

## **Consideration of Comments on Second Draft of SAR to Revise PER-003, Operating Personnel Credentials (Project 2007-04)**

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The Operating Personnel Credentials SAR Drafting Team thanks all commenters who submitted comments on the 2<sup>nd</sup> draft of the SAR. This SAR was posted for a 30-day public comment period from January 2 through January 31, 2008. The SAR drafting team asked stakeholders to provide feedback on the SAR through a special SAR Comment Form. There were 50 sets of comments, including comments from 130 different people from more than 60 companies representing all 10 of the Industry Segments as shown in the table on the following pages.

Stakeholder comments received in response to the second draft of the Operating Personnel Credentials SAR did not indicate the need to make any new changes to the SAR. Based on the comments received, the drafting team is recommending that the Standards Committee authorize moving this SAR forward to standard drafting.

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

[http://www.nerc.com/~filez/standards/Certifying\\_SOs\\_Project\\_2007-04.html](http://www.nerc.com/~filez/standards/Certifying_SOs_Project_2007-04.html)

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

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<sup>1</sup> The appeals process is in the Reliability Standards Process Manual:  
<http://www.nerc.com/standards/newstandardsprocess.html>.

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The Industry Segments are:

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

	Commenter	Organization	Industry Segment											
			1	2	3	4	5	6	7	8	9	10		
1.	Tim Hattaway (G7)	Alabama Electric Cooperative, Inc.	✓		✓									
2.	Anita Lee (G2)	Alberta Electric System Operator		✓										
3.	William J. Smith	Allegheny Power	✓											
4.	Ken Goldsmith (G4)	ALTW				✓								
5.	Kirit S. Shah	Ameren	✓		✓		✓	✓						
6.	Thad Kness	American Electric Power	✓		✓		✓	✓						
7.	Mike Anderson (G9)	American Electric Power	✓		✓		✓							
8.	Scott Lockwood (G9)	American Electric Power	✓		✓		✓							
9.	Chris Norton	AMP Ohio, Inc.				✓								
10.	John Neagle (G7)	Assoc. Electric Cooperative, Inc.	✓		✓									
11.	James Vermillion (G7)	Assoc. Electric Cooperative, Inc.	✓		✓									
12.	John Neagle	Assoc. Electric Cooperative, Inc.	✓				✓	✓						
13.	Jason Shaver	ATC LLC	✓											
14.	John Keller (G5)	Atlantic City Electric	✓											
15.	J. Andrew Dodge	Baltimore Gas and Electric	✓		✓									
16.	Dave Rudolph (G4)	BEPC	✓		✓		✓	✓						
17.	Robert Thomasson (G7)	Big Rivers Electric Corporation	✓		✓									
18.	Jeff Brown (G7)	Big Rivers Electric Corporation	✓		✓									
19.	Tony Kroskey	Brazos Electric	✓											
20.	Brent Kingsford (G2)	California ISO		✓										
21.	Brad Calhoun	CenterPoint Energy	✓											
22.	Paul Lampe (G9)	City of Independence	✓		✓		✓							
23.	Alisha Anker (G3) (G7)	City of Springfield, IL – CWLP	✓		✓		✓							

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	Commenter	Organization	Industry Segment											
			1	2	3	4	5	6	7	8	9	10		
24.	Alan Gale	City of Tallahassee					✓							
25.	Steve Rose	City Water Light and Power	✓				✓		✓					
26.	Karl E. Kohlrus	City Water Power & Light, Springfield, IL					✓							
27.	Danny McDaniel (G9)	CLECO	✓		✓		✓							
28.	Russell A. Noble	Cowlitz County PUD No. 1			✓									
29.	Vic Davis (G5)	Delmarva Power	✓											
30.	Jalil J. Babik	Dominion Virginia Power					✓							
31.	Gregory D. Rowland	Duke Energy	✓		✓		✓							
32.	Gregory A. Mason	Dynegy					✓							
33.	Steve Myers (G2)	Electric Reliability Council of Texas		✓										
34.	Wayne Mitchell (G7)	Entergy Services, Inc.	✓		✓									
35.	Jim Case (G7)	Entergy Services, Inc.	✓		✓									
36.	H. Vann Weldon	ERCOT, Inc.		✓										
37.	Chris Scanlon	Exelon	✓											
38.	Sam Ciccone (G1)	FirstEnergy Corp.	✓		✓		✓	✓						
39.	Dave Folk (G1)	FirstEnergy FERC Compliance	✓		✓		✓	✓						
40.	Doug HohlBaugh (G1)	FirstEnergy FERC Compliance	✓		✓		✓	✓						
41.	Larry Hartley (G1)	FirstEnergy Solutions	✓		✓		✓	✓						
42.	R.L. Williamson (G7)	Georgia Power Company	✓		✓									
43.	Joseph Knight (G4)	GRE	✓		✓		✓	✓						✓
44.	Paul Hodges (G7)	GSOC	✓		✓									
45.	Wayne Pourciau (G7)	GSOC	✓		✓									
46.	Brian Haggard (G7)	GSOC	✓		✓									
47.	Gary Jenkins (G7)	GSOC	✓		✓									
48.	Alessia Dawes	Hydro One Networks, Inc.	✓		✓									
49.	Ron Falsetti (I) (G2)	Independent Electricity System Op.		✓										
50.	Kathleen M. Goodman	ISO New England		✓										
51.	Matt Goldberg (G2)	ISO New England		✓										
52.	Charles Yeung	Southwest Power Pool		✓										
53.	Jim Cyrulewski (G3)	JDRJC Associates									✓			
54.	Mike Gammon (G9)	Kansas City Power & Light	✓		✓		✓							
55.	Jim Useldinger (G9)	Kansas City Power & Light	✓		✓		✓							
56.	Jason Atwood (G9)	Kelson Energy					✓	✓						
57.	Dan Jewell (G7)	LA Generating, LLC			✓	✓								
58.	Charlie Deleon (G7)	LA Generating, LLC			✓	✓								
59.	Eric Ruskamp (G4)	LES	✓		✓		✓	✓						

