

PES TRANSFORMERS COMMITTEE SPRING MEETING



PES TRANSFORMERS ADMINISTRATIVE SUBCOMMITTEE SPRING 2025

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DENVER, CO
MARCH 2025
IEEE STANDARDS ASSOCIATION



IEEE SA UPDATES

- Summary of Updates
- PAR/Standards Status Update, Entity PARs Status, EPM Update, IEEE/IEC Update
- Status of SC P&P
- DGA database updates
- IEEE SA and Standards Council of Canada (SCC)
- ☐ Annex : Past policy updates





SUMMARY OF UPDATES FROM IEEE SA

	G chairs to complete: Understanding IEEE SA's Antitrust, Competition, and ommercial Terms Policies
	Training has moved to the volunteer ILN site (https://volunteers.iln.ieee.org/).
	IEEE SA Staff will reach out to you via email if you have not completed the training.
	eminder to email the WG Membership Roster to your PM for Standards evelopment WGs
	The membership list should include - Last Name, First Name, email address and Membership Status (Voting/Non-Member)
	IEEE SA Staff will reach out to WG Officers if MyProject Roster has not yet been submitted.
W	G Awards are now submitted in myProject, a WG roster is necessary to complete
th	e awards submission.
	Phone numbers and addresses for the recipients are now required Phone
	numbers for the recipients is now required



IEEE-SA UPDATES – PAR/STANDARDS STATUS

2025 – 16 PARS are expiring		
□ P65700-19-03 (waiting on FDIS)		
□ PC57.93a (March Revcom and Nescom agenda)		
□ PC57.124 (invitation ballot needs to be re-initiated)		
☐ Comment resolution Stage: PC57.19.100, PC57.16, PC57.96, PC57.162, PC57.91, PC57.13.9, PC57.142, PC57.170, PC57.152		
☐ Draft stage: P637, PC57.155, PC57.141, PC57.125		
2026 – 18 PARS are expiring		
□ 5 PARs in SA Ballot stage		
□ PC57.166, PC57.98, PC57.146, PC57.94, P1276a		
☐ 13 in WG development stage		
Expiring Standards in 2025		
12 Standards will become inactive		
PC57.12.37, PC57.12.59, PC57.139, PC57.637, PC57.130, PC57.32, PC57.32a, PC57.157,		
PC57.125, PC57.153, PC57.106 (does not have an active PAR)		
Expiring Standards in 2026		
5 Standards will become inactive		
PC57.13, PC57.138, PC57.156, PC57.159, P60076-57-1202		





IEEE-SA UPDATES – ENTITY PAR STATUS

PARs

- □PC57.32.10- Guide for the Selection of Neutral-point Insulation Grade and Grounding Reactor of Converter Transformers in HVDC Transmission
 - Approved by Revcom on February 12, 2025- still in the publishing stage
- □ PC57.93a- Draft Guide for Installation and Maintenance of Liquid-Immersed Power Transformers
 □ On March 26, 2025 Power Aganda and Nascom Aganda (modified PAP submission)
- On March 26, 2025 Revcom Agenda and Nescom Agenda (modified PAR submission)
- □ PC57.141- Guide for Detection, Monitoring, and Evaluation of Winding Deformation in Liquid-Immersed Power Transformers
 - ☐ In March 2025, WG is voting for approval to go to ballot and will reach out to SubCom Chair before the Wednesday meeting to ask for SubCom approval to go to ballot
- □PC57.13.10- Guide for Calibration of Energized Current Transformers for 34.5 kV and Below
 - ☐WG has approved to go to ballot and have reached out to SubCom Chair to get SubCom approval to go to ballot during the Spring meeting
- □PC57.132- Guide for Vibration Testing of Oil-immersed High-voltage Direct Current (HVDC) Converter Transformer (±160 kV dc to ±1100 kV dc) (EPM)
 - WG will have its next meeting in Sweden in August, 2025
- □ PC57.145- Guide for Digital Twin Modeling and Analysis of Power Transformers with High Voltages Greater than or Equal to 69 kV up to and Including 161 kV (EPM)
 - ☐WG is working on draft and is having a meeting in March 2025
- □PC57.20- Guide for Power Transformers for Low-frequency (10 Hz to 30 Hz) Power Transmission (EPM)
 - ■WG had 2nd meeting March 19, 2025. Feedback was provided with comments. It looks like a PAR modification will be needed update the title to "liquid filled." This will be discussed more at next WG meeting.
- □PC57.12.210- Recommended Practice for On-load Capacity Switching Distribution Transformers
 - □ Approved at the September 25th, 2024 Revcom Meeting and published





