

Individual or group. (29 Responses)
 Name (15 Responses)
 Organization (15 Responses)
 Group Name (14 Responses)
 Lead Contact (14 Responses)

IF YOU WISH TO EXPRESS SUPPORT FOR ANOTHER ENTITY'S COMMENTS WITHOUT ENTERING ANY ADDITIONAL COMMENTS, YOU MAY DO SO HERE. (3 Responses)

Comments (29 Responses)
 Question 1 (26 Responses)
 Question 1 Comments (26 Responses)
 Question 2 (25 Responses)
 Question 2 Comments (26 Responses)
 Question 3 (0 Responses)
 Question 3 Comments (26 Responses)

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| |
| Individual |
| Brett Holland |
| Kansas City Power and Light |
| |
| Yes |
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| Yes |
| Page 21 Example: There are a lot of protective relays that protect one element that sense the same parameter. For example, the Generator has a Generator differential relay, an overall differential relay, an overcurrent relay. If the Generator differential fails to actuate but the overall differential relay or the overcurrent actuates, does that this means the Composite Protection System did not misoperate?. Also recommend deleting Paglow: in various locations. |
| N/A |
| Group |
| Duke Energy |
| Michael Lowman |
| |
| Yes |
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| Yes |
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| Duke Energy would like to take this opportunity to thank the SDT for considering and implementing the recommendations we made. We believe these recommendations adequately address our initial concerns. |
| Group |
| Colorado Springs Utilities |
| Kaleb Brimhall |
| Agree |
| Public Service Enterprise Group (PSEG) |
| Individual |
| Joshua Andersen |
| Salt River Project |
| |
| Yes |
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|--|
| Yes |
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| |
| Individual |
| Richard Vine |
| California ISO |
| Agree |
| ISO/RTO Council Standards Review Committee |
| Group |
| Northeast Power Coordinating Council |
| Guy Zito |
| |
| Yes |
| The definition of the BES will lead to additional costs imposed on renewable generation that could inhibit the development of these resources. In New England in particular, states have enacted aggressive renewable energy polices and are actively working to implement them cost-effectively. The SDT's efforts recognize the unique design and operating characteristics of dispersed generation resources such as wind and solar facilities. At the same time, as expressed in the SDT's April 14, 2014 Draft White Paper, any revisions are intended to ensure that they do not "create a reliability gap." These are critical considerations. The SDT is appropriately evaluating how the obligations imposed on these asset owners and operators translate to reliability benefits, which is consistent with larger efforts within NERC to incorporate cost-effectiveness analyses into the standards development process. As is the case with all standards, the revisions here would be subject to ongoing evaluation of further changes in light of experience and, in this case, the likely increased integration of dispersed power resources. The initiation of this project is beneficial to industry and this SDT's advancement of the objectives set forth in the Draft White Paper. To provide the owners and operators of dispersed generation resources (and potential future developers) with an expectation of their compliance obligations and associated costs, this effort should move forward as expeditiously as possible. |
| No |
| Refer to the response to Question 1. In addition, the redlined standard posted on the project page is the redlined Draft 4: January 17, 2014 of PRC-004-3 (Project 2010-5.1). There have been two drafts of PRC-004-3 after that and the latest Draft 6 has passed its final ballot. The Rationale Box for the Introduction (the Rationale Box does not have a title) states that the only revisions to this posting are to Section 4.2 Facilities, yet there are revisions indicated throughout the entirety of the posted standard. There are some important changes that have been approved in Draft 6 that are missing in the redlined version posted for Project 2014-01. Suggest taking the clean version of the final ballot passed PRC-004-3 and redline the Applicability Section changes only for entities to have a clear picture of what the standard is going to be. You cannot have two different versions of the same standard being balloted under different projects. The similar comment applies to the posted PRC-004-2.1a(X). The untitled Rationale Box for the Introduction states that the only revisions are to R2 and R3, yet there is redlining throughout the standard. |
| Regarding RC-004-3 (x): • M2; since the subparts have been updated, 2.3 needs to be removed in M2. • Guidelines and Technical Basis section-Definitions; Protection System Definition - 4th bullet should be revised to remove the word "station" from within the parentheses to be consistent with the currently approved definition of Protection System in the Glossary of Terms Used in NERC Reliability Standards. In the PRC-004-3 (X) Implementation Plan, under the effective date section, there is no mention of the differences/exceptions listed in this standard for the Western Interconnection effective dates. This should be updated. PRC-004-2.1a(X) and PRC-004-3 (X) Rationale for Applicability – The sentence that says "Misoperations occurring on the Protection Systems of individual generation...", is misleading because by definition (I4), the individual resources are BES, therefore misoperations occurring on the Protection Systems of individual resources would have an impact on BES reliability, while noting that "material impact" is not defined. In PRC-005-2(X), suggest adding the term "non-dispersed" to the wording of Part 4.2.5 to read "Protection Systems for the following non-dispersed BES generator facilities" The same suggestion for |

