

EASTERN INTERCONNECTION PHASOR PROJECT (EIPP)

Work Group Meeting

January 22, 2004
Washington, DC

Minutes

A meeting of the EIPP Work Group was held on January 22, 2004 in Washington, DC. Thirty-three participants were in attendance. The meeting agenda and attendance list are attached as appendices. The following action items and agreements resulted from the meeting.

ACTION ITEMS AND AGREEMENTS

1. Establish subcommittee to address NERC linkages – Donnelly, complete by Feb. 1.
2. Coordinate surveys from each of the Task Teams so that we are only issuing one comprehensive survey to the industry – Donnelly, complete by Feb. 17.
3. Utilize NERC confidentiality and data reporting agreements that govern data submittals to NERC Reliability Coordinators – Galvan/Cummings/Dyer/Donnelly, complete by Feb. 28.
4. Confirm Fardanesh (NYPA) assuming leadership for Standards and Performance Task Team – Donnelly, complete by Feb. 1.
5. Begin Phase 1 Implementation with 20 PMUs and 3 PDCs by Summer '04. Target completion of Phase 1 with 30 PMUs and 4 PDCs per Work Group Charter document – Phase 1 Task Team/Ingram/Donnelly, complete by Dec. 31.
6. Develop plan to implement Dispatcher displays with phasor data as recommended by Real Time Task Force. Target implementation for 3Q04 contingent on resolution of funding – Real Time Team/VanOsdol/Dyer, complete by Sep. 30.

REVIEW OF WORK GROUP GOALS

The following short-term goals were agreed to during the Work Group's November meeting. They are included here for reference.

- Develop the blueprint for the most effective use and dissemination of wide area measurement data and information to utilities NERC and appropriate government agencies – Work Group, draft complete by March.
- Inform and enroll key participants who need to be brought in to the project – Work Group, completed by March.
- Establish liaison to key policy groups – Work Group, established by March.

- Develop a prioritized list of applications (visualization tools) for the use of wide area measurements – Real Time & Off Line Applications Task Teams, complete by June.
- Quick deployment of appropriate tools within the control room – Real Time Applications Task Team, initial deployment by October.
- Get a minimum of four data collection sites and 30 instruments operational – Phase 1 Implementation Task Team, complete by December. Two PDCs and 15 PMUs complete by May.
- Develop the necessary agreements and administrative infrastructure to collect and share the data – Business Management Task Team, interim agreements in place by March.
- Baseline (document) progress to date on instrument testing and certification – Standards & Performance Task Team, completion by June.

MINUTES

Phil Overholt (US DOE) welcomed the attendees and gave the Department of Energy perspective on the project.

Paul Barber (CERTS) provided an update on the August 14, 2003 blackout investigation. Recent blackout investigation activities include: two technical workshops, NERC technical committees briefed, currently creating recommendations - drafts are on the NERC website. Mr. Barber focused on the draft recommendations and noted that these recommendations include references to measurement technologies and practices relevant to the Work Group's mission. Specifically, the NERC draft recommendations call for the installation of additional time synchronized recording devices.

What remains to be done: in-depth dynamic simulation of the later stages of the blackout, research regarding who violated what standards, formulate specific short term actions – to be finished by June. Strategic initiatives coming out of the blackout investigation include compliance enforcement, implementation tracking, audits reliability coordinators, vegetation management. Technical initiatives include training, better real time tools for operators, P and Q control practices, restoration lessons learned, cascading prevention, synchronous recording devices, better system modeling and data exchange.

The draft recommendations can be found at

ftp://www.nerc.com/pub/sys/all_updl/docs/blackout/NERC_Recommendations_1-20-04.pdf.

Matt Donnelly (CERTS) provided background information on the EIPP's vision and mission. Mr. Donnelly noted that five task teams had been formed by the Work Group and that each of these task teams is being led by an industry representative with support from a CERTS member. The CERTS support personnel are funded through the US Department of Energy's Transmission Reliability Program.

UTILITY WIND INTEREST GROUP COLLABORATION

J. Charles Smith (UWIG) made a presentation on behalf of the Utility Wind Interest Group (UWIG). Mr. Smith mentioned that the US DOE is funding the installation of measurement instruments at several wind sites around the country under one of the DOE's renewable energy programs. He postulated that if these instruments were specified to be compatible with EIPP timing requirements they may make good additions to the EIPP network. More information on UWIG can be found at their web site

<http://www.uwig.org>.

NERC COLLABORATION

Mr. Don McInnis (FPL), chairman of the NERC Frequency Response Task Force, presented the status of the NERC RFP for frequency recording and NERC's technical requirements for this effort. Three NERC staff members accompanied Mr. McInnis to assist in determining whether the EIPP information network might be used to support NERC frequency monitoring and, in the future, a broader range of NERC data collection activities.

After discussion, the Work Group expressed a desire to foster better communications with NERC and to continue the discussion of using EIPP hardware to support NERC frequency measurements.

TASK TEAM REPORTS

Copies of the Task Team presentations will be uploaded to the project web site at

<http://phasors.pnl.gov>.

PHASE 1 IMPLEMENTATION TASK TEAM

Mike Ingram (TVA) provided an update on the progress of the Phase 1 Implementation Task Team. Mr. Ingram reported that the Task Team had met by conference call on January 13 with twelve participants. The Task Team recommended that a survey be drafted and distributed to prospective EIPP Phase 1 participants. Based on the general knowledge of those participating on the Task Team, there was a sense that there are roughly 24 suitable instruments already installed within the eastern interconnection. The Task Team will focus on trying to integrate these instruments early in the project.

