

## North American SynchroPhasor Initiative Working Group Meeting October

Royal Sonesta Hotel 2222 West Loop South Freeway Houston Texas 77027 800-766-3782

This NASPI work group meeting will feature updates on the accomplishments of the synchrophasor projects funded by federal Smart Grid Investment Grant and Smart Grid Demonstration Projects with matching private sector investments. There will be three technical sessions at this meeting, addressing operations solutions, big data analysis, and using PMUs in new, creative ways.

There will be a \$250 registration fee to cover meeting costs, refreshments and lunch on the two meeting days; the fee for students is \$75. **There will be a late fee of \$100 added for registrations after Friday, October 3, 2014**. The registration link is <a href="here">here</a>.

The NASPI room block at the Royal Sonesta Hotel is full and the hotel is sold out on October 21. There are still some rooms available at the Sheraton Suites Hotel (two blocks away at 2400 West Loop South, Houston Texas 77027, 713-586-2444) for the nights of October 19 through 23, 2104, using this reservation link.

NASPI is hosting a technical workshop on Wednesday morning, October 22, to review several oscillation detection and voltage stability tools. There is no charge for the workshop but if you wish to attend you must register in advance, using the same starter <u>registration link</u> for the Work Group meeting. The Technical Workshop agenda is posted in the <u>NASPI News Flash box</u>.

CIGRE (the International Council on Large Electric Systems) is holding the Grid of the Future conference at the Royal Sonesta Hotel on October 19-21, 2014. NASPI and CIGRE have worked to coordinate our agendas -- CIGRE will offer a tutorial on synchrophasor technology, taught by NASPI community experts, on Sunday afternoon, October 19, and a plenary session and a technical session on synchrophasor technology on Tuesday afternoon, October 21. If you are interested in these sessions, here's the CIGRE GOTF registration link.

## Final Agenda

Wednesday, October 22, 2013 Legends IV Ballroom		
1:00 - 1:30 pm	Registration and networking lobby outside Legends IV Ballroom	
1:30 - 1:40 pm	Welcome, introductions, and logistics review	Jeff Dagle (PNNL) Alison Silverstein (NASPI)
1:40 - 1:55 pm	Welcoming keynote	Ken McIntyre (ERCOT)
1:55 - 2:05 pm	DOE intro	David Ortiz (DOE)
2:05 - 2:25 pm	The NASPI Awards	David Ortiz (DOE) Alison Silverstein (NASPI)

2:25 - 3:45 pm	<ul> <li>Technical session 1 SGIG project insights on operations solutions</li> <li>Wide-area visualization Kevin Frankeny (MISO)</li> <li>State estimation and wide-area visualization Jim McNierney (NYISO)</li> <li>Wide-area visualization, integrated alarms, and state estimation Megan Vutsinas (Duke Energy Carolinas)</li> <li>Data visualization, daily operations review and event analysis Fabian Robinson (PJM)</li> <li>Control room and microgrid uses John Adams (ERCOT)</li> <li>Identifying equipment mis-operations using synchrophasor data Alison Silverstein (NASPI), Jim Kleitsch (ATC), Kyle Thomas (Dominion)</li> </ul>	
3:55 - 4:10 pm	Break refreshments and networking (sponsored byOSIsoft)	
4:10 - 6:00 pm	<ul> <li>Task Team break-out sessions</li> <li>Control Room Solutions Task Team Legends I Ballroom         <ul> <li>Meet with DNMTT</li> </ul> </li> <li>Data &amp; Network Management Task Team Legends II Ballroom         <ul> <li>DNMTT survey effort Dick Willson</li> <li>Meet with CRSTT</li> </ul> </li> <li>Engineering Analysis Task Team Legends III Ballroom</li> <li>Performance Requirements, Standards &amp; Verification Task Team Legends IV Ballroom         <ul> <li>Virtual instrumentation-based PMU calibrator for IEEE C37.118-2011 testing Qiao Guo (National Instruments)</li> <li>A novel arbitrary resampling-based algorithm for synchrophasor measurement in compliance with IEEE C37.118.1a-21014 Qiao Guo &amp; Roberto Piacentini (National Instruments)</li> </ul> </li></ul>	
6:00 - 7:30 pm	Reception lobby outside Legends IV Ballroom	

Thursday, October 23, 20134 Legends IV Ballroom		
7:30 - 8:00 am	Refreshments and networking lobby outside Legends IV; seating in Legends I - III	
8:00 - 8:45 am	Task Team Report-outs	
8:45 - 9:00 am	Multi-function PMU guidelines Yi Hu (Quanta Technology)	
9:00 - 10:00 am	SGIG project insights part 2 Collected insights from the Smart Grid Investment Grant and Smart Grid Demo Projects DOE SGIG technical papers  • Overview Phil Overholt (DOE-OE)  • PMU Installation Costs Marcus Young (ORNL)  • Model validation using synchrophasor data Alison Silverstein (NASPI)  • Lafayette Utility System case study PMU functionality from digital relays at the flick of a switch Alison Silverstein (NASPI)	
10:00 - 10:15 am	Break and refreshments (sponsored by PingThings)	
10:15 – 12:00 pm	<ul> <li>Technical session 2 – Big data analysis and synchrophasor data</li> <li>Basics of big data analysis Brett Amidan (PNNL)</li> <li>How big data are being used in other domains Siamak Tavallaei (Hewlett Packard Moonshot Project)</li> <li>Taking big data analysis into new verticals Jerry Schuman (PingThings)</li> <li>Big data time series analysis of Duke Energy synchrophasor data Brad Klenz (SAS for Duke Energy)</li> <li>Hunting for anomalies in WECC data Brett Amidan (PNNL)</li> </ul>	
12:00 – 1:00 pm	Lunch Legends I - III	

1:00 – 2:40 pm	<ul> <li>Technical session 3 – New ways and reasons to use PMUs</li> <li>SCE using micro-PMUs Richard Bravo (SCE)</li> <li>FIDVR traces at Dominion Ryan Quint (Dominion Virginia Power)</li> <li>Why we need load-level PMU monitoring Dmitry Kosterev (BPA)</li> <li>SDG&amp;E experience with synchronized measurements of non-traditional generator quantities Tariq Rahman (SDG&amp;E)</li> <li>Using synchrophasor data to identify geomagnetically induced currents in substation assets Jerry Schuman (Pingthings)</li> </ul> Technical extras	
2:40 - 4:00 pm	<ul> <li>PDQ data quality streaming data application Russell Robertson (GPA)</li> <li>The future of high-volume, high-reliability data networks Dan Lutter</li> <li>Mixed-source forced oscillations in WECC Mani Venkatasubramanian (WSU)</li> <li>IEEE Cascading Failure Working Group Marianna Vaiman (V&amp;R Energy) &amp; Milorad Papic (Idaho Power)</li> <li>PMU conformance testing update Lloyd Green (IEEE)</li> <li>DOE Data Validation Project and linear state estimator Simon Mo (EPG)</li> <li>Guatemala Oscillation Scheme - Vicente Espinoza (Mercado Electric) - not presented in Houston but posted on the NASPI web site.</li> </ul>	
4:00 pm	Meeting adjourns	