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Commenter		Organization	Industry Segment											
			1	2	3	4	5	6	7	8	9	10		
60.	Steve Rainwater	Lower Colorado River Authority (1)	✓										✓	
61.	Rom Foreman	Lower Colorado River Authority (2)						✓						
62.	Joseph DePoorter	Madison Gas and Electric				✓								
63.	Leo St. Hilaire	Manitoba Hydro	✓		✓		✓	✓						
64.	Tom Mielnik (G4)	MEC	✓		✓		✓	✓						
65.	Robert Coish (G4)	MHEB	✓		✓		✓	✓						
66.	Marie Knox (G3)	Midwest ISO		✓										
67.	Bill Phillips (G2)	Midwest ISO		✓										
68.	Michael Brytowski (G4)	Midwest Reliability Organization												✓
69.	Jason L. Marshall (1) (G3)	Midwest Reliability Organization		✓										
70.	Carol Gerou (G3) (G4)	Minnesota Power	✓		✓		✓							
71.	Terry Bilke (G4)	Midwest ISO		✓										
72.	Larry Brusseau (G4)	Midwest Reliability Organization												✓
73.	Richard L. Koch	Nebraska Public Power District	✓		✓		✓							
74.	David Mahlmann	New York ISO		✓										✓
75.	Jim Castle (G2)	New York ISO		✓										
76.	Theodore G. Pappas	New York State Reliability Council												
77.	Richard McCall (G7)	No. Carolina Membership Corp.			✓	✓	✓							
78.	Rick White	Northeast Utilities	✓											
79.	Doug Jensen	NorthernStar Generation					✓							
80.	Allen Czerkiewicz	NorthernStar Generation					✓							
81.	George Brady	Ohio Valley Electric Corporation	✓											
82.	Pete Kuebeck (G9)	Oklahoma Gas & Electric	✓		✓		✓							
83.	Stan Southers/Ellis Rankin	Oncor Electric Delivery Company, LLC	✓											
84.	Larry R. Larson	Otter Tail Power Company	✓		✓		✓	✓						
85.	Richard Chapman (G7)	Owensboro, KY Municipal Utilities	✓		✓									
86.	Lauri Jones	Pacific Gas & Electric	✓		✓		✓			✓				
87.	Richard J. Kafka	Pepco Holdings, Inc.	✓											
88.	Patrick Brown	PJM Interconnection					✓	✓						
89.	Patrick Brown (G2)	PJM Interconnection		✓										
90.	Valerie Hildebrand (G5)	Potomac Electric Power Company	✓											

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Commenter		Organization	Industry Segment										
			1	2	3	4	5	6	7	8	9	10	
91.	Mark Bryant (G6)	PPL Eastern Fossil & Hydro					✓						
92.	Joe Kisela (G6)	PPL Eastern Fossil & Hydro					✓						
93.	Mark Heimbach (G6)	PPL EnergyPlus					✓						
94.	Jon Williamson (G6)	PPL EnergyPlus						✓					
95.	John Cummings (G6)	PPL EnergyPlus						✓					
96.	Annette M. Bannon (G6)	PPL Generation LLC					✓						
97.	Tom Olson (G6)	PPL Montana					✓						
98.	David Gladey (G6)	PPL Susquehanna					✓						
99.	Kenneth D. Brown	PSEG Companies	✓		✓		✓	✓					
100.	Thomas J. Bradish	Reliant Energy					✓						
101.	Mike Pfeister	Salt River Project	✓		✓		✓	✓					
102.	Terry L. Blackwell	Santee Cooper	✓										
103.	Rene Free (G7) (G8)	Santee Cooper	✓										
104.	Kristi Boland (G7) (G8)	Santee Cooper	✓										
105.	Glenn Stephens (G8)	Santee Cooper	✓										
106.	Tom Abrams (G8)	Santee Cooper	✓										
107.	Margaret Stambach (G7)	SERC Reliability Corporation											✓
108.	Pat Huntley (G7)	SERC Reliability Corporation											✓
109.	John Troha (G7)	SERC Reliability Corporation											✓
110.	Gene DeIk (G7)	So. Carolina Electric & Gas	✓		✓								
111.	Steve Hebert (G7)	So. Carolina Electric & Gas	✓		✓								
112.	Steve McElhane (G7)	So. MS Electric Power Assoc.	✓		✓								
113.	Charles Evans (G7)	So. MS Electric Power Assoc.	✓		✓								
114.	Dan Kay (G7)	So. MS Electric Power Assoc.	✓		✓								
115.	Alan Wilson (G7)	So. MS Electric Power Assoc.	✓		✓								
116.	Gary Hutson (G7)	So. MS Electric Power Assoc.	✓		✓								
117.	Jim Griffith	Southern Company Services, Inc.	✓										
118.	James Ford (G7)	Southern Company Services, inc.	✓		✓								
119.	John Rembold (G7)	Southern Illinois Power Corporation	✓		✓								
120.	Robert C. Rhodes (G9)	Southwest Power Pool											✓

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	Commenter	Organization	Industry Segment										
			1	2	3	4	5	6	7	8	9	10	
121.	Jason Smith (G9)	Southwest Power Pool											✓
122.	Kyle McMEnamin (G9)	SPS	✓		✓		✓						
123.	Stephen Joseph	Tampa Electric Company	✓		✓		✓						
124.	Mike Fielden (G7)	Tennessee Valley Authority	✓		✓							✓	
125.	Sue Mangum Goins	Tennessee Valley Authority	✓		✓							✓	
126.	Jim Haigh (G4)	WAPA	✓						✓				
127.	Barb Kedrowski (G3)	We Energies					✓						
128.	Jim Medford (G9)	Westar	✓		✓		✓						
129.	Neal Balu (G4)	WPA			✓	✓	✓	✓					
130.	Pam Oreschnick (G4)	XCEL	✓		✓		✓	✓					