PRC-005-3(X). There is confusion surrounding the concurrent development of PRC-004-2.1a(X) and PRC-004-3(X). Is the intent to have both these versions merged into one? If so, that should be made clear. If not, then the numbering for one or the other should be changed. The NERC Standards Numbering System stipulates that the "one-digit numeral identifying the version of that standard" is the last number in the standards number. PRC-004-2.1a(X) and PRC-004-3(X) deal with different topics.

Group

Arizona Public Service Company

Janet Smith

Yes

Yes

Individual

Anthony Jablonski

ReliabilityFirst

Yes

ReliabilityFirst votes in the affirmative because we believe the changes adequately address the concerns involving individual dispersed generation power producing resources. ReliabilityFirst provides the following comments for consideration: 1. The term "protection system" is used in the newly added language but ReliabilityFirst believes this term should be capitalized since it is a NERC Defined Term (i.e., "Protection System").

Individual

Maryclaire Yatsko

Seminole Electric Cooperative, Inc.

Yes

No

Seminole agrees with the specific revisions concerning only the changes to distributed generation, however, Seminole does not agree with the ongoing revisions through Project 2010-05.1 that are included in this revision, such as the owner of the BES interrupting device being required to initiate review in all scenarios as opposed to the entity that initiated the interrupting device's action. Therefore, Seminole must vote negative as this revision includes language from Project 2010-05.1 that Seminole does not find agreeable.

Individual

Russell A. Noble

Public Utility District No. 1 of Cowlitz County, WA

Yes

Cowlitz PUD agrees with the outcome, but disagrees with the format. Please refer to the last question.

Yes

Cowlitz PUD agrees with the outcome, but disagrees with the format. Please refer to the last question.

Cowlitz PUD disagrees with the placement of applicability statements within the Requirement. Such statements generally should be placed in Section 4 of the Standard unless some overriding clarity issue can be identified. After review of the proposed reasons for the Standard revision, no discussion was found to explain why applicability statements were inserted into Requirements R2 and R3 rather than in Section 4. This commenter looked at the possible clarity issue at hand, but can't find justification for this construct. Inserting the following statements in Section 4 would more effectively communicate the applicability of distributed generation: "4.3.1 Those Protection Systems designed to protect BES distributed generation or associated collection systems regardless of voltage at points where the aggregate nameplate capacity is greater than 75 MVA. 4.3.2 Those protection systems associated with BES distributed generation where the aggregate nameplate capacity is equal or less than 75 MVA is not applicable." Of note, this commenter is not clear why the BES definition must be followed in the Standard, or why parallel usage of "dispersed power producing resources" should be followed. Cowlitz PUD respectfully submits that "distributed generation" is well understood and can be used while preserving the intent and clarity of the BES definition, and placement of applicability statements in this Standard is better suited in Section 4.

