

IEEE Power and Energy Society Entity Annual Report

2025

Entity: Energy Storage and Stationary Battery Committee (ESSB)
Website: <https://cmte.ieee.org/pes-essb/>
Chair: Jason Wallis
Vice-Chair: Rich Hutchins
Secretary: Jim Midolo
Immediate Past Chair: Steve Vechy

1. Significant Accomplishments:

We continued the expansion of the technical activities of ESSB to include extensive engagement with other PES technical committees, IEEE coordinating committees, growing the technical programming at the PES General Meeting, GridEdge, T&D and EESAT, development of new standards in emerging areas, and a greater outreach to membership across all areas of energy storage and battery technologies. Significant accomplishments include:

- ESSB Committee Winter and Summer general meetings were held in person and augmented with virtual attendance options. The committee hosted the Winter General Meeting in Charlotte, NC from 1/22-24 and was collocated with the 2025 EESAT Conference on 1/20-21. The Summer General Meeting was hosted in Groton, CT from 6/9-12. Due to the significant influence of codes on the stationary battery industry, there is a safety codes and standards symposium included in each of the two annual meetings.
- ESSB hosted 5 panel sessions and 1 tutorial at the PES General Meeting in Austin, TX.
- The 2025 EESAT conference was held in Charlotte, NC Jan 20-21, 2025, in conjunction with the Winter ESSB committee meeting.
- We continued the development of collaborations through the recently established Energy Storage Collaborative Team (ESCT)
- Outreach via the Safety Codes & Standards working group continues to support the development of key codes for NFPA, IFC, UL, and CSA.

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

ESSB provides an excellent opportunity for the industry and PES members with continuing education, outreach, and the opportunity to develop IEEE led global standards related to energy storage, stationary batteries and charging systems. The committee is also a great avenue for outreach and engagement with utilities, regulatory bodies at the state and federal levels.

- Total of 28 active standards
 - Including 3 entity documents
- 10 inactive standards
 - ‘Traditional’ – 1115, 1187, 1188, 1189, (1375), 1491, (1625)



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- PV – 1361, 1144, 1145
- 23 approved PARs
 - 20 individual, 3 entity
 - 10 revisions, 13 new
- 2 documents at ballot stage – 1187 and 1189

3. Benefits to Volunteer Participants from the Committee Work:

The EESB committee is in a technical domain with a rapidly growing interest across many cross-cutting areas including grid modernization, firming of renewables with energy storage, batteries and charging infrastructure for the electrification of transportation, emerging long duration energy storage (LDES) applications, and a growing range of applications for stationary batteries in traction, UPS, and backup power applications. Participation in the committee work provides a range of opportunities for members and volunteers. Benefits include:

- Continuing education through seminars and tutorials offered by ESSB and content on the PES Resource Center
- Networking opportunities through participation in ESSB Winter and Summer meetings. Both the meeting have seminars and tutorials providing opportunities for continuing education for members. The meetings also provide opportunities for knowledge-sharing, learning, and networking.
- Leadership roles in standards development through contribution to standards activity through various working groups.
- Opportunity to participate in a range of technical activities in PES conferences on topics related to energy storage, stationary batteries, electrification, and grid modernization.
- Expanded horizons of many seasoned volunteer members to the possibilities and opportunities in the battery energy storage systems market.

4. Recognition of Outstanding Performance:

- IEEE ESSB Distinguished Service Award – Steve Vechy
- IEEE SA Medallion Award for Longtime Service to Standards Development – Chris Searles
- IEEE Fellow Award – Curtis Ashton
- IEEE ESSB Working Group Award for Outstanding Standard or Guide - WG P2686 Recommended Practices for BMS in Energy Storage Applications (Chair David Rosewater)
- IEEE SA Lifetime Achievement Award – Jim McDowall
- IEEE ESSB Distinguished Service Award – Tom Carpenter

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

ESSB has a range of collaborations with ILTSC, SCC21, IAS, the Energy Storage Committee of ASME, and NFPA. High Voltage DC Systems for data centers is a new joint effort with IAS. The joint IEEE-SA SC(C) 21 and ESSB collaboration called the ESCT liaised with other SDO committees on energy



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storage, including IEEE PES’s RSICC, the IEEE IAS DataCenter Energy Storage committee, IEC TC120, EPRI, MESA SunSpec, and the ASME ESS committee.

6. Coordination and Involvement with Young Professionals:

For the January 2026 EESAT meeting ESSB created a student sponsorship program in which we sponsored 4 local IEEE student members for the conference and collocated ESSB committee meeting. ESSB plans to continue this practice for future EESAT conferences as well.

7. New Technologies of Interest to the Committee:

There are a range of new topics of interest to the committee. These include the development and applications of energy storage for a range of new applications. We currently have new Working Groups coming up to address the following:

- High Voltage DC Systems for data centers is a new joint effort with IAS
- Long duration energy storage is an emerging area of interest
- Fast charging and the role of energy storage in charging infrastructure
- Data standards for ESS: Work has begun with EPRI to start work on a PAR to issue portions of their joint EPRI/Sandia data guide as an IEEE standard. This will hopefully be the first of many such collaborations between EPRI and ESSB.

8. Global Involvement

The EESB Satellite Committee – China continues to grow rapidly and has over 300 PES members. Curtis Ashton (former ESSB Chair) works with the China Satellite Committee in co-development of standards.

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
89	2	2	4

9. Problems and Concerns:

ESSB WG leadership is primarily led by experienced industry members in US which has led to an aging volunteer and leadership pool that is quickly retiring. We are working on avenues to develop and recruit student members and younger coworkers of existing members to support our growing list of standards. We are seeing significant growth in activities in the ESSB Satellite Committee – China and need additional volunteers to coordinate with them.

10. Significant Plans for the Next Period:

- Continue recruiting new members
- Set the framework of collaboration with other entities via MoUs



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- Keep building ESSB related technical program at the PES GM, T&D, ISGT, GridEdge and other venues.
- Continue to grow the Electrical Energy Storage Applications and Technology (ESSAT) as the preminent technical conference on energy storage.
- Continue to grow the engagement with the ESSB Satellite Technical Committee – China.
- Continuing our excellent outreach work with Safety Codes & Standards working group

Submitted by: Jason Wallis

Date: March 6, 2026