

North American SynchroPhasor Initiative

Executive Steering Group Meeting with Leadership Team

DISCUSSION AND ACTION ITEM SUMMARY

November 26, 2007 (1 to 5 p.m.)

Hartsfield-Jackson Executive Conference Center
Airport Atrium Suite 300
Atlanta, Georgia

Meeting Participants

Executive Steering Group

In Person

Terry Boston
Paul Barber
Vikram Budhraj
Marty Mennes
Phil Overholt for Kevin Kolevar
Don Tench

By Phone

Billy Ball and Shane Eaker
Christian Deguire
Lorne Midford
Scott Moore
Rick Sergel
Mike Montoya for Jim Kelly
Jim Gurney for Julius Pataky

Leadership Team, Task Team Leads and Members

In Person

Lisa Beard
Ritchie Carroll
Bob Cummings
Jeff Dagle
Joe Eto
Carl Imhoff
Paul Myrda
Damir Novosel
Russell Robertson
Stan Johnson

By Phone

Terry Bilke
Dave Hawkins
Vahid Mahdani
Navin Bhatt
Dmitry Kosterev

General Discussion – Meetings

- √ **Action** – Next ESG meeting scheduled for February 12, 2008 in conjunction with NERC Board Meeting in Phoenix, Arizona. Stan Johnson to work with Joe Eto to finalize meeting logistics and send out meeting announcement to ESG members at an early date. Meeting to include Task Team Leaders.
- √ **Action** – Stan Johnson to coordinate with Entergy to finalize venue and dates for next Work Group meeting so as not to conflict with ESG meeting.

NERC Plans

NERC is moving ahead to hire a Project Manager for NASPI and expects to have this person in place by Spring 2008.

NERC Board has endorsed NERC's role to be broader than just standards and compliance to include improving reliability through support of NASPI and other technology initiatives.

NERC is planning to develop a 3-year budget which, after public comment, will be presented to the Board for adoption in August 2008. This budget plan will include NASPI.

NERC will work with task team leads to integrate NASPI needs and NERC budget so it meshes with planned TVA hand-off in 2010.

- √ **Action** – NERC to work with Task Team leads and DOE to make sure that budget assumptions address the future NASPI needs including project management, network management and administration post TVA funding commitment, and ongoing support of applications.

Data Sharing/Confidentiality

Data sharing in real time is important for wide area monitoring and to provide visibility to proper functioning of devices.

NERC General Counsel – David Cook has issued an opinion that phasor data is covered under the NERC NDA agreement.

Discussion focused on three categories for data sharing:

1. Operating data (including access to data for analysis of events by NERC staff) for use by operating entities that are signatories to NERC NDA – there should be no issue for sharing of data in this category.
2. Sharing operating data with DOE and its labs for research activities in support of NASPI.
3. Providing aged data to university researchers.

- √ **Action** – Rick Sergel will follow up with Dave Cook to come up with a plan to resolve any data sharing issues, including elevating the issue to executive levels of operating companies if necessary.

It was noted that CAISO is working with SCE to address technical and legal issues related to data access.

- √ **Action** – CAISO/SCE to share draft data sharing agreement when available with NERC.

Operations – Terry Bilke/Dave Hawkins

2008 will have enough devices reporting (over 50) to provide wide-area perspective and support event analysis (maybe not yet state estimation).

Working on early generation tools to make these data visible and useable.

Concerned about data coverage and data quality – planning to institute daily reports and notifications to flag data problems and identify common mode failures for PMU data flow.

Noted that something of interest on the system happens every week and something of consequence every few months. Phasor applications to include notifications, alerts and alarms for these occurrences.

Data and Network - Paul Myrda

Data and network requirements are driven by applications. Four classes of service (plus one for research) have been defined. Most stringent requirements for data volume and latency are at the local utility level i.e., protection, control, remedial action schemes; wide area monitoring and event analysis needs are less stringent. One exception may be inter area oscillation detection.

