

## Comment Report

**Project Name:** 2016-04 Modifications to PRC-025-1 | Standards Authorization Request  
Comment Period Start Date: 3/20/2017  
Comment Period End Date: 4/3/2017  
Associated Ballots:

There were 16 sets of responses, including comments from approximately 69 different people from approximately 55 companies representing 10 of the Industry Segments as shown in the table on the following pages.

## Questions

- 1. Do you agree with the revisions to Items 1-4 in response to comments from industry stakeholders on draft 1 of the SAR? If not, please explain why you do not agree and provide specific detail referencing the applicable SAR item that would make it acceptable to you.**
- 2. Do you agree with the additions of Items 5 and 6 in response to comments and discussions by the SAR drafting team? If not, please explain why you do not agree and provide specific detail referencing the applicable SAR item that would make it acceptable to you.**
- 3. If you have any other comments on this SAR that you haven't already mentioned above, please provide them here:**

Organization Name	Name	Segment(s)	Region	Group Name	Group Member Name	Group Member Organization	Group Member Segment(s)	Group Member Region
ACES Power Marketing	Brian Van Gheem	6	NA - Not Applicable	ACES Standards Collaborators	Shari Heino	Brazos Electric Power Cooperative, Inc.	1,5	Texas RE
					Tara Lightner	Sunflower Electric Power Corporation	1	SPP RE
					Greg Froehling	Rayburn Country Electric Cooperative, Inc.	3	SPP RE
					Bob Solomon	Hoosier Energy Rural Electric Cooperative, Inc.	1	RF
					Mark Ringhausen	Mark Ringhausen	3,4	SERC
Duke Energy	Colby Bellville	1,3,5,6	FRCC,RF,SERC	Duke Energy	Doug Hils	Duke Energy	1	RF
					Lee Schuster	Duke Energy	3	FRCC
					Dale Goodwine	Duke Energy	5	SERC
					Greg Cecil	Duke Energy	6	RF
Northeast Power Coordinating Council	Ruida Shu	1,2,3,4,5,6,7,8,9,10	NPCC	RSC no Dominion	Paul Malozewski	Hydro One.	1	NPCC
					Guy Zito	Northeast Power Coordinating Council	NA - Not Applicable	NPCC
					Randy MacDonald	New Brunswick Power	2	NPCC
					Wayne Sipperly	New York Power Authority	4	NPCC
					Glen Smith	Entergy Services	4	NPCC
					Brian Robinson	Utility Services	5	NPCC
					Bruce Metruck	New York Power Authority	6	NPCC

					Alan Adamson	New York State Reliability Council	7	NPCC
					Edward Bedder	Orange & Rockland Utilities	1	NPCC
					David Burke	Orange & Rockland Utilities	3	NPCC
					Michele Tondalo	UI	1	NPCC
					Sylvain Clermont	Hydro Quebec	1	NPCC
					Si Truc Phan	Hydro Quebec	2	NPCC
					Helen Lainis	IESO	2	NPCC
					Laura Mcleod	NB Power	1	NPCC
					Michael Forte	Con Edison	1	NPCC
					Kelly Silver	Con Edison	3	NPCC
					Peter Yost	Con Edison	4	NPCC
					Brian O'Boyle	Con Edison	5	NPCC
					Greg Campoli	NY-ISO	2	NPCC
					Kathleen Goodman	ISO-NE	2	NPCC
					Michael Schiavone	National Grid	1	NPCC
					Michael Jones	National Grid	3	NPCC
					David Ramkalawan	Ontario Power Generation Inc.	5	NPCC
					Quintin Lee	Eversource Energy	1	NPCC
					Silvia Mitchell	NextEra Energy - Florida Power and Light Co.	6	NPCC
Midwest Reliability Organization	Russel Mountjoy	10		MRO NSRF	Joseph DePoorter	Madison Gas & Electric	3,4,5,6	MRO
					Larry Heckert	Alliant Energy	4	MRO
					Amy Casucelli	Xcel Energy	1,3,5,6	MRO

