

Entity: Power System Communications and Cybersecurity Committee (PSCCC)

Chair: Mike Dood

Vice-Chair: Ken Fodero

Secretary: Craig Preuss

1. Significant Accomplishments:

- 1) 2017 was the PSCCC first year as a committee. We were given our standards in September. We now have 3 very active subcommittees. We are still working to contact some of the working groups that fall under this committee and expect to have 5 active subcommittees by the end of 2018.
- 2) The committee now have a webmaster and a great website <http://sites.ieee.org/pes-pscc/>
- 3) The PSCCC manages approximately 32 standards, with the following deliverables in 2017:
 - a) Publishing the following:
 - i) C37.238 “Standard Profile for Use of IEEE 1588™ Precision Time Protocol in Power System Applications” (primarily developed by the Power System Relaying Committee and Substations Committee)
 - ii) C37.94, “Standard for N times 64 kbps Optical Fiber Interfaces between Teleprotection and Multiplexer Equipment” (primarily developed by the Power System Relaying Committee)
 - b) Balloting the following:
 - i) 1615 “Recommended Practice for Network Communication for Electric Power Substations” (primarily developed by the Substations Committee)
 - c) Reviewing/working on the following:
 - i) 1815, “Standard for Electric Power Systems Communications – Distributed Network Protocol (DNP3) (started under the Substations Committee)
 - ii) C37.240 “Cyber Security Requirements for Power System Automation, Protection and Control Systems”
- 4) The PSCCC creates tutorials, with the following deliverables in 2017:
 - a) Presenting the following tutorials:
 - i) Our members help organize and present a tutorial that was given on Thursday at the PES GM in Chicago called: Cybersecurity of the Electric Power Transmission and Distribution System
 - b) Working on the following tutorials
 - i) In conjunction with the Substations Committee, a tutorial on IEEE 525, “IEEE Guide for the Design and Installation of Cable Systems in Substations”.
- 5) The PSCCC was involved in the following panel sessions in 2017:
 - a) Organized and presented a panel session called: Cybersecurity of the Electric Power Transmission and Distribution System at the General Meeting in Chicago
 - b) Organized and moderated a Super Session at the General Meeting on Cyber and Physical Security
- 6) PSCCC was involved in the following paper sessions in 2017:
 - a) Organized and chaired a Transaction Paper Session at the GM where 10 authors presented
- 7) The PSCCC prepares industry reports, with the following deliverables in 2017:
 - a) Publishing the following reports:
 - i) None

- b) Working on the following reports:
 - i) “Application of Ethernet Networking Devices Used for Protection and Control Applications in Electric Power Substations” (Task Force P6)
 - ii) Summary Paper for C37.238 (Task Force P1)
 - iii) “Recommended Mapping Approach between IEEE C37.118.2 and IEC 61850” (Task Force P8)
 - iv) “Report on Cloud Computing, Uses and Requirements of Electric Power Utilities” (Task Force P11)
 - v) “IoT for connected home – Communication and cybersecurity requirements” (Task Force S6)
- 8) Helped organize and participated in the inaugural *IEEE Utility Cyber Security Workshop* which was held in Atlanta in December.

2. Benefits to Industry and PES Members from the Committee Work:

The most notable activity of the PSCCC is the revision and updating of standards and guides, and initiating work on new standards. These standards are widely utilized and provide the most direct benefit to the industry.

The working groups of PSCCC subcommittees are supporting the industry by offering publications in the transactions, panel sessions, presentations, and tutorials in conjunction with the PSCCC meetings (held in January, May and September), the JTCM, the PES General Meeting, and the IEEE/PES T&D Expo.

The subcommittees encourage technical exchanges for meeting the expectations and the concerns of both the equipment manufacturers and the users related to cybersecurity.

3. Benefits to Volunteer Participants from the Committee Work:

Participants have benefited from their collaboration on technical problems with industry leaders and experts, discussing contemporary industry problems and concerns, and the satisfaction of creating standards and guides that are useful to the industry. Committee meetings have included presentations of experts in specific fields and debating of ideas and industry practices, including CIGRE member input. Substations Committee members have also benefited from their exposure to technical paper reviews and technical paper presentations.

4. Recognition of Outstanding Performance:

Working Group P3 (Formally Substations Committee Working Group C14) won the PES Work Group Recognition Award for Outstanding Standard or Guide for:

IEEE 1815.1, Standard for Exchanging Information Between Networks Implementing IEC 61850 and IEEE Std 1815 [Distributed Network Protocol (DNP3)].

5. Coordination with Other Entities (PES Committees, CIGRE, standards, etc.):

PSRCC – Meeting jointly in May and September.

T&D – Joint work on 1815.

IEEE 5G (TBD)

CIGRE D2 (Galina Antonova)

IEC TC57 WG15 (Marc Lacroix)

IEEE Communications Society (TBD)



ISA99 (TBD)
IEEE Smart Grid (TBD)

6. New Technologies of Interest to the Committee:
TBD.

7. Significant Plans for the Next Period:

- 1) Meetings in January, May and September with the PSRCC
- 2) Further engage with ISA99, IEEE Smart Grid, IEEE 5G, IEC TC 57 WG15, and the IEEE PES T&D Committee
- 3) Nominate several Fellow candidates
- 4) Nominate members for IEEE achievement awards
- 5) Coordinate with PSRCC on standards that involve communications and cybersecurity
- 6) Prepare Technical Paper Panel Sessions at the PES General Meeting
- 7) Present Tutorials at the PES GM

8. Global Involvement

PES is looking to increase involvement with members from Regions 8, 9 and 10 (Africa, Europe, Middle East, Latin America, Asia and Pacific). Please provide the following information

Total Number of committee members	Officers from regions 8,9 and 10	Subcommittee officers from regions 8, 9 and 10	Subcommittee members from regions 8,9, and 10
Not available from 2017	Not available from 2017	Not available from 2017	Not available from 2017

Submitted by: Mike Dood

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