**IBRWG Update**

**September 2025**

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

**IBRWG met on September 12th (Webex, Open Meeting).**

The agenda and the presentation slides are available [here](https://www.ercot.com/calendar/09122025-IBRWG-Meeting-_-Webex)

~100 people attended the meeting (at peak)

**IBRWG Main Meeting**

**VRT / PFR Controls Coordination**

* Ye Tao, Sungrow, covered solar OEM’s approach to VRT/PFR Control Coordination
* Miguel Cova Acosta, Vestas, covered wind OEM’s approach to VRT/PFR Control Coordination
* Patrick Hart, Mortenson, covered EPC / integrator’s perspective highlighting that control coordination between inverters and PPC and handovers between inverter vs PPC controls is of outmost importance for this issue.
* ERCOT is trying to develop a direction about how VRT/PFR coordination needs to be handled.

**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 NOG VRT section (Sec 2.9.1).
  + This raised questions with regard to existing ERCOT Protocols (Sec. 3.15.4 (e)), which require reactive support at output ≥10%.
  + However, as per NP Sec. 3.15.3 **IRRs that have capability to provide reactive power at lower output** and are synchronized with ERCOT System **shall utilize** this capability for voltage support or may physically desynchronize its inverters from the ERCOT System when not producing active power.
  + Combined with adoption of IEEE2800 Clause 5 through NOGRR245, this introduces **a requirement for all future IBRs** (SGIA signed after 08/01/24) **to have and utilize reactive capability down to 0 MW output** (if synchronized with ERCOT System).
  + With IEEE2800 Clause 5 (relates to normal operation) being referenced in ERCOT NOG Sect 2.9.1 (VRT), lack of clarity was indicated by stakeholders.
* Freddy summarized what these requirements collectively mean (on slide 6) combining ERCOT’s NP (Sec 3.15) and NOG (Sec. 2.9.1) language. And confirmed that ERCOT’s language is consistent with IEEE2800 Clause 5.
* Next step: ERCOT will propose an NPRR and NOGRR to clarify the reactive requirements and move it from NOG Guides to NP Sec. 3.15 in the near future.

**NERC Updates**

Mark Henry, TRE

* NERC Level 3 Alert: Essential Actions for IBR Performance and Modeling. The aim: to establish if IBR owners have processes to validate actual IBR plant performance with the IBR model (52% No); and to inform an applicable TO about any changes at IBR plant that may alter IBR’s performance (23 % No).
* FERC Order 901 and NERC Milestone 2 update:
  + NERC has a [Webex on November 5](https://www.nerc.com/pa/RAPA/Lists/RAPA/DispForm.aspx?ID=865) to discuss FERC Order 909 approving PRC-029, effective 10/01/26, see Docket RM25-3-000
* Milestone 3 – Comments and ballots received September 10, 2025. All but MOD-026 reached approval (see slide 3 for details).
* Milestone 4 – SARs posted for comments Aug 28-Oct 10, drafting team nominations open until Sept. 15 (see slide 3 for details).
* NERC other activity on slides 4-5:
  + Standard Project [2022-04 EMT Modeling](https://www.nerc.com/pa/Stand/Pages/Project2022-04EMTModeling.aspx). Formal comment period and initial ballot, target posting deferred to October 1 – November 11 for FAC-002-5, Facility Interconnection Studies.
  + Project 2023-01 EOP-004 IBR Event Reporting has scheduled DT meetings in Oct and plans to conduct a formal ballot and comment before end of 2025.
  + Texas RE is processing the first Category 2 GO-IBR and GOP-IBR registrations. Entities are being contacted. [Talk with Texas RE: IBR Registration and Applicable Standards](https://www.texasre.org/pages/calendar/events/2025/october/talkwithtexasreibrregistrationandapplicablestandards), 10/14/25, 1:30-2:30 pm.
  + Reliability Guideline: IBR Commissioning Best Practices – Approved by RSTC to post for 45-day Industry comments period on 09/10/25

**Other Industry Updates**

Julia Matevosyan, ESIG

* The first transmission connected GFM BESS project in the main-land United States: Shallow Basket Energy project comprising 140 MW of PV + 50 MW of GFM-BESS (Tesla) operational on 8/15/2025.
* For more information about operational and planned GFM projects see: <https://www.esig.energy/working-users-groups/reliability/grid-forming/gfm-landscape/projects/>
* ESIG Webinar: [Generic Modeling of Grid-Forming Inverters: Phasor-Domain and EMT Perspectives](https://www.esig.energy/event/webinar-generic-gfm-inverter-modeling/) 09/23/25, by D. Ramasubramanian (EPRI) and W. Du
* 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 - Julia provided an update on the August & September i2x FIRST meetings.
* 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://www.esig.energy/event/esig-electromagnetic-transient-training/) Dec 16-19, at TRE’s offices in Austin.