Individual

Marc Donaldson

Tacoma Power

Yes

No

Proposed Applicability 4.2.1.3 may be lead to misunderstanding. If failure (or slow trip) of a Protection System of an individual dispersed power producing resource, identified under Inclusion I4 of the BES definition, affects the aggregate nameplate rating of over 75 MVA of BES Facilities, it seems like that Protection System operation would be applicable to the standard. If so, clarification may be needed in the Application Guidelines, or the Applicability may need to be reworded, to help avoid a misunderstanding in which an entity thinks that the Protection System is not applicable to the standard.

The implementation plans for PRC-004-2.1a(X) and PRC-004-3(X) do not tie the effective date of the standard revision to the effective date of the BES definition. This seems incongruent with the implementation plans for PRC-005-2(X), PRC-005-3(X), and PRC-005-X(X).

Group

Dominion

Connie Lowe

Yes

Yes

PRC-004-3 (x) • M2; since the subparts have been updated, 2.3 needs to be removed in M2. • Guidelines and Technical Basis section-Definitions; Protection System Definition - 4th bullet should be revised to remove the word "station" as this word is not in the currently approved definition of Protection System in the NERC glossary of terms. In the PRC-004-3 (X) implementation plan, under the effective date section, there is no mention of the differences/exception listed in this standard for the Western Interconnection effective dates, this should be updated. PRC-004-2.1a(X) and PRC-004-3 (X) Rationale for Applicability – The sentence that says "Misoperations occurring on the Protection Systems of individual generation...", is misleading because by definition (I4), the individual resources are BES, therefore misoperations occurring on the Protection Systems of individual resources would have an impact on BES reliability, while noting that "material impact" is not defined.

Individual

David Jendras

Ameren

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| Agree |
| Ameren agrees with and supports the SERC PCS comments for Project 2014-01 Dispersed Generation Resources - PRC-004. |
| Group |
| MRO NERC Standards Review Forum |
| Joe DePoorter |
| |
| Yes |
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| Yes |
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| The NSRF wishes to thank the SDT for including a very well written and industry needed Application Guidelines section of the proposed Standard. This should be mandatory for reviewed Standards. |
| Individual |
| Thomas Foltz |
| American Electric Power |
| |
| Yes |
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| Yes |
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| Group |
| SERC Protection and Controls Subcommittee |
| David Greene |
| |
| No |
| Requirements 2 and 3 reference "individual" dispersed generator Protection Systems and the "total" aggregate which is still creating some confusion. It appears that focus is on the "total" aggregate location not individual resources. Is it correct to assume if there are multiple resource owners who each have less than 75 MVA but the multiple resources aggregate at a "utility" bus, the bus is the aggregate point and would only need to be reported if at this aggregate point the loss of the aggregate is greater than 75MVA? There is also a concern that several non dispersed generator resources that may not be required to be registered that aggregate to greater than 75 MVA will have to be reported by utilities who do not own the equipment. Wording clarification and supporting Figures may need to be revised to clarify these requirements. |
| No |
| Facilities section 4.2.1.3 references "individual" dispersed generator Protection Systems and the "total" aggregate which is still creating some confusion. It appears that focus is on the "total" aggregate location not individual resources. Is it correct to assume if there are multiple resource owners who each have less than 75 MVA but the multiple resources aggregate at a "utility" bus, the bus is the aggregate point and would only need to be reported if at this aggregate point the loss of the aggregate is greater than 75MVA? There is also a concern that several non-dispersed generator resources that may not be required to be registered that aggregate to greater than 75 MVA will have to be reported by utilities who do not own the equipment. Wording clarification and supporting Figures may need to be revised to clarify these requirements. |
| The comments expressed herein represent a consensus of the views of the above-named members of the SERC EC Protection and Control Subcommittee only and should not be construed as the position of SERC Reliability Corporation, its board, or its officers. |
| Individual |
| Jonathan Meyer |
| Idaho Power Co. |

