

Progress Report

Providing technical progress and event updates to program supporters

FIRST QUARTER 2005

PROGRAM NEWS

- **Transmission Fast Simulation and Modeling Phase 1 Report Completed!** The report consists of two documents: Functional Requirements (1011666) and Architectural Requirements (1011667). These reports model and stimulate system behavior based on real-time monitoring data to anticipate changing system conditions and provide timely response during system disturbances including prevention, containment, and support for recovery. These reports will be available at the *end* of March by contacting the EPRI Distribution Center at 800.313.3774 or via email at askepri@epri.com.
- **Distribution Fast Simulation and Modeling Interim Report Completed!** For future power systems to be flexible and reliable, it is imperative to design an auto-adaptive grid (“self-healing” grid) capable of automatically anticipating and responding to power system disturbances while continually optimizing its own performance. The report objectives are to identify technologies to address the challenges of a self-healing grid and provide future analysis of the system. This report is available by contacting Ivan Bel at ibel@epri.com.
- **OpenAMI Task Force Meeting Hosted by EPRI!** Joe Hughes, EPRI IntelliGrid, and Anne-Lise Didierjean, EdF, have been participating in the OpenAMI Task Force. EPRI will be hosting the 3rd OpenAMI Workshop on April 19. The OpenAMI Task Force is an industry-wide initiative whose primary objective is to rapidly develop and recommend an open, standards-based information/data model, reference design and interoperability guidelines for Advanced Metering networks and Demand response solutions. The OpenAMI Task Force is part of the UCA[®] International Users Group. This group is not officially associated with the California Energy Commission although its schedule is affected by the regulatory process currently underway in that state. The focus of the meeting is to develop a standard reference design for Automatic Metering Infrastructure (AMI) and demand response.



ABB Joins IntelliGrid!

We are excited to announce that ABB, a world leader in power and automation technology, has joined the IntelliGrid Consortium. During discussions, it became apparent that ABB shares our vision to foster collaboration among stakeholders in order to make the grid of the future a reality. The energy and commitment shown by ABB adds new dimensions to our program. Both the corporate R&D group and the product divisions of ABB were involved in the decision and have made the commitment to continue active participation. This may include sharing their research vision, championing open standards on the IEC standards committees, providing technical expertise, contributing to demonstration projects and ultimately developing hardware that enables IntelliGrid.

TECHNICAL PROGRESS

IntelliGrid Architecture (previously Integrated Energy and Communications System Architecture)

- *Integration of Two International User Groups* - In January, a meeting was held to investigate the merging of activities under IEC 61970 and IEC 61968 under the UCA Users Group. This merging is necessary to bring together and harmonize the work that is taking place under different IEC Technical Committees. IntelliGrid recommendations encourage the harmonization of standards to avoid duplication of work and to encourage widespread industry integration.
- *Appearance at Cal ISO* - Joe Hughes, project manager, presented IntelliGrid concepts and recommendations to the Cal Independent System Operators Meeting as a possibility for future work to integrate systems on large scales.
- *Metering International Features IntelliGrid Article* - Joe Hughes, project manager, has an article published entitled *Designing Next Generation Meters* that focuses on the ability to communicate, design, develop, deploy these state-of-the-art meters.

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

- *IEEE Working Group P1547.3 February Meeting* - During the first week of February, a co-located meeting was held with all the working groups in the P1547 series. The P1547.3 group focused on the development of material in the new Clause 5 which focused on monitoring, information exchange, and control recommendations for current and near-term practice. The working group's goal is to complete Draft 2 of the entire Guide (an IEEE standards classification) by this summer.
- *IEC TC 57, Working Group 17 Meeting Preparations* - Planning is underway for the joint meeting with Working Groups 10, 18, and 19. Working Group 19 is a "new" number for the previous Ad Hoc Working Group 07. An effort is in progress to get the first committee draft of the Working Group 17 standard formally issued by IEC prior to the April meeting.

Fast Simulation and Modeling

- *Comments Incorporated into the Final Report* - After submitting the draft report in December 2004, comments were

Check Us Out!

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

Metering America

April 13, 2005
Las Vegas, NV

IntelliGrid Steering Committee Meeting

April 12-14, 2005
Hotel Lucia
Portland, OR

OpenAMI

April 19, 2005
EPRI
Palo Alto, CA

Consumer Portal Workshop

May 17, 2005
Hosted by TXU
Dallas, TX

CIREN, 18th International Conference & Exhibition on Electricity Distribution

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

EEl Annual Convention/Expo

June 19-22, 2005
Mandalay Bay Resort
Las Vegas, NV

Power Quality Applications 2005 Conference and Exhibition

June 27-29, 2005
Westin Bayshore Resort and Marina
Vancouver, British Columbia, Canada

IEEE Power Engineering Society, T&D Conference & Exposition

October 9-12, 2005
Ernest N. Morial Convention Center
New Orleans, LA

received, evaluated, discussed, and incorporated into the final documents.

Consumer Portal

- *White Paper Developed* - The team developed a white paper in the form of FAQ (frequently asked questions) and survey to be used as a support tool for broader stakeholder engagement. This white paper is available for use by funders to help develop an internal understanding of the Consumer Portal Initiative.
- *Participation at the CEC Demand Response Symposium on Reference Design* - On February 1, Wade Malcolm presented the IntelliGrid Initiative with a focus on IntelliGrid Architecture and the Consumer Portal.
- *Presentation at the ANSI C12 Working Group* - The Consumer Portal project was presented at the February meeting of the metering data standard working group.

Others

- *IntelliGrid Papers Presented at DistribuTECH* - A panel session included several speakers discussing the results of IntelliGrid at the 2005 DistribuTECH Conference in San Diego.

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.epri-intelligrid.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.

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