment
The Empire District Electric Company	Yes	<p>The 90-day response requested by FERC is well outside the normal standard development process at NERC. This process is an established, transparent process which incorporates stakeholder consensus. How will the industry be able to adequately respond to the directive when the process we use isn't geared to such a quick turn-around? Trying to respond within a 90-day period while maintaining some semblance of our existing process will be difficult indeed. It's literally like trying to hit a target that is hidden in the dark. The apparent driver behind this effort, the WSJ article, seems a bit misdirected. The Metcalf event occurred over a year ago, yet no action has been taken to date to address the situation. If the issue was that critical, why hasn't something been done sooner? And if this is a truly critical situation, we need to be sure to move logically in a well, thought-out process to reach the right conclusion rather than respond with a knee-jerk reaction to a newspaper article. How was the list of 9 substations in the WSJ article determined, what studies were ran to make this determination, what process was used to validate the study, what were the credentials of those conducting the study? Numerous questions like these come to mind regarding the credibility of the analysis behind the study upon which the article is founded. The WSJ article referred to entire interconnections going down due to the loss of 9 substations across 3 interconnections. Four substations are credited with being able to bring down the entire EI. This is doubtful. This study must be vetted by industry experts to first establish if a reliability gap exists. We request that in order to give this project the proper thought and effort that it deserves, NERC seek an extension from FERC which will allow more time to complete the project. Allowing more time and consideration will result in a better product which will be more effective at maintaining the reliability of the BES. What does RISC say about the need for this standard? Have they been consulted? Also, what about the Independent Expert Review Panel? Have these parties voiced an opinion? Do the studies referenced in Table 1 in the TPL standards point to the list of 'the 9 substations' mentioned? Are the substations tied to these studies in any manner? The order mentions facilities being inoperable or not available but there was no reference to misuse as there is in the CIPs standards. Can we assume that cyber-type attacks on</p>

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		substations are already adequately accounted for in the CIPs standards and therefore do not need to be factored into the Physical Security standard?
Westar Energy	Yes	The FERC imposed development timeframe of 90 days is inadequate. The normal Standard Development Process allows for a transparent process which incorporates stakeholder consensus. The quality of the regulation will be adversely impacted by such an accelerated schedule. Westar requests that in order to give this project the proper thought and effort that it deserves, NERC seek an extension from FERC which will allow more time to complete the project. Allowing more time and consideration will result in a better product which will be more effective at maintaining the reliability of the BES.
Occidental Energy Ventures Corp.	Yes	This project is one of several which FERC has clearly established their expectation of urgent action. The CIP Version 5 Cyber Security, Geomagnetic Disturbance, and Gas/Electricity Industry Interoperability standards come immediately to mind. In OEVC's view, this means that NERC's standards development prioritization must be updated to take on the new work load - even if other project activity needs to be suspended in favor of Project 2014-04. Furthermore, there are a large number of new and/or modified standards which are scheduled to take effect this year and next - Generator Validations, and Protection System maintenance are among the most pressing. As a result, OEVC believes it is time for a second iteration of the Paragraph 81 process to aggressively retire those requirements that do little to support BES reliability. We understand that the obvious candidates have been addressed, but the industry's efforts must be continually re-focused on higher-priority activities. As long as less urgent requirements remain on the books, we all must set aside resources to capture evidence of compliance to routine tasks; leaving fewer available to address far more important threats to the BES.
Colorado Springs Utilities	Yes	The 90-day response requested by FERC is well outside the normal standard development process at NERC. This process is an established, transparent process which incorporates stakeholder consensus. The result of this accelerated process will

Organization	Yes or No	Question 4 Comment
		<p>be an inferior standard. We request that in order to give this project the proper thought and effort that it deserves, NERC seek an extension from FERC which will allow more time to complete the project. Allowing more time and consideration will result in a better product which will be more effective at maintaining the reliability of the BES. We feel the focus should be on recovery from an attack, not solely prevention. We believe this has a larger impact on the reliability of the BES. Include something in the new standard that BES information should be protected, especially for public entities subject to Open Records Acts.</p>
Manitoba Hydro	Yes	<p>(1) Related Standards to avoid inconsistencies should include CIP-004-5 which addresses physical access management, a component of overall physical security. (2) "Applicability" should include an RC or PA/PC, as these would be the most appropriate Reliability Functions to determine if the loss of a facility would result in instability etc.</p>
American Electric Power	Yes	<p>While American Electric Power (AEP) appreciates the need for expediency in this FERC docket and relevant NERC SARs/Standards, we caution against an assumption that because a specific category of threat may be perceived as new, no efforts are yet underway to protect against that threat. In reality, AEP already has in place significant protections to secure the reliability of the grid - as does most of the electric utility industry. Many of these protections are in system configuration and design, inherently minimizing the criticality of any particular transformer, transmission circuit or station. These system configuration and design protections are incorporated to foster transmission system reliability in the event of weather and/or normal equipment failures. But they also answer the need for protection from other physical threats. In many cases our existing safeguards will protect the grid against new threats, including intentionally created damage. AEP agrees with FERC Commissioner John Norris' concurring comments filed with RD14-6-000 on March 7: "The owners and operators of our Bulk-Power System have already taken significant steps to protect critical facilities from physical attack. NERC's standards development process will benefit from the lessons learned from the owners and operators of the Bulk-</p>