					Chuck Lawrence	American Transmission Company	1	MRO
					Michael Brytowski	Great River Energy	1,3,5,6	MRO
					Jodi Jensen	Western Area Power Administratino	1,6	MRO
					Kayleigh Wilkerson	Lincoln Electric System	1,3,5,6	MRO
					Mahmood Safi	Omaha Public Power District	1,3,5,6	MRO
					Brad Parret	Minnesota Power	1,5	MRO
					Terry Harbour	MidAmerican Energy Company	1,3	MRO
					Tom Breene	Wisconsin Public Service	3,5,6	MRO
					Jeremy Volls	Basin Electric Power Coop	1	MRO
					Kevin Lyons	Central Iowa Power Cooperative	1	MRO
					Mike Morrow	Midcontinent Independent System Operator	2	MRO
Southwest Power Pool, Inc. (RTO)	Shannon Mickens	2	SPP RE	SPP Standards Review Group	Shannon Mickens	Southwest Power Pool Inc.	2	SPP RE
					Kevin Giles	Westar Energy	1	SPP RE
					Mike Kidwell	Empire District Electric Company	1,3,5	SPP RE
					Tara Lightner	Sunflower Electric Power Corporation	1	SPP RE

1. Do you agree with the revisions to Items 1-4 in response to comments from industry stakeholders on draft 1 of the SAR? If not, please explain why you do not agree and provide specific detail referencing the applicable SAR item that would make it acceptable to you.

**Shannon Mickens - Southwest Power Pool, Inc. (RTO) - 2 - SPP RE, Group Name SPP Standards Review Group**

**Answer** No

**Document Name**

**Comment**

The SPP Review Group recommends that the drafting team provides clarity to why the term "Transmission" is capitalized in the phrase "Transmission system," while the same term is not capitalized in the phrase "transmission network" which is associated with proposed language pertaining to item 4 (page 2) of the Standard Authorization Request (SAR). The review group has a concern that there are some inconsistencies in the combination and capitalization of particular NERC defined terms and phrases.

Likes 0

Dislikes 0

**Response**

**Sandra Shaffer - Berkshire Hathaway - PacifiCorp - 6**

**Answer** No

**Document Name**

**Comment**

Please see response to #3.

Likes 0

Dislikes 0

**Response**

**Russel Mountjoy - Midwest Reliability Organization - 10, Group Name MRO NSRF**

**Answer** Yes

**Document Name**

**Comment**

The NSRF agrees with items 1 – 4 but is concerned about confusing individual collector circuits with less than 75 MVA of aggregate individual dispersed power producing resources with the concept of a common mode design condition that could result in the loss of 75 MVA or more of aggregate generation at a single generating Facility.

The NSRF suggests that the SAR clarify that the basis of inclusion for individual BES generators (individual wind turbines or solar panels) or individual collectors is the common mode loss of 75 MVA or more of generation.

To support the above basis that its not individual BES generators (Elements) that are of concern, that it is common mode outage that results in the loss of 75 MVA or more of generating Elements at a BES generating Facility, the NSRF suggests that the NERC definitions of Element and Facilities be clarified. NERC Elements should refer to individual BES generators and NERC Facilities should refer to aggregating more that 75 MVA of BES generating Elements at a single Facility.

**NERC BES Element Definition:** Any electrical device with terminals that may be connected to other electrical devices such as an individual generator or power producing resource, transformer, circuit breaker, bus section, or transmission line. An Element may be comprised of one or more components.

**NERC BES Facility Definition:** A set of electrical equipment that operates as a single Bulk Electric System Element (e.g., a line, a a single shaft unit of greater than 20 MVA or aggregate individual dispersed power producing resources of more than 75 MVA, a shunt compensator, transformer, etc.)

Likes	0
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Dislikes	0
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### Response

**Thomas Foltz - AEP - 3,5**

Answer	Yes
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Document Name	
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**Comment**

AEP has no objections to the revisions of Items 1 through 4 in the draft SAR.

Likes	0
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Dislikes	0
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### Response

**Laura Nelson - IDACORP - Idaho Power Company - 1**

Answer	Yes
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Document Name	
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**Comment**

We agree with the proposal to provide clarification and align better with the intent of the standard for relays to "not trip" under load.

Likes 0

Dislikes 0

**Response**

**Aubrey Short - FirstEnergy - FirstEnergy Corporation - 1,3,4**

**Answer**

Yes

**Document Name**

**Comment**

When applicable, would definite time elements (50DT) be addressed similar to instantaneous 50 elements?

