Background Information

This posting is soliciting informal comment.

The Generator Relay Loadability Standard Drafting Team (GENRLOSDT) continues to evaluate the best alternative to modifying PRC-023-2 to clarify the Generator Owner’s applicability with regard to load-responsive protective relays. The drafting team has provided a redline draft to PRC-023-2 with a proposed solution to the issue.

The drafting team considered whether changes would be necessary to Requirement R1, criterion 6 and decided it should remain in the standard as there may be cases where PRC-023 will be applicable to lines that connect generation stations remote to load. The drafting team has not revealed any concerns about this criterion in relation to the proposed PRC-025-1 standard currently being drafted.

The effective date of the draft PRC-023-3 is anticipated to occur beyond the Implementation Plan approved in version two; therefore, the effective date tables are proposed for removal. If an interim implementation is required to bridge PRC-023-2 to the next version, the standard drafting team will modify the effective date tables accordingly.

A complete review of the standard will be conducted to reveal any editorial edits that may be needed to improve the quality of the Reliability Standard.

Industry commenting, balloting, and approval of the revisions to the draft PRC-023-3 standard will occur contemporaneously with the drafting of the proposed PRC-025-1 standard. Adoption of PRC-023-3 will contingent upon PRC-025-1.

You do not have to answer all questions. Enter comments in simple text format. Bullets, numbers, and special formatting will not be retained.
Questions

The scope of this project includes:

- Adding to each functional entity description, the phrase “at the terminals of the” to specify where the load-responsive protective relay is located
- Update the standard version numbers
- Include any editorial edits or updates to current standard text

1. Do you agree with this scope? If not, please explain.

☐ Yes
☒ No

Comments: 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.

2. The SAR identifies a list of reliability functions that may be assigned responsibility for requirements in the set of standards addressed by this SAR. Do you agree with the list of proposed applicable functional entities? If no, please explain.

☐ Yes
☒ No

Comments: 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.

3. Do the proposed changes in the draft PRC-023-3 – Transmission Relay Loadability create the necessary bright line between the draft PRC-025-1 – Generator Relay Loadability create the bright line between the two standards? If no, please explain what would make the bright line clearer.

☐ Yes
☒ No

Comments: 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.
4. Are you aware of any regional variances that will be needed as a result of this project? If yes, please identify the regional variance.

☐ Yes
☒ No

Comments:

5. Are you aware of any business practice that will be needed or that will need to be modified as a result of this project? If yes, please identify the business practice.

☐ Yes
☒ No

Comments:

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

Comments: 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.