

Dear Information, Communication and Cyber Security (ICCS) Friends and Colleagues,

Thanks to those who were able to participate in our Winter PDU Advisory and Sector Council Meetings. We had record attendance and received valuable input from your participation. Meeting materials for the sessions are available through these links: [ICT](#); [Cyber Security](#); [ICCS Sector Council](#).

The February meetings also included the Technology Transfer Awards Ceremony. We received a record number of nominations (89) across PDU, with the ICCS area having 12 nominations and 4 awards:

1. Adaptive Substation Architecture (SRP)
2. Augmented Reality (American Electric Power, Ameren, Duke)
3. Automated Transmission Fault Location (FirstEnergy)
4. EPRI Distributed Energy Resource (DER) Integration Toolkit (Ameren)—**WINNER**
5. EPRI's Network Model Manager approach to Data Management (AEP)
6. Grid Modernization R&D Roadmap Development (Sarawak and FirstEnergy)—**WINNER**
7. Interoperable Smart Grid Device Management System (Electricité de France)
8. Multiple Analytics and Visualization Tools from EPRI's Distribution Modernization Demonstration Project (Electric Power Board of Chattanooga)
9. Field Area Network (FAN); First Utility to Procure/Apply 700MHz A-block (Salt River Project (SRP)—**WINNER**
10. Secure Remote Substation Access (New York Power Authority)
11. Smart Inverter Requirements and Application (TEPCO)—**WINNER**
12. World's First Implementation of International Standard for Outage Data—The Outage Data Initiative (Seattle City and Light)

Upcoming Events

March 26-28, 2019

[PDU International Advisors Meeting](#)

Milan, Italy

May 6-9, 2019

[EPRI Grid Analytics and Power Quality Conference and Exhibition 2019](#)

St. Louis, MO

Registration is open

May 20, 2019

[Birds of a Feather Workshop for Threat Management](#)

September 9-12, 2019

EPRI PDU Advisory and Sector Council Meetings
Nashville, TN

February 10-13, 2020

EPRI PDU Advisory and Sector Council Meetings
Dallas, TX

Meetings/Webcasts

February 20, 2019

[Meter Data Analytics Workshop "infomercial" Webcast](#)

February 27, 2019

[DMD/Data Mining Initiative Webcast with Research Partner University of Tennessee at Chattanooga](#)

March 7, 2019

[Interoperability Webcast:](#)



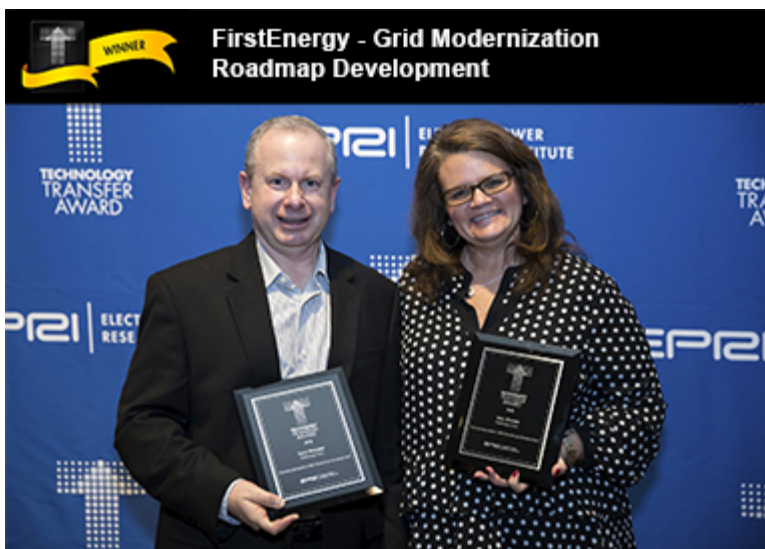
[Network Model Management](#)

Check it Out

The January 2019 issue of *Public Utilities Fortnightly* features an interview with Andrew Phillips about new technologies that are transforming utility system R&D, including AI, data analytics, robotics, and 5G. Read more at [Public Utilities Fortnightly](#).

EPRI communication standard to help grid operators enhance the use of energy storage and solar generation. Read the complete article at [Smart Energy International](#).

Public Utilities Fortnightly featured an interview with Matt Wakefield, Candace Suh-Lee and Galen Rasche about how utilities are securing the grid. The [article focused on EPRI's Cyber Security Metrics Initiative](#) which is establishing standard metrics that any utility can adopt, track, and compare across the industry.