Mr. Ingram noted a concern that principal participation was by non-utility groups such as ISOs, labs and industry. However utilities, primarily transmission owners, are the ones who will be installing the equipment and they are poorly represented. Budget limitations were also a concern and there is a need to develop budgets for this task.

REAL TIME APPLICATIONS TASK TEAM

Jim Dyer (CERTS) presented an update on the progress of the Real Time Applications Task Team. The Task Team has held two meetings with the most recent meeting being January 21 in Washington, DC. Mr. Dyer's described some of the successes with real time applications within the WECC with specific attention to the CAISO. The presentation included tools and visualization displays that may be of use to Work Group members. Mr. Dyer was reporting for Wayne VanOsdol (MISO) who is the Task Team

leader. Budget limitations were also a concern and there is a need to develop budgets for this task.

OFF LINE APPLICATIONS TASK TEAM

Navin Bhatt (AEP) presented an update on the progress of the Off Line Applications Task Team. The Task Team held its first meeting by telephone on January 15. The priorities of the Task Team included developing a prioritized list of applications that may be required by users of off line tools, deploying applications, providing training and integrating applications into the standard tool sets. The Task Team intended to develop a survey as part of its activities. There was discussion that several of the Task Teams wanted to develop a survey and perhaps these could be integrated into one single survey to eliminate duplication (see Action Items).

BUSINESS MANAGEMENT TASK TEAM

Floyd Galvan (Entergy) presented an update on the progress of the Business Management Task Team. The Task Team held its first meeting on January 14. Mr. Galvan stressed the need for a standard agreement template that could be modified to suit the requirements of the various participants in the project. There was considerable discussion about the prospective role of NERC and the existing NERC confidentiality agreements (see Action Items).

STANDARDS AND PERFORMANCE TASK TEAM

Sakis Meliopoulos (CERTS) presented an update on the progress of the Standards and Performance Task Team. Mr. Meliopoulos described standardization issues and identified some of the industry activities being carried out to address these issues. The presentation included information regarding some of the various forms of timing delays and measurement inaccuracies that need to be codified and corrected in each of the instruments or at a data collection site.

The meeting was then adjourned.

Following the meeting, Mike Adamiak (GE) gave a presentation and solicited feedback on E2I's IECSA project. The purpose of the project is to generate a communications system architecture spanning all levels of power generation, delivery and utilization. The IECSA website contains more information and can be found at <http://www.iecsa.org>.

Respectfully Submitted,

Matt Donnelly

EASTERN INTERCONNECTION PHASOR PROJECT WORKING GROUP MEETING

*January 22, 2004
Embassy Suites Crystal City
1300 Jefferson Davis Highway
Arlington, VA 22202
(703)979-9799*

The purpose of the meeting is to receive reports from WG Task Teams and to provide direction to the Task Teams on their objectives and work plans.

AGENDA

8:30 AM–8:40 AM	• Introductions and meeting accommodations	
8:40 AM–8:50 AM	• Recap of the August 14 Interim Report Review and the December 16 Workshop	P. Barber
8:50 AM–9:00 AM	• Review of WG Vision and Mission	M. Donnelly
9:00 AM–9:25 AM	• Phase 1 Implementation Task Team Report & Comments	M. Ingram
9:25 AM–10:05 AM	• NERC Resources Committee, Freq. Task Force Objectives	D. McInnis, FPL
10:05 AM–10:20 AM	• NERC Requirements Discussion and Potential Overlap with EIPP	P. Barber
10:35 AM–11:00 AM	• Real Time Applications Task Team Report & Comments	J. Viikinsalo
11:00 AM–11:25 AM	• Off Line Applications Task Team Report & Comments	N. Bhatt
11:25 AM–11:50 AM	• Business Management Task Team Report & Comments	F. Galvan
11:50 AM–12:15 PM	• Standards and Performance Task Team Report & Comments	S. Meliopoulos
12:15 PM – 12:35PM	• Recap of Action Items, Planning for Meetings and/or Workshop	M. Donnelly
12:35 PM–1:30 PM	• Lunch	Provided
1:00 PM–3:00 PM	• Communications Architecture Requirements discussion with Mark Adamiak working for GE under an EPRI contract for integrated communications	Interested Parties

Note: Task Team reports should cover the following:

- Task Team objectives
- Work Plan to meet objectives and deliverables
- Dates of future meetings and conference calls
- Discussion of possible issues and coordination

Important Numbers

Matt Donnelly
Pacific Northwest National Laboratory
(509) 372-6472
Fax: (509) 375-3614

Phil Overholt
Transmission Reliability Program Manager
(202) 586-8110
Fax: (202) 586-5860

22 January Meeting Attendees

Allemond	John	AEP
Bhatt	Navin	AEP
Boezio	Dan	AEP
Barber	Paul	CERTS
Budhraj	Vikram	CERTS
Donnelly	Matt	CERTS
Dyer	Jim	CERTS
Guttromson	Ross	CERTS
Meliopoulos	Sakis	CERTS
Overholt	Phil	US DOE
Galvan	Floyd	Entergy
McInnis	Don	FPL
Adamiak	Mark	GE
Kasztenny	Bogdan	GE
Premerlani	William	GE
Sanza	Peter	GE
Zhou	Rui	GE
Huffine	Eric	MISO
Osborn	Dale	MISO
Phillips	Bill	MISO
Cummings	Bob	NERC
Nolan	Brian	NERC
Vandervort	Tom	NERC
Chow	Joe	NY ISO
Ponder	Jon	PJM Interconnection
Alexander	George	SEL
Fagan	Susan	SEL
Guzman	Armando	SEL
Marshall	David	Southern Company
Viikinsalo	James	Southern Company
Ingram	Mike	TVA
Wu	Wai-Ran	TVA
Smith	Charles	UWIG