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| Yes |
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| Yes |
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| Group |
| IRC Standards Review Committee |
| Greg Campoli |
| |
| No |
| In order to clearly state that analysis of misoperations is exempted for dispersed generation within a group that meets the I4 criteria, the sub bullets under R2 and R3 should be revised to: "For Misoperations occurring on the protection systems of individual dispersed power producing resources identified under Inclusion I4 of the BES definition." |
| No |
| The comment is the same as the one providedT above in response to question 1. |
| |
| Individual |
| John Pearson / Matt Goldberg |
| ISO New England |
| |
| No |
| : In R2 and R3, the words "or could have affected" were initially added but then they were deleted. Those words should not have been deleted. The PRC subteam had indicated to us that those words would be included. The deleted words addressed the concern we expressed during the comment period for the Dispersed Generation White Paper. Specifically, we stated that we do not agree with limiting the analysis requirement to a trip of greater than 75 MVA because that only accounts for very large occurrences that could be unusual. Smaller occurrences, however, may predict an unusual large occurrence that could impact reliability. The deleted words were in fact included in the "Standards Applicability Guidelines" that were circulated for comment but were ultimately not issued. The deleted words "or could have affected" should be added back in. |
| No |
| : In R2 and R3, the words "or could have affected" were initially added but then they were deleted. Those words should not have been deleted. The PRC subteam had indicated to us that those words would be included. The deleted words addressed the concern we expressed during the comment period for the Dispersed Generation White Paper. Specifically, we stated that we do not agree with limiting the analysis requirement to a trip of greater than 75 MVA because that only accounts for very large occurrences that could be unusual. Smaller occurrences, however, may predict an unusual large occurrence that could impact reliability. The deleted words were in fact included in the "Standards Applicability Guidelines" that were circulated for comment but were ultimately not issued. The deleted words "or could have affected" should be added back in. |
| |
| Individual |
| John Miller |
| Georgia Transmission Corporation |
| |
| No |
| R2 and R3 should be approached in 004-2.1a the same as the exclusions in 004-3. Rather than state that it is excluded at the end of the sentence, simply state it on the front end. i.e. as follows: This requirement does not apply to Misoperations occurring on the protection systems of individual dispersed generation power producing resources identified under Inclusion I4 of the BES definition |

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| where the Misoperations affected or could have affected an aggregate nameplate rating of less than or equal to 75 MVA of BES facilities. |
| Yes |
| The statement is made at the beginning of 4.2.1 "with the following exclusions:". That makes the I4 statement much clearer than the wording in 004-2.1a. |
| Individual |
| John Seelke |
| Public Service Enterprise Group |
| No |
| In R2 and R3, "75MVA" should be changed to "20MVA." This would make it comparable to I2 generators. Although the change to 20MVA would have this standard apply to non-BES assets, many standards do likewise. In fact "Protection Systems," which are the subject of this standard, are non-BES. As written, a reliability gap would be created between I4 generators and I2 generators. The proposed change violates Section 303 of the NERC Rules of Procedure, paragraph 1 that states: "Competition - A Reliability Standard shall not give any market participant an unfair competitive advantage." If alternative language was proposed that required the same 75MVA threshold for I2 generators, PSEG would be fine with that. But the proposed non-comparable treatment of generators is not acceptable. |
| No |
| In 4.2.1.3, "75MVA" should be changed to "20MVA." This would make it comparable to I2 generators. Although the change to 20MVA would have this standard apply to non-BES assets, many standards do likewise. In fact "Protection Systems," which are the subject of this standard, are non-BES. As written, a reliability gap would be created between I4 generators and I2 generators. The proposed change violates Section 303 of the NERC Rules of Procedure, paragraph 1 that states: "Competition - A Reliability Standard shall not give any market participant an unfair competitive advantage." If alternative language was proposed that required the same 75MVA threshold for I2 generators, PSEG would be fine with that. But the proposed non-comparable treatment of generators is not acceptable. |
| Group |
| Southern Company: Southern Company Services, Inc; Alabama Power Company; Southern Company Generation; Southern Company Generation and Energy Marketing |
| Pamela Hunter |
| Yes |
| Looks good - removing the speculative "could have" language is helpful. |
| Yes |
| Looks good - focusing on "Misoperations that affected > 75 MVA" is appropriate. |
| No. |
| Individual |
| Jason Marshall |
| New England States Committee on Electricity (NESCOE) |
| Yes |
| The New England States Committee on Electricity (NESCOE) appreciates the work of the Dispersed Generation Resources Standard Drafting Team (SDT) in moving forward important clarifications regarding the applicability of certain standards to dispersed power producing resources. NESCOE supports the specific revisions reflected in the identified PRC standards, as well as the general intent of this Project. In comments on the first draft of the proposed BES definition, NESCOE cautioned that the definition might lead to unnecessary costs imposed on renewable generation that could inhibit |