- I – Individual
- G1 – FirstEnergy
- G2 – Midwest ISO
- G3 – Midwest Reliability Organization
- G4 – MRO NSRS
- G5 – Pepco Holdings, Inc.
- G6 – PPL Generation etc.
- G7 – SERC OC Standards Review Group
- G8 – Santee Cooper
- G9 – SPP Operating Reliability Working Group

**Index to Questions, Comments, and Responses**

1. Do you agree with the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators? If not, please explain in the comment area..... 8

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1. Do you agree with the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators? If not, please explain in the comment area.

**Summary Consideration:** The majority (in excess of 80%) of the commenters agreed that this SAR should not be applicable to Generator Operator entities or Local Control Center Operator entities.

Following the initial posting of the SAR, the SAR Drafting Team removed these entities and associated real-time positions based on an overwhelming response from the Industry stating that they should not be included. With this second posting of the SAR, stakeholders have again indicated that the revised PER-003 should not be applicable to either the Generator Operator or Local Control Center Operator entities. The drafting team did not make any changes to the SAR based on stakeholder comments.

Commenter	Yes	No	Comment
Ameren		X	<p>Generator Operators, Transmission Operators, Balancing Authority Operators, and Reliability Coordinators have the primary responsibility for the real-time reliability of the Bulk Electric System. Each of these entities must have provincial knowledge of their systems AND must have knowledge of how their systems fit in with the overall interconnected system*. While it seems nice to think that TOPs, BAs, and RCs can effectuate presumptive actions at a GOP, there is no doubt that most such actions are, in fact, responsive. It is precisely for this reason that NERC certifications exist. And if certifications are necessary for TOP, BA, and RCs then it should be needed for GOP. However, it is equally clear that the current certifications (which have, for all intents and purposes, been in place before the functional model was developed) do not offer a Generator Operator certification that is appropriate for the requirements put forth in the NERC standards and needed for all Generator Operators. Rather than remove the certification requirement for GOPs, it is incumbent to develop the PROPER certification for GOPs. Such certification should only include generation systems and their impact on the Bulk Electric System. We envisage that such certification would entail perhaps 1/3 of the material in a BA/TOP certification and would carry with it a reduced set of certification hours, perhaps 50-90 hours of renewal training accumulated over three years for the review of Standards and Bulk Electric System concepts. We would also expect that each GO would determine, based on their organizational structure, for which positions certification is appropriate.</p> <p>*TOPs, BAs, and RCs do not know what traps may be created by a GOP(until it is too late). For example, a GOP might be having difficulty with a control function which is limiting output to less than maximum. The problem seems to be related to frequency response. Is there a possibility that a unknowing GOP would disable the droop component to maximize output until they can get the control problem fixed? If yes,</p>



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Commenter	Yes	No	Comment
			such action would then obviously undermine BES reliability. Having the GOP function certified would obviate this.
<p>Response: The initial SAR contained requirements for Generator Operator entities and Local Control Center Operator entities to be certified. The SAR Drafting team removed these entities and associated real-time positions based on an overwhelming response from the Industry stating that they should not be included. The SAR Drafting Team also removed these entities and associated real-time positions from the functions to which the standard will apply based on FERC Order 693. The applicability to the Reliability Coordinator, the Balancing Authority and the Transmission Operator is based on the NERC Functional Model Version 3 definitions.</p> <p>Generator Operators (GOPs) are under the direct supervision of NERC certified entities, such as the Balancing Authority and/or Transmission Operator that are staffed with NERC Certified System Operators. Regarding normal operations, the GOP follows the directions of the NERC registered operating entity, which is ensured by having agreements in place to assure that the directives from the responsible entity are followed. In those instances of emergency operations, the Generator Operator will take actions to protect its equipment immediately, but will get its direction from an operating authority on how to proceed from that point. The BA and TOP remain the responsible operating authorities.</p>			
American Electric Power		X	Due to the potential impact of a Generation Operator's actions on the ability of the other Functional Entities to perform their functions in maintaining reliable operation of the Bulk Electric System, it would be appropriate to include NERC certification for the Generator Operator. In developing the Generator Operator certification, it should be understood that the need for maintaining at least a high level of demonstrated understanding of the effect of each Functional Entity's impact on the other reliability functions. From the real-time reliable operating perspective, the related impact for maintaining reliability among the responsible Functional Entities cannot be separated, because of the inherent effect each one has on the other.
<p>Response: The initial SAR contained requirements for Generator Operator entities and Local Control Center Operator entities to be certified. The SAR Drafting team removed these entities and associated real-time positions based on an overwhelming response from the Industry stating that they should not be included. The SAR Drafting Team also removed these entities and associated real-time positions from the functions to which the standard will apply based on FERC Order 693. The applicability to the Reliability Coordinator (RC), the Balancing Authority (BA) and the Transmission Operator (TOP) is based on the NERC Functional Model Version 3 definitions.</p> <p>Generator Operators are under the direct supervision of NERC certified entities, such as the Balancing Authority and/or Transmission Operator that are staffed with NERC Certified System Operators. Regarding normal operations, the GOP follows the directions of the NERC registered operating entity, which is ensured by agreements in place to assure the directives from the responsible entity are followed. In those instances of emergency operations, the Generator Operator will take actions to protect its equipment immediately, but will get its direction from the operating authority on how to proceed from that point. The BA and TOP remain the responsible operating entities.</p>			
Hydro One Networks, Inc.		X	<p>Generator Operators or Local Control Centre Operators could operate a BES element. If so, they should require NERC certification.</p> <p>Similar to how Generator Operators are referred to in the proposed EOP-005-2 on System Restoration and Blackstart Resources - Operations, include Generator Operators</p>

