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Organization (9 Responses)
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Lead Contact (11 Responses)
IF YOU WISH TO EXPRESS SUPPORT FOR ANOTHER ENTITY'S COMMENTS WITHOUT ENTERING ANY ADDITIONAL COMMENTS, YOU MAY DO SO HERE. (0 Responses)
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Group
Tennessee Valley Authority
Brandy Spraker
Yes
Yes
No
Though the line could be derived from reading the purpose of the standard, it may help avoid potential confusion to the generator owners by specifically excluding generator step-up units from 4.2.1.6 or the second bullet of Attachment B.
No
No
Group
Northeast Power Coordinating Council
Guy Zito
No
The Industry Need statement, as written, implies that the burden of the overlap between PRC-023-3 and PRC-025-1 rests with the Generator Owner as the owner of the protection for the elements that connect the generator to the transmission system. The intent of the drafting teams for PRC-023-3 and PRC-025-1 is to segregate the standards so that load-responsive relays used for generator protection are in one standard (PRC-025-1) and load-responsive relays used to protect transmission are in another (PRC-023-3). The Applicability section of PRC 025-1 refers to generator interconnected Facilities which can be construed to mean Generator Owners are responsible for this protection and the terminals at each end. There are Transmission Owners that own protection assets on some, if not all of the terminals for a generator's interconnection. Terminal responsibility needs clarification. The wording places emphasis on asset ownership.
No

The Reliability Functions table has the Planning Coordinator checked. The Planning Coordinator by definition in the NERC Functional Model is "The functional entity that coordinates, facilitates, integrates and evaluates (generally one year and beyond) transmission facility and service plans, and resource plans within a Planning Coordinator area and coordinates those plans with adjoining Planning Coordinator areas." The Planning coordinator does not get involved with generator and transmission relay loadability.

No

The draft SAR and proposed standards PRC-023-3, PRC-025-1 fail to provide a clear distinction as to whether the standard is meant to apply to the owner of a protection system designed to protect transmission elements (which we believe is the intent of PRC-023-3), or the owner of a protection system designed to protect generation elements (which we believe is the intent of PRC-025-1). We believe this was the intent, but the applicability section of either of the proposed standards does not clearly articulate that intent. Suggest the SDT consider an approach similar to that used in PRC-006-1 where the SDT chose to create a 'standard specific entity'; UFLS entities. Alternatively, the applicability could be modified to more closely match the intent indicated in the Applicability section of the Guideline and Technical Basis document, and in the wording of the Supplemental SAR for Project 2010-13.2 Relay Loadability Order 733 Phase 2 (Relay Loadability: Generation). The standard should be applied to the owner of the particular type of protection system, not applied to a particular function. We are aware of circumstances whereby an entity registered as Transmission Owner owns the protection system that protects for faults on the element(s) owned by an entity registered as a Generator Owner which are solely used to interconnect their generator to the bulk power system. We are also aware of circumstances whereby the Generator Owner owns both the element(s) which are solely used to interconnect their generator to the bulk power system as well as the protection system that protects for faults on those generator interconnection element(s). In both of these, the protection system is designed to protect the bulk power system from the fault, not the generator itself. Changes to proposed PRC 023-2 and PRC 025-1 attempt to establish a bright line, but the functional entity of Generator Owners is still included in PRC 023-3. This results in confusion as to what standard applies for the elements that connect the generator to the BES, as some Transmission Owners own GSU assets. The wording of PRC-025-1, and as stated in the Webinar, imply that "leads assets" will fall under PRC-025-1. There is still confusion in this area so a bright line still has not been established.

No

No

It needs to be made clear that owning the protection systems at the terminals does not imply ownership of the facility. Entities may be responsible for protective relays on each end of a "lead", but the leads but may be in facilities where one end is owned by a Transmission Owner, and the other end facility is owned by a Generator Owner. The removal of the "Effective Dates" table needs to be re-examined. Among other things, this table included the timelines for meeting PRC-023 on sub-200kV Facilities. If a sub-200kV Facility is identified by the Planning Coordinator, pursuant to Requirement R6, Transmission Owners, Generator Owners, and Distribution Providers must be given a grace period in which to make protection modifications before PRC-023 is applicable to that Facility. PRC-023-2 included a 39-month window for modifying these Facilities once they've been identified by the Planning Coordinator. This is an oversight that will cause confusion. In PRC-023-3, in 4.1.2 PRC 023-2 needs to be changed to PRC-023-3.

