**IBRWG Update**

**June 2025**

**Chair: Julia Matevosyan, Vice-Chair: Miguel Cova Acosta**

**IBRWG met on June 20th (Webex, Open Meeting).**

The agenda and the presentation slides are available [here](https://www.ercot.com/calendar/06202025-IBRWG-Meeting-_-Webex)

~100 people attended the meeting (at peak)

**IBRWG Main Meeting**

**Ingeteam’s GFM Capabilities and Perspective on ERCOT AGS ESR Tests**

Joseba Erdocia Zabala and Pablo Rocamora, Ingeteam

* PV and BESS inverter and PPC vendor, with some GFM projects in operation.
* Developed a complete integrated solution to deliver GFM plant capabilities.
* Able to conform with all AGS ESR model quality tests that were recently added to ERCOT DWG Procedure manual

Discussed a couple of specific questions with ERCOT staff.

* 482 MW PV project set as GFM (temporarily) in ERCOT, in an island mode, to expedite commissioning tests. Then reverted to GFL mode of operation.

**Reactive Capability at Zero MW**

Miguel Cova Acosta, Vestas

* Some changes introduced at later phases of NOGRR245 development led to wholesale referencing of three full Clauses of IEEE2800 in ERCOT’s NOG Section 2.9.1 Voltage Ride-Through:
  + Clause 5, Reactive Power-Voltage Control Requirement within the **Continuous** Operation Region.
  + Clause 7, Response to TS abnormal conditions and
  + Clause 9, Protection

Clause 5 of IEEE 2800, however, calls for some additional specificity before it can be put into regional regulations.

* Additional specificity by ERCOT is needed on how reactive power capability (incl. at 0 MW) requirement aligns with Reactive Power /Voltage Control requirements in Nodal Protocol Section 3.15. Clarity needed on capability vs utilization as well.
* Maybe a follow-up NOGRR providing additional clarity is needed.

**ERCOT Event Analysis**

Julia Hariharan, ERCOT

* NOGRR245 created a more formal Apparent Performance Failure (APF) analysis process for REs to do root cause analysis (RCA) and develop Corrective Action Plan (CAP).
* Causes of recent IBR ride-through events (since the beginning of 2024): partial tripping, improper frequency and voltage settings, UPS and crowbar failures.
* Also, identified insufficient inverter logging capability: no high-speed data at the inverter level or no fault codes recording at the inverter level.
* All gen owners should apply NOGRR255 requirements to 50% of their fleet by 8/1/2026 and to 100% of their fleet by 8/1/2028.
* Dynamic data deviating from model settings – need to follow PGRR109 process.
* Need for detailed discussion of improper frequency response of IBR plants, when coming out of VRT events. To be discussed further at the next IBRWG.

**A Guideline for IBR Owners’ Root Cause Analyses and Preparing Corrective Action Plans**

AJ Albaaj, ERCOT

* Covered APF analysis outlined in NOG 2.13 in more detail. The process is for RE to investigate APF, perform RCA and come up with CAP, perform model validation and report the results to ERCOT
* Similar requirement through NERC’s recently developed and approved standard PRC-030 (relevant parts outlined on slide 4)

**NERC and Other Industry Updates**

Julia Matevosyan, ESIG

* Status update on NERC Milestone 3 Standards (as per FERC Order 901).
* Recap of industry webinar on NERC Standards project on EMT Modeling, related to Milestone 3.
* Recap of Siemens / Elevate industry webinar on how to assess IBR plant’s conformity with NERC PRC-029 standard.
* Other NERC Updates, including on status of Milestone 2 projects
* Danish system operator, Energinet, is developing a draft of GFM BESS Requirements. The focus is on technical requirements first and then implementation.
* German regulator, VDE FNN, published a framework for GFM capability assessment and pass/fail criteria for resources to qualify for the momentary reserve (inertia-type product) that will be temporarily implemented to incentivize technology uptake for GFM.
* DOE i2x FIRST initiative update. Season 1 concluded in April. Season 2 kicked off in May, focusing on IBR plant conformity assessment and GFM requirements.