

Monthly Progress Report

Providing technical progress and event updates to program supporters

NOVEMBER/DECEMBER 2004

PROGRAM NEWS

- ***CEC Demand Response R&D Symposium highlights IntelliGrid!*** Thanks to the kind invitation from California Energy Commission's PIER program, we were able to display the vision, mission and scope of IntelliGrid Consortium to participants of the CEC-sponsored Demand Response R&D Symposium. Our exhibit attracted visitors from CEC technical staff, consultants, university researchers and manufacturers. Most questions were related to our concept of the Portal work as well as scope and schedule for potential technology demonstration.
- ***Live from New York: It's the IntelliGrid Consortium meeting!*** ConEd's Senior VP, Lou Rana, with support from Serena Lee, hosted our end-of-year gathering at ConEd headquarters. The IntelliGrid Steering Committee met jointly with two other advisory groups: the Public Advisory Group and the Digital Technology Advisory Council. That three-day forum created a platform for broad discussion and an exchange of ideas among different parties representing diversified interests, needs and expectations. During the session attended by the Steering Committee members *only*, the 2005 budget was reviewed and discussion on funding allocation among different projects was held. The discussion about continuing participation of those Partners whose first 4-year term expires soon will be continued in January via a web conference.
- ***IntelliGrid "Open Meeting"!*** Immediately following the Steering Committee meeting in New York, a meeting was held for all utilities and vendors interested in the IntelliGrid program. Most current members attended in support and representatives from interested parties included First Energy, AEP, Hitachi, Northeast Utilities, and the Korean Electric Power Institute. Clark Gellings spoke on the vision of IntelliGrid.
- ***ABB Visits EPRI!*** On November 23, the CTO of ABB Ltd, Dr. Markus Bayegan, visited EPRI along with three colleagues from ABB including Dr. Le Tang, ABB's Head of U.S. Corporate Research. They met with EPRI's executive team and IntelliGrid management for a briefing on the pro-

TXU Introduces IntelliGrid

On November 22, TXU Electric Delivery held a workshop to introduce IntelliGrid to their staff. The workshop provided the opportunity to focus on the need to build a common architecture for several projects such as automated meter reading. Some of the proposed projects are pilots while some initial rollouts are planned with widespread implementation. The use cases available in IntelliGrid will now be examined by TXU to see if they meet all of TXU's needs, but they clearly provide the concepts and structure needed to initiate and document specific projects. The following communication / automation projects are under review: advanced meter information system including outage detection; VAR management – automated capacitor system; distribution automation - automated restoration; distribution automation with remote control supervisory switching; system protection upgrades to all-digital relays for T&D stations; and, SCADA and the substation of the future. Actual follow-up plans have been discussed, but are not firm at this point. TXU is dedicated to improving reliability and service to their customers.

gram. Dr. Bayegan expressed appreciation for EPRI's increased emphasis on vendor partnerships and left giving his support for the IntelliGrid Consortium and an interest in exploring further EPRI partnerships. A follow-up meeting with executives from ABB's Power Technology Division is scheduled in the first week of January 2005.

TECHNICAL PROGRESS

IntelliGrid Architecture (previously Integrated Energy and Communications System Architecture)

- *Draft IntelliGrid Development Plan.* The project team has completed the 2005 draft development plan.
- *Paper presented at the IEEE Power Systems Conference in New York!* Joe Hughes, project manager, presented a paper on IntelliGrid that focused on the initial steps of the project.

Open Communications Architecture for Distributed Energy Resources in the Advanced Distribution Automation Project

- *IEC Working Group 17 under TC-57 hosted by EdF in France!* As Convenor of WG-17, Frank Goodman, chaired the IEC WG-17 meeting. The joint sessions of the working groups dealt with coordination of activities and the separate sessions dealt with document writing for the individual areas of responsibility. The current draft standard document on object models will have some coverage on diesels, fuel cells, photovoltaics, and combined heat and power. The working group voted to move forward with getting this document into the form of a first Committee Draft (CD) by the end of February 2005.
- *IEEE P1547.3 Standard, WP P1547.3 to develop a new section on monitoring, information exchange, and control for DER based on current practice.* This new section was identified as a key need at the August meeting. Once again, we need participation on this working group from all ADA and DER stakeholder groups.
- *Responses to Opportunity Notice for Test Hosting Team Bids Received.* Responses were due in late November and the proposals were reviewed by PAG members during a web conference.
- *Frank Goodman presents DER/ADA project overview at the Sandia High Tech Inverter Workshop!* Frank also described the relationship of the communication standards with DER inverters.

Check Us Out!

We will be talking about our Program at the following conferences:

First International Conference on the Integration of Renewable Energy Sources and Distributed Energy Resources

December 1-3, 2004
Marriott Hotel
Brussels, Belgium

Executive Briefing, IntelliGrid Program

December 9, 2004
Consolidated Edison of
New York Headquarters
New York, NY

DistribuTECH

January 25-27, 2005
San Diego Convention
Center
San Diego, CA

CIRED, 18th International Conference & Exhibition on Electricity Distribution

June 6-9, 2005
Lingotto Conference and
Exhibition Centre
Turin, Italy

Fast Simulation and Modeling

- *Final drafts of the Functional and Architectural requirements completed!* The structure of the documents was defined, items from the high-level document were incorporated and work was identified on the remaining pieces.
- *Visualization techniques were written!* A detailed write-up on visualization techniques and their application to FSM were drafted. These documents will be incorporated into the Architectural Requirements.

Consumer Portal

- *November 10 Project Advisory Meeting engages industry stakeholders!* In addition to the PAG members, Panasonic and Intel participated in the November advisory meeting. Comments were requested on the project and engagement plans before the December Steering Committee meeting. The advisors are seeking partners for pilots and demonstrations related to the portal.
- *Marek Samotyj presented the Consumer Portal Project at the EPRI Distribution Conference!* Attendees of the EPRI Distribution Conference in Atlanta, Georgia on October 27-28, 2004 heard an in-depth presentation of the Consumer Portal Project.

Others

- NYSERDA (New York State Energy, Research and Development Authority) has funded, through E2I, a Security, Quality, Reliability and Availability (SQRA) feasibility study to determine solutions to the power quality requirements of the Albany Nanotech facility and to provide an overview of the planned Alternate Energy Test Farm.

If you need more information or have comments, please direct them to Marek Samotyj at msamotyj@epri.com or 650-855-2980. Details of program events can be found on www.linkify.com.

About EPRI

EPRI creates science and technology solutions for the global energy and energy services industry. U.S. electric utilities established the Electric Power Research Institute in 1973 as a non-profit research consortium for the benefit of utility members, their customers, and society. Now known simply as EPRI, the company provides a wide range of innovative products and services to more than 1000 energy-related organizations in 40 countries. EPRI's multidisciplinary team of scientists and engineers draws on a worldwide network of technical and business expertise to help solve today's toughest energy and environmental problems.

EPRI. Electrify the World

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