Group

PacifiCorp

Ryan Millard

Yes

Yes

Yes

No
No
Section 4.1 states that the Transmission Owner, Generator Owner, and Distribution Provider with load-responsive phase protection systems at the terminal of the circuits is responsible for ensuring compliance with PRC-023-3. PacifiCorp maintains that more clarification is needed with respect to who is ultimately responsible for ensuring compliance in instances where the circuit/transmission line has a different owner. Would the owner of the circuit/transmission line rely on the owner of the relays for ensuring compliance?
Group
Luminant
Brenda Hampton
Yes
Yes
Yes
No
No
Group
Southwest Power Pool Standards Development Team
Jonathan Hayes
Yes
Yes
No
While we agree that the revision to PRC023-2 creates a bright line we feel that language should be included in PRC-25-1 to clearly state that the protection relays under PRC023-2 ,or -3 if the SAR is approved, would be not be applicable under PRC025-1.
No
No
Group
ACES Standards Collaborators
Ben Engelby
No
(1) In order to have a clear "bright line," the generator owner should not apply to PRC-023. Remove all reference to GO from PRC-023, and then the SAR will satisfy the intent of avoiding double

jeopardy.
No
(1) The purpose of the revised SAR is to remove the applicability of GOs for PRC-023-2. Therefore, we recommend unselecting the Generator Owner box in the supplemental SAR, as the revised standard would not apply to GOs.
No
See comments above. There should not be any references to generators in the transmission loadability standard.
No
No
(1) We disagree with including GOs as an applicable entity to PRC-023-2. In order to create a "bright line," the drafting teams should have separate standards. Have PRC-023 apply to transmission and have PRC-025 apply to generators. It is a simple dividing line. If the team feels that any of the loadability criteria from the transmission loadability standard should be included in PRC-025, then do so, but do not leave any reference to GOs in PRC-023. (2) With the proposed PRC-023-3, there is overlap for GOs. The GO is listed in all six requirements in PRC-023 and in R1 of PRC-025. We recommend removing all references to GOs in PRC-023. If this cannot be accomplished, then update PRC-023-3 to include the aspects of PRC-025 and stop developing a duplicative standard.
Group
Salt River Project
Bob Steiger
Yes
Yes
Yes
No
No
No Comment
Individual
Oliver Burke
Entergy Services, Inc. (Transmission)
Yes
Yes
Yes
No
Yes
Elimination of the table under number 5 of section A in PRC-023-2.
Comments to NERC on Proposed PRC-023-3 Standard It is understood that PRC-023-3 is intended to

replace PRC-023-1 and PRC-023-2 in the near future. The changes proposed for PRC-023-3 in comparison with PRC-023-2 are mainly the removal of the table under number 5 of section A. The table being removed provides the effective dates of the requirements in the PRC-023-2 standard corresponding to the applicable Functional Entities and circuits. Entergy has concerns over the removal of the table as explained below. Our specific area of concern is on the effective date of PRC-023-3 which is defined in the standard as the “first day of the first calendar quarter beyond the date that this standard is approved by applicable regulatory authorities”. (See the bottom of page 1 of the proposed PRC-023-3 standard.) In the Implementation Plan for the proposed PRC-023-3 standard, it is stated that entities applicable to this standard shall be 100% compliant on the effective date of the standard. (See the last line on page 2 of the Implementation Plan.) In other words, the Implementation Plan considers a specific implementation period as not required based on the following two reasons. (See section General Considerations at the bottom of page 1 of the Implementation Plan.) 1. No new entity or facilities are subject to compliance. 2. The implementation plan and period for PRC-023-2 will have been achieved. Entergy sees some scenarios that do not agree with either or both of the above reasons. In such scenarios, the PRC-023-3 effective date and Implementation Plan become problematic. In short, PRC-023-3 proposes to retroactively eliminate the NERC-defined implementation time for ongoing PRC-023-2 compliance activities. A couple of scenarios are provided below for illustration purposes. The first scenario is related to the effective date of requirements R6 and R1 of PRC-023-2. PRC-023-2 became effective in the United States on July 1, 2012. (See the Background section on page 1 of the Implementation Plan for PRC-023-3.) However, PRC-023-2 gives various effective dates that are to be phased in over the period of more than four years. According to the table on pages 2-4 of the PRC-023-2 standard, R6 will become effective on 1/1/2014. For circuits identified by the Planning Coordinator pursuant to Requirement R6, R1 is to be effective 39 months following notification by the Planning Coordinator of their inclusion on a list of circuits subject to PRC-023-2 per application of Attachment B. It means that the applicable entity is given 39 months to develop and implement a plan to bring the applicable circuits to compliance. Therefore, the compliance date can be as late as 4/1/2017 or beyond depending on when the Planning Coordinator will send out its notification on applicable circuits. If PRC-023-3 becomes effective before such date, it will be problematic. For reference, the relevant effective dates for R6 and R1 as specified in PRC-023-2 (Please review Effective Dates as provided in table for NERC Standard PRC-023-2). The second scenario is about new circuits identified by Planning Coordinator during its assessments that are required to be conducted at least once each calendar year pursuant to R6 of PRC-023-3. (See the middle of page 4 of the PRC-023-3 standard.) When new circuits are identified as the result of the yearly assessment, applicable entities will need reasonable amount of time to bring the circuit to compliance. This time period is necessary for budget reasons as well as project planning and construction reasons. While both PRC-023-1 and PRC-023-2 recognize such a need, the proposed standard PRC-023-3 does not. (See section 5.1.3 on page 1 of PRC-023-1 and effective date table on pages 2-4 of PRC-023-2.) Entergy suggests that a 39 months long period of time be given to applicable entities to comply with the PRC-023-3 standard for each facility that is added to the Planning Coordinator’s list. Please review the referenced NERC standard documents. 1) NERC Standard PRC-023-1 2) NERC Standard PRC-023-2 3) NERC Proposed Standard PRC-023-3 (clean) 4) NERC PRC-023-3 Implementation Plan

