

**NASPI Working Group Meeting  
Control Room Solutions Task Team (CRSTT)  
Monthly Meeting**

Presenters: Mike Cassiadoro and Jim Kleitsch  
September 21, 2016



# Agenda

- I. Introductions
- II. Provide Status Update on CRSTT Focus Area Documents
- III. NERC Reliability Support Opportunity
- IV. October NASPI Model Verification Workshop  
Announcement – 10/18/2016 – Seattle
- V. Phase Angle Monitoring Technical Session
- VI. Review of CRSTT Goals for 2016
- VII. October NASPI Work Group meeting
- VIII. Adjourn

# Focus Area Document Updates

3. Using Synchrophasor Data for Phase Angle Monitoring – **Done!!!!**

➤ (Cassiadoro – TRS, Chanoski – NERC, Nuthalapati – Texas A&M)

– To download the document use the URL below:

<https://www.naspi.org/File.aspx?fileID=1567>

# Focus Area Document Updates

## (On its way to completion)

4. Enhanced State Estimation Survey – [ETC October 2016](#)
  - (Vaiman – V&R Energy, Kleitsch – ATC, Cassiadoro – TRS)
  - Marianna has the raw data and is taking a first look at the responses.

# Focus Area Docs – Status Update (Cont.)

## 5. Oscillation Detection

- (NDR – Texas A&M, Dyer – EPG, Blevins and Rjagopalan – ERCOT, Patel - EPRI)

## 6. Determining Disturbance Locations

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

## 7. Using Synchrophasor Data to Monitor Reactive Power Balancing

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

## 8. Establishing Operating Limits and Determining Transfer Capabilities

- (Cassiadoro – TRS, Ali – Quanta, Viaman – V&R Energy)

# NERC Reliability Support Opportunity

- Terry Bilke from MISO is working with a group to document any risks to Reliability
- Working to develop mechanisms to address those risks both near and long term
- Asked if we [CRSTT] would consider supporting his efforts related to the Loss of Situational Awareness

# NERC Reliability Support Opportunity (Cont.)

- Near term (1-2 year timeframe)
  - NERC OC to engage the NASPI community to develop real-time notification of Interconnection anomalies / outliers (large load/resource losses, large oscillations, large angle changes, low inertia).
  - Nice tie in with our “determining disturbance locations” paper that we’ve struggled to move forward
- Mid term (3-4 year timeframe)
  - *Nothing at this time. Any ideas we could pursue?*
- Long term (Greater than 5 years)
  - NERC OC and PC engage EPRI and NASPI to develop a suite of supplemental and backup tools that use SynchroPhasor data in lieu of SCADA.

# Model Verification Technical Workshop

(repeat item)

- Being held 10/18/2016 in Seattle the day before the NASPI meetings begin
- Joint effort between NASPI and NERC SMS (Synchronized Measurements Subcommittee)
- NERC SMS technical paper on model validation coming out soon
- Will perform tool comparisons using test data sets to compare accuracy, functionality, etc...
- Alison Silverstein already working to invite participants



# Phase Angle Calculation and Uses

## Technical Session

(repeat item)

NASPI Leadership Team is planning a Phase Angle Calculation and Uses Technical Session for October 19, 2016 Work Group Meeting.

- Session 4 – Phase angle calculation and uses
  - Moderators – Ryan Quint & Mike Cassiadoro
  - Phase angle calculation and unwrapping and why it matters – EATT technical paper – Ryan Quint (NERC) & Ken Martin (EPG)
  - Phase angle monitoring – CRSTT technical paper overview & list of vendor applications – Mike Cassiadoro (Total Reliability Solutions) & NDR Nuthalapati (Texas A&M University)
  - NERC's phase angle monitoring technical paper – Ryan Quint (NERC)

# CRSTT Goals for 2016 (repeat item)

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)
  - We need to figure out who is using the data and for what so we can communicate that information and lessons learned to the larger community. (Tom Rizy)
5. Identify available training materials

# NASPI Work Group Meeting

## - Important Dates -

- [Register](#) for the NASPI Work Group meeting by **October 2, 2016**, to avoid paying the late fee.
- Model Verification Workshop [registration](#) / no fee.
- Make your [hotel reservations](#). Group rate good until **September 26, 2016**.
- Please send CRSTT breakout session agenda topics to Mike or Jim.

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The CRSTT will meet face-to-face in Seattle during the breakout session.