Likes 0

Dislikes 0

**Response**

**Aaron Cavanaugh - Bonneville Power Administration - 1,3,5,6 - WECC**

**Answer**

Yes

**Document Name**

**Comment**

None

Likes 0

Dislikes 0

**Response**

**Sean Bodkin - Dominion - Dominion Resources, Inc. - 3,5,6**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Connie Lowe - Dominion - Dominion Resources, Inc. - 3,5,6**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Colby Bellville - Duke Energy - 1,3,5,6 - FRCC,SERC,RF, Group Name Duke Energy**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Lauren Price - American Transmission Company, LLC - 1**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Hien Ho - Tacoma Public Utilities (Tacoma, WA) - 1,3,4,5,6**

**Answer**

Yes

<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Ruida Shu - Northeast Power Coordinating Council - 1,2,3,4,5,6,7,8,9,10 - NPCC, Group Name RSC no Dominion</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Rachel Coyne - Texas Reliability Entity, Inc. - 10</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Brian Van Gheem - ACES Power Marketing - 6 - NA - Not Applicable, Group Name ACES Standards Collaborators</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	

<b>Response</b>	
<b>Michelle Amarantos - APS - Arizona Public Service Co. - 1,3,5,6</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	

2. Do you agree with the additions of Items 5 and 6 in response to comments and discussions by the SAR drafting team? If not, please explain why you do not agree and provide specific detail referencing the applicable SAR item that would make it acceptable to you.

**Sandra Shaffer - Berkshire Hathaway - PacifiCorp - 6**

**Answer** No

**Document Name**

**Comment**

Please see response to #3.

Likes 0

Dislikes 0

**Response**

**Aaron Cavanaugh - Bonneville Power Administration - 1,3,5,6 - WECC**

**Answer** Yes

**Document Name**

**Comment**

None

Likes 0

Dislikes 0

**Response**

**Laura Nelson - IDACORP - Idaho Power Company - 1**

**Answer** Yes

**Document Name**

**Comment**

We agree with the proposal to provide clarification and align better with the intent of the standard for relays to "not trip" under load.

Likes 0

Dislikes 0

**Response**

**Colby Bellville - Duke Energy - 1,3,5,6 - FRCC,SERC,RF, Group Name Duke Energy****Answer** Yes**Document Name****Comment**

Duke Energy suggests additional language be added to item c. of the Miscellaneous Items. As written, not entirely clear what the issue is, and what is meant by a "minimum criterion" in relation to the standard. More information about what the issue/concern is with this phrase would be helpful to understand the necessity of the revision.

Likes 0

Dislikes 0

**Response****Connie Lowe - Dominion - Dominion Resources, Inc. - 3,5,6****Answer** Yes**Document Name****Comment**

On item #6 , the language currently reads: "Clarify that a high unit capability may be used". Dominion suggests additional language in the detailed description under item 6(b)stating that "the generator nameplate rating can also be used for the real power output." in the final recommendation.

Likes 0

Dislikes 0

**Response****Sean Bodkin - Dominion - Dominion Resources, Inc. - 3,5,6****Answer** Yes**Document Name****Comment**

On item #6 , the language currently reads: "Clarify that a high unit capability may be used". Dominion suggests additional language in the detailed description under item 6(b)stating that "the generator nameplate rating can also be used for the real power output." in the final recommendation.

Likes 0

Dislikes 0

**Response****Michelle Amarantos - APS - Arizona Public Service Co. - 1,3,5,6**

Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Brian Van Gheem - ACES Power Marketing - 6 - NA - Not Applicable, Group Name ACES Standards Collaborators	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Aubrey Short - FirstEnergy - FirstEnergy Corporation - 1,3,4	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Rachel Coyne - Texas Reliability Entity, Inc. - 10	
Answer	Yes
Document Name	
Comment	
Likes 0	

Dislikes 0

**Response**

**Ruida Shu - Northeast Power Coordinating Council - 1,2,3,4,5,6,7,8,9,10 - NPCC, Group Name RSC no Dominion**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Hien Ho - Tacoma Public Utilities (Tacoma, WA) - 1,3,4,5,6**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Shannon Mickens - Southwest Power Pool, Inc. (RTO) - 2 - SPP RE, Group Name SPP Standards Review Group**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Lauren Price - American Transmission Company, LLC - 1**

**Answer** Yes

<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Russel Mountjoy - Midwest Reliability Organization - 10, Group Name MRO NSRF</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Thomas Foltz - AEP - 3,5</b>	
<b>Answer</b>	
<b>Document Name</b>	
<b>Comment</b>	
<p>While AEP has no objections to the inclusion of Items 5 and 6 into the draft SAR, we seek clarity on 6c as the proposed language could cause a communication barrier between the TP and GO fuctions regarding “reported to the Transmission Planner”. For example, what specific reliability concern is it attempting to address, and exactly what is driving its proposed inclusion in the SAR?</p>	
Likes 0	
Dislikes 0	
<b>Response</b>	

3. If you have any other comments on this SAR that you haven't already mentioned above, please provide them here:

**Russel Mountjoy - Midwest Reliability Organization - 10, Group Name MRO NSRF**

**Answer**

**Document Name**

**Comment**

N/A

Likes 0

Dislikes 0

**Response**

**Lauren Price - American Transmission Company, LLC - 1**

**Answer**

**Document Name**

**Comment**

We have no additional comments at this time.

