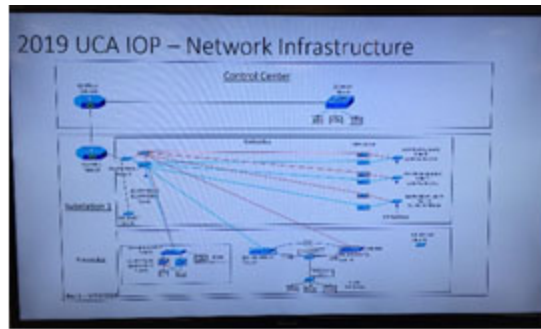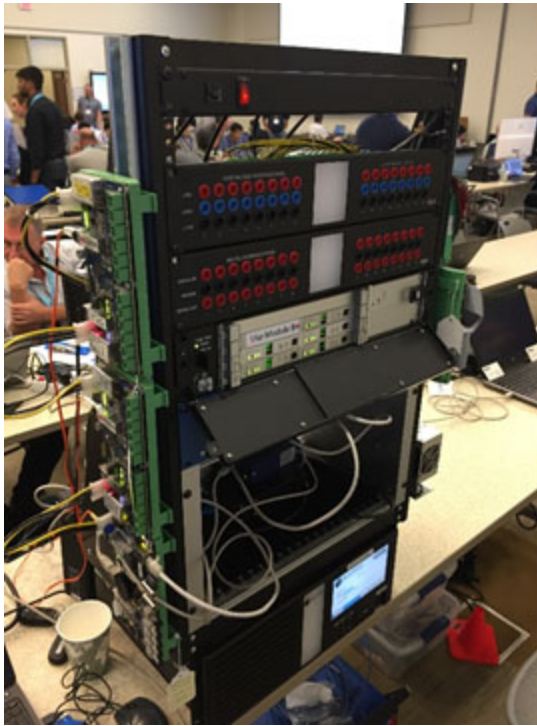Dear ICCS Friends and Colleagues,

We're not resting post advisory! The week of September 23rd, Gerald Gray conducted the CIM Compliance Testing PlugFest, Ed Beroset held AMI Task Force, Paul Myrda hosted the IEC 61850 Interoperability Workshop, and the Cyber Security team hosted a DOE EV Security Project Update.

At the CIM Compliance Testing PlugFest, interoperability between PNNL's GridAppsD and the EPRI OpenDERMS was tested using IEC61968-5 messages. We found wrinkles and tightened up the code leading to faster, more predictable integrations. Contact Gerald Gray (ggray@epri.com) if you'd like more information.

The AMI Task Force was held at EPRI's Charlotte, NC office as part of an interoperability-themed week. With people from both utilities and vendors attending, it was a unique opportunity to explore the challenges and successes of interoperability in the Advanced Metering Infrastructure (AMI) industry. One key insight was that with many standards now already in place, the top three challenges were as much social as technical in nature. Those top three challenges were identified as 1) getting the industry, including vendors, to place a real value on interoperability, 2) getting vendors to cooperate both during design and post-deployment of systems composed of pieces sourced from different manufacturers, and 3) maintaining and expanding consistent interpretation of standards. A report on the proceedings is being prepared and will be available to 161F funders and participants, who agreed that the meeting was worthwhile and productive and that there is benefit in continuing to include vendors. The exact date has not yet been set, but the next meeting is tentatively hosted by Oncor in Dallas, TX in late March 2020.

The IEC 61850 Interoperability Workshop had over 130 attendees, comprised of 9 utilities, 5 consultants, 26 vendors and 5 R&D organizations. Issues raised in the IOP this week will be reviewed and dispositioned at the WG-10 meeting that manages the content of the IEC 61850 standard.

Be sure to check out upcoming webcasts and events to see what else is happening through the end of the year.

Sincerely,
Matt Wakefield
Director, ICCS

Information and Communication Technology (ICT) (P161)

The 2019 PDU Fall Advisory and Sector Council meetings were held in Nashville September 9-12. We had record attendance and great discussion and member participation. Thank you to all who attended and helped make these meetings such a success. Materials for the Advisory and Sector Council sessions are available in the member center and can be accessed using the following links.

- Sector Council
- Information and Communication Technology Advisory Meetings

Supplemental Project Announcements

- 3002017271—Long-Term Evolution (LTE) Security
- 3002017235—Next Generation Smart Meter Vision and Criteria
- 3002017165—Common Substation Platform: Utility Requirements Assessment

Deliverables

- 3002016233—Secure Network Architecture and Communication Guideline for DER Integration
- 3002014695—Using Virtual Reality to Train Utility Workers to Assess Storm Damage
- 3002017223—2019 Update on Detection and Geolocation of Power Distribution Infrastructure Using Public Domain Photographic Imagery: GIS & Distribution Grid Model Data Management

