

Consideration of Comments

Project 2020-06 Verification of Models and Data for Generators IBR Definitions | Posted September 18 – October 24, 2023

Comments Received Summary

There were 39 sets of responses, including comments from approximately 101 different people from approximately 67 companies representing 8 of the Industry Segments.

All comments submitted can be reviewed in their original format on the [project page](#). If you feel that your comment has been overlooked, please let us know immediately. Our goal is to give every comment serious consideration in this process. If you feel there has been an error or omission, contact Director, Standards Development [Latrice Harkness](#) (via email) or at (404) 858-8088.

Consideration of Comments

The Project 2020-06 drafting team (DT) thanks all of industry for your time and comments. The DT identified themes from the informal comment period for the two terms (Inverter-Based Resource and Power Electronic Device) to guide the overall revisions to the definitions and revised the inverter-based resource (IBR)-related definitions based on the comments received. Due to the similar nature of multiple comments received during the initial ballot and comment period, the DT chose to respond to comments in summary format as described in Section 4.12 of the Standard Processes Manual.

Industry Comment Themes

- The definitions should be more similar or aligned with the IEEE definitions for “IBR and IBR unit,” since these definitions are well established.
- The Power Electronic Device (PED) term is too broad. A PED can mean almost anything power electronic based device/technology, such as an IGBT, computers, or other power electronic based devices. Commenters also recommended using a different term to replace PED, such as IBR Unit or Inverter-Based Device.
- There needs to be a distinction between the definitions for PED and IBR. There is too much overlap between the two terms.
- The description of power electronic interface would be clearer if followed by the phrase “such as an inverter/converter.”
- The definition for IBR should not include “connected to the Bulk Power System.” An IBR is an IBR regardless of where it is connected to the electrical power system, (e.g., transmission, distribution, BES, BPS, etc.). Other commenters felt that the IBR definition should include specific mention of connection to the Bulk Power System or transmission system.
- The definitions should make it clearer which types of technologies are considered IBR.

- The definitions should use other defined terms when possible, such as Real Power instead of active power.

New Definitions

The DT proposes the two definitions below based on industry comment themes and team discussions. Additional information can be found in the initial ballot documentation posted on the project page.

Inverter-Based Resource (IBR): A source (or sink in the case of a charging battery energy storage system (BESS)) of electric power that is connected to the electric power system (transmission, sub-transmission, or distribution system), and that consists of one or more IBR Unit(s) operated as a single resource at a common point of interconnection. IBRs include solar photovoltaic (PV), Type 3 and Type 4 wind, BESS, and fuel cell.

IBR Unit: An individual device, or a grouping of multiple devices, that uses a power electronic interface(s), such as an inverter or converter, capable of exporting Real Power from a primary energy source or energy storage system, and that connect together at a single point on the collector system.