Likes 0

Dislikes 0

**Response**

**Shannon Mickens - Southwest Power Pool, Inc. (RTO) - 2 - SPP RE, Group Name SPP Standards Review Group**

**Answer**

**Document Name**

**Comment**

The review group recommends capitalizing the term "system" in the phrase "Transmission system" that's associated with the proposed language (on page 2, 4, and 7) of the SAR. The group's perspective is that both terms are defined in the NERC Glossary of Terms. Also, we recommend the drafting team consider collaborative efforts with The Alignment of Terms Drafting Team. The Alignment of Terms Drafting Team can provide some useful insight on how to address the inconsistencies of the combination and capitalization of particular NERC defined terms and phrases like "Transmission system." Additionally, we recommend that the drafting team provides clarity on the meaning of the two phrases "Transmission system" and "transmission network."

Likes 0

Dislikes 0

**Response**

**Ruida Shu - Northeast Power Coordinating Council - 1,2,3,4,5,6,7,8,9,10 - NPCC, Group Name RSC no Dominion**

**Answer**

**Document Name**

**Comment**

We support the SAR for Project 2016-04 Modifications to PRC-025-1.

Likes 0

Dislikes 0

**Response**

**Rachel Coyne - Texas Reliability Entity, Inc. - 10**

**Answer**

**Document Name**

**Comment**

Texas RE does not have additional comments.

Likes 0

Dislikes 0

**Response**

**Aaron Cavanaugh - Bonneville Power Administration - 1,3,5,6 - WECC**

**Answer**

**Document Name**

**Comment**

None

Likes 0

Dislikes 0

**Response**

Sandra Shaffer - Berkshire Hathaway - PacifiCorp - 6

Answer

Document Name

Comment

The BES definition states that the individual resource should be included, however, many things within the way the standard is written can be argued otherwise. The first example is the wording taken directly from the standard :

“Asynchronous generating unit(s) (including inverter ~~or Elements~~ installations),  
utilized in the aggregation of dispersed power producing resources.”

The OR referenced in Attachment 1, Table, (*leading to Elements utilized in the aggregation of dispersed power producing re-sources*) offer a choice which could eliminate the obligation to analyze down to the turbine level.

Another point is that the device within the wind turbine isn't a standard relay element 51 or 51V-R. The device in the turbine is a low voltage molded case circuit breaker. Even more specifically, the device ANSI representation is a 52 – AC Circuit Breaker. What makes this even more frustrating is that generator owners and engineers within have no control of how these wind turbines were designed and commissioned by the OEM. We did not provide the settings nor do we ever intend to change them from what the OEM originally placed.

The final point to make, if entities are required to comply down to the turbine level main circuit breaker then there will be many cases that the breakers cannot be adjusted to a current that is over 130% nameplate MVA rating. The Long time pickup is typically set slightly above nameplate with a “long” time delay (example 10 seconds). This is a perfectly appropriate way to operate the wind turbine as there are other faster operating over current elements enabled on the same breaker (Short time and Instantaneous) that will protect for more severe faults. The element of time delay isn't specified in this standard which also adds issues.

Likes 0

Dislikes 0

Response

Brian Van Gheem - ACES Power Marketing - 6 - NA - Not Applicable, Group Name ACES Standards Collaborators

Answer

Document Name

Comment

(1) We believe the authors need to identify that Requirement R1 is only applicable to the small subset of GOs, TOs, and DPs that apply load-responsive protective relays at the Element terminals listed under the standard's applicability section. We recommend instructing the SDT to change the applicability of the requirement to "Responsible Entity" or "Functional Entity".

(2) We question the overall urgency identified within the SAR, particularly since the current implementation plan does not require 100% compliance until 2019 or 2021 for retrofits. If there are concerns over current regional practices that exist, we believe pursuing interpretations or regional variances may be a better alternative.

(3) We thank you for this opportunity to provide these comments.

Likes 0

Dislikes 0

**Response**