- 3002017159—2019 Extended Reality Guidebook: Digital Transformation for Training and Telemetry
- 3002016147—Geospatial Data Integration in Augmented Reality Solutions for Electric Utilities
- 3002016671—Adaptive Substation Architecture for Supervisory Control and Data Acquisition Teleprotection and More: Utility Requirements
- 3002016232—ICT Security Architecture for DER Architecture Patterns Repository
- 3002016062—Application of Strategic Enterprise Architecture Metrics
- 3002013401—Next Generation AMI Use Cases

ICT Webcasts: follow this link to the 161 Cockpit

October 17
Interoperability Webcast: Telecom Standards Update

October 31
Technology Transfer Webcast: Private LTE

November 5
Interoperability Webcast: CIM Updates

November 21
Project Set 161F Year-End Webcast

December 13
Project Set 161B Year-End Webcast

December 17
Interoperability Webcast: IEC 61850 Interoperability Test

ICT Upcoming Events

October 29
Telecommunications Project Set 161G Fall Advisory Meeting at WE Energie
Registration

November 19-20
Digital Worker Symposium
EPRI Charlotte
Registration

February 10-13, 2020
EPRI PDU Advisory and Sector Council Meetings
Dallas, TX

September 13-16, 2020
EPRI PDU Advisory and Sector Council Meetings
Boca Raton, FL

Cyber Security (P183)

The 2019 PDU Fall Advisory and Sector Council meetings were held in Nashville September 9-12. We had record attendance and great discussion and member participation. Thank you to all who attended and helped make these meetings such a success. Materials for the Advisory and Sector Council sessions are available in the member center and can be accessed using the following links.

- Sector Council
- Cyber Security Advisory Meetings

Deliverables

- Cyber Security Newsletter September 2019
- Cyber Security Newsletter August 2019

Supplemental Project Announcements

- 3002016796—EPRI Cyber Security Metrics Operationalization and Benchmarking Pilot

Cyber Security webcasts: follow this link to the 183 Cockpit

October 24
EPRI P183 Cyber Security for Incident/Threat Management Task Force Webcast — Task Force Update

November 19
EPRI P183 Cyber Security for DER and Grid-Edge Systems Task Force Webcast #5

Cyber Security Upcoming Events

December 4-5
Program Workshop: P183 Cyber Security Advisory Committee and Task Force Joint Tech Transfer Workshop
Registration

February 10-13, 2020
EPRI PDU Advisory and Sector Council Meetings
Dallas, TX

September 13-16, 2020
EPRI PDU Advisory and Sector Council Meetings
Boca Raton, FL

Check It Out

Recently, Galen Rasche, Sr. Program Manager, was interviewed by Engerati about the top threats facing utilities and what utilities should be doing to mitigate risk and improve cyber security.

Some of the threats discussed include: the lack of network and cloud security standards for Distributed Energy Resources (DER) communication., understanding the differences between IT and OT systems, and mistakes in configuring the Transport Layer Security (TLS) protocol. To read the full article, visit the **Engerati website**.

Distributed Energy Resources (DER) are rapidly deploying in utility distribution grids. As utilities confront new DER interconnection and grid management issues, it is equally important to actively consider the Cyber Security challenges created by utility-owned and third party DER assets. These challenges include an increased attack surface and a lack of clear lines of responsibility. EPRI recently convened the first DER Cyber Security Workshop on July 16th in Palo Alto, California, to identify DER technical, policy, and skills obstacles to utilities securely monitoring and/or managing these assets. Read the complete article at Energy Central.

Summer Seminar: Session Securing the Edge of the Grid: Cyber Security for the Future Power System Two important themes ran through the cyber security-focused session. First, as Scott Aaronson, Vice President, Security and Preparedness, Edison Electric Institute, said "Cyber security takes all of us; it's a team sport." Katie Jereza, Director, External Relations, EPRI, added, "It makes us all cyber warriors." Second, just as "resiliency" is important to customers, so too is cyber security. In an industry in which cyber attacks are a certainty, the ability to recover and adapt is critical to securing the grid. This led to a discussion of what Aaronson called "supplemental operations strategies," where protocols and expertise are in place to operate the grid in a degraded state and "keep it going as a bare bones functional grid with bubble gum and tape." This was described as a critical deterrent to a security breach/cyber-attack whereby these deep resiliency capabilities up the costs to adversaries. In reinforcing this discussion Pedro Pizarro, CEO, Southern California Edison talked about the need for company, industry, and national level role playing exercises to, "Go through scenarios on how to put humpty dumpty back together again." For more information go to EPRI YouTube.

🎥 **Redefining Resiliency—Emerging Technologies Benefiting Customers and the Grid** New technologies mean that there are constantly changing opportunities to achieve greater resilience. At the grid level, new technologies, such as sensors, monitors and flow controls, enable system operators to harden and better protect the electric grid. Check out this new video on EPRI's YouTube channel.

update your contact information or manage your TIP program selections, visit EPRI's website. If you do not have a username and password, or are not sure, you may also request an account