Individual
Thad Ness
American Electric Power
Yes
Yes
No
AEP believes that the proposed changes in the draft PRC-023-3 create a bright line identifying the scope of PRC-023-3. However, the proposed draft of PRC-025-1 does not create a bright line identifying the scope of PRC-025-1. Load-responsive protective relays installed on the high side terminals of the Generator Step-Up transformer looking towards the Transmission system are clearly in scope for PRC-023-3 but are not clearly excluded from being applicable from PRC-025-1. AEP

recommends including in PRC-025-1 verbiage clearly excluding load-responsive protective relays applicable to PRC-023-3 from PRC-025-1.
No
No
AEP believes there is a typo in PRC-023-3 Section 4.1.2. The statement references PRC-023-2 instead of the current standard revision.
Individual
Ed Croft
Puget Sound Energy
Yes
No
Possibly the GO (section 4.1.2) should be taken out. This function is covered in PRC-025. Taking the GO function out of PRC-023 (and any accompanying items) would further strengthen the brightline between PRC-023-3 and PRC-025-1.
No
see answer to question 2
No
No
Individual
Nazra Gladu
Manitoba Hydro
No
(1) Similar to PRC-025, the phrase "while maintaining reliable protection of the BES" is vague. There are no objective criteria specified for this determination, nor is it clear whether this element will be audited in some fashion. If this element of the requirement cannot be audited, it should be deleted. At a minimum, it should specify that the Responsible Entity makes this determination in its sole discretion.
Yes
No comment.
No
(1) In section 4.1.1, 4.1.2 and 4.1.3, the redlined part "at the terminals of" should be changed to "at the Transmission Owner terminals of", "at the generator owner terminals of" and "at the Distribution Owner terminals of". Also, PRC-023-2 in section 4.1.2 should be changed to PRC-023-3.
No
No comment.
No
No comment.
No comment.
Individual
Michael Falvo
Independent Electricity System Operator