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Commenter	Yes	No	Comment
			and Local Control Center Operators in the PER-003-0 standard Applicability section. In the Requirements section, write "Each Generator Operator who operates a Bulk Electricity System element ..."
<p>Response: The initial SAR contained requirements for Generator Operator entities and Local Control Center Operator entities to be certified. The SAR Drafting team removed these entities and associated real-time positions based on an overwhelming response from the Industry stating that they should not be included. The SAR Drafting Team also removed these entities and associated real-time positions from the functions to which the standard will apply based on FERC Order 693. The applicability to the Reliability Coordinator, the Balancing Authority and the Transmission Operator is based on the NERC Functional Model Version 3 definitions.</p> <p>Generator Operators and Local Control Center Operators are under the direct supervision of NERC certified entities, such as the Balancing Authority and/or Transmission Operator that are staffed with NERC Certified System Operators. Regarding normal operations, the GOP/LCC follows the directions of the NERC registered operating entity, which is ensured by agreements in place to assure the directives from the responsible entity are followed. In those instances of emergency operations, the LCC and/or Generator Operator will take actions to protect their equipment immediately, but will get their direction from the operating authority on how to proceed from that point. The BA and TOP remain the responsible operating entities.</p>			
Tampa Electric Company		X	I feel NERC certification should be required for Generator Operators and Transmission Operators in a local control center. It is hard for me to believe that the entities listed above would not take corrective action for a realtime contingency or would let their system suffer a voltage collapse while waiting on direction from a NERC Certified ISO/RTO. If the entities listed above do take direct action to return thier system to a stable state, which I would expect them to do, without direction from the NERC Certified ISO/RTO, than they would be in violation of NERC Standards.
<p>Response: The initial SAR contained requirements for Generator Operator entities and Local Control Center Operator entities to be certified. The SAR Drafting team removed these entities and associated real-time positions based on an overwhelming response from the Industry stating that they should not be included. The SAR Drafting Team also removed these entities and associated real-time positions from the functions to which the standard will apply based on FERC Order 693. The applicability to the Reliability Coordinator, the Balancing Authority and the Transmission Operator is based on the NERC Functional Model Version 3 definitions.</p> <p>Generator Operators and Local Control Center Operators are under the direct supervision of NERC certified entities, such as the Balancing Authority and/or Transmission Operator that are staffed with NERC Certified System Operators. Regarding normal operations, the GOP/LCC follows the directions of the NERC registered operating entity, which is ensured by agreements in place to assure the directives from the responsible entity are followed. In those instances of emergency operations, the LCC and/or Generator Operator will take actions to protect their equipment immediately, but will get their direction from the operating authority on how to proceed from that point. The BA and TOP remain the responsible operating entities. In cases of loss of communications between the operating entity and the GOP and/or LCC there is an agreed to procedure/directive in place defining what actions are to take place that has been directed by the operating entity(s).</p>			
Otter Tail Power Company		X	GOPs should have proper GOP certification that focuses on their duties with an understanding of the impact on BES reliability. Similarly, LCCs should have LCC certification that focuses on their specific duties and their impact on BES reliability. We believe NERC certification is an important part of reliable operations but expect that the

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Commenter	Yes	No	Comment
			<p>industry would be better served with specific certification which properly address duties of GOPs and LCCs since the functional model clearly draws a line between the duties of those two entities and those of a BA. The NERC Certification is a "baseline" of knowledge demonstrated through a written exam. We encourage others to not only endorse this certificaion need, but also to use this as a "baseline" for their training programs. With the turn-over of System Operations Personnel soon to come to our industry it is essential we maintain a basic level of knowledge among all personnel that effect the operation of the BES.</p>
<p>Response: The initial SAR contained requirements for Generator Operator (GOP) entities and Local Control Center (LCC) Operator entities to be certified. The SAR Drafting team removed these entities and associated real-time positions based on an overwhelming response from the Industry stating that they should not be included. The SAR Drafting Team also removed these entities and associated real-time positions from the functions to which the standard will apply based on FERC Order 693. The applicability to the Reliability Coordinator, the Balancing Authority and the Transmission Operator is based on the NERC Functional Model Version 3 definitions.</p> <p>Generator Operators and Local Control Center Operators are under the direct supervision of NERC certified entities, such as the Balancing Authority (BA) and/or Transmission Operator (TOP) that are staffed with NERC Certified System Operators. Regarding normal operations, the GOP/LCC follows the directions of the NERC registered operating entity, which is ensured by agreements in place to assure the directives from the responsible entity are followed. In those instances of emergency operations, the LCC and/or GOP will take actions to protect their equipment immediately, but will get their direction from the operating authority on how to proceed from that point. The BA and TOP remain the responsible operating entities.</p>			
Lower Colorado River Authority (1)		X	<p>Local control center operator needs to be defined. What exactly is a "local control center operator"? Will that mean that Transmission Operators in ERCOT will not need to be NERC certified since ERCOT itself performs the control area function? Also, in the LCRA system there are numerous transmission lines that are owned by COOP's but are operated by LCRA. Does this mean that distribution operators at the COOP's can operate their transmission lines without being certified, yet an LCRA transmission operator would be required to have a certification? As you can see much clarification is needed here. In addition, generator operators can have a major impact on the transmission system, yet their training may or may not address the transmission system itself. I spent 9 years in power plant operations, yet knew relatively little about the transmission system in relation to the detailed knowledge I possessed with respect to plant operations. Since coming to work in a transmission control center it has been my experience that transmission operators know much more concerning generation than generator operators know about transmission. This is most likley due to the fact that transmission operators, at LCRA anyhow, tend to have more prior work experience, and more importantly, the NERC Certification Program and Continuing Education Program stress that knowledge. The same could be done for generator operators in my opinion.</p>
<p>Response: The initial SAR contained requirements for Generator Operator (GOP) entities and Local Control Center (LCC) Operator entities to be certified. The</p>			