Organization	Yes or No	Question 4 Comment
		<p>Power System and the communication that will take place across the stakeholder community regarding physical security. However, I am concerned that the procedural approach chosen by the Commission will inappropriately preclude an open and transparent process in which all interested parties would be able to engage with the Commission as the standards development process gets underway.” AEP does not fully understand NERC’s SAR which describes this effort as a New Standard, but not an Urgent Action. Certainly, the uniquely short timeframes allowed first by FERC and then by NERC for stakeholder participation imply an element of urgency. With no provision for comment to FERC and reduced input ability at NERC, the industry and our customers run the risk of unnecessary costs resulting from rushed decisions made with inadequate data. Likewise, addressing only Transmission Owners and Transmission Operators will provide less than a complete picture. Reliability Coordinators and Balancing Authorities also have a role to play and excluding that role from consideration will yield sub-par results. Additionally, some of the issues covered in the SAR and the FERC docket seem to overlap with existing Standards. Violations of a Standard that could stem from this effort might also be violations of CIP-002, CIP-006, CIP-008 and/or CIP-009. Care must be taken to ensure that the Standards dovetail, rather than duplicate each other, which would create a double-jeopardy situation for grid owners. In addition to our concerns about the process, AEP has reservations about the substance of the proposed SAR as well. First, AEP questions how the SAR proposes to define critical facilities. FERC and NERC have implied that the number of critical facilities identified in this process will be relatively small - fewer than 100 of the 55,000 transmission stations dispersed throughout the country. However, for previous “critical asset” determinations requested by NERC, AEP has already identified almost that many just on our own system. This would indicate we are starting over with the definition of critical facilities, which is counter-intuitive if not counter-productive. CIP-V5 switches the focus from protecting discrete cyber assets to protecting systems. Shouldn’t we consider this same approach for physical security? AEP suggests that we begin by determining how critical facilities will be defined: 1) Will it be a bright-line test or a triage approach? 2) What will</p>

Organization	Yes or No	Question 4 Comment
		<p>distinguish critical cyber facilities from physical, and will one facility category be deemed more critical than the other? 3) Is there a distinction between a “critical facility” and “critical assets” defined in previous initiatives?4) Will there be distinctions between staffed and unstaffed stations, control centers or shared facilities?AEP believes that critical physical facilities will largely be a subset of the critical cyber asset list, tempered by:1) Availability of equipment spares, 2) Equipment redundancy located at the same vs. adjacent stations, 3) Level of interconnection to other stations at a particular voltage level,4) Proximity to a nuclear station, 5) Availability of alternative black start paths, 6) A sundry list of similar considerations. This analysis suggests that determination of a particular station as a critical physical facility is not a yes/no question, but rather a tiered approach to physical criticality is required. Considering the above, two stations similarly configured but in different parts of the system may not have the same physical criticality. Therefore, AEP is pleased with the nod to regional differences and the flexibility indicated in RD14-6-000. However, the changes NERC and FERC are proposing could result in massive changes, bringing excessive additional costs with no guarantee of desired outcomes. The question then becomes whether the cost to the nation’s electric customers far outweighs the benefits from additional protections layered on top of existing protocols. Are we being overly reactive to the isolated case of the Metcalf Station attack in San Jose a year ago? Are we painting targets on our critical infrastructure? Even with increased physical security, there will always be some potential for an attack on a critical facility. Larger fences and armed guards will make attacks marginally more difficult. They will not make the facilities immune to attack. A second primary concern is cost recovery - an issue that neither FERC nor NERC has addressed. Should NERC determine that a bright-line definition of critical facilities is the best way to go, cost recovery would be easier for grid owners, but costlier for customers. If NERC gives grid owners discretion to identify their critical facilities through risk-based assessments and determine their own protection strategies, state regulatory commissions will question every decision made, creating regulatory lag. That said, a risk-based assessment resulting in tiered levels of</p>

