### PSRC Annual Report 2015

**Power System Relaying Committee** 

**Chair: Mike McDonald** 

**Vice-Chair: Pratap Mysore** 

**Secretary: Russ Patterson** 

#### I. Significant Accomplishments in 2015

- A. Spun off part of H Subcommittee and absorbed part of Substations Communications Committee into a new PES Committee:
  Communications and Cybersecurity Committee. Renaming PSRC in 2016 to Power System Relaying and Control Committee.
- B. IEEE PES Technical Council Technical Committee of the Year awarded in 2015 to the PSRC.
- C. Standards, Guides & Reports Approved and Published in 2015
  - 1. C37.113 revision: guide for Protective Relay Applications to Transmission Lines.
  - 2. C37.232 revision: Standard for Common Format for Naming Time Sequence Data Files (COMNAME).
  - New Standards for Smart Grid Initiative:
     C37.118.1 and C37.118.2; C37.232; C37.236, PC 37.238; PC37.239,
     C 37.242, C37.243, C 37.244 all Published.
     In process: C37.237 Recommended Practice For Time Tagging of Power System Protection Events.
- D. Presentations made at PES General Meeting; JTCM; Western, Georgia Tech, and Texas A & M Protective Relay Conferences: "Relay Scheme Design Using Microprocessor Relays". "Fault Current Contributions from Wind Plants".
  - "Schematic Representation of Power System Relaying".
- E. PSRC Publications completed & posted on web site:
   "Comtrade 2013 Conformity Test Plan"
   "Quality Assurance for Protection and Control Design"
   "End-Of-Useful Life Assessment of P & C Devices"
- F. Supported PES meetings:

2015 PES General Meeting: 21 conference and 11 transaction papers presented.

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### II. Benefits to Industry and PES Members:

- A. These activities keep our industry up to date with technology, improve power system reliability, and help solve the most common protective relaying problems.
- B. Recent PSRC synchrophasor standards have improved the grid reliability. We are working on cybersecurity standards with NERC, PES and IEC. We have one more standard to finish for more consistent Smart Grid performance and dependability. We are addressing grid stability with guides and standards in protection, control and communication.
- C. Our meetings allow significant interaction between the PSRC, NERC, CIGRE, IEC and PES to share our interest, knowledge, and accomplishments.

#### **III.** Benefits to Volunteer Participants:

72 Working Groups and Task Forces provide fertile ground for participants to increase their personal knowledge. Their companies enjoy more personal productivity from their employees, and contribute to the standards and practices of our industry.

### **IV.** Outstanding Performance Recognition:

- A. IEEE Fellows: Yi Hu and Jerry Jodice.
- B. IEEE PES Working Group Recognition Award—Technical Report to Jim OBrien, WG chair, and Alla Deronja, Vice Chair for "Use of Synchrophasor Measurements in Protective Relay Applications".
- C. IEEE SA Working Group Chair Award: To Solveig Ward, chair and Bruce Mackie, Vice Chair, for C37-243, "Guide for Application of Digital Line Current Differential Relays Using Digital Communications".
- D. IEEE/PES/PSRC Distinguished Individual Service Award –Roger Hedding.
- E. IEEE/PES Joint Technical Committee Distinguished Individual Service Award—Charlie Henville.
- F. IEEE PES Technical Committee Recognition Award to the following SC chairs: Eric Udren and Russ Patterson.
- G. Certificates of Appreciation were awarded to the following WG chairs: Sam Sciacca, Galina Antonova, Farnoosh Rahmatian, Tim Tibbals, Raluca Lascu, Meyer Kao, Tony Seegers, Don Lukach, Karl Zimmerman, Joe Mooney, Ratan Das, Jurgen Holback, Ken Martin,

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Kevin Donahue, Brian Mugalian, Andre Uribe, Bob Beresh, Bruce Picket, Mukesh Nagpal, Randy Crellin, and Michael Reichard.

#### V. Coordination with Other entities:

- A. IEEE Standards Association Board of Governors: Phil Winston elected.
- B. IEC TC 95: Murty Yalla has been elected to chair.
- C. IEC TC 95, IEC standard 60255-187-1 supported by PSRC WG K19, Gustavo Brunello, chair.
- D. IEC TC 95, IEC standard 60255-187-3 supported by PSRC WG D34, Norman Fischer, chair.
- E. IEC TC 57: WG 10 continues to develop IEC 61850 Edition 2.1. Convenor is Christoph Brunner.
- F. CIGRE B5.53 Work in progress. Chairman is Alex Apostolov.
- G. CIGRE B5.45 completed their work, and will publish Technical Brochure TB629. Coordinator was Mark Adamiak.
- H. PSRC regularly meets with several subcommittees of the Substation and Power Systems Communications committees.
- I. PSRC participated in the PES JTCM for the eighth year.
- J. PSRC is in consistent liaison with NERC, EPRI, CIGRE and IAS.

### VI. <u>New Technologies of Interest:</u>

- A. Cybersecurity.
- B. Wide range grid data collection with Synchrophasors.
- C. Smart Grid Initiatives.
- D. Grid stability under stressed conditions.

### VII. Problems and Concerns:

None

### VIII. Significant Plans for 2016:

- A. January 10-14: JTCM in Memphis, TN
- B. Other PSRC meetings: May in Denver; September in Cincinnati.
- C. Joint meetings with subcommittees of Substations and Communications Committees.
- D. PSRC will help appoint, train and support leaders in the new Communications and Cybersecurity Committee.
- E. PSRC will participate in paper sessions and session sponsorships at PES meetings in 2016.

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Submitted by: Mike McDonald January 10, 2016