

Individual or group. (14 Responses)
Name (5 Responses)
Organization (5 Responses)
Group Name (9 Responses)
Lead Contact (9 Responses)
Question 1 (14 Responses)
Question 1 Comments (14 Responses)
Question 2 (13 Responses)
Question 2 Comments (14 Responses)

Group
Northeast Power Coordinating Council
Guy Zito
Yes
Yes
<p>Page numbers in the following comments refer to the clean version of the document. On the cover page the title should be revised to read Proposed Revisions to the Applicability of NERC Reliability Standards to Dispersed Generation Resources. In the second paragraph on page 5, it states "...This document provides justification of, and proposes revisions to, the applicability of the Reliability Standards and requirements, both existing and in development, and should be considered guidance for future standard development efforts..." This could result in considerable time savings and effort in the development of standards. Is there a mechanism in place for ensuring this is done? On page 9 above the table it is mentioned that "...In cases where a change is recommended to a regional standard, the SDT will notify the affected region." Is it appropriate for the SDT to make this notification, and when will the notification be made? Bulk Power System is used extensively on page 10, and not capitalized. If it is intended for its definition to be consistent with that listed in the NERC Glossary, it should be capitalized. Also, from the NERC Glossary, it should be Bulk-Power System. In Section 3.3.3 Prioritization Methodology, for high priority could exceptions be issued for entities to avoid the pitfalls of rushing changes to standards? Exceptions should be considered for medium and low priorities as well. In the medium priority bullet "appreciable reliability benefit" is used. What is considered an "appreciable reliability benefit"? There are operating conditions where the loss of 5MW can put the Bulk-Power System in an Emergency condition. On page 22 of 33 in Section 4.10.12 PRC-024— Generator Frequency and Voltage Protective Relay Settings, the second sentence should be reworded to read to be consistent with the language in the Rationale for Footnotes 4 and 6 in PRC-024-2: The SDT has determined it is appropriate to require that Protection System settings applied on both the individual generating units and aggregating equipment (including any Protection Systems applied on non-BES portions of the aggregating equipment), are set respecting the "no-trip zone" referenced in the requirements to maintain reliability of the BES. The Appendix A Source incorrectly lists PRC-002-1 as Pending Regulatory Approval. PRC-002-1 was remanded by FERC, and PRC-002-2 has been submitted to FERC and is Pending Regulatory Approval. This might appear elsewhere in the Appendices, and needs to be reviewed. PRC-002-1 dealt with installation requirements; PRC-002-2 deals with the capturing of data.</p>
Group
MRO-NERC Standards Review Forum
Joe Depoorter
No
<p>Page 7 of 33, last sentence states: "Thus, for some standards discussed in this paper it is appropriate to apply requirements at the plant level rather than the individual generating unit". If the SDT is inferring the "plant level" is the point of aggregation of 75 MVA or at the Facility (?), then please state that or provide a foot note. This term can be interpreted differently by each reader of this section. Section 4.4.4. The NSRF recommends that FAC-008-3 be restricted to only the individual generation resource per the I4 inclusion of the BES definition. FAC-001-1, R3 outlines Facility connection requirements. The TO can request updates of this information per R4. Note that</p>