the development of these resources. That remains a concern in New England, where states have enacted aggressive renewable energy policies and are actively working to implement them cost-effectively. The SDT's efforts recognize the unique design and operating characteristics of dispersed generation resources such as wind and solar facilities. At the same time, as expressed in the SDT's April 14, 2014 Draft White Paper, any revisions are intended to ensure that they do not "create a reliability gap." These are critical considerations. The SDT is appropriately evaluating how the obligations imposed on these asset owners and operators translate to reliability benefits, which is consistent with larger efforts within NERC to incorporate cost-effectiveness analyses into the standards development process. As with all standards, the revisions here would be subject to ongoing evaluation of further changes in light of experience and, in this case, the likely increased integration of dispersed power resources. NESCOE appreciates the initiation of this project and this SDT's advancement of the objectives set forth in the Draft White Paper. To provide the owners and operators of dispersed generation resources (and potential future developers) with an expectation of their compliance obligations and associated costs, NERC should work to move this effort forward as expeditiously as possible. Thank you for your consideration of these comments.

Yes

See comments above.

While the deadline for providing comments on proposed revisions to PRC-005 and VAR-002 under this Project 2014-01 has passed, NESCOE supports these proposed changes for the same reasons discussed above and offers the following minor suggestions for clarity: • PRC-005-2(X) – suggest adding the term "non-dispersed" to the wording of 4.2.5 to read "Protection Systems for the following non-dispersed BES generator facilities" • PRC-005-3(X) – same suggestion.

Individual

Jo-Anne Ross

Manitoba Hydro

Yes

D 1.1 states: "As defined in the NERC Rules of Procedure, "Compliance Enforcement Authority" means NERC or the Regional Entity in their respective roles of monitoring and enforcing compliance with the NERC Reliability Standards" This does not take Canadian legislation into account. The clause should refer to the definition in the NERC Rules of Procedure or in the applicable legislation in a jurisdiction governed by legislation other than the NERC Rules of Procedure.

Yes

The Effective Date sections in the implementation plan and the standard at section 6 are not consistent. The standard section distinguishes Western Interconnection as having a different Effective Date from others. The Implementation plan makes no reference to this. The standard references dates of twelve months or twenty-four months after the date the standard is adopted or as otherwise provided for in that jurisdiction but the implementation plan does not make reference to these durations. As a Canadian entity, Manitoba Hydro may not be affected by this inconsistency but revision would provide clarity to the section. PRC-004-3 Application Guidelines: a) Under Definitions on page 20, it includes a note to add an example which includes various terms. It appears this was an internal note and meant to be deleted. b) On page 21 the standard states: Example: There are a lot of protective relays that protect one element that sense the same parameter. For example, the Generator has a Generator differential relay, an overall differential relay, an overcurrent relay. If the Generator differential fails to actuate but the overall differential relay or the overcurrent actuates, does that mean the Composite Protection System did not misoperate? This example does not appear to be answered thus the purpose and clarity of the example is in question. c) Also on page 21 the standard states: Paglow: A breaker failure operation does not, in itself, constitute a Misoperation On page 24 the standard states: Paglow: If the coordination error was at the remote terminal (set too fast), then it is an "Unnecessary Trip" at the remote location. If the coordination error was at the local terminal (set too slow), then it is a "Slow Trip" at the local location. What does "Paglow" refer to? It appears this was an internal note and meant to be deleted. d) On page 27 under the heading "Requirement 1" and on page 28 under the heading "Requirement 3" the standard states: The intent of the standard is to classify an operation as a Misoperation if the available information leads to that conclusion. The standard also allows an entity to classify an operation as a Misoperation if entity is not sure, it may decide to identify the

operation as a Misoperation and continue its investigation until the entity determines otherwise. If the continued investigative actions are inconclusive, the entity may declare no cause found and end its investigation. It is redundant to add the same statement of intent in both of the Requirements. If the statement of intent must be stated in the Application Guidelines, it should appear once prior to the commencement of the Requirements sections.

