

**NASPI Working Group Meeting
Control Room Solutions Task Team (CRSTT)
Breakout Session Report**

Presenters: Mike Cassiadoro and Jim Kleitsch
October 15, 2015



Overview

- I. Introductions
- II. Commonwealth Edison – Synchronphasor Research and Education at ComEd – Dave Schooley (ComEd)
- III. Peak Reliability – Peak RC Experience with Forced Oscillation Detection – James O’Brien (Peak RC)
- IV. PJM Interconnection – PMU Simulator Tool for Operator Training on Oscillation Detection – Emanuel Bernabeu (PJM)
- V. Status Update on CRSTT Focus Area Documents
- VI. Review Linear State Estimation Survey Questions
- VII. Discuss CRSTT Goals for 2016
- VIII. Adjourn

Agenda Items II-IV

The following presentations were delivered during the CRSTT breakout session and will be posted separately on the NASPI website:

- Commonwealth Edison – Synchrophasor Research and Education at ComEd – Dave Schooley (ComEd)
- Peak Reliability – Peak RC Experience with Forced Oscillation Detection – James O’Brien (Peak RC)
- PJM Interconnection – PMU Simulator Tool for Operator Training on Oscillation Detection – Emanuel Bernabeu (PJM)

Focus Area Documents – Status Update

1. System Islanding Detection and Blackstart Restoration – Completed 6/12/2015
 - (Kleitsch – ATC, Cassiadoro – TRS)
2. Using Synchrophasor Data for Voltage Stability Assessment – ETC 10/30/2015
 - (Farantatos – EPRI, Vaiman – V&R Energy)
3. Using Synchrophasor Data for Phase Angle Monitoring – ETC 10/30/2015
 - (Cassiadoro – TRS, Chanoski – NERC, Nuthalapati - ERCOT)
4. Enhanced State Estimation
 - Linear State Estimation (Jones, Thomas – Dominion Virginia Power)
 - Hybrid State Estimation (Frankeny – MISO, Vaiman – V&R Energy)
5. Oscillation Detection
 - (Dyer – EPG, Blevins and Rjagopalan – ERCOT, Patel - EPRI)

Focus Area Docs – Status Update (Cont.)

6. Determining Disturbance Locations

- (Dyer – EPG, Zweigle – SEL Inc., Cassiadoro – TRS)

7. Using Synchrophasor Data to Monitor Reactive Power Balancing

- (Cassiadoro - TRS, SCE –A.J, Peak RC – Zhang)

NOTE: A separate presentation was provided for the Using Synchrophasor Data for Phase Angle Monitoring paper status update. This presentation will be posted separately on the NASPI website.

Linear State Estimation Survey

Discuss issuing a survey to electric utilities and grid operators with the following questions:

1. Do you use synchrophasor data for State Estimation?
2. What is the down sample rate for the synchrophasor data that is used for State Estimation?
3. How many PMU signals do you use for State Estimation?
4. How many SCADA measurements do you use for State Estimation?
5. Do you run Linear State Estimation? If Yes, how frequently do you run Linear State Estimation?

CRSTT Goals for 2016

Discuss CRSTT goals for 2016, which may include:

1. Prioritize and complete remaining focus area documents
2. Develop operational use case summary documents to support NASPI technical papers
3. Create additional video event files for use cases and simulated events (includes data sharing)
4. Gather operator feedback on synchrophasor applications (best practices)
5. Identify available training materials

CRSTT – Primary Contacts

Name: Michael Cassiadoro

Email: mcassiadoro@totalreliabilitysolutions.com

Phone: 360-836-9008

Name: Jim Kleitsch

Email: jkleitsch@atcllc.com

Phone: 608-877-8102

Next CRSTT Conference Call: November 18, 2015

Next NASPI Work Group Meeting: March 2016