T&D World posted an article about [EPRI being selected to receive a \\$6 million award from the U.S. Department of Energy to train the next generation of electric utility workers](#). The award, the largest of 53 DOE workforce development grants, will be used to develop the data science and analytical skills at the intersection of informational and operational technologies



needed to facilitate an integrated grid.

For more information, see the brochures for [all Award winners](#) across EPRI or [all nominees across PDU](#).

We had some excellent accomplishments in 2018 and we look forward to building on that momentum in 2019. Some focus areas for this year include the ICT Program alignment/coordination with the Transmission and Distribution programs; implementation of the Cyber Security Strategy Initiative; commencement of Cyber Security Standardized Information Gathering (SIG); development of EPRI training on ICT and Cyber Security Topics; and development of Artificial Intelligence Use Cases and Data Sets. Stay tuned for additional information, updates, and opportunities to provide input.

And as always, thank you for your continued collaboration and support; please reach out with any questions, comments, or concerns.

Sincerely,
Matt Wakefield
Director, ICCS

Spotlight on Deliverables



**Information and Communication
Technology (ICT) (P161)**



3002015175 [Blockchain Market Simulation Using Ethereum: "Blockchain Village"](#)

3002014829 [Energy-based Phase Prediction Using Alabama Power Company Advanced Metering Infrastructure Meter Data](#)

- 3002013397 [PRE-SW: DLMS/COSEM Reference Implementation \(DLMS/COSEM\) v1.0 Beta](#)
- 3002014304 [Ameren Integrated Network Model Management Project](#)
- 3002014800 [Common Information Model \(CIM\) Compliance Testing: November 2018 Summary of Results](#)
- 3002013624 [The Economics of Customer and Grid Connectivity and Grid Interoperability: Evaluation of the Potential Impacts of Interoperability in Utility Economic Analyses and Program Design](#)
- 3002013625 [IEC 61850 Protocol Driver Agents: Open Source Software to Support Testing and Development of IEC-61850 in Smart Inverters](#)
- 3002013393 [FAN Technology Performance Evaluation](#)
- 3002013399 [AMI Data Management Guidebook: First Edition](#)
- 3002013473 [Assessment of Interoperability Achieved through IEEE Standard 1547-2018 and IEEE P1547.1: Results from EPRI Interoperability Testing and Market Research](#)
- 3002013484 [Integration of DER Technologies: Preliminary Test Results](#)
- 3002013621 [Protocol Reference Guide: Understanding the Characteristics of Communications with Distributed Energy Resources](#)
- 3002013622 [Overview of EPRI's DER Simulation Tool for Emulating Smart Solar Inverters and Energy Storage Systems on Communication Networks: An Overview of EPRI's Distributed Energy Resource Simulator](#)
- 3002013623 [EPRI's Distributed Energy Resources Integration Toolkit: An Overview of EPRI Tools for Testing and Implementing Open Protocols](#)
- 3002014840 [From Innovation to Standards: Technology Evolution](#)
- 3002013478 [Lightweight Messaging Technologies for the Energy Internet of Things: An Introduction](#)
- 3002013480 [Mounting Importance of Communications to Monitor and Control Distributed Energy Resources](#)
- 3002013416 [A Guidebook to Centralized Hierarchical and Local Autonomous Intelligence for Distribution Systems](#)
- 3002013392 [Optimizing Wireless Spectrum: Operation and Coexistence in Sub-1GHz Unlicensed Spectrum](#)
- 3002013113 [Evaluation and Demonstration Machine Learning for Asset Recognition: Utility Feature Extraction Using Terrestrial Photogrammetry](#)
- 3002013403 [Evaluation of SDN in Utility Operational Networks](#)
- 3002013394 [The Role of Geospatial Information Systems in Utility Telecommunication Infrastructure Management](#)
- 3002013481 [Summary of Interoperability Tracking and Reporting by the Information and Communication Technology Program in 2018](#)
- 3002014696 [Augmented and Mixed Reality Training for the Smart Grid](#)



Cyber Security (P183)



- 3002013699 [Cyber Security Implications for an Integrated Grid](#)
- 3002014137 [Patch Regression Testing Tool Analysis: In Practice](#)
- 3002013991 [Cyber Security Forensics for Industrial Control Systems: Summary of Utility Tabletop Exercises](#)

3002013701 [Guidelines for Enhancing Threat Intelligence Programs for Power Delivery Systems](#)

3002013903 [The Integrated Security Operations Center \(ISOC\) Guidebook](#)



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