GO/GOPs are either vertically integrated with their TOP or have a good working rapport with their TOP since working together since 2007. The industry does not need granular Requirements that fall outside the scope of the BES definition i.e., ratings of collector systems. If a TOP wants this information they can always request it outside of a NERC Standard.
Group
DTE Electric Co.
Kathleen Black
No
The discussion under PRC-004 (Section 4.10.4, paragraph 4) concerning setting errors on individual units suggests that this may be applicable even if less than 75 MVA is affected. The statement should be modified to clarify that only misoperations affecting more than 75 MVA are in scope.
No
No additional comments.
Individual
Thomas Foltz
American Electric Power
Yes
In the section for PRC-024, we believe the text "are set within the no-trip zone" is incorrect. Instead, the text should read as follows: "The SDT has determined it is appropriate to require that Protection System settings applied on both the individual generating units and aggregating equipment (including any Protection Systems applied on non-BES portions of the aggregating equipment are set *outside (or in accordance with)* the "no-trip zone" referenced in the requirements to maintain reliability of the BES."
No
Individual
Heather Bowden
EDP Renewables North America LLC
No
FAC-008: Technical guidance for FAC-008 is needed for dispersed power producing resources. For dispersed power producing resources, the Facility ratings should only be necessary for equipment which aggregates generation to 75 MVA or higher. The impact the individual generators have to the BES reliability is negligible. Since the NERC technical justification for applicability as presented in the Bulk Electric System Definition Reference Document dated April 2014 defines BES resources of being 75 MVA or higher, only the equipment that meets this threshold should be included. The applicability criteria for dispersed power producing resources should be consistent across the Reliability Standards.
Yes
Since the NERC technical justification for applicability as presented in the Bulk Electric System Definition Reference Document dated April 2014 defines BES resources of being 75 MVA or higher, only the equipment that meets this threshold should be included. The applicability criteria for dispersed power producing resources should be consistent across the Reliability Standards.
Group
Dominion
Connie Lowe
Yes
Yes
Dominion understands this whitepaper is constantly being updated and suggests the following be updated as the due dates below have past since the SDT redlined the document; Section 10.7 PRC-005-2; in the last sentence change January 22, 2014 to January 22, 2015 and update ballot

comments as this ballot has closed. Section 10.10 PRC-019-1; update results of PRC-10-1 comments/ballot that closed December 22, 2014. Section 10.12 PRC-024; needs to be updated with the PRC-024 posting initial comment/ballot that closed December 22, 2014. Section 4.11.2 TOP-001-3; footnote 25 - update results of TOP-001-3 ballot which closed on January 7, 2015.

Individual

Mike Smith

Manitoba Hydro

Yes

The terms BES and BPS are used inconsistently, making the white paper confusing to read.

No

Individual

Craig Jones

Idaho Power

Yes

No

Individual

RoLynda Shumpert

South Carolina Electric and Gas

Yes

No

Group

Southern Company: Southern Company Services, Inc.; Alabama Power Company; Georgia Power Company; Gulf Power Company; Mississippi Power Company; Southern Company Generation; Southern Company Generation and Energy Marketing

Pamela Hunter

No

The proposed changes included in FAC-008-3(X) are essentially specifying an unnecessary design review of entire PV and wind plants. This outcome of the proposed inclusion of generating resources identified in BES Definition Inclusion I4 in FAC-008 is not needed and is not necessary. The GO sharing of the ratings and capabilities of generating plant with planning entities is sufficiently and adequately in other existing NERC standards. To be specific, the generating plant MW and MVAR capabilities are required to be verified by MOD-025-2. The ability of a generating plant to remain connected for specified frequency and voltage excursions (and the reporting to the PC or TP any lack of the ability to do so) is required by PRC-024. The soon to be enforceable MOD-032 contains requirements for the GO to provide a plethora of plant specific modeling information (steady-state, dynamic, and short circuit) to the PC or TP including real power capabilities - gross maximum and minimum values; b. reactive power capabilities - maximum and minimum values at real power capabilities in a above; c. station service auxiliary load for normal plant configuration (provide data in the same manner as that required for aggregate Demand; d. regulated bus* and voltage set point* (as typically provided by the TOP); e. machine MVA base; f. generator step up transformer data (1. nominal voltages of windings, 2. impedance(s), 3. tap ratios (voltage or phase angle)*, 4. minimum and maximum tap position limits, 5. number of tap positions (for both the ULTC and NLTC), 6. regulated bus (for voltage regulating transformers)*, 7. ratings (normal and emergency)*, 8. in-service status*); g. generator type (hydro, wind, fossil, solar, nuclear, etc); h. in-service status* These realizations expose the fact that FAC-008-3 is not needed at all for generating resources. One sentence of the PRC-025 paragraph (page 28 of the 11 Dec 2014 draft) is incomplete: "The SDT has determined it is appropriate to require that Protection System settings applied on both the individual generating units at a dispersed generation power producing resource

