Unofficial Comment Form

Project 2019-04 Modifications to PRC-005-6

**Do not** use this form for submitting comments. Use the [Standards Balloting and Commenting System (SBS)](https://sbs.nerc.net/) to submit comments on the **Project 2019-04 Modifications to PRC-005-6 Standard Authorization Request (SAR)** by **8 p.m. Eastern, Wednesday, August 25, 2021.   
m. Eastern, Thursday, August 20, 2015**

Additional information is available on the [project page](https://www.nerc.com/pa/Stand/Pages/Project-2019-04-Modifications-to-PRC-005-6.aspx). If you have questions, contact NERC standards developer, [Laura Anderson](mailto:laura.anderson@nerc.net) (via email), or at (404) 446-9671.

## Background Information

In June of 2016, Xcel Energy submitted a Request for Interpretation[[1]](#footnote-2) (RFI) to NERC seeking clarification on what equipment should be included in the scope of an entity’s Protection System Maintenance Program relative to NERC Reliability Standard PRC-005-6. Xcel Energy noted that many modern generator excitation systems have the capability to respond to electrical quantities and initiate trip signals to either the generator lockout or generator output breaker. Xcel Energy asked whether a protection function (if enabled) that is embedded in a generator’s excitation system or voltage regulator would meet the definition of Protection System, and therefore be included in the scope of PRC-005-6. The RFI was rejected by the NERC Standards Committee at the recommendation of NERC staff, the standards developer, and leadership of the PRC-005-6 drafting team (DT) for the following reason:

"The generator excitation systems and voltage regulators described in Xcel Energy’s RFI are capable of monitoring electrical quantities, such as voltage or current, and responding to those quantities, by causing a trip of the generator in response to these signals. Therefore, it is clear that these embedded protective functions, if enabled, would be included in the scope of Reliability Standard PRC-005-6 as set out in the Applicability section of the standard."

Despite this perceived clarity, the North American Generator Forum (NAGF) received feedback from members indicating that significant confusion still remains throughout the industry regarding the applicability of protective functions inside synchronous generator excitation systems to PRC-005. Consequently, in May 2019, the NAGF submitted a SAR to NERC requesting revisions be made to PRC-005-6 that would provide clear and unambiguous language within the standard pertaining to the applicability of protective functions within an Automatic Voltage Regulators (AVR) and any maintenance requirements (activities and intervals) associated with those protective functions.

Per the standards development process, the SAR was posted and a SAR DT was formed to consider the comments received from industry and modify the SAR as appropriate to establish the project scope (parameters of work) for the future standing drafting team (SDT). In response to industry comments from

three postings of the SAR, the SAR DT revised the project scope and proposes the future SDT consider modifying PRC-005-6 to:

1. Clarify that BES protective functions enabled within analog/digital AVRs, excitation systems, and BES protective functions enabled within control systems that respond to measured BES electrical quantities and trip BES Elements either directly or via lockout or auxiliary tripping relays are within the scope of the standard, and include updates to associated maintenance tables as necessary.
2. Include new DC supplies (e.g., lithium ion, flow) for Protection Systems in the maintenance tables.
3. Include entities registered as UFLS-Only Distribution Providers in the Applicability section to be consistent with changes made to the NERC’s FERC-approved Risk-Based Registration.

Additionally, the future SDT should update the PRC-005-6 Supplementary Reference and FAQ to align with all revisions made to the standard.

To provide specificity and remove ambiguity, the future SDT should also consider revising the applicability section of the standard, developing new terms and/or revising existing terms in the NERC Glossary of Terms, adding and/or modifying maintenance activities and intervals in the maintenance tables, and making other modifications as needed.

## Question(s)

1. Based on comments, the SAR DT team revised the scope of the original SAR to be more comprehensive of industry concerns with PRC-005. Do you agree that the scope as described above would allow the future SDT to thoroughly assess issues with PRC-005 and present them along with possible solutions to industry during the standards development phase of the project? If not, please provide your detailed thoughts.

Yes

No

Comments:

1. [Xcel\_RFI\_PRC-005-6](https://www.nerc.com/pa/Stand/SARandRFI/SC%20Response%20to%20Xcel%20RFI%20-%20PRC-005-6.pdf%20) [↑](#footnote-ref-2)