

# IEEE Power and Energy Society Entity Annual Report 2019

**Entity:** Power Systems Communications & Cyber Security Committee (PSCCC)  
**Website:**  
**Chair:** Ken Fodero  
**Vice-Chair:** Craig Pruess  
**Secretary:** James Formea  
**Immediate Past Chair:** Mike Dood

## 1. Significant Accomplishments:

### A. Standards development and revisions PSCCC-F0 Fiber Optics Subcommittee:

Responsible for standards for Optical Ground Wire (OPGW), All-Dielectric Self Supporting (ADSS), Helically Wrapped and Optical Phase Conductor (OPPC) overhead fiber cables, all used in the utility industry. Responsible for attachment hardware standards. A total of eight (8) standards are being worked on by various working groups within PSCCC-F0.

Publication of IEEE 1222: IEEE Standard for Testing and Performance for All-Dielectric Self-Supporting (ADSS) Fiber Optic Cable for Use on Electric Utility Power Lines - to be published by March 2020. Last Revision was 2011.

Publication of IEEE 1593 Wrap Fiber and 1591.4 attachments for Wrap fiber in Q2 2020.

Revision and voting out of subcommittee IEEE 1138 to ballot by Q4 2020-Q1 2021.

Creating a new standard: IEEE 1595 OPPC standard and its attachments 1591.4 for publication in 2021.

### B. Provide a recommendation to T&D IEEE 524 group on sheave and bull wheel sizes for installation of aerial fiber optic cables (OPGW, ADSS, helically Wrapped (Skywrap) and OPPC). The recommendation must be acceptable to manufacturers as well as end users and installation service providers.

### C. External Representation to IEC.

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

PSCCC-F0 Fiber Optics Subcommittee: Updates to the standards (listed in Item 1) will provide valuable tools for communications service providers and power utilities alike who utilize inter-station fiber optic cables as a part of their telecom/protection networks

## 3. Benefits to Volunteer Participants from the Committee Work:

(Provide specific examples and explain what the benefits are)

## 4. Recognition of Outstanding Performance:



William A. Byrd, former Chair of F0 (Fiber Optics Subcommittee), managed this subcommittee very effectively for 20+ years (confirming records). He has also been of significant service to other Standards Association, T&D and PES functions. PSCCC will recognize William A. Byrd with an IEEE or IEEE-SA award.

Roger Ray, former Chair of C0 (Power Line Carrier Subcommittee), managed this subcommittee very effectively for 20 years. He has also been of significant service to the Power Systems Relay and Control committee. PSCCC will recognize Roger Ray with an IEEE or IEEE-SA award.

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

Liaisons:  
CIGRE D2,  
IEC TC57 WG15,

Pursuing Dual-Logo IEEE/IEC status for IEEE Std 1815.1, Exchanging Information Between Networks Implementing IEC 61850 and IEEE Std. 1815 (DNP3)

Approved SG P18 to work with SCC-21 to jointly develop a PAR to revise P2030-2011; SCC-21 will submit the PAR

PSCCC-F0 Fiber Optics Subcommittee:

On-going Liaison activity with Wireline Subcommittee (PSCCC-E0) to help ensure harmonization with wired system communications circuits and networks.

Liaison with T&D IEEE 524 to provide recommendations for sheave sizes for aerial fiber optic cable installations. A more comprehensive collaboration with IEEE 524 is envisioned.

Liaison with substation D2 working group and provide comments on IEEE 525 standard. Participate in a subgroup set up within 525 dealing with grounding issues.

Liaison with IEC on testing standards, specifically for ADSS. Future liaison with ITU.

Collaboration with CIGRE at member level: CIGRE JWG D2 B2.39 (TB-746 published) and currently WG 1N° B1.73 Recommendations for the use and testing of Fibre Optic Cables used in Land Cable Systems.

Liaison with IEEE smart grid initiative group.

Liaison with PC57.13.9 in PES Transformers committee – Standard for PLC Coupling Capacitors and CCVT's. Transformers Committee is taking over this work and incorporating it into their CCVT standard. C0 provides input / feedback ensuring that the requirements for the power line carrier applications of CCVT are met and specified.

## **6. New Technologies of Interest to the Committee:**

PSCCC-F0 Fiber Optics Subcommittee: Distributed Strain and Temperature Sensing (DSTS) is of interest to subcommittee members, utility end users and manufacturers/test labs for spatial and temporal monitoring of strain and temperature along aerial fiber cables, specifically on OPGW and ADSS. DSTS technology allows in-service remote monitoring and characterization of fiber cables.

## 7. 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 223	Officers from regions 8,9 and 10 4	Subcommittee officers from regions 8, 9 and 10 2	Subcommittee members from regions 8,9, and 10 3
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## 8. Significant Plans for the Next Period:

Continuation of work on new standards: IEEE 1595 Optical Phase Conductor (OPPC) standard and attachment hardware 1591.4 for publication in 2021-2022.

Work with IEEE 524 group to help re-write section of the IEEE 524 standard which handles installation of aerial optical cables (OPGW, ADSS, Skywrap and OPPC).

Investigate possibility of creating a new standard for splice boxes serving optical aerial cables.

**Submitted by: Ken Fodero**

**Date: Jan. 31, 2019**