Group

Bonneville Power Administration

Andrea Jessup

Yes

Yes

No.

Group

ACES Standards Collaborators

Jason Marshall

Yes

(1) We agree with the conceptual changes but believe some refinements are necessary. First, protection system is a NERC glossary term and should be capitalized. Second, the SDT should clarify what they mean by "affected." Does this mean that amount of generation that was actually outaged as a result of the Misoperation? Or would this include an evaluation of the other potential Misoperations that could have occurred if the same conditions were experienced at other locations within the dispersed generation site? We believe that the answer should be the former rather than the latter. To make this clear, we suggest changing the word "affected" to "outaged." (2) Based on a FERC informational filing previously communicated to the Commission by NERC, we believe that the clause on R2 and R3 should be "numbered" rather than "bulleted." Numbers imply it is required where as bullets imply that there is an option from the list. This may be moot since there is only one option but for consistency with the filing and other NERC standards, we believe the bullet should be a sub-part of the requirement and replaced with a number.

Yes

(1) We agree with the conceptual changes to the Facilities section. However, the SDT should clarify what they mean by "affected." Does this mean that amount of generation that was actually outaged as a result of the Misoperation or would this include an evaluation of the other potential Misoperations that could have occurred if the same conditions were experienced at other locations within the dispersed generation site? We believe that the answer should be the former rather than the latter. To make this clear, we suggest changing "affected" to "outaged." (2) Additionally, there seems to be some other unrelated changes that would exceed the scope of the changes in the project SAR. While we do not see them as problematic, we question where they are coming from.

Group

DTE Electric

Kathleen Blacxk

Yes

Yes

No additional comments.

Group

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|---|
| Puget Sound Energy |
| Dianne Gordon |
| |
| No |
| Technically this is ok, but is somewhat unclear. If we understand correctly, we recommend revising the wording as follows: "For Misoperations occurring on a portion of a dispersed generation collection of total aggregate rating greater than 75 MVA (and therefore a BES facility), if the aggregate rating of the portion of dispersed generation where the misoperation occurs is less or equal to 75 MVA, then this requirement does not apply." |
| Yes |
| |
| |
| Group |
| SPP Standards Review Group |
| Shannon V. Mickens |
| |
| No |
| In the Rationale Box for Applicability reference is made several times to BES reliability. Then in the 7th line the emphasis switches over to the BPS. We prefer the references to the BES since the proposed change is being brought about by changes to the BES definition. We recommend the SDT use BES in these references for consistency. |
| No |
| Similar to the comment provided in response to Question 1 above, the Rationale box for Applicability contains references to both BES and BPS reliability. We recommend making all references to BES reliability. The definition of the new term 'Composite Protection System' needs to be mention in this draft standard for clarity. |
| Yes. In the 1st line of the Rationale Boxes in the Implementation Plans for PRC-004-2.1a(X) and PRC-004-3(X), change 'include' to 'includes'. We have a concern in reference to the name plate rating for dispersed generation and the value of 75 MVA. The exemption in both standards applies to anything below 75MVA aggregate. For consistency, we would ask that all other generation resources below 75 MVA be included in the exemption. In both Implementation Plans (PRC-004-2.1a(X) and PRC-004-3(X)), Balancing Authority shows up in the applicability sections. It should be deleted in both places. |

Additional Comments

Flathead Electric Cooperative
 Russ Schneider

"I still do support the concept of composite protection system. In addition, the way R2 is expanded to backup protection systems and the extra notifications required in 2.2 do not seem necessary or at least seem burdensome for backup protection system owners. I prefer the language in the previous draft."