

2017

Entity: Smart Buildings, Loads and Customer Systems

Chair: Shawn Chandler

Vice-Chair: Annabelle Pratt

Secretary: Ron Melton

1. Significant Accomplishments:

- a. Committee growth action items still underway: benefits include developing the committee for sustainable development of standards through transparency, new technical community building and partnership across regions and nations, and resulting in additional IEEE service to humanity.
 - i. 1500% growth in membership for the committee since official inception
 1. Membership demographics:
 - a. Geography
 - i. USA: 46% vs Abroad: 54%
 - b. Education
 - i. PhD: 80% vs Other: 20%
 - c. Industry & Academics
 - i. Student: 4% vs. Non-Student: 96%
 - ii. Academic: 32% vs Industry: 68%
 - ii. Sponsor Operating Procedures, P&P, and WG Policies and Procedures completed
- b. Committee Task Force work on State of the Industry for Smart Buildings, Loads and Customer Systems Integration
 - i. A committee taskforce continues to develop a technical report on the state of the industry regarding methods and treatment of integration of customer systems with utility systems. Benefits include drawing together the technical community with an additional resource for understanding the current topics of interest, industry progress, and valuable integration points that may be leveraged for future standard initiatives.
- c. IEEE – P825: Meshing Smart Grid Interoperability Standards to Enable Transactive Energy Networks. WG effort continues to form the guide. WG membership has increased by 300% (tripled) in the last year due to outreach efforts, webinars, and conference presentations. Benefits include developing a new standard for transactive energy, one of the fastest growing areas of interest in the industry, technical community building in this space, and developing new partnerships across regions and nations.

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

Technical material reviewed by SBLC to support industry meetings and conferences, and industry publications, benefitting the technical community through the introduction of technical material to support the evolution and development of in-scope technology, systems and processes.

- a. Committee officers or members reviewed papers, conference sessions, peer-reviewed papers and journal submissions, and GM conference poster sessions (listed in total)
 1. More than 70 papers reviewed for IEEE conferences
 2. More than 15 reviewed works in IEEE transactions
- b. Committee officers or members engaged in more than 10 speaking opportunities and webinars throughout the year specific to advancing the scope of the committee and improving the technical community. In addition:
 1. 2 Webinars supporting IEEE Smart Grid
 2. 1 Training session supporting IEEE SA at EPEC 2017 (SK, Canada)

3. Benefits to Volunteer Participants from the Committee Work:

Volunteers involved in SBLC committee work have the ability to influence the standards and guides used in the industry in which they work, as well as improve their technical community and partnerships, and advance the state of the industry in regards to in-scope activities.

4. Recognition of Outstanding Performance:

Recognition of outstanding performance for Dr. Johanna Mathieu, Committee TCPC and nominated for PES *Outstanding Young Engineer Award*.

Recognition of outstanding performance for Dr. Jizhong Zhu, Chair of the SBLC Asia Pacific Working Group, for advancing the interests of the Committee abroad.

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

- a. Members of the committee participated in the work of IEEE standard IEEE2030 in 2017
- b. Members of the committee participated in the work of the PES Emerging Technology CC authoring a section for their soon to be released emerging technology white paper.
- c. Members of the committee participated in the work of IEEE 1547 development coordination and training with the Standards Association
- d. Members of the committee represented PES and SBLC as the transitional chair of the IEEE Smart Cities organization, guiding the development of the operating procedures, co-chairing the steering committee, and other formational activities.

- e. Members of the committee represented PES in the IEEE Internet of Things consortium, serving as a member of the steering committee for the IEEE WFIoT Conference to be held in Feb. 2018.

6. New Technologies of Interest to the Committee:

- a. Facilitation of transactive energy using blockchain technology
- b. Facilitation of distributed energy resource systems using narrowband technology behind the meter

7. Significant Plans for the Next Period:

- a. Continuation of effort for IEEE P825 – Meshing Smart Grid Interoperability Standards to Enable Transactive Energy Networks
- b. Continuation of effort for Industry review of smart buildings, loads, customer systems stakeholders, community, and methods and techniques
- c. Expansion of web presence
- d. Expansion of subcommittee activities
- e. Expansion of working group activities with our new SBLC Asia-Pacific Working Group

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 (active)	Officers from regions 8,9 and 10	Subcommittee officers from regions 8, 9 and 10	Subcommittee members from regions 8,9, and 10
48	0	2	37

Submitted by: Shawn Chandler, Committee Chair

Date: 1/31/2018