

NYSRC presentation to NYISO Operating Committee

November 16, 2023



NYSRC Potential Reliability Rule Procedures

https://www.nysrc.org/wp-content/uploads/2023/03/POLICY-1-11-Final-2-7-17.pdf

Policy 1, Section 3: Process for Developing or Modifying a Reliability Rule

- Step 1 Request to Develop or Modify Reliability Rules
 - IEEE Standard 2800 2022 approved: 2/9/22
 - PRR 151 under development in RRS through 2022
 - NYSRC hosted an IBR Seminar at NYISO: 9/13/22
 - IBR WG formed with stakeholders to advise on PRR 151: 11/8/22
 - RRS developed initial draft of PRR 151: 1/8/23
- Step 2 RRS Review of Requests to Develop or Modify Reliability Rule
 - RRS review & final draft of PRR 151 developed: 3/13/23

- Step 3 Draft Rule Posted for Comment
 - 45 day comment period PRR 151: 3/13/23 4/27/23
- Step 4 RRS Review of Comment
 - Extensive comments received from stakeholders
 - RRS review of comments: 4/27/23 11/1/23
 - RRS/NYISO meetings
 - PRR 151 revised based on comments received: 11/1/23
- Step 5 Executive Committee Review and Vote on Final Draft Rule
 - Executive Committee approved reposting revised PRR 151 for 30 day comment period: 11/9/23
- Step 6 Dissemination of the Reliability Rules
- Step 7 Rule Implementation
- Step 8 Dispute Resolution



Need for change

- FERC, NERC, NPCC and TOs are all addressing IBR interconnection criteria but there are presently no comprehensive standards adopted
 - FERC Order 2023, Improvements to Generator Interconnection Procedures and Agreements, 7/29/23
 - FERC Order 901, Reliability Standards to Address Inverter Based Resources, 10/19/23
- Recent major disturbances in California, Texas & Utah involving mis-operation of IBR resources have highlighted need for IBR standards (At least 12 NERC Disturbance reports on events with ~1,000 MW of IBRs entering into momentary cessation or tripping in the aggregate)
- NYSRC is proposing PRR 151 to apply to all future large IBR projects seeking interconnection to NYCA
- Urgency emphasized by ~120,000 MW of IBR resources in the 6/30/23 NYISO interconnection queue

Focus of PRR 151

- Adoption of IEEE 2800 2022 as amended for NYCA application
- Limit the scope of PRR 151 to the interconnection study stage of the as-designed IBR Plant
- As-designed IBR Plant to be compliant with amended IEEE 2800-2022, with models and data supplied by the IBR Developer for use in NYISO Interconnection Studies to accurately simulate the performance of their compliant IBR plant



Key requirements of PRR 151 for IBR Plant Developer

- R2. Each Large IBR Generating Facility Developer subject to the NYISO's *Interconnection Studies* process shall:
 - R2.1. Attest that their IBR plant will be designed to be in compliance with the mandatory requirements of IEEE 2800-2022, as amended by "NYSRC Procedure for Application of IEEE 2800-2022 Standard for Large IBR Generating Facilities for the New York Control Area".
 - R2.2. Attest that the models and data provided for use in NYISO's *Interconnection Studies* accurately simulate the performance of their compliant IBR plant per R2.1.



Key requirements of PRR 151 for NYISO

- R1. The NYISO shall prepare and maintain procedures for the NYISO's *Interconnection Studies* process requiring that *Large IBR Generating Facility Developers*:
 - R1.1. Attest that their IBR plant will be designed to be in compliance with the mandatory requirements of IEEE 2800-2022, as amended by "NYSRC Procedure for Application of IEEE 2800-2022 Standard for the New York Control Area".
 - R1.2. Attest that the models and data provided for use in NYISO's *Interconnection Studies* accurately simulate the performance of their compliant IBR plant per R1.1.



Exclusions from IEEE 2800 - 2022 in PRR 151

- Section 8: Power Quality
 - Better addressed by local TO requirements
- Section 10: Modeling Data
 - Verified models and data based on actual as-built equipment for fundamental frequency and EMT studies (not available at the interconnection study stage)
- Section 11: Measurement Data for Performance Monitoring and Validation
 - Post-commissioning disturbance analysis for model validation
- Section 12: Test and Verification Requirements
 - Commissioning and post-commissioning testing



Next Steps

- Implementation of revised PRR 151
 - All Large IBR Generating Facilities in all Class Year studies or equivalent of Class Year studies succeeding CY 2023, including transition studies
- The NYSRC website has process instructions for commenters as well as the revised PRR 151 (PRR 151: 11-1-23 Clean) and the associated Procedure documents
 - https://www.nysrc.org/rule-postings/reliability-rule-revisions/
 - Comments are due by COB 12/11/23
 - Comments to be submitted to the NYSRC Secretary Herb Schrayshuen: herb@poweradvisorsllc.com