

# IEEE Liaison Report



THANK YOU!





# IEC Liaison Report

## TC 14 Power Transformers

Chair: Christoph Ploetner, DE / Secretary: Stephany Lavy, UK

## TC 10 Fluids for electrotechnical applications

Chair: Ivanka Hoehlein-Atanasova, DE / Secretary: Riccardo Maina, IT

## TC 15 Solid electrical insulating materials

Chair: Lars Schmidt, DE / Secretary: Solomon Chiang, US

IEEE Transformers Committee Meeting  
2025 October, Bonita Springs, FL, US



# TC 14 General Information – Chris Ploetner

- Membership countries 52 (39-P + 13-O)
- Active experts 303
- Currently active MT, PT, WG, AG, AHG 16 + 3 joint groups
- Documents in charge of (TR, TS, IS) 40
- Documents under maintenance / in development 17 / 1
- **IEC/IEEE dual logo documents** 6 (4 out of 6 in revision)
- Webpage: [IEC - TC 14 Dashboard> Scope](#)
- Last Plenary Meeting **2025, September 10<sup>th</sup> / 11<sup>th</sup> in New Delhi (IN)**
  - **About 100 participants (35 in-person)**
  - **From USNC: 1 in-person and --- 3 remote**
- Next Plenary Meeting **2026, week starting 16<sup>th</sup> September in Hamburg (DE)**



# TC 14 work program

- Complete **9 ongoing revisions** IEC 60076-1, -2, -4, -5, -6, -9, -18, -19-2, -26
- Start **2 new revisions**:
  - IEC 60076-14 – Liquid-immersed power transformers using high-temperature insulation materials.
  - IEC 60076-22 – Power transformer and reactor fittings. (standard series comprising 8 parts)
- Develop **1 new standard**: IEC 60076-17 – Transformers for photovoltaic power generation, battery storage, electric vehicle supply and hydrogen generation.
- Complete **4 ongoing revisions of IEC/IEEE dual logo standards**
  - 2x phase shifting transformers: IEC/IEEE 60076-57-1202:2017 /// IEC 62032:2012
  - HVDC transformers: IEC/IEEE 60076-57-129:2017
  - Standard requirements and test code for step voltage regulators: IEC 60076-21 / IEEE C57.15
- Harmonize **2 tap-changer documents and publish as dual logo documents**
  - To develop IEC/IEEE 60214-1 – Performance requirements and test methods
  - To revise IEC/IEEE 60214-2:2019 – Application guidelines
- In Pre-Evaluation: LCA for power transformers

Together  
with IEEE

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# TC 10 General Information – Ed Casserly

- **42** Member countries; 7 Active MT, PT, WG, AG, JMT; **214 Experts**
- **58 Documents under supervision; 10 Documents in revision / development**
- **1 Document published since last report (2 at FDIS stage):**
  - IEC 61203:2025 IEC 63359 (FDIS)                      IEC 63585 (FDIS)
- **Last plenary meeting, September 2025 New Delhi (India) – jointly with TC 14**
  - **Hybrid meeting – 60 participants from 24 countries (20 in-person)**
  - **4 USNC TAG members in-person**
- Next plenary meeting, 2027 TBD – Invitation from Australia – jointly with TC 14
  - Hybrid meeting



# TC 10 Standards Currently Under Revision


For details see TC 10 webpage

- MT24 (Ivanka Höhlelein-Atanasova, DE)
  - **In maintenance** – 61619 ED2: Insulating liquids - Contamination by [polychlorinated biphenyls \(PCBs\)](#) - Method of determination by capillary column gas chromatography (Riccardo Maina, IT)
  - **In maintenance** – 61198 ED2: Mineral insulating oils - Methods for the [determination of 2-furfural](#) and related compounds (Riccardo Maina, IT)
  - **In maintenance** – 60814 ED2: Insulating liquids - Oil-impregnated paper and pressboard - Determination of [water](#) by automatic coulometric [Karl Fischer titration](#) (Senja Leivo, FI)
- MT30 (Massimo Pompili, IT)
  - **CDV** – 60897 ED2: Methods for the determination of the [lightning breakdown voltage](#) of insulating liquids
- MT36 (Attila Gyore, HU)
  - **In maintenance** – 61099 ED3: Insulating liquids - [Specifications for unused synthetic organic esters](#) for electrical purposes



# TC 10 Standards Currently Under Revision

For details see TC 10 webpage

- MT43 (Griffin Burk, US)
  - **CD** - 60666 ED3: Detection and determination of specified additives in mineral insulating oils. Updated to include esters liquids.  Partially concurrent with ASTM D27.03
- WG41 (Yannick Kieffel, FR)
  - **FDIS** – 63359 ED1: Fluids for electrotechnical application: Specifications for the re-use of mixtures of gases alternative to SF<sub>6</sub>
- WG45 (Ivanka Höhlelein-Atanasova, DE)
  - **CDV** - 63585 ED1: Interpretation of DGA analysis in natural and synthetic esters
- WG46 (Yihua Qian, CN)
  - Retro-filling mineral oil immersed transformers with alternative insulating liquids



# TC 15 General Information – Solomon Chiang

## **Scope: Solid electrical insulating materials incl. coatings and varnishes**

- **39** Member countries (20 P members); **11** MT, PT, WG; **98** Experts dealing with
  - plastic films, combined flexible materials, mica products, pressboard and related material, cellulosic paper products, flexible insulating sleeving, rigid fibrous reinforced laminates, resins and varnishes
- **201 Publications / Documents --- 21 active projects** (new and revisions)
- **4 Publications since 2024** – for details see TC 15 webpage
- **Last plenary meeting, Nov 11 - 14, 2024, Vienna, Austria**
  - In Person Meeting – 26 participants - **2 USNC TAG representatives**
- **Next in-person plenary meeting, 2025, October 20 - 23, Tokyo, Japan**





## TC 15 Project of interest to the IEEE Transformers Committee

### IEC 60450

IEC 60450:2004

Measurement of the average viscometric degree of polymerization of new and aged cellulosic electrically insulating materials

TC 15 is expected to approve at the 2025 Plenary request by CIGRE WG D1.76 (convenor Jelena Lukic) to accept maintenance responsibility of this document back from TC 112 for review and updates. (It belong to TC 15 before)

TC 15 will revise document to reflect CIGRE work on the effect of different dielectric liquids (i.e. mineral oil versus ester oils...) on aging of cellulosic materials and the measurement method using viscometric degree of polymerization (DP<sub>v</sub>), revised accelerated aging methods; alternate algorithms to extrapolate aging from DP data... (Input from IEEE members are welcome)



## TC 15 Projects of interest to the IEEE Transformers Committee

MT 14 – **Pressboard** and related materials – IEC 60641-x-y documents

MT 15 – **Cellulosic paper products** – IEC 60554-x-y documents

Due to common characteristics of **Pressboard** and **cellulosic paper products**, TC 15 is considering merging MT-14 and MT-15, 2026 to 2027 Timeframe