site as applicable to this standard." The use of "both" makes it sound as though two independent parts will subsequently named, and they are not. TPL-007-1 contains a GO requirement and should be addressed by the white paper.
Yes
Since some standards (PRC-024) have recently been modified to account for the unique characteristics of dispersed power generating resources using footnotes, this method of modification should be mentioned in the third bullet of page 2 of the red line 11 Dec 2014 draft of the White Paper. This bullet could be revised to read: "The existing standard language needs to be modified in order to account for the unique characteristics of dispersed power producing resources. This could be accomplished through the applicability Applicability section Section of the standard in most cases, through narrowly- tailored changes to the individual requirements, if needed, or through the use of footnotes which clarify the applicability.
Group
Duke Energy
Colby Bellville
Yes
No
Duke Energy would like to thank the drafting team for its efforts in drafting the DGR White Paper.
Group
ACES Standards Collaborators
Jason Marshall
No
(1) The drafting team has done an excellent job reviewing all of the standards that apply to GOs and GOPs and also identifying some of the ancillary issues such as the interaction of BAs, TOPs, and RCs and dispersed generation resources. However, we do believe there are still some issues that have not been fully addressed in the white paper. (2) The white paper should explain why the drafting team modified its view on both MOD-026 and MOD-027. It only says upon further review the drafting team no longer believes the applicability requires further refinement. What specifically in the review changed the drafting team's mind? This should be explained in the white paper. (3) We disagree that PRC-001-1.1 R2 does not require modifications. While we agree with the SDT's interpretation that the loss of an individual generating unit at a dispersed generation resource will not have material impact on reliability and therefore the requirement is not applicable, we do not believe all GOPs (and possibly auditors) will interpret the requirement in this manner. GOPs may not have the transmission system knowledge to understand that losing a single generation resource in a dispersed generation site does not have a material impact on reliability. A simple revision or technical explanation in the application guidelines section is warranted to be sure everyone interprets the standard consistent with the drafting team's explanation in the white paper. (4) The TOP standards section of the white paper needs a wholesale re-evaluation as it appears to be out of sync with the work of the Project 2014-03 TOP and IRO Revisions standards drafting team. This drafting team is wrapping up their work and all standards have either passed the initial/additional ballot or have passed the final ballot and appear to be different than what was evaluated. For instance, TOP-001-3 is much broader than described in the white paper and encompasses much more than ensuring "TOP directives are complied with." Further, TOP-002-4 and TOP-003-3 were not even evaluated in the white paper. Since the SDT has not identified the existing TOP standards as high priority issues, will the SDT truly recommend changes to them when they will be replaced by the standards from Project 2014-03? (5) The CIP section is confusing and requires additional modification. Based on the inclusion of the low impact requirements or "Elements" as described in the white paper and from Attachment 1 in CIP-003-7, it would appear that there is an assumption that these dispersed generation resources could never be categorized as medium or high impact. We are not sure this will be universally true. However, if the drafting team is making this assumption, please document it explicitly in the white paper. Furthermore, we recommend removing the low impact requirements/"Elements" from the white paper as they are not final and do not provide any additional clarification to the work of this drafting team at this juncture.
No