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Commenter	Yes	No	Comment
			<p>SAR Drafting team removed these entities and associated real-time positions based on an overwhelming response from the Industry stating that they should not be included. The SAR Drafting Team also removed these entities and associated real-time positions from the functions to which the standard will apply based on FERC Order 693. The applicability to the Reliability Coordinator, the Balancing Authority and the Transmission Operator is based on the NERC Functional Model Version 3 definitions.</p> <p>Generator Operators and Local Control Center Operators are under the direct supervision of NERC certified entities, such as the Balancing Authority and/or Transmission Operator that are staffed with NERC Certified System Operators. Regarding normal operations, the GO/LCC follows the directions of the NERC registered operating entity, which is ensured by agreements in place to assure the directives from the responsible entity are followed. In those instances of emergency operations, the LCC and/or Generator Operator will take actions to protect their equipment immediately, but will get their direction from the operating authority on how to proceed from that point. The BA and TOP remain the responsible operating entities.</p>
Northeast Utilities		X	<p>We do agree Generator Operators need not be NERC certified. However, the SAR should recognize NERC certification of Transmission Operators in a Local Control Center (LCC) may be appropriate. Several New England LCCs are registered TOPs who run studies, monitor the system, switch components in &amp; out of service including reactive resources, address real-time contingencies including load shedding, perform system restoration, have backup centers, direct other control centers to take action, etc. All actions/activities are closely coordinated with the RC/BA who is also registered as a TOP. Responsibilities and chain-of-command are documented and clear. It is recognized other Areas may not allow LCCs to take action alone, they act only when directed. The SAR needs to accomodate the different models that exist. Any operator that can take unilateral action on the bulk power system should be NERC certified. The revised "clean" SAR does not appear to specifically prevent LCCs from having certified operators, but this modification implies that could be the case.</p>
			<p>Response: The initial SAR contained requirements for Generator Operator entities and Local Control Center Operator entities to be certified. The SAR Drafting team removed these entities and associated real-time positions based on an overwhelming response from the Industry stating that they should not be included. The SAR Drafting Team also removed these entities and associated real-time positions from the functions to which the standard will apply based on FERC Order 693. The applicability to the Reliability Coordinator, the Balancing Authority and the Transmission Operator is based on the NERC Functional Model Version 3 definitions.</p> <p>Local Control Center Operators are under the direct supervision of NERC certified entities, such as the Balancing Authority and/or Transmission Operator that are staffed with NERC Certified System Operators. Regarding normal operations, the LCC follows the directions of the NERC registered operating entity, which is ensured by agreements in place to assure the directives from the responsible entity are followed. In those instances of emergency operations, the LCC will take actions to protect its equipment immediately, but will get its direction from the operating authority on how to proceed from that point. The BA and TOP remain the responsible operating entities. In cases of loss of communications between the operating entity and the LCC there should be an agreed to procedure in place defining what actions are to take place.</p> <p>By definition, if an entity is registered as a TOP that entity must be certified both presently and in the proposed revisions to this standard. This SAR is not saying that personnel working at a LCC can't be certified, therefore they could be certified if desired.</p>
City Water Light and Power		X	Transmission Operators, Balancing Authority Operators, Reliability Coordinators, and

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Commenter	Yes	No	Comment
			<p>Generator Operators must have knowledge of these systems and the Bulk Electric System. TOP, BA, and RCs NERC Certification should also extend to GOP. A proper certification for GOP is needed rather than remove the certification requirement for GOP's. In an effort to reduce the burden of GOP certification on the entire Bulk Electric System the proper GOP certification should also have a requirement of a generator capacity connected to the Bulk Electric System. For example all generators at 100 MW or greater would be required to have the new GOP NERC Certification. The new GOP requirement would also extend to generators less than 100 MW that are determined to be "Critical Generators" or "Black Start Units" by Transmission Owner, Balancing Authority, Reliability Coordinator and NERC Region to the Bulk Electric System. All other smaller generators would be excluded from the GOP NERC Certification. The PROPER GOP Certification requirement would achieve a higher level of competency and increase the level Bulk Electric System situational awareness by the GOP which is the intent of the NERC Standards.</p>
<p>Response: The initial SAR contained requirements for Generator Operator entities and Local Control Center Operator entities to be certified. The SAR Drafting team removed these entities and associated real-time positions based on an overwhelming response from the Industry stating that they should not be included. The SAR Drafting Team also removed these entities and associated real-time positions from the functions to which the standard will apply based on FERC Order 693. The applicability to the Reliability Coordinator, the Balancing Authority and the Transmission Operator is based on the NERC Functional Model Version 3 definitions.</p> <p>Generator Operators are under the direct supervision of NERC certified entities, such as the Balancing Authority and/or Transmission Operator that are staffed with NERC Certified System Operators. Regarding normal operations, the GOP follows the directions of the NERC registered operating entity, which is ensured by agreements in place to assure the directives from the responsible entity are followed. In those instances of emergency operations, the Generator Operator will take actions to protect its equipment immediately, but will get its direction from the operating authority on how to proceed from that point. The BA and TOP remain the responsible operating entity.</p>			
City Water Power & Light, Springfield	X	X	<p>I agree with the changes to eliminate the requirements for NERC certification of generator operators, but not for eliminating the requirement for certification of local control system operators.</p> <p>There are many sizes and types of generator operators. Where would you draw the line? Voltage? Size? Type? Our system has a 128 MW generator connected to the 138 kV system, whereas a neighbor has a 260 MW generator connected to the 69 kV system. There are thousands of personnel who operate various sizes and types of generators. Requiring NERC certification for all of them would be an administrative burden and not add to reliability.</p> <p>Certifying local control center operators, however, should be kept. Most problems start and are addressed locally. If untrained personnel are operating the system, this could result in reliability</p>