IEEE-SA UPDATES – EPM STATUS

Pending EPM PARS P0106: Guide for General Technical Requirements and Test Methods for Converter Valve Anode Saturation Reactor in ±500kV High Voltage Direct Current Transmission System

- P0136: Recommended Practice for Acoustic Fingerprint-Based Online Monitoring Systems in Substation Equipment
- P0137: Guide for composite current switching test of vacuum-type on load tap changer for converter transformer
- **P0148:** Guide for arc test of liquid-Immersed High-Voltage Direct-Current (HVDC) converter transformers
- **P0161:** Recommended Practice for Testing the Impact of Harmonic Distortion on the Transformers of a nominal voltage of 10kV and less
- **P0173:** Guide for Technical Specification of Smart Distribution Transformer Terminal
- P0184: Guide for measurement of the polymerization degree of insulating paper/paperboard for power transformers based on terahertz time domain spectroscopy
- **P0197:** Guide for Inversion Detection of Hot-spot Temperature and Loading Capacity in Oil-immersed Transformer
- **P0203:** Recommended Practice for Inspection of Oil-Filled Equipment in Substation
- **P0217:** Guide for Identification and Analysis of Noise Contribution from Large-scale Power Facilities to the Surrounding Environmental Noise
- **P0230:** Guide for testing partial discharge acoustic imaging of electric power equipment



IEEE/IEC DUAL LOGO UPDATE (PUBLISHED STANDARDS)

Joint Development of standards with IEC

Published Standards

- □ IEC/IEEE P65700-19-03-2014: Standard Requirements, Terminology, and Test Code for Bushings for DC Applications Rated 110 kV BIL and Above
- □ IEC/IEEE P60076-57-1202-2016: Standard Requirements for Liquid Immersed Phase-Shifting Transformers
- □ IEC/IEEE P60076-57-129-2017: Converter Transformers for HVDC Applications
- ☐ IEC/IEEE P60076-16-2018: Standard Requirements for Wind Turbine Generator Transformers
- □ IEEE PC57.15/IEC 60076-2017: Guide for the Application, Specification and Testing of Phase-Shifting Transformers
- □ IEEE/IEC P63253-5713-8-2024: Standard Requirements for Station Service Voltage Transformers



IEEE/IEC DUAL LOGO UPDATE (ACTIVE PROJECTS)

Standards Under Development

□IEEE/IEC P65700-19-03: Standard - Bushings for DC Application ■PAR for the revision was approved September 2021 and expires December 31, 2025 Recirculation was done with FDIS draft and we are waiting for IEC to complete their FDIS ballot □ IEEE/IEC PC57.15: Standard- Power transformers - Part 21: Standard requirements, terminology, and test code for step-voltage regulators □ PAR for the revision was approved February 2024 and will expire December 31, 2028 Draft development □ IEEE/IEC P60076-57-129: Standard - Power transformers--Part 57-129: Transformers for HVDC applications ☐ PAR for the revision was approved February 2024 and will expire December 31, 2028 Draft development □ IEEE/IEC P60076-57-1202: Standard Power Transformers Part 57-1202: Liquid immersed phase-shifting transformers ☐ PAR for the revision was approved September 2024 and will expire December 31, 2028 ☐ Draft development □ IEEE/IEC P63253-5713-8-2024/Cor 1: Standard- Station Service Voltage Transformers (SSVT)- Corrigendum 1 On the May 7, 2025 Nescom Agenda ☐ Chair has been made aware that he needs to reach out to IEC to get written approval to move forward Chair will also be asking the Subcommittee for approval