Thank you for the opportunity to comment.
Group
Arizona Public Service Company
Kristie Cocco
No
FAC-008: SDT recommends additional guidance but intent is not clear. Any of the facility components in a dispersed generation complex should not be subjected to facility rating calculations. There is very little reliability benefit in doing so. The dispersed power generation complex is not subjected to higher loadings than the design value for any realistic scenario.
Yes
TOP-001-3 Requirements R13, R14, R15 should not apply to variable generation even at the aggregate level. It is hard to predict reduction in real and reactive power capability of variable generation units in real time. There is no reliability benefits of these standards as applied to variable generation. TOP needs to be prepared for maximum changes in real and reactive power from these complexes.
Group
SPP Standards Review Group
Robert Rhodes
No
Reference is made to BES reliability in 4.7.3 MOD-024-1, 4.7.4 MOD-025-1 and 4.7.5 MOD-025-2 whereas the reference is to 'reliability of the BPS' in 4.6.3 IRO-010. It appears that the drafting team swaps back and forth from one to the other quite often in the document. We should be consistent throughout the whitepaper. We prefer BES reliability. Section 4.11 TOP may need to be revised based on the on-going Project 2014-03 Revisions to TOP and IRO Standards which has extensively revised the TOP standards. TOP-002-4 and TOP-003-3 have been accepted by the industry and adopted by the NERC Board. TOP-001-3 is currently posted for Final Ballot having successfully passed its last additional ballot which closed on January 7, 2015. The 1st sentence in the 1st bullet under 4.11.3.2 Requirement R13 is not very clear. Without knowing exactly what the SDT is trying to say, we offer the following as a possible replacement. 'Due to the number of individual generators at a dispersed power producing resource, the internal Real Power losses, and the natural inductance and capacitance of dispersed power resource systems connected in series, verification of real and reactive capabilities should be conducted at the dispersed power producing resource aggregate Facility level.'
Yes
The following are primarily typo/grammatical suggestions. In the first line of the Executive Summary the SDT uses White Paper when referring to the document. The Project 2014-03 SDT most recently used whitepaper when referencing its System Operating Limit (SOL) document. NERC needs to be consistent with the use of whitepaper in all documentation across all projects. Also in the first paragraph of the Executive Summary, hyphenate Bulk-Power System as defined in the NERC Glossary of Terms Used in Reliability Standards. Change the 'and' at the end of the 2nd bullet in the 2nd paragraph of the Executive Summary to 'or'. Delete 'be' in the next to last line of the 1st paragraph on Page 2 of the Executive Summary. Delete the comma after 'Standards Committee' in the 1st line of the 1st paragraph under 3 Background. Capitalize 'Transmission' in the 1st line of the 3rd paragraph under 3.2.1 Design Characteristics. Be sure it is capitalized correctly throughout the whitepaper. For example, in the last line of the 2nd paragraph under 3.2.2 Operational Characteristics. Insert 'the' between 'affect' and 'GO' in the 3rd line of the paragraph under 4.1 BAL. Delete the phrase 'changes to add' in the next to last line of the 2nd paragraph under 4.4.4 FAC-008 – Facility Ratings. Change the references to MOD-032 in 4.7.1 MOD-010 and 4.7.2 MOD-012 from 5.7.8 to 4.7.8. Replace 'do' with 'does' in the last line of the paragraph under 4.9 PER. Capitalize 'Protection Systems' in the next to last line of the last paragraph under 4.10.1 PRC-001-1.1 – System Protection Coordination. Replace 'is' with 'was' in the first line of the paragraph under 4.10.2 PRC-001-2 – System Protection Coordination. In the 3rd line of the same paragraph, change 'This Standard version...' to 'This standard version...'. Replace 'do' with 'does' in the last line of the paragraph under 4.10.3 PRC-002-NPCC-01 – Disturbance Monitoring. As in the previously mentioned comment on 4.9 PER, standards is not the subject of these sentences, applicability is. 'Does' is the

