

NERC

NORTH AMERICAN ELECTRIC
RELIABILITY CORPORATION

Synchronized Measurement Working Group Update

Tim Fritch, SMWG Chair
Frankie Zhang, SMWG Vice-Chair
NASPI Meeting
4-14-2022

RELIABILITY | ACCOUNTABILITY



- Oscillation Report Template
 - Provides mechanism for awareness on current oscillation modes and who they may impact
 - Reviewed by RTOS (RC operators) for feedback
 - **Currently working on publishing to NERC SMWG webpage**
- White Paper: Oscillation Analysis for Monitoring and Mitigation
 - Recommendations on how to develop thresholds for alarming
 - Methods to determine and validate mitigation actions for local and system issues
 - **Approved at December RSTC meeting**

NERC
NORTH AMERICAN ELECTRIC
RELIABILITY CORPORATION

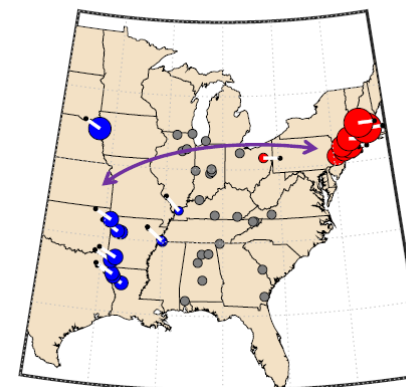
Parameters

- Oscillation Type:** Fundamental characteristic of oscillation.
(Please choose one): Choose an item.
(Click or tap "Choose an item" to activate drop down box)
- Duration:** The time-period for the reported oscillations.
Start: Click or tap here to enter text.
Stop: Click or tap here to enter text.
Duration (UTC Only): Click or tap here to enter text.
- Repeated:** A one-time phenomenon or observed several times.
Yes: No:
 - if Yes: How often?** Choose an item.
(Click or tap "Choose an item" to activate drop down box)
 - if Conditional, please specify:** Click or tap here to enter text.
- Oscillation Frequency:** List dominant fundamental and harmonic (if any) frequency component(s) in observable PMU waveforms during oscillation.
List here
- Magnitude:** Overall maximum pk-pk amplitude in observable PMU active power, reactive power and voltage magnitude during oscillation.
- Oscillation frequency close to known mode(s):** Whether a fundamental or harmonic frequency is close to a known system mode to excite potential resonance conditions.
Yes: No:
 - if Yes: Name the excited mode**
Interconnection: Choose an item. Mode: Choose an item.
(Click or tap "Choose an item" to activate drop down box)
 - if "Other" please list here (include interconnection):** Click or tap here to enter text.
- Damping Ratio of Excited System Mode:** Click or tap here to enter text.

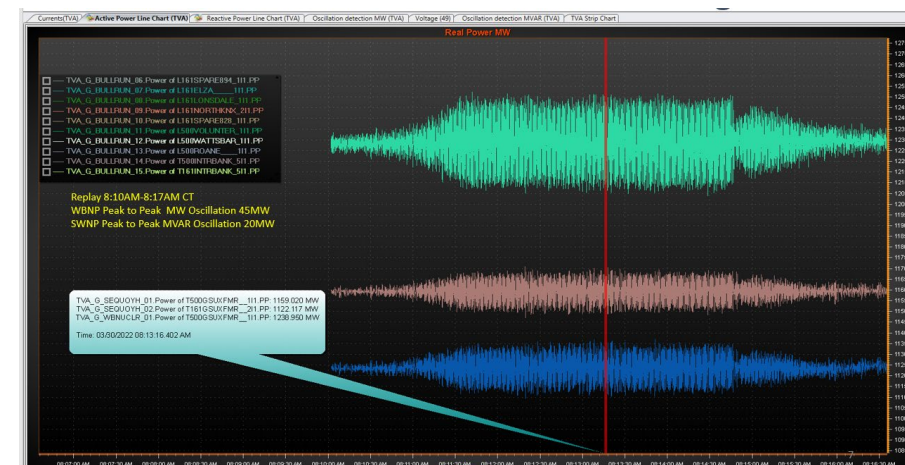
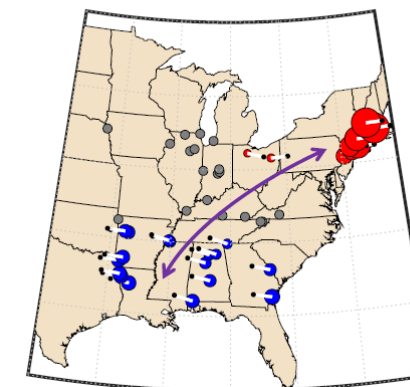
Oscillation Report Document | Synchronized Measurement Working Group 2

- April 28-29 SMWG Meeting (Virtual)
 - Task Updates and Review
 - Oscillation Report
 - Future Task Discussion (CIP, Registry, etc.)
 - NASPI IBR Resource Monitoring & Analysis Workshop
 - ESAMS
 - Equipment Failure
 - Updates on Realtime Oscillation Events
 - SMWG Future Work Plan

Northeast-Midwest



Northeast-South





Questions and Answers