

INFORMATION, COMMUNICATION & CYBER SECURITY NEWSLETTER

Dear ICCS Advisors and Stakeholders,

Two quick items to highlight before we dive into the rest of the newsletter:

First – the EPRI ICCS roadmap survey is now open.

http://www.surveymonkey.com/s/EPRI_Roadmap. Please be sure to take the survey and/or share with your peers within your organization. It should only take about 10 minutes unless you want to take multiple portions of the survey. It took me about 25 minutes to do the entire survey and that’s a lot more than most people would be interested in. The survey will be open until June 5.

Second – Data Analytics.

Southern Company and Georgia Power hosted our latest Data Analytics Meeting; more than 50 utility representatives attended, representing both Distribution and Transmission efforts. It is great to see the progress in the last couple years as well as plans going through 2018. Here is our group photo in the Georgia Power Lobby.

The timing of this meeting aligned with the release of the [Year Two Update from the DMD/TMD Data Analytics Initiative](#) which provides an overview of the project’s progress, deliverables and demonstrations to date.

Key topics from the meeting included: *A Smarter Grid, Big Data Technologies, Data Mining and Analytics Initiative, and Decentralized Control and Analytics and Learnings from Other Industries.*

There is a lot more in the newsletter, so keep reading and enjoy!



Matt Wakefield
Director, Information,
Communication and Cyber Security
Research

May 2015

In this Newsletter

[ICT Program \(161\)](#)

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Data Analytics Initiative for Transmission and Distribution

Year Two Update
Transmission Modernization Demonstration (TMD)
Distribution Modernization Demonstration (DMD)

Data Management & Analytics to
Support Electric System Operations,
Planning, and Asset Management



Correction: In our April 2015 newsletter we inadvertently stated newly elected board member Lisa Johnson, was president and chief executive officer of Ameren Corporation. Lisa Johnson most recently served as an interim director and is CEO and general manager of Seminole Electric Cooperative, Inc. The President and CEO of Ameren is Warner Baxter. Our apologies for any confusion.



Articles of Interest

[Research Key to New Vision of Power](#)

Strategies to Integrate New and Old Resources
Apr 20, 2015 Mark McGranaghan

Mark McGranaghan was featured in a **T&D World** magazine article describing EPRI's Integrated Grid concept that will guide the optimal integration of large, central station generation, such as traditional fossil and nuclear generation, with increasingly diverse distributed resources such as rooftop solar, energy storage, and micro-grids.

[EPRI and NREL Develop Standard Messaging to Facilitate DER Communication and Control](#)

PALO ALTO, Calif. (May 7, 2015) – The Electric Power Research Institute (EPRI) and the U.S. Department of Energy's National Renewable Energy Laboratory (NREL) have developed and tested a standard messaging platform for distributed energy resources (DER) -- solar panels, wind turbines, microgrids and battery storage -- that use smart inverters to connect to the grid. [Full Article](#)

Meeting Materials Available

- [ICT Informational Webcast - Spectrum Assessment Project](#) – April 28th webcast
- [EPRI: Information and Communications Technology for Advanced Metering Systems Webcast – Project Set P161F](#) – May 20th webcast

Recent ICT / IntelliGrid (161) and Related Demonstration Deliverables

Title	Date
<u>Assessment of Licensed Communication Spectrum for Electric Utility Applications</u> This report focuses on communications networks operating in private licensed spectrum. Several research questions arise when considering licensed spectrum for a utility FAN that can support applications with ubiquitous coverage over a wider area.	27-Apr-2015

2014 Fourth Quarter CEA-2045 Field Demonstration Project

EPRI's Field Demonstration Project is a three-year collaborative research activity designed to assess this new standard. Participating utilities are fielding various end-devices and connecting them into new and existing DR programs to evaluate the standard in terms of achieving interoperability and supporting the needs of a wide range of programs. Consensus functional requirements for end-use devices are being developed and shared with manufacturers who are producing the CEA-2045 based products for field installation and testing. Communication system providers are producing plug-in communication modules needed to connect and test.

This report provides an update on project activities through the fourth quarter of 2014.

06-Mar-2015

Upcoming Webcasts

(Details are available in the [Member Center](#) under the ICT Cockpits)

Title	Date
<u>ICT Informational Webcast: GIS R&D</u> The webcast will review the research into the improving distribution model (typically stored in the geospatial information system) and how that improved model impacts other systems. Also included are the collaborative efforts with other programs in this area.	28-May-2015
<u>EPRI: Information and Communication Technology Emerging Technologies and Technology Transfer Project Set (161A)</u> This webcast will provide a status update on the research activities that are underway in the project set.	15-Jun-2015
<u>EPRI: Information and Communications Technology for Distribution Webcast – Project Set P161C</u> This will be the 161C mid-year progress update in which the EPRI team will be updating you on the progress of each project and seek your input into the remaining work.	18-Jun-2015
<u>EPRI: Information and Communications Technology for Enterprise Architecture and Systems Integration Webcast – Project Set P161E</u> In this webcast we will give an overview of the 2015 research priorities and a status update on each project.	23-Jun-2015
<u>EPRI: Information and Communications Technology for Distributed Energy Resources and Demand Response Webcast – Project Set P161D</u> In this webcast we will be updating you on the progress of each project and seek your input the remaining work.	25-Jun-2015
<u>EPRI: Smart Grid Enterprise Architect Interest Group Webcast</u>	25-Jun-2015 23-Jul-2015 27-Aug-2015



Articles of Interest

How well do you know your cybersecurity hazards?

