

IEEE Power and Energy Society Entity Annual Report 2020

Entity: Energy Development and Power Generation Committee
Website: site.ieee.org/pes-edpgcom
Chair: John Yale
Vice-Chair: Robert Thornton-Jones
Secretary: Kai Strunz
Immediate Past Chair: Ward Jewell

1. Significant Accomplishments:

Subcommittees and working groups adapted to the Covid pandemic quickly transitioning to all virtual meetings. This included standard working groups maintaining progress on standard development and revision.

The Hydroelectric Power Subcommittee (HPS) and the IEC TC4-WG14 joint working group continue their development of a new dual-logo standard (P2793) containing harmonized governor terms and definitions. A dedicated working group of IEEE governor experts has been meeting monthly for over a year now working on these terms and definitions as well as two other governor standards under revision (125 and 1207).

IEEE Std 1248-2020 Guide for the Commissioning of Electrical Systems in Hydroelectric Power Plants was officially published 5 May 2020.

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

The committee has eight subcommittees which provide benefits to industry and members through:

- 12 panel sessions at the PES General Meeting
- 1 tutorial at the PES General Meeting including professional development course
- Sponsorship of two entity standard with coordination with IEC
- 18 standards and guides in development or revision
- Developed a harmonization of hydro governor terms for a dual logo standard with IEC
- Liaison with four other technical groups

3. Benefits to Volunteer Participants from the Committee Work:

Volunteers benefit from participation in committee and subcommittee activities. Networking at meetings, both in person and virtual are the most common benefit. Others and increased knowledge through discussion during the development and revisions of technical standards such as the excitation 421 series or hydro governor guides 125 and 1207.



The breadth of opportunities to engage internationally in important topics in energy development are also provided by the subcommittees. Distributed Energy Resources Isolated Power System Connect (IPS-Connect) meeting in Hobart Tasmania is an example of subcommittee involvement that provides international exposure and access to volunteers.

4. Recognition of Outstanding Performance:

At the summer meeting it was proposed that Rama Ramakumar be recognized for his 51 years of work with IEEE.

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

- The committee has four formal liaisons:
- Emerging Technologies
 - Wind and Solar Coordinating Committee
 - Policy Development
 - Energy Internet

The Hydro Subcommittee is coordinating the entity standard 2775, Smart Hydro and a guide for harmonization of turbine governor terms with IEC

6. New Technologies of Interest to the Committee:

Variable speed hydro and variable speed pumped storage is of particular interest to the HPS, and the HPS is seeking expertise from individuals involved in these technologies to contribute to a whitepaper currently being developed by a taskforce of the subcommittee.

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 21 active, 31 corresponding	Officers from regions 8,9 and 10 3	Subcommittee officers from regions 8, 9 and 10 2	Subcommittee members from regions 8,9, and 10 unsure
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8. Problems and Concerns:

123 Signup progress lags due to challenges with the system and the number of chairs that need to be trained and encouraged to do the work.

The global pandemic slowed work in some areas, and facilitated a transition to virtual meetings. Finding the right balance of virtual to allow greater participation globally and in person to facilitate interaction and build membership is a challenge going forward.

9. Significant Plans for the Next Period:



Working group meetings will be held virtually. We are hoping for increased participation due to decreased overhead costs. The 2021 summer meeting plans are not yet settled, but are tentatively planned to collocate, or at least coincide with IEEE PES GM.

The HPS will complete revisions of 1010 (control of large hydro), and 1147 (rehab) and submit them to REVCOM. Ongoing work includes the harmonization of governor terms and definitions into P2793 and continued revision of governor specification standard 125 and 1207. Revisions to 1020 (control of small hydro) and the development of the adjustable speed hydro whitepaper are also ongoing. New projects include freshly opened PARs for updating 807 (Identification) and 1095 (vertical generator installation). The HPS will also continue its involvement with the smart hydro standard (P2775) through EDPG and indirectly via IEC TC4-WG14 liaisons.

Submitted by: John B. Yale, Chair 2020

Date: 31 January 2021