**IBRTF Report To ROS**

**December 2022**

**Chair: Mohammad Albaijat, Vice-Chair: Julia Matevosyan**

**IBRTF last met on November 15, 2022 (Webex)**

**Discussion Items:**

**Status Update on 2022 Odessa Disturbance**

* Presented by Patrick Gravois (ERCOT)
* New large disturbance on June 4th 2022, in Odessa area:
  + Event initiated by lightning arrestor fault on 345 kV level in Odessa area on June 4th at 12:59:25 PM
  + Estimated loss of 2,560 MW of thermal (851 MW) and Solar (1,709 MW from 14 facilities) generation
  + Lowest and highest recorded voltages are well within VRT “No Tripping” zone as per NOG 2.9.1
  + System Frequency declined to 59.7 Hz and recovered in 1 min 20 sec,
  + 1,116 MW of Load Resources deployed.
  + Categorized as NERC Cat 3 event (gen loss > 2000 MW), NERC event analysis triggered. ERCOT submitted NERC Cat 3a Brief Report to TRE. NERC Event Analysis will be published shortly, likely in December
  + 3 inverter manufactures identified (same as in previous Odessa event), these OEMs represent over 60% of total solar capacity installed in ERCOT
  + ERCOT continues to work with involved OEMs to find mitigation measures
  + Solutions have been proposed for voltage phase jump as well as overcurrent, overvoltage, underfrequency, DC-side voltage unbalance related trips. Roll out of solution has begun on some of the affected sites.
  + One plant cannot be modified to comply with existing NOG VRT requirements.
  + One OEM is out of business, ERCOT is working with the company that took over their service contracts
  + After implementation of corrective actions models need to be resubmitted to ERCOT.

**Industry Update**

* Presented by Julia Matevosyan (ESIG, IBRTF vice-chair)
* [NERC IBR Strategy](https://www.nerc.com/comm/Documents/NERC_IBR_Strategy.pdf) paper
* Joint NERC-NATF-EPRI Annual Transmission Planning and modelling workshop. Key focus included discussion on modelling and software tool improvement needs.
  + Presentations: [2022 NERC-NATF-EPRI Annual Transmission Planning and Modeling Workshop Presentations](https://www.nerc.com/comm/RSTC/IRPS/NATF-NERC-EPRI_2022_Planning_and_Modeling_Virtual_Seminar_Presentations.pdf)
  + Recording Day 1[: 2022 NERC-NATF-EPRI Annual Transmission Planning and Modeling Workshop Day 1](https://nerc.webex.com/nerc/lsr.php?RCID=4d1f8dcaf215e30a78ff597460d6f603)
  + Recording Day 2: [2022 NERC-NATF-EPRI Annual Transmission Planning and Modeling Workshop Day 2](https://nerc.webex.com/nerc/lsr.php?RCID=4f42faf863bc7d8d2f295c68d57e24af)
* ESIG Fall Technical Workshop, covered variety of topics related to energy transition including IEEE2800 OEM readiness survey results and regional adoption efforts, ERCOT/GE study methodology, grid forming inverters etc.

**Closed IBRTF Session**

* OEM1 presented on causes of failures during Odessa 2022 event, proposed mitigation strategies and answered audience questions in the closed meeting.
* OEM2 will present at one of the future closed sessions