D. Hawkins: bandwidth not as much an issue as security, which gets compromised with highest speed data requirements.

Need to better understand requirements of applications to determine how best to apply existing protocols. For example, it is appropriate to work toward IEC 61850 adoption of IEEE 37.118.

Engineering work is needed for network design. DOE has set aside FY08 funds for this purpose through a competitive solicitation. Data and Network task team is to support DOE in developing the specifications for the RFP. Goal is a generic solution that would be applicable for all interconnections with flexibility to extend and adapt to specific needs of each interconnection.

RFP may be followed by a second RFP for pilots, for which winner of first RFP would not be eligible.

- √ **Action** -- Data management team to report back to ESG in Feb '08 on release of RFP.

Equipment Placement – Bob Cummings

Phasor data is important for event analysis. Currently analyzing three 2007 events – August 4 and 25, and Sep 18. Interconnection coverage and access to data sometimes an issue.

- √ **Action** – NERC, ESG, and NASPI Leadership to push for adoption of equipment placement guidelines by all regions.
- √ **Action** – Cummings to update phasor map for next ESG meeting scheduled in February 2008.

Research – Lisa Beard

Have first-hand experience with enormous transaction costs associated with negotiating bilateral NDAs on behalf of individual researchers.

2008 focus is creation of research repository (database) with support from DOE/PNNL.

ESG Feedback -- voltage stability, generator excitation modeling, power system restoration should be high priorities in the research roadmap. Note – Research roadmap presented to ESG has been updated to reflect ESG comments and is attached.

- √ **Action** - Research team to define what researchers need from standpoint of vintaging and scope questions that need to be addressed for data sharing.

Performance Standards – Damir Novosel/Vahid Mahdani

2008 focus areas:

1. Phasor and PMU performance
2. System-wide deployment requirements network/architecture
3. Application requirements

Vendor participation has been significant and important for moving work of this group into standards. Uniquely, this group has meaningful international participation.

Seeking ESG endorsement of workgroup products (e.g., that are not yet standards) and encourage their use by utility companies in their procurements from equipment vendors.

- √ **Action** – Performance Team to circulate workgroup documents for which ESG endorsement is sought at least 3 weeks prior to the Feb 12, 2008 ESG meeting.
- √ **Action** - NERC project manager, when hired, should follow up w/PSTT to determine what additional resources/how much/over what time frame is appropriate to move this Team's work forward including identifying any funding needs.
- √ **Action** – Dagle and Johnson will coordinate drafting needed invitation letters to resource commitments from companies with ESG endorsement as needed.
- √ **Action** – ESG accepted list of priorities. Performance Team to work with existing protocols and standards where feasible.

Planning – Navin Bhatt/Dmitry Kosterev

Seeking more participation on task team – moving toward interconnection performance analysis using available tools/applications.

Priorities

1. Phase angle separation and load flow work being done by PNNL
2. Voltages
3. Modal analysis of changing transfer patterns
4. Operating nomograms in form of angle separations, rather than MW flows
5. Use of tools and training people in use of tools

NERC event analysis activities benefit from support from Planning TT members – event analysis represents a good cross-training activity for PTT members. Consider employing student engineers working through firms or NERC to provide manpower.

- √ **Action** – Planning Task Team to work with NERC (Cummings) to analyze selected events to train staff on forensic analysis (including universities through PSERC).

Business Mgmt. – Stan Johnson for Floyd Galvan

Note – TVA funding commitment to support data hub is through Jan 2010 and not 2012 as indicated on meeting handout.

ESG is comfortable with current role of non-utilities on leadership and task teams.

ESG agreed that vendors should not participate in financial or protocol selection decisions.

ESG discussed the need for business management team going forward given that many of the issues such as data confidentiality and budgeting are being handled by other task teams or NERC and any policy issues should be brought to ESG for resolution.

- √ **Action** – Business management team to be phased out once NERC project manager is on-board.

Closing

ESG guidance to Task Teams: seek/promote consensus; recognize that this will not always be possible, so don't be afraid to bring sharpened issues to ESG for discussion and resolution.

Distribution: Attendees and all ESG and Leadership Team

Attachment