proper verb to attain subject/verb agreement. Change the reference to 'BPS criteria' in the 2nd line of the 1st paragraph under 4.10.4 PRC-004-2.1a – Analysis and Mitigation of Transmission and Generation Protection System Misoperations to 'BES criteria' since the Purpose of PRC-004-2.1a refers to '...reliability of the Bulk Electric System (BES)...'. Additional consideration should be given to the references to BPS reliability in this paragraph. (See our comment in Question 1 above.) Make the plural 'operations' in the 2nd line of the 4th paragraph under 4.10.4 PRC-004-2.1a – Analysis and Mitigation of Transmission and Generation Protection System Misoperations parenthetical 'operation(s)' since it could be singular or plural. Capitalize 'Misoperation' in the 3rd line of the 5th paragraph under 4.10.4 PRC-004-2.1a – Analysis and Mitigation of Transmission and Generation Protection System Misoperations. Replace 'benefit' with 'benefits' in the 2nd line of the 1st paragraph under 4.10.7 PRC-005-2 – Protection System Maintenance. Capitalize 'Transmission' in the 2nd line of the 3rd paragraph under 4.10.7 PRC-005-2 – Protection System Maintenance. There has apparently been some sort of mix-up between the redline version and the clean version of the whitepaper regarding the last paragraph under 4.10.7 PRC-005-2 – Protection System Maintenance and the beginning of 4.10.8 PRC-006-NPCC-1 – Automatic Underfrequency Load Shedding. Capitalize 'Transmission Lines' in the 3rd and 7th lines of the paragraph under 4.10.11 PRC-023 – Transmission Relay Loadability. Capitalize 'Protection Systems' in the 10th line of the paragraph under 4.10.12 PRC-024 – Generator Frequency and Voltage Protective Relay Settings. Capitalize 'Protection Systems' in the 10th line of the paragraph under 4.10.13 PRC-025 – Generator Relay Loadability. Revise the 3rd line of the paragraph under 4.11 TOP to read 'directives to the GOP, and that the GOP will follow such directives. They also ensure GOPs render all available'. Capitalize 'Real-time' in the 6th line of the 1st paragraph and the 1st line of the 2nd bullet under 4.11.1.3 Requirement R7. Also replace 'generator' with 'generation' in the 9th line of the 1st paragraph and the last line of the 2nd paragraph of the same section. Delete the 'in' in the 6th line of the paragraph under 4.11.3.1 Requirement R3. Replace the '<' with 'less than' in the 1st line of the 2nd bullet under 4.11.3.2 Requirement R13. Capitalize 'Real-time' in the 4th sentence of the 1st paragraph and the 1st line of the 2nd bullet under 4.11.3.3 Requirement R14. Replace the 6th line and part of the 7th line of the 1st paragraph with the following: 'resources. The SDT recommends that the GOP notify the TOP of any unplanned changes in real output capabilities above 20 MVA at the aggregate Facility level.' Replace 'resources' in the 1st line of the 2nd paragraph with 'resource'. Replace 'has' with 'have' in the 2nd line of the 2nd paragraph under 4.11.3.4 Requirement R15. Replace the '>' in the 2nd line of the paragraph under 4.11.4.1 Requirement R1 with 'greater than'. Replace 'has' with 'have' in the 2nd line of the 2nd paragraph under 4.11.4.2 Requirement R2. Capitalize 'Real-time' in the 3rd and 5th lines of the 1st paragraph under 4.11.5 TOP-006 – Monitoring System Conditions. In the same section, also capitalize 'Real-time' in the 1st and 3rd lines of the 3rd bullet. Lastly, capitalize 'Real-time' in the 4th line of the 2nd paragraph of the same section. Replace the '<' in the 2nd line of the 1st bullet of the same section with 'less than'. Also in the 7th line of the 2nd paragraph, replace 'less' with 'other'. In the next line, delete the 'in'. Replace 'resource' with 'resources' in the 5th line of the paragraph under 4.13.1 VAR-001 – Voltage and Reactive Control (WECC Regional Variance). Do not change 'occurs' to 'occur'. Replace 'resource' with 'resources' in the 5th line of the 1st paragraph under 4.13.2 VAR-002-2b – Generator Operation for Maintaining Network Voltage Schedules. Again, do not change 'occurs' to 'occur'. Capitalize 'Transmission' in the last line of the 2nd paragraph. The paragraph under 4.13.3 shows up as part of the title of 4.13.4 in the clean version. Insert 'of' between '30 minutes,' and 'any' in the 1st line of what should be the paragraph under 4.13.3 VAR-002-2b – Requirement R3.1. Replace 'changes' with 'change' in the 2nd line of the same paragraph. Replace 'is' with 'are' in the 4th line of the same paragraph. We suggest rewording the 3rd paragraph under 4.14.1 CIP v5 to read: 'During Project 2014-02 CIP Version 5 Revisions' first comment period, the SDT received comments to modify the Applicability Section of CIP-003-6. The CIP SDT made drastic modifications in the second posting of CIP-003-6, which was posted for an additional 45-day comment and ballot period on September 3, 2014, to take into account all of the comments received during the first posting.' 'Responsible entity' is capitalized extensively in 4.14.1 CIP v5 but it is not a defined term in the Glossary of Terms. Delete 'The' in the 4th line of the 4th paragraph under 4.14.1 CIP v5. Also, delete the 'the' in front of 'Attachment 1' in the last line of the same paragraph.