Published In: [Intelligent Utility Magazine Summer 2015](#)

[Kathleen Wolf Davis](#)

Matt Gibson of EPRI is betting the answer to that question is "not very well," though certainly not for lack of trying.

Gibson, a long-time nuclear energy insider, currently helms an Electric Power Research Institute (EPRI) project that considers the use of hazards analysis to identify cybersecurity vulnerabilities.

Traditionally, the field of cybersecurity (wherever it has been applied) dealt solely in the vulnerability analysis realm. But Gibson and his team (which EPRI, a few utility partners and the Sandia National Laboratory are a part of) just don't think that does enough.

In comes hazards analysis, an idea that's been used for years in the health and safety industry. [Full article.](#)

Upcoming Webcasts

(Details are available in the [Member Center](#) under the ICT Cockpits)

Title	Date
<p>Cyber Security & Privacy 183B Mid-Year Update Webcast</p> <p>This webcast will provide an update on the research for the following projects:</p> <ul style="list-style-type: none"> • Protective Measures <ul style="list-style-type: none"> ○ DNP3 ○ Network Management Systems • Managing Cyber Security Incidents: Integrated Security Operations Center (ISOC) 	24-Jun-2015



Data Analytics and Applications Newsletter for EPRI's DMD/TMD Demo

The EPRI *Data Analytics and Applications Demonstration* newsletter provides updates on EPRI's "Data Analytics" demonstrations—the Distribution Modernization Demonstration (DMD) and

Transmission Modernization Demonstration (TMD). These initiatives identify and analyze data-oriented applications and support infrastructure through collaborative demonstrations around the world. Contact Doug Dorr (DMD) (ddorr@epri.com) or Alberto Del Rosso (TMD) (adelrosso@epri.com) with comments.



EPRI DMD TMD
Newsletter April 2015

Recent DMD/TMD Project Deliverables

Title	Date
Data Analytics Initiative for Transmission and Distribution: Year Two Update	15-May-2015



Articles of Interest

Smart Grid Today names smart grid pioneers that includes many of our members as well as two EPRI leaders.

- Michael **Alexander**, VP of utility services, Nexant (formerly senior manager of customer energy solutions and program evaluation at PG&E)
- Sharon **Allan**, president, SGIP
- Abigail **Anthony**, director of the utility & grid modernization project, Acadia Center (formerly Environment Northeast)
- Robyn **Beavers**, senior VP for innovation, NRG Energy
- John **Bradley**, CEO, the Energy Networks Assn.
- Jake **Brodsky**, co-founder, Infracritical
- Laney **Brown**, director of smart grid programs and projects, Iberdrola USA
- Clare **Butterfield**, ISEIF program director
- **Sunil Chhaya**, principal technical leader, EPRI
- Ryan **Chin**, managing director for the City Science Initiative, MIT
- Rhys **Cole**, operations manager, PowerShield
- James **Connaughton**, executive VP, C3 Energy
- Deepak **Divan**, CTO, Varentec
- Terry **Fry**, senior VP of utility services, Nexant
- Thomas **Golden**, technology development manager, Duke Energy
- Mike **Gordon**, CEO, Joule Assets
- David **Green**, UK managing director, Eltel Networks

- Joel **Hagan**, CEO, i2O Water (formerly CEO, Onzo)
- Jon **Hawkins**, manager for advanced technology and strategy, PNM Resources
- Ashley **Horvat**, VP of strategic initiatives, PlugShare (formerly Oregon's chief electric vehicle officer)
- [Download the report now to see the complete list of pioneers](#) and to gain high-level insight into what each is creating that will have lasting impacts on electric utility operations, grid reliability, renewable energy source integration, EV integration, security and economic competitiveness around the world.

Recent Smart Grid Demonstration Initiative Deliverables

Title	Date
Distribution VOLT/VAR Control to Optimize Customer Voltage Profiles at Southern California Edison Irvine Smart Grid Demonstration This project demonstrated the use of distribution VOLT/VAR control (DVVC) to optimize customer voltage profiles and save customers energy with an updated approach to maintain customer voltage using a new control algorithm.	05-May-2015

Upcoming Events	Dates
EPRI Smart Distribution and Power Quality 2015 Conference and Exhibition, Columbus, OH	June 22-24
EPRI ICT Innovators Forum Annual Meeting, Columbus, OH	June 24
EPRI Power Delivery and Utilization Advisory Meetings, Baltimore, MD	October 5-7
EPRI Power Delivery and Utilization Sector Council Meetings, Baltimore, MD	October 7-8

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