Organization	Yes or No	Question 4 Comment
		<p>criticality would yield the strongest results from a grid protection standpoint. While grid protection is paramount, we must weigh options. Poorly executed, these Standards could carry astronomical real costs as well as opportunity costs. Meanwhile, many customers are about to bear significant cost increases based on changes required by the EPA’s Mercury and Toxics Standards. While we need to make whatever investment is necessary to adequately protect the grid, we also need to be responsible stewards of the grid and our ratepayers’ pocket books. We must make sure we have taken necessary steps as cost-effectively as possible and that we are not simply being reactionary. In summary, AEP supports: 1) Risk-based assessments conducted by transmission owners to define their own critical facilities 2) Triage protocols based on those risk-based assessments 3) Acknowledgement and inclusion of existing protections 4) Adoption of a CIP-V5 approach of protecting critical systems rather than discrete facilities 5) Cost-based assessments that include opportunity costs and factor in cost recovery.</p>
Hydro One	Yes	<p>The SAR should ask the SDT to define how the verification of the risk assessment used by the owner or operator of critical facilities will be completed. The standard should identify the methodology by which critical facilities were identified? If it is the methodology, then the SAR should also define the methodology for doing this verification. The FERC Order states “the Reliability Standards should require that the identification of the critical facilities, the assessment of the potential risks and vulnerabilities, and the security plans be periodically reevaluated and revised to ensure their continued effectiveness.” The definition of the methodology for review should be applied to the review of all 3 of identification of critical facilities, determination of threats and vulnerabilities, and mitigation plans, and that the standard should clarify whether the mitigation plans also have to be reviewed by a third party. There is risk that significant investments may be needed as a result of the new standard. There SDT should ensure that the new standard does not call for requirements that will impact or impede the normal operational capacity, access for maintenance or restoration, or the safety of people or equipment. Minimum vulnerabilities should be defined in the standard to be included in vulnerability</p>

Organization	Yes or No	Question 4 Comment
		<p>assessments. The assessment of critical facilities should be defined in a TPL standard based assessment. The standard should clearly define the timelines for conducting assessments and implementing the mitigation actions identified with respect to when the standard becomes effective. Timelines for assessment of risk or vulnerabilities in this new standard should coincide with the timelines for which assessment of risk or vulnerabilities for other standards including the CIP and the new GMD Stage 2 project which will be a new TPL standard.</p>
Northeast Utilities	Yes	<p>NU urges that the SDT not be too prescriptive in the development of these requirements. Entities should be able to conduct a vulnerability assessment and implement any mitigation actions that they deem appropriate. SDT should carefully consider the cost impact that the standard will have on entities to implement and therefore limit the site selection. SDT should define minimum vulnerabilities to be included in vulnerability assessments. SDT to provide for timing of the effective date of standard versus the time required to conduct assessments and implement mitigation actions identified. SDT should clearly limit the scope of the standard to protection against physical attacks.</p>
Xcel Energy Inc.	Yes	<p>A review of the CIP standards (Version 5) is required by the SAR. However, considering that many, if not all of the facilities in scope of this new standard will also likely be considered Critical Assets, as defined by CIP-002-5, this has the possibility of creating double jeopardy situations and added Regulatory oversight. Instead, please consider addressing physical security through an existing standard like CIP-006-5 or EOP-004-2 (Event Reporting).</p>
Utility Services, Inc	Yes	<p>The identification method that will be used to determine applicability to the standard is a concern. The drafting team should take care to respect the work already crafted by the previous CIP drafting teams in creating a format and brightline thresholds to identify those facilities that require protection. From historical experience we have seen that "Risk Assessment" style applicability is not consistently and uniformly</p>

Organization	Yes or No	Question 4 Comment
		applied and should therefore be avoided. We have seen this causes major issues and we should not repeat past mistakes.
Nebraska Public Power District	Yes	<p>If we truly have a small subset of nine key substations that are as critical as was quoted in the Wall Street Journal, why isn't the military protecting these substations? We use our military to protect our Air Force bases, Army forts, Naval yards, etc. Is this threat real or is it political sensationalism? Is the number of substations nine, or is it 30 or is it less than 100 as the Wall Street Journal quoted former FERC chairperson Wellinghoff. Shouldn't the electric industry experts be allowed to review the modeling for this analysis? Was the modeling in sufficient detail or were many networks equivalized? Was it a steady-state model or were dynamics evaluated? What was the experience level of the engineers doing the analysis (have they performed similar analysis at large utilities)? Should we revoke this SAR and replace it with another new standard that would restrict utilities from building any new substations above a certain level? Should the standard require planned additions/expansions to provide for redundancy and resiliency as the Department of Homeland Security and Department of Energy recently recommended in their Physical Security of Substations Briefing? Do we have to build 500 kV and 765 kV systems? Does the market save us any money to transfer power between regions, if we have to add these systems that open up vulnerabilities to physical attacks? Should Congress fund a US based manufacturing plant for transformers? Should North America (those within NERC) standardize voltage levels, so replacement transformers are more readily available? The list of philosophical questions can continue, but we are not ready to draft a standard on this issue without first debating the problem we are trying to solve. What is the problem we are trying to solve? The Wall Street Journal article implied we need to protect our substations from automatic weapons. Is this the problem we are trying to solve? Will we be required to build walls around our substations? What do we do about a substation that is located in a valley with unlimited firing angles from surrounding higher ground? How do we protect the miles and miles of transmission structures leading to these substations? Do we have to protect one substation away, two substations away, etc. By installing additional</p>

