**IBRWG Update**

**August 2025**

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

**IBRWG met on August 15th (Webex, Open Meeting).**

The agenda and the presentation slides are available [here](https://www.ercot.com/calendar/08152025-IBRWG-Meeting-_-Webex)

~100 people attended the meeting (at peak)

**IBRWG Main Meeting**

**Reactive Capability at Low MW Output**

Freddy Garcia, ERCOT

* Recapped the discussion from previous meetings.
  + NOGRR 245 introduced wholesale reference to IEEE2800 Clause 5 (Reactive capability, incl. down to 0 MW, during normal operation) in ERCOT’s Nodal Operating Guide Voltage Rider-Through (VRT) section (Section 2.9.1).
  + This created ambiguity with existing ERCOT Protocols (Sec. 3.15), which require reactive support at output ≥10%.
  + Sect. 3.15 also requires utilization of reactive capability at lower output levels, if available, when an IRR is online.
  + Combined with wholesale adoption of IEEE2800 Clause 5 through NOGRR245, this seems to have introduced a requirement for all future IBRs (SGIA signed after 08/01/24) to have and utilize reactive capability down to 0 MW output.
  + However, with Clause 5 (relates to normal operation) being referenced in VRT Section of ERCOT NOG there is lack of clarity.
* IBRWG leadership, the OEM and some interested REs met offline in July to discuss. Currently, ERCOT legal is reviewing protocol language on this topic, to take note of any language related to this topic before deciding on how to address, more updates to follow.

**VRT / PFR Controls Coordination**

* Dustin Howard, GE Vernova and Stephen Giruere, PE both presented on this topic and covered:
  + How where and in what timeframes the frequency may be measured for PFR response and how handover between VRT response at inverter level and PPC control is happening.
  + How PPC freezes (or not) to pre-disturbance set point
  + How that may manifest in the overall plant response during and after VRT and to perceived or real frequency events.
  + There are various tools to address these VRT/PFR coordination challenges filtering, freezing of response if determined that the data is not reliable, wider deadband to be less susceptible to noise in frequency – generally a combination of these is used in equipment design.
  + FNN standard <https://www.vde-verlag.de/buecher/636339/ermittlung-und-bewertung-der-frequenz-in-energieversorgungsnetzen.html> for frequency measurement was brought up
* ERCOT is trying to develop a direction about how VRT/PFR coordination needs to be handled. Leaning towards prioritizing VRT: don’t respond to frequency until you exit VRT mode and recover.
* Then another aspect to decide is the active power set point that PPC should freeze to. ERCOT is leaning towards pre-disturbance value.
* During actual frequency events ERCOT still wants to prioritize VRT and then provide PFR once the recovery is complete. All other units across the system unaffected by VRT will also be responding to this event.

**NERC Updates**

Eric Newnam, TRE

* FERC Order 901 and Milestone 2 update:
  + FERC has approved PRC-024 on July 24, 2025, with effective data of October 2026 (links on slide 2),
  + This also triggers the implementation plan for PRC-028 and PRC-030 approved earlier in the year
* Milestone 3 Update
* Project 2020-06 Verification of Models and Data for Generators:
  + Model validation and verification definitions adopted by NERC Board on August 14, 2025
  + MOD-026 Verification of Dynamic Models and Data, comment period open through September 10, 2025, 8 pm ET.
* Project 2021-01- System model validation with IBRs – Posted for comments and ballot through September 10
* Project 2022-02 – Uniform Modeling Framework for IBRs – Posted for comments and ballot through September 10
* Milestone 4 – Posting SARs and drafting team nomination solicitation the week of August 25th
  + Project 2025-03 Operational Studies
  + Project 2025-04 901 Planning Studies
* NERC other activity on slides 3:
  + NERC issued essential actions to industry: IBR Performance and modeling on May 20, Questions responses are due midnight August 18, 2025
  + Project 2022-004 EMT Modeling, Formal comment period and initial ballot, target posting mid-August for FAC-002-5 Facility Interconnection Studies.

**Other Industry Updates**

Julia Matevosyan, ESIG

* G-PST/ESIG Webinar: [Requirements and Verification Procedures for Grid-Forming Units – The German Approach to Ensuring Power System Stability](https://www.esig.energy/event/german-approach-stability/)
* DOE Forum for the Implementation of Reliability Standards for Transmission (i2X FIRST) – Season 2. Follow ESIG i2X FIRST website <https://www.esig.energy/i2x-first-forum/> for materials & recordings
* NASPI Webinar: Julia will present on [Post-Commissioning Monitoring Aspects of IEEE P2800.2](https://www.naspi.org/node/1017) – August 20, 2025
* ESIG offers two training opportunities [Interconnection Studies Short course](https://www.esig.energy/event/esig-interconnection-studies-short-course/) Nov 17-19 in Manatee Lagoon, FL and [EMT Training](https://d.docs.live.net/35275da4e72cfe02/ESIG%20Work/ERCOT%20IBRTF/081525/ESIG%20Electromagnetic%20Transient%20Training) Dec 16-19, at TRE’s offices in Austin.