PE/TR STDS COMM. P&PS 2025 UPDATE

AudCom Baselines URL

J	The Audcom Reviewers recently uploaded the updated checklist on March 17, 2025 and marked it for "acceptance."
	The Transformers Standards Committee P&P should be accepted at the March 25, 2025 Audcom Meeting.
	Once the official approval comes through, you will receive an email from the Audcom Administrator confirming the approval.
	The SC will now need to work on the Individual and Entity WG P&Ps and get SC approval. After the WG P&Ps are approved, one of them will need to be submitted to the Audcom Administrator. Please send either the Individual or

Entity P&P to Patrycja and it will be forwarded to the Audcom Administrator.



DGA DATABASE UPDATES

PC57.139- Chair confirmed WG is done collecting data
PC57.155- Chair confirmed they will soon be getting an update to a dataset that is essential to the Standard; they are still collecting information
PC57.130- IEEE SA staff that handles the DGA database configuration reached out that the WG will not be able to continue using the database to collect information at this time as their survey does not follow the template that the DGA supports.
PC57.104- Chair has met with IEEE SA staff that handles DGA and the Staff has confirmed the formatting of the survey will work. The WG can therefore use the DGA database. The Survey email and survey have been sent for legal review. The WG hopes to send out the Survey in April after the legal review is complete.



IEEE SA AND STANDARDS COUNCIL OF CANADA (SCC)

	E Standards Association (IEEE SA) recently earned accreditation from the Standards Council of nada (SCC) to develop National Standards of Canada.	
	As an SCC-accredited SDO, IEEE SA can submit standards to SCC for acceptance as National Standards of Canada	
	Currently, within Canada several IEEE standards related to energy efficiency and renewable electricity are already referenced in regulations.	
	The Canadian Electrical Code also references 20 IEEE standards.	
Next Steps		
	WGs PC57.104 and PC57.156 are the ones that were submitteed to the SCC.	
	IEEE SA submitted NOI's (Notice of Intent) for both of these WGs	
	This is the first step in the SCC process, where they let the public know about the project to get an influx of interest.	



QUESTIONS?



PAST POLICY CHANGES AND UPDATES

STAFF UPDATE

Patrycja	
Bushings	Dry Type
HVDC	Power Transformers
Insulation Life	Distribution
Instrumentation	Dielectric
Performance Characteristics	Insulation Fluids
Standards	
STNP	

PRESENTING OF PATENT, COPYRIGHT AND BEHAVIORAL SLIDES DURING MEETINGS

Patent Slides

□ Based on Clause 6.3.2 in the *IEEE SA Standards Board Operations Manual* the Patent Slides shall be presented at every Standards Development meeting once there is an approved PAR.

6.3.2 Call for patents

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IEEE SA STANDARDS BOARD OPERATIONS MANUAL

2024

The chair or the chair's delegate of an IEEE standards-developing working group or the chair of a Standards Committee shall be responsible for informing the participants at a meeting that if any individual believes that Patent Claims might be Essential Patent Claims, that fact should be made known to the entire working group and duly recorded in the minutes of the working group meeting. This request shall occur at every standards-developing meeting once the PAR is approved by the IEEE SA Standards Board.

The chair or the chair's delegate shall ask any patent holder or patent applicant of a Patent Claim that might be or become an Essential Patent Claim to complete and submit a Letter of Assurance in accordance with Clause 6 of the IEEE SA Standards Board Bylaws. Information about the draft standard will be made available upon request.