Organization	Yes or No	Question 4 Comment
		security on these facilities, aren't we painting those assets as targets by clearly identifying them?
Ameren	Yes	1) The time frame that is outlined in this SAR to create a new physical security standard is very short and we are concerned that a cost effective, reasonable, workable standard cannot be drafted in this short amount of time. We understand the need for a new physical security standard but creating a standard this quick could result in an incorrectly written standard which will not be understood by industry. We are concerned that this does not solve the problem but will end up making a new one.
New Brunswick Power Corporation	Yes	It is our desire to ensure the SDT consider the impacts of physical security threats that can arise between entities (wide area view) rather than a strict focus on the effects of physical security risks on elements within a given entity's footprint. Taking this approach and allowing the entity to determine the specific impact criteria for their footprint, should align the violation risk factors and severity levels to account for higher level threats rather than burden the entities with lower impact concerns.
Tri-State Generation and Transmission Association, Inc.	Yes	In agreement with the Commissioner, John Norris's, concurrence, the uniquely expedited nature of this standard development procedural approach will preclude an open and transparent process, limit the engagement of the industry, and, without the time to properly vet the security risks and measures, will negatively impact reliability and consumer costs. Co-owned facilities are not addressed in the standard. Co-owned facilities will have multiple assessments by different entities. This will lead to different threat assessments and different physical security plans. Conflicts may and most likely will occur on co-owned facilities. This is something that must to be taken into consideration. There is no requirement for 3rd party verification for CIP-002-5.1 R2 which requires assessment and categorization of assets. 3rd party verification is not required there and should not be required here. Senior approval should be all that's necessary. Some possibilities to address the FERC order for verification of entities' plans include a submittal to the RC/RE upon their request as currently

Organization	Yes or No	Question 4 Comment
		<p>required by many of the emergency operations plans or an annual submittal to the RC/RE. Something else to consider is that audits for TO/TOPs are on a 3 year cycle. The RE could review the assessments and plans during audits removing the requirement for 3rd party verification. Physical threats run the gamut of simple to highly complex. What will limit this review? Addressing ALL potential threats will be cost prohibitive. The value necessary for a facility to qualify should be raised. The criteria from CIP-002 v5 is meant to include a larger portion of the grid. This criteria will include too many facilities which was not the intent of FERC.</p>
Salt River Project	Yes	<p>The SAR should closely follow the FERC Order that owners and operators are to develop their specific plans to protect against physical attacks that may compromise their facilities. The FERC Order provides for flexibility for owners and operators to determine the methodology they will use in identifying their critical facilities. The standard should direct the entities to focus on station facilities and not ‘outside the fence’ assets. Critical facilities vary widely both in the type and extent of potential vulnerabilities to physical attacks. Customized defenses and protections are essential and the owners and operators are correctly given flexibility both in identifying which assets are critical and then developing the most appropriate plans for protection. That plan should not be primarily directed at physical deterrence of the threats, there are two other important facets of a security plan: operational security, and recovery after an event. The flexibility will help avoid potential conflicts between any new standards and existing ones. The objectives of the SAR are to provide clear, unambiguous requirements and standard(s) to address the FERC Order. This should not mean development of requirements with highly prescriptive, detailed and specific physical protection structures, activities and programs but instead should mean the SAR will develop clear direction on identification of critical facilities and credible physical threats to such facilities followed by prudent plans for protection that are appropriate for each such facility.</p>
Kansas City Power & Light	Yes	<p>The 90-day response requested by FERC is well outside the normal standard development process at NERC. This process is an established, transparent process</p>

Organization	Yes or No	Question 4 Comment
		<p>which incorporates stakeholder consensus. Trying to respond within a 90-day period while giving the appropriate diligence and consideration to the topic of protection of BES assets will be difficult. We recommend taking appropriate time to give this project the proper thought and effort that it deserves for diligent actions to be taken to protect the grid. We respectfully ask NERC to remain open to the potential need to seek an extension from FERC to allow more time to complete the project if deemed necessary. The order mentions facilities being inoperable or not available but there was no reference to misuse or a resiliency concept. We believe the SDT should consider these options including the concept of a capability / maturity model and on a continuum for improvements in the hardening of our BES facilities. Ultimately the goal is to focus on protection and security of assets.</p>

END OF REPORT