Yes
Yes
Yes
No
No
Group
Dominion
Mike Garton
No
Dominion believes the Industry Need as indicated in the SAR could be better stated. We believe the intent of the drafting teams for PRC-023 and PRC-025 is to segregate the standards so that load-responsive relays used for generator protection are in one standard (PRC-025) and load-responsive relays used to protect the bulk power system (Transmission as defined in the NERC Glossary ; An interconnected group of lines and associated equipment for the movement or transfer of electric energy between points of supply and points at which it is transformed for delivery to customers or is delivered to other electric systems.) are in another (PRC-023). The SAR as written appears to infer that, in all cases, the GO owns the protection system that contains the load-responsive relays that protect Transmission (as defined in the NERC Glossary) from faults that occur on the element(s) that make up the Facility used to connect the generator to Transmission. PRC 025 refers to generator interconnected Facilities (ie generator leads..some refer to this as GSU leads) which implies Generator Owners are responsible for this protection and the terminals at each end. There are TOs that own "lead" assets either on both ends or possibly one end of the leads. This is an area that needs further clarification when referring to terminal responsibility. Appears now that wording places emphasis on asset ownership?
No
Under 4.1.2 PRC 023-2 needs to be changed to PRC023-3.
No
The draft SAR and proposed standards PRC-023-3, PRC-025-1 fail to provide a clear distinction as to whether the standard is meant to apply to the owner of a protection system designed to protect transmission elements (which we believe is the intent of PRC-023) or the owner of a protection system designed to protect generation elements (which we believe is the intent of PRC-025). We believe this was the intent of the SDT but we don't believe the applicability section of either of the proposed standards clearly articulates that intent. We suggest the SDT consider an approach similar to that used in PRC-006-1 where the SDT chose to create a 'standard specific entity'; UFLS entities. Alternatively, the applicability could be modified to more closely match the intent as indicated in the Applicability section of the Guideline and Technical Basis document and the Supplemental SAR for Project 2010-13.2 Relay Loadability Order 733 Phase 2 (Relay Loadability: Generation). We believe the standard should be applied to the owner of the particular type of protection system, not applied to a particular function. We are aware of circumstances whereby an entity registered as TO owns the protection system that protects for faults on the element(s) owned by an entity registered as a GO which are solely used to interconnect their generator to the bulk power system. We are also aware of circumstances whereby the GO owns both the element(s) which are solely used to interconnect their generator to the bulk power system as well as the protection system that protects for faults on those generator interconnection element(s). In both of these, the protection system is designed to protect the bulk power system from the fault, not the generator itself. Changes to proposed PRC 023-2 and PRC 025-1 attempts to establish a bright line but the functional entity of Generator Owners is still included in PRC 023 so this results in confusion as to what standard applies for the elements that

connect the generator to the BES as some Transmission Owners own GSU assets but the new standard and as stated on the Webinar it implies that "leads assets" will fall under PRC 025. There is still confusion in this area so a bright line still has not been established.

No

No

It needs to be clear that at the terminals does not imply ownership. Entities may be responsible for protective relays on each end of the leads but may be in facilities where one end is owned by a TO and the other end facility is owned by a GO. - The removal of the "Effective Dates" table needs to be reexamined. Among other things, this table included the timelines for meeting PRC-023 on sub-200kV Facilities. If a sub-200kV Facility is identified by the Planning Coordinator, pursuant to Requirement R6, Transmission Owners, Generator Owners, and Distribution Providers must be given a grace period in which to make protection modifications before PRC-023 is applicable to that Facility. PRC-023-2 included a 39-month window for modifying these Facilities once they've been identified by the Planning Coordinator. This is an oversight that will cause confusion.

Individual

Timothy Brown

Idaho Power Co.

Yes

Yes

Yes

No

No

There will obviously be additional work to perform the analysis needed to be compliant with the standard. The only business practice that will need to be modified is to perform this analysis for any new or modified generators or generator protective relays to ensure compliance.

Individual

Dale Fredrickson

Wisconsin Electric Power Company

No

Adding this phrase does little to remove the confusion as to applicability to Generator Owners.

No

The applicability of this standard should be removed from the Generator Owner.

No

Any requirements applicable to the Generator Owner should be in a single standard, PRC-025-1. When this standard is approved, Generator Owners that employ load-sensitive relaying on the high-voltage side of the generator step-up transformer, between the GSU and the interconnection with the Transmission system, will be subject to the PRC-025-1 requirements in 3.2.4 for Generator interconnection Facilities, and at that time the PRC-023 standard should have all applicability to Generator Owners removed.

No

No

Individual
Travis Metcalfe
Tacoma Power
No
The phrase "at the terminals of the" does not seem to mitigate the potential overlap between PRC-023 and PRC-025. Should not the distinction be drawn for generation interconnection Facility(ies)? In other words, it seems that transmission lines only connecting generation would be subject to PRC-025-1 and that transmission lines that are part of the more interconnected transmission system would be subject to PRC-023-3. If the Generator Relay Loadability Standard Drafting Team disagrees, additional clarification is requested as to how the phrase "at the terminals of the" mitigates the potential overlap.
Yes
No
The phrase "at the terminals of the" does not seem to mitigate the potential overlap between PRC-023 and PRC-025. Should not the distinction be drawn for generation interconnection Facility(ies)? In other words, it seems that transmission lines only connecting generation would be subject to PRC-025-1 and that transmission lines that are part of the more interconnected transmission system would be subject to PRC-023-3. If the Generator Relay Loadability Standard Drafting Team disagrees, additional clarification is requested as to how the phrase "at the terminals of the" mitigates the potential overlap.
No
No
Group
PPL Corporation NERC Registered Affiliates
Stephen J. Berger
No
The PPL Companies do not agree that addition of the phrase includes the specificity needed to ensure "double jeopardy" for generation. As stated by the North American Generators Forum standards review team: Load-responsive protective relays installed on the high side terminals of the Generator Step-up transformer looking towards the Transmission system appear to be clearly in scope for PRC-23-3 but are not clearly excluded from being applicable to PRC-025-1.
Yes
No
No
No
Individual
Bradley Collard
Oncor Electric Delivery LLC