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Commenter	Yes	No	Comment
			<p>problems. For example, the 24 BAs in MISO, many of which are also TOPs, will be operating as Local Balancing Authorities after the MISO Ancillary Services Market begins operation. If a local TOP operates 100 kV or higher facilities, that person should be certified.</p>
<p>Response: The initial SAR contained requirements for Generator Operator entities and Local Control Center Operator entities to be certified. The SAR Drafting team removed these entities and associated real-time positions based on an overwhelming response from the Industry stating that they should not be included. The SAR Drafting Team also removed these entities and associated real-time positions from the functions to which the standard will apply based on FERC Order 693. The applicability to the Reliability Coordinator, the Balancing Authority and the Transmission Operator is based on the NERC Functional Model Version 3 definitions. Local Control Center Operators are under the direct supervision of NERC certified entities, such as the Balancing Authority and/or Transmission Operator that are staffed with NERC Certified System Operators. Regarding normal operations, the LCC follows the directions of the NERC registered operating entity, which is ensured by agreements in place to assure the directives from the responsible entity are followed. In those instances of emergency operations, the LCC will take actions to protect its equipment immediately, but will get its direction from the operating authority on how to proceed from that point. The BA and TOP remain the responsible operating entities.</p> <p>LCC personnel training requirements are not within the scope of this SAR. The training standard that addresses BES personnel training requirements is currently being developed separate from this SAR.</p>			
FirstEnergy Corp.	X	X	<p>The modifications made to the SAR to eliminate the NERC certification requirements for Generator Operators and local control center operators is consistent with the FERC view of the matter as communicated in Order 693. We agree that certification should be focused on expectations, tailored towards specific job functions, and reflect the impact that an operators actions can have on the reliability of the Bulk Electric System.</p> <p>Local control center operators that have at their unrestrained control the ability to perform switching on the Bulk Electric System, to shed load, or to restore load through the use of supervisory control or through the direct or indirect communication with a field switchman under some circumstances can have a profound impact on the reliability of the Bulk Electric System and should be certified. However, local control center operators in remote locations that are prohibited from developing and taking independent action during a normal, emergency or restoration conditions should not be required to be certified.</p> <p>The Generator Operator (the operator at the controls of a plant or unit) should not be required to be certified. However, the Generator Operator (the operator on duty at a centrally located control center with control over a fleet of generators located at two or more power plants) can have a profound impact on the reliability of the Bulk Electric System and should be certified.</p> <p>Both the Generator Operator and local control center operator requiring certification as outlined above should be subject to the certification requirements of a reliability</p>

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Commenter	Yes	No	Comment
			organization such as NERC or a Regional Entity. These entities have the authority to develop and enforce standards compelling certification for all personnel with an impact on reliability.
<p>Response: The initial SAR contained requirements for Generator Operator entities and Local Control Center Operator entities to be certified. The SAR Drafting team removed these entities and associated real-time positions based on an overwhelming response from the Industry stating that they should not be included. The SAR Drafting Team also removed these entities and associated real-time positions from the functions to which the standard will apply based on FERC Order 693. The applicability to the Reliability Coordinator, the Balancing Authority and the Transmission Operator is based on the NERC Functional Model Version 3 definitions.</p> <p>Generator Operators and Local Control Center Operators are under the direct supervision of NERC certified entities, such as the Balancing Authority and/or Transmission Operator that are staffed with NERC Certified System Operators. Regarding normal operations, the LCC/GO follows the directions of the NERC registered operating entity, which is ensured by agreements in place to assure the directives from the responsible entity are followed. In those instances of emergency operations, the LCC and/or Generator Operator will take actions to protect their equipment immediately, but will get their direction from the operating authority on how to proceed from that point. The BA and TOP remain the responsible operating entities.</p>			
Allegheny Power	X		Allegheny Power agrees with the modifications that eliminates the applicability of this standard to GOPs and LCCs. However NERC should specify that it is the responsibility of the ISO/RTOs to certify those entities. The minimum requirements for those certification program should be specified in a NERC Standard to ensure consistent certification through out the entire grid for those entities.
<p>Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment.</p> <p>In regards to your suggestion that NERC should ensure the ISO/RTOs certify these entities - that is beyond the scope of this SAR.</p>			
AMP Ohio, Inc.	X		AMP-Ohio agrees with eliminating the current requirements as they currently apply to generator operators. To the extent that a certification or training standard is applied to generator operators it should be tailored to the functions and activities that generator operators actually conduct. Generator operator personnel should not be required to test on detailed functions and activities that take place at the Reliability Coordinator, Balancing Authority or Transmission Operator. In other words generator operators should not be required to pass the balancing authority, transmission operator or reliability coordinator test. A new test should be developed that is targeted towards generator operators and the functions they actually perform.
<p>Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment.</p> <p>In regards to your suggestion that a new test should be developed specific to Generator Operators, that is now outside the realm of this SAR.</p>			
ATC LLC	X		ATC believes that any system operator who is allowed to take independent action on the bulk power system should be NERC certified.
<p>By removing this provision from the SAR is the Standard Drafting Team saying that local</p>			