PRESENTING OF PATENT, COPYRIGHT AND BEHAVIORAL SLIDES DURING MEETINGS

Copyright Slides

☐ Based on Clause 6.1 in the *IEEE SA Standards Board Operations Manual* the Copyright Slides can be either presented at every meeting or distributed prior to the meeting along with the meeting agenda. If slides are distributed before the meeting, all participants will be informed at the beginning of the meeting that the slides were shared prior to the meeting. The presentation of the slides or the prior notice to participants shall be noted in the meeting minutes.

6.1 Copyright

IEEE owns the copyright of draft IEEE standards and approved IEEE standards (see 7.2 of the IEEE SA Standards Board Bylaws).

Contributions made by participants in an IEEE SA standards development meeting, whether the Contributions are Published or not, are subject to the IEEE SA Copyright Policy set forth in Clause 7 of the IEEE SA Standards Board Bylaws.

The IEEE SA Copyright slide shall be either presented at the beginning of every IEEE SA standards development meeting, or distributed prior to the meeting along with the meeting agenda. If the slide is distributed with the meeting agenda, all meeting participants shall be informed at the beginning of the meeting that all material submitted during the meeting is a Contribution and is subject to the IEEE SA copyright policy. The presentation of the slide or the notice to meeting participants shall be documented in the minutes of the meeting.



PRESENTING OF PATENT, COPYRIGHT AND BEHAVIORAL SLIDES DURING MEETINGS

Behavioral Slides for Individual & Entity Working Groups

□ Based on Clause 5.3.3 in the *IEEE SA Standards Board Operations Manual* the Behavioral Slides can be either presented at every meeting or distributed prior to the meeting along with the meeting agenda. If slides are distributed before the meeting, all participants will be informed at the beginning of the meeting that the slides were shared prior to the meeting. The presentation of the slides or the prior notice to participants shall be noted in the meeting minutes.

5.3.3 Standards development meetings

Standards development meetings are to be conducted consistent with the principles of fairness and openness, and without dominance.

The IEEE SA Individual method or Entity method participant behavior slide set, as applicable, shall be either presented at the beginning of every IEEE SA standards development meeting or distributed prior to the meeting along with the meeting agenda. If the slides are distributed with the meeting agenda, all meeting participants shall be informed at the beginning of the meeting that participant behavior shall comply with the outlined requirements. The presentation of the slides or the notice to meeting participants shall be documented in the minutes of the meeting.



UPCOMING POLICY ON TAXES & MEETING EXPENSES (CONFERENCE SERVICES)

- ☐ Standard Committees or Working Groups shall collect as part of standards development meeting fees any applicable indirect and direct tax payments for the meetings.
- ☐ IEEE SA policies and procedures have been updated to reflect the requirement for payment of taxes associated with IEEE SA meeting fees (see subclause 5.3.5 of the IEEE SA Standards Board Operations Manual). IEEE SA has set up an alias (samtg-tax@ieee.org) to help IEEE SA Standards Committees (SCs) and Working Groups (WGs) who charge meeting fees to coordinate payment of applicable taxes (this applies anywhere in the world, including within the US).
- Note that IEEE intends to roll out automation of a tax engine in some of its systems. One system will be IEEE Cvent, which is managed by IEEE CEE. This rollout is expected within 1 to 2 years. IEEE SA strongly recommends that IEEE SA groups that charge meeting fees transition to using Cvent for meeting registrations once Cvent is rolled out.



ETOOL: LISTSERV

IEEE ListServ is the email list management tool for Working Group (WG) email communication. Through this list, the WG can communicate with individuals interested in the WG activities.

☐The ListServ provides an email alias that can be used by the WG.	
☐There can be an email list for WG members only and another email list to be used for all others that have an interest in the WG activities.	
☐Please contact Patrycja for assistance if there is interest in setting up a GDPR compliant IEEE ListServ email list. Please specify if the ListServ will a WG only or Public ListServ.	
☐Participants must be notified that they have been added to the ListServ.	
☐A Welcome Email via the ListServ must be sent (Patrycja will provide the template to WG Officers) to the participants on the ListServ and for the participants to be provided the option to opt out of receiving emails if they chose to do so.	
☐WG Officers maintain the ListServ and are provided with Administrator access.	