Oncor is not registered as a Generator Owner, nor does it perform the functions of a Generator Owner. Thus, this question is not applicable to Oncor.
Oncor is not registered as a Generator Owner, nor does it perform the functions of a Generator Owner. Thus, this question is not applicable to Oncor.
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Oncor is not registered as a Generator Owner, nor does it perform the functions of a Generator Owner. Thus, this question is not applicable to Oncor.
No Comment
The phase-in time for a newly declared critical circuit was removed from the draft PRC-023-3 Effective Dates section; the phase-in time needs to be added back to PRC-023-3. As written in PRC-023-2, R6 requires Planning Coordinators to conduct an assessment of critical circuits on a periodic basis and provide "new circuits" to the appropriate registered entity. The Effective Dates section of PRC-023-2 states a registered entity will have 39 months to comply for newly declared critical circuits following declaration by the Planning Coordinator. This phase-in time period provides necessary time for a registered entity to budget and implement a project to meet PRC-023-2 compliance. The 39 month phase-in period was an acceptable and approved timeframe and should be added back to PRC-023-3.
Group
SERC Protection and Controls Subcommittee
David Greene
Yes
Yes
Yes
No
No
There may be owner issues that impact entity registration.
- It needs to be clear that 'at the terminals' does not imply ownership. Entities may be responsible for protective relays on each end of the leads but may be in facilities where one end is owned by a TO and the other end facility is owned by a GO. - The removal of the "Effective Dates" table needs to be reexamined. Among other things, this table included the timelines for meeting PRC-023 on sub-200kV Facilities. If a sub-200kV Facility is identified by the Planning Coordinator, pursuant to Requirement R6, Transmission Owners, Generator Owners, and Distribution Providers must be given a grace period in which to make protection modifications before PRC-023 is applicable to that Facility. PRC-023-2 included a 39-month window for modifying these Facilities once they've been identified by the Planning Coordinator. This is an oversight that will cause confusion. The comments expressed herein(Questions 1-6) 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.
Group
Bonneville Power Administration
Jamison Dye
No
The difference between "applied to circuits defined in 4.2.1" and "applied at the terminals of the circuits defined in 4.2.1" is not clear. If there is any difference, it is subtle, and probably not worth revising PRC-023-2 for. The bigger problem is that transmission lines over 200kV that attach

generating facilities to the BES seem to be covered by both PRC-023 and PRC-025. PRC-025 applies to Generation interconnection Facilities, but there is no definition of this term. It seems that a 230kV line that connects a GSU transformer to a substation would be considered to be a Generation interconnection facility, and subject to both standards. Therefore, there are two very different requirements that apply to the relays on such a line. A definition of Generator interconnection Facilities is needed, and clarification of which standard the example given above would be covered by is needed.

No

BPA believes there needs to be a clearer delineation between generator facilities and transmission facilities and PRC-023 and PRC-025 written so that there is no overlap between the two. Then the applicability of both PRC-023 and PRC-025 can be easily applied to the owners of the facilities covered by that standard, whether they are registered as a GO, TO, or DP. As PRC-025 is proposed, it only applies to GO's, but what if a TO owns the relays applied to a GSU transformer? These relays would presently not be covered by either PRC-023 or PRC-025.

No

As described in comments 1 and 2, BPA believes there needs to be a definition of "Generator interconnection Facilities" if this term will be used in PRC-025. There needs to be a clear separation between facilities included in PRC-023 and those included in PRC-025, with no overlap. The most likely place for this separation would be at the high-voltage terminal of the GSU transformer, with the GSU and everything between it and the generators included in PRC-025, and the line connecting the GSU to the BES included in PRC-023.

No

No