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Commenter	Yes	No	Comment
			<p>control center's system operators do not take independent action on the bulk power system?</p> <p>If this is the case then we agree with the changes to the SAR.</p> <p>Additional comments:</p> <p>Issue 1: The SAR needs to be expanded to include NERC Standards PER-001 and PER-002. Doing so is the only way to insure the development of a comprehensive set of personnel standards.</p>
<p>Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comments.</p> <p>Local Control Center Operators are under the direct supervision of NERC certified entities, such as the Balancing Authority and/or Transmission Operator that are staffed with NERC Certified System Operators. Regarding normal operations, the LCC follows the directions of the NERC registered operating entity, which is ensured by agreements in place to assure the directives from the responsible entity are followed. In those instances of emergency operations, the Local Control Center personnel will take actions to protect their equipment immediately, but will get their direction from the operating authority on how to proceed from that point. The BA and TOP remain the responsible operating entities</p> <p>In regards to your suggestion that NERC should include Standards PER-001 and PER-002 in this SAR is out of the realm of this SAR. Per-001 deals with responsibility and authority while PER-002 concerns training. This Standard is meant to define those entities that need to be certified and is not meant to touch on responsibility, authority or training. A training standard is presently in the process of being developed.</p>			
Baltimore Gas and Electric	X		<p>We recommend that the revised standard be clear as to who is responsible at the requirement level as well. For example, Transmission Operator delegated tasks to Transmission Owners/Local Control Centers should not require Transmission Owner System Operators to be NERC certified. The Transmission Operator should be responsible for ensuring that the Transmission Owner/Local Control Center System Operators are qualified to perform their delegated tasks.</p>
<p>Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment.</p> <p>Generator Operators and Local Control Center Operators are under the direct supervision of NERC certified entities, such as the Balancing Authority and/or Transmission Operator that are staffed with NERC Certified System Operators. Regarding normal operations, the Transmission Operator/Local Control Center follows the directions of the NERC registered operating entity, which is ensured by agreements in place to assure the directives from the responsible entity are followed. In those instances of emergency operations, the LCC and/or Generator Operator will take actions to protect their equipment immediately, but will get their direction from the operating authority on how to proceed from that point. The BA and TOP remain the responsible operating entities.</p>			
CenterPoint	X		<p>CenterPoint Energy strongly believes that the proposed modifications to the SAR are appropriate and consistent with FERC's determination in Order No. 693 paragraph 1407 "not to require generator operators and transmission operators at local control centers</p>



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Commenter	Yes	No	Comment
			to be NERC Certified at this time".
Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment.			
Dynegy	X		The Certifying System Operators SAR Drafting Team correctly cited FERC Order 693 and the NERC Functional Model Version 3 definitions as key reasons for eliminating any requirements for NERC certification of generator operators and local control center operators.
Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment.			
ERCOT, Inc.	X		The Certifying System Operators SAR Drafting Team correctly cited FERC Order 693 and the NERC Functional Model Version 3 definitions as key reasons for eliminating any requirements for NERC certification of generator operators and local control center operators.
Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment.			
Exelon	X		FERC final Rule 693 does not require certification for Local Control Center Transmission Owner / Operators or Generation Plant or Control Center Operators. Under Commission Determination, Paragraph 1407 of Order 693, Commissioners state " The Commission understands these (industry) concerns and is persuaded not to require generator operators or transmission operators at local control centers to be NERC certified at this time". Exelon agrees with FERC that it is the Balancing Authority, Reliability Coordinator and Transmission Operator, entities who have been certified by NERC per the guidelines in Appendix 5, Organization Registration and Certification of the NERC Rules Of Procedure, to whom the Standard should apply.
Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment.			
IESO	X		The IESO supports the SAR DT position not to mandate certification of local control centers (LCC) and Generator Operators.  The Generator Operator and the LCC Operator should not be subject to NERC certification requirements since they do not have the decision-making authority for the real-time operation of the Bulk-Power System.
Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment.			
ISO New England	X		ISO New England supports the position not to mandate certification of LLCs and Generator Operators.  ISO New England believes that NERC standards only apply to Registered Entities

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Commenter	Yes	No	Comment
			<p>identified in the Functional Model. Since "local control center" is not an entity defined in the NERC Functional Model and the definition of what exactly a local control center is varies across the country, creating a Standard that is applicable to this undefined entity would be problematic.</p> <p>Given the divergence in both areas of operations and technology to be operated, ISO New England believes that the best approach is to not require Generator Operator certification, but leave this responsibility to the plant/station owners who have a strong business purpose for ensuring their operating personnel are proficient.</p>
<p>Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment. The ERO Rules of Procedure, not the Functional Model, dictate which entities must register for compliance with NERC's reliability standards.</p>			
ISO/RTO Council	X		<p>The IRC supports the SAR DT position not to mandate certification of LLCs and Generator Operators.</p> <p>The DT's position as regards to LLC's is consistent with the IRC's position that NERC standards only apply to Functional Entities identified in the Functional Model. Since "local control center" is not an entity defined in the NERC Functional Model and understanding of what exactly a local control center is varies across the country, registration of this undefined group would be inappropriate.</p> <p>The concept of not mandating NERC-certification of Generator Operators (that would have concentrated on the few generalized NERC standards that apply to operating generators) is consistent with the position that a one-size fits all approach for generator operators may not be the best approach. The SAR DT position allows a decentralized but more focused program approach for the areas in which the operators must work.</p>
<p>Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment. The ERO Rules of Procedure, not the Functional Model, dictate which entities must register for compliance with NERC's reliability standards.</p>			
Manitoba Hydro	X		<p>The revisions to the SAR better represent the intent of the PER-003.</p>
<p>Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment.</p>			
Midwest ISO	X		<p>Training should be focused on expectations and tailored towards specific job functions. The plant operator and the local control center operator should not be subject to NERC certification requirements. It is not necessary for operators located in remote locations, who are not primarily responsible for the real-time operation of the Bulk-Power System, to be certified in real-time operations Reliability Standards because they are not</p>