ENTITY PARTICIPATION UPDATES

Prev	vious Entity Participation:
	Can observe one meeting to see if interested in joining as a Corporate Member
	Corporate membership is needed to gain access to materials and participate."
Current Changes:	
	Entity nonmembers may observe any Entity WG Meeting(s)
	At the discretion of the WG Chair
	Entity nonmembers may be able to speak
	Entity nonmembers may have read-only access to meeting materials

Update: Note – IEEE SA no longer provides Basic and Advanced Corporate Membership options. There is only a single IEEE SA corporate membership.





STANDARDS COMMITTEE REPRESENTATIVE & DRAFT DISTRIBUTION

- Availability of the Entity draft for the <u>Public Review Process</u> comments being readily available to the Standards Committee overseeing the project.
- The SCR (Standards Committee Representative) who has access to the draft is able to *share it with those in the Standards Committee with an interest* in the project.
- There is no cost associated with this. We have created the below FAQ to have guidance for the SCR. https://standards.ieee.org/faqs/share/

Can the Standards Committee Representative of an entity-based Working Group share the draft with participants in its Standards Committee?

Yes, the Standards Committee Representative should share the draft(s) with a subgroup of identified participants that have an interest in the scope of the Working Group within the Standards Committee.





REQUEST FOR IEC STANDARDS (NEW PROCESS)

- □IEEE SA Working Groups (WGs) that wish to obtain IEC documents first must utilize the IEC <u>Products & Services Portal (iec.ch)</u> website.
 - □ A lot of information is already available for all IEC deliverables (concerned IEC TC, scope, table of content, introduction, preview of the document, normative references).
 - ☐ This website is public, and WGs should first review the website for information on the document(s) they want to review.
 - ☐ If additional information or a more detailed review is needed, then the WG will need to contact their IEEE SA PM to submit a special request with the rationale for why the document(s) is/ are needed.
 - If the special request is approved by IEC, only a small number of individuals would be granted time-restricted access to the IEC document(s).
 - The WG Chair should select two individuals to review the document(s)
 - □ Category A and C liaisons relationships follow a different process and this "new process" does not apply, nothing has changed with the liaisons.





MYPROJECT - WGAWARDS

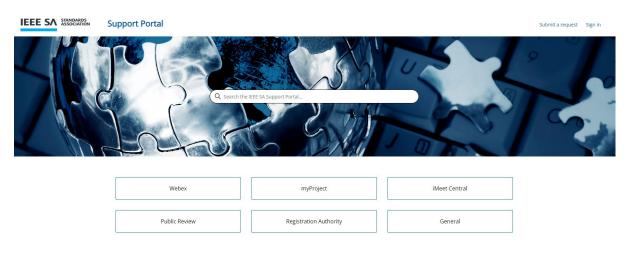
- Working Group Awards Once there is Final approval of a project by the IEEE SASB, it is an important opportunity to recognize standards development participants with working group awards (plaques and certificates)
- ☐ This myProject feature will allow a Working Group Chair or Vice-Chair to populate a list of award recipients based on involvement levels set in the Working Group roster.
- The system will automatically pull the recipient's address from their IEEE account profile if they have provided one.
 - NOTE: Roster needs to be up to date in order to populate the awards list
- Phone numbers and addresses for the recipients are now required
- Select the type of award the individual should receive and select a delivery method.
- Once all selections are made, the information can be submitted to the IEEE SA Awards Administrator for processing.

Steps for WG awards process



IEEE SA SUPPORT PORTAL

- ☐ The IEEE SA <u>Support Portal</u> can be used to find instructions on how to complete different Standards Development tasks (Example: awards, ballot, myProject, Webex, iMeet, Public Review, Registration Authority).
- ☐ This is the link: https://standards-support.ieee.org/hc/en-us





CONTACT US!

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