

# CIGRÉ International Council on Large Electric Systems

Liaison Report on SCA2  
Transformers for  
IEEE Transformers  
Committee- Fall 2023  
Meeting

- October 23, 2023



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SC A1: Rotating Electrical Machines

**SC A2: Transformers**

SC A3: High Voltage Equipment

SC B1: Insulated Cables

SC B2: Overhead Lines

SC B3: Substations

SC B4: HVDC and Power Electronics

SC B5: Protection and Automation

SC C1: System Development and Economics

SC C2: System Operation and Control

SC C3: System Environmental Performance

SC C4: System Technical Performance

SC C5: Electricity Markets and Regulation

SC C6: Distribution Systems and Dispersed Generation

SC D1: Materials and Emerging Test Techniques

SC D2: Information Systems and Telecommunication

## SC A2 Recent Publications

- **Brochures 900-904: High-Frequency Transformer and Reactor Models for Network Studies**
  - From Working Group A2/C4.52
  - Brochures published Q2 2023
  - TB 900: Part A White-box models
  - TB 901: Part B, Black-box models
  - TB 902: Part C, Grey-box models
  - TB 903: Part D, Model interfacing and specifications
  - TB 904: Part E, Measurements and transformer design details

# SC A2 WG Activities

No.	Working Group	Topic	Status
1	A2.53	FRA Interpretation	Active
2	A2.54	Audible Sound Requirements	Active
3	A2.57	Effects of DC Bias	Active
4	A2.58	Site Installation and Pre-commissioning of Power Transformers and Shunt Reactors	Active
5	A2.60	Dynamic Thermal Performance of Power Transformers	Active
6	A2.61	Best Practices for On-Load Tap Changers (OLTC)	Active
7	A2.62	Analysis of AC Transformer Reliability	Active
8	A2.63	Transformer Impulse Testing	Active
9	A2.64	Condition of Cellulose Insulation in Oil Immersed Transformers After Factory Acceptance Tests	Active

# SC A2 WG Activities

No.	Working Group	Topic	Status
10	D1/A2.77	Improved understanding of dynamic behavior of winding insulating materials in liquid insulated power transformers	Active
11	A2/D2.65	Transformer Digital Twin- concept and future perspectives	Active
12	A2/D1.66	Breathing systems of liquid filled transformers and reactors	Active
13	A2.67	Guideline for Online Dissolved Gas Analysis Monitoring	Active
14	A2.68	Failure Survey of Lower Voltage Generator Step Up Transformers installed in Wind farms and Photovoltaic Parks	Active
15	A2.69	Guide for Transformer Maintenance	Active
16	A2.70	Life Cycle Assessment (LCA) of Transformers	Starting
17	A2/D1.71	Modern Insulating Liquids Qualification for OLTC, Bushings and other accessories.	Starting
18	D1/A2.80	Functional properties of non-metallic solid materials for liquid filled transformers and reactors and their compatibility with insulating liquids	Starting

# Upcoming New Working Groups

1. **Replacing Mineral Oil in Transformers:** JWG with D1 (Materials and emerging test techniques) on the retro-filling with alternative liquids.
2. **Transformer and OLTC Applications with Modern Insulating Liquids:** JWG with D1 (Materials and emerging test techniques) on the qualification process of new insulating liquids for application to transformers and OLTCs.

If interested in contributing, please contact your appropriate CIGRÉ National Committee Representative.

# TF and AG activities

- Task Force (TF): Transformer Field Noise Measurement
- Task Force (TF): Power Transformer Tank Specification for Passive Protection Against Internal Arc

# Upcoming Events

- **CIGRÉ A2 Study Committee Colloquium**
  - Split, Croatia, November 29-December 2, 2023
  - Le Méridien Lav
- **CIGRÉ Paris Session 2024**
  - Paris, France, August 25-30, 2024
  - Palais des Congrès
  - Paper synopsis selection announced Nov. 6, 2023
  - Full papers due for review Dec. 22, 2023
- **CIGRÉ USNC Grid of the Future**
  - Fall