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Commenter	Yes	No	Comment
			involved in the functions in which this disciplined training would be advantageous. There is an exception though. Some entities have local control centers that actually do work, such as switching, that the main control center would normally do. To the extent this happens, the local control center operators should be certified. If it is done under the supervision of a NERC certified operator, no certification would be needed.
<p>Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment.</p> <p>Local Control Center Operators are under the direct supervision of NERC certified entities, such as the Balancing Authority and/or Transmission Operator that are staffed with NERC Certified System Operators. Regarding normal operations, the GO/LCC follows the directions of the NERC registered operating entity, which is ensured by agreements in place to assure the directives from the responsible entity are followed. In those instances of emergency operations, the LCC will take actions to protect its equipment immediately, but will get its direction from the operating authority on how to proceed from that point. The BA and TOP remain the responsible operating entities.</p>			
Midwest Reliability Organization	X		<p>Following the NERC functional model. As long as an entity is not performing a critical function. ie: Reliability Coordinator, Transmission Operator, and Balancing Authority. The term "Local Control Center" is not a defined NERC function and is unclear what is meant by "Local Control Center".</p> <p>General Comment:</p> <p>On page 3 of the SAR under the V0 Industry Comments section, the second comment reads "R1 - Suggestion to be incorporated into next version (version 1): ...". This comment further states "The operation position is to be filled by a person holding the appropriate level certification." The MRO believes the example given after this sentence to explain this sentence does not fully clarify who might hold an appropriate level certificate. The MRO believes the example should be expanded to included other appropriate level certificates such that the example should read "For example, a person that is acting as the Reliability Coordinasator will need to hold a Reliability Coordinator operator certificate and a person acting as a Transmission Operator would need to hold a Tranmission Operator certificate, a Balancing Interchange Transmission Operator certificate, and/or Reliability Coordinator certificate."</p>
<p>Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment.</p> <p>The Version 0 comments that were included in the SAR were submitted by stakeholders in response to PER-003-0 when Version 0 was under development. These comments have been included in the SAR so that the drafting team can consider these comments as they determine what modifications to make to the standard. The SAR drafting team will not edit these comments.</p>			
Nebraska Public Power District	X		I believe that NERC certification of GOP and LCC operating personnel is appropriate if and only if a new certification is developed that is relavant to their job functions and their ability to impact the BES. In my opinion, the requirement for NERC certification of generator operators and local control center operators should be removed from

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Commenter	Yes	No	Comment
			<p>Standard PER-003 until the new certification(s) have been developed and approved. Including the requirement at this time would result in the need to certify to one of the existing certifications. Reintroducing the requirement after approval of the new certification would allow owners, operators, and users of the bulk power system to know exactly what is being proposed before making it mandatory and enforceable.</p> <p>An alternate approach would be to retain the requirement with a "phased-in" implementation schedule where the development of the appropriate certification(s) is the first phase. The risk of this approach is that an unknown certification becomes mandatory and enforceable. This is similar to writing a blank check.</p>
<p><a href="#">Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment.</a></p>			
NorthernStar Generation Services	X		<p>The Certifying System Operators Drafting Team properly deleted the originally-proposed requirement for certification of generator operators and local control center operators. There is no justification for any such requirement. First, there has been no NERC proceeding establishing whether there is any need for such uniform certification. Second, the original PER-003 certification proposal was the subject of a great deal of disagreement within the industry, and presented a litany of implementation difficulties, which FERC recognized in Order No. 693 (at para. 1395); in fact, the FERC acknowledged that certain elements of the proposed personnel certification plan presented implementation difficulties, and did not originally propose to require generator operator personnel to be NERC-certified (at para. 1407). Third, the PER-003 proposed certifications were never agreed to by a consensus of the Bulk Power System Users. Fourth, the usefulness of any such certification requirement is questionable, particularly since the physical equipment, communications systems, and controls in place at different generators widely differs. The captioned filers strongly support the modifications made to the SAR to eliminate any requirements for NERC certification of generator operators and local control center operators.</p>
<p><a href="#">Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment.</a></p>			
Oncor Electric Delivery	X		<p>Oncor endorses the modifications made to the previous version of this draft standard.</p>
<p><a href="#">Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment.</a></p>			
PJM Interconnection	X		<p>PJM agrees with this modification. We, as do many other entities, have an internal certification process for GOs and LCCs that are specific to the PJM system.</p>
<p><a href="#">Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment.</a></p>			

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Commenter	Yes	No	Comment
PPL Industries	X		PPL Supply Groups agree with the changes made by the SAR drafting team to eliminate the requirements for generator operator and local control center operators to be NERC certified.
<a href="#">Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment.</a>			
SERC	X		We support this modification as it pertains to the functions that are applicable under PER-003.
<a href="#">Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment.</a>			
SPP ORWG	X		Although we concur with elimination of the requirement to certify generator operators (the operator actually controlling the generator), we have concerns that there are certain situations where we need to be sure that accountability is assigned to the Generator Operator entity. This may require including Generator Operator in the applicability section of standards where they may not be currently listed.
<a href="#">Response: The CSO SAR Drafting Team acknowledges your affirmative response and thanks you for your clarifying comment.</a>			
<a href="#">As standards are posted for comment, please submit comments to indicate where you believe a requirement should be assigned to a Generator Operator.</a>			
Lower Colorado River Authority (2)	X		
Madison Gas and Electric	X		
PSEG Companies	X		
Reliant Energy	X		
Salt River Project	X		
Santee Cooper	X		
Pepco Holdings, Inc.	X		
PG&E	X		
Ohio Valley Electric Cooperative	X		
New York ISO	X		
NY State Reliability Council	X		
Associated Electric Cooperative	X		
City of Tallahassee	X		
Cowlitz County PUD No. 1	X		

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<b>Commenter</b>	<b>Yes</b>	<b>No</b>	<b>Comment</b>
Dominion Virginia Power	X		
Duke Energy	X		
Brazos Electric	X		