**IBRWG Report To ROS**

**June 2024**

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

**IBRWG met on June 14th (Webex, Open Meeting).**

**DWG and IBRWG Collaboration**

**Transient Overvoltage Ride Through Conformity Assessment**

Pouyan Pourbeik (PEACE) on behalf of the joint team of IEEE P2800.2 WG

* + Presented Clause 7.2.3 of IEEE 2800-2022 standard highlighting some of the challenges with how to prove conformity of this requirement through simulations – can only be provide thought many tests on detailed (non-aggregated models).
  + Pointed out that primary focus of conformity assessment with this requirement is on switching transients:
    - Lightning protections have well-defined testing procedures
    - SSR type events have defined detailed study requirements and evaluated separately.
  + Overvoltage tripping that occurred during Odessa events, is not TOV but rather RMS HVRT through issue and conformity of these can be assessed in MQT.
  + Recommendation from IEEE2800.2 drafting team is that TOV capability of IBR plants is documented through OEM-specified capability of plant equipment and monitored during lifetime of the plant. TOV tripping flags can be enabled to ensure relevant data availability after actual events.

**Initial Ideas for Modeling Guide Update**

Johnathan Rose (ERCOT)

* + ERCOT and DWG continue working on DWG Procedure Manual to update simulation tests and criteria for changes introduced with NOGRR245. The idea is to have the Procedure Manual draft ready shortly after NOGRR245 approval.
  + The main changes are with HVRT and LVRT requirements, for TOV requirement – there still needs to be some discussion.
  + Proposed passing model test criteria, this is where the stakeholders are encouraged to spend some time and provide their feedback. – Extensive discussion about active power reduction during VRT events (observed in Odessa events) and model acceptance criteria will be focusing on that aspect.

**IBRWG Main Meeting**

**NOGRR245 Update**

Stephen Solis (ERCOT)

* + At the end of April ERCOT got a remand from the BOD to go back to TAC
  + Worked with TAC through a number of workshops in May on revisions of NOGRR245.
  + TAC approved a version of NOGRR245 that was supposed to go to RMC and BOD in June.

**NERC Standards Update: PRC-029 IBR Ride Through Standard**

Xiaoyu (Shawn) Wang (Enel)

* + NERC Project 2020-02: modification of PRC-024 (Generator Ride Through) as protection-based standard with applicability to synchronous gen and SynCons and create a new Reliability Standard PRC-029-1 to address IBR disturbance ride through performance.
  + The drafting team leans on IEEE2800 standard, but the structure follows the language from FERC Order 901, which leaves it to NERC’s discretion to consider how to reference relevant IEEE standards.
  + March 2024 initial balloting process for the first draft, failed initial ballot, received more than 200 comments. SDT addressed the comments, and the new balloting period was in June.
  + Extensive discussion on the documented exemptions from PRC-029 and how TOs/TPs/PCs/RCs may consider those in their reliability risk assessments in planning and operations.

**Level 2 NERC Alert Recommendation to Industry, Inverter-Based Resource Model Quality Deficiencies**

Mark Henry (TRE)

* + NERC Modeling alert was issued in June 4, 2024. It’s a follow up to NERC March 2023 on equipment settings and performance. Pertains to all IBRs with size > 75 MVA, Submittal due to September 2, 2024
  + Some of the questions are duplicates from the last alert, this is because now wind resources are included and NERC is also seeking to capture any modifications in solar and BESS inverters that’s been made since.
  + Each TP and PC should respond to 15 questions on various aspects of modeling.
  + TRE encouraged all involved in the Alert parties to reach out to them with any questions as necessary
  + The clarifying discussion followed around generic vs user-defined models as applicable to ERCOT.

**Other Industry Updates**

Presented by Julia Matevosyan (ESIG)

* + FERC has approved MISO’s tariff redlines from the first round of IEEE 2800-2022 implementation, which calls out the clauses of IEEE 2800. This round includes VRT, fast reactive current injection during faults, phase-jump ride-through, enter service and measurement accuracy.
  + MISO posted a draft proposal to adopt some GFM capabilities and performance for BESS. Stakeholder comments were due by June 28th. MISO intends to finalize the requirements in Nov 2024, with an implementation applicable to future projects.
  + ENTSO-E published recommendations on technical GFM reequipments for PPMs. A range of parameters has been proposed accompanied with a proposal for compliance testing of GFM capable PPMs.
  + ESIG created a webpage that tracks progress on GFM technology development and deployment: <https://www.esig.energy/working-users-groups/reliability/grid-forming/gfm-landscape/>
  + Ongoing DOE i2x FIRST forum to facilitate understanding and adoption of new and recently updated IBR standards. The forum consists of monthly meetings, zooming in on various requirements.

**Sign up** for all future i2X FIRST Meetings here: [https://www.zoomgov.com/meeting/register/vJItceuorTsiErIC-HInpPbWuTUtrYQAuoM#/registration](https://www.zoomgov.com/meeting/register/vJItceuorTsiErIC-HInpPbWuTUtrYQAuoM)

**Follow** DOE i2X FIRST website: <https://www.energy.gov/eere/i2x/i2x-forum-implementation-reliability-standards-transmission-first> for meeting materials & recordings and for future meeting details & agendas

There will also be two in-person meetings during ESIG Fall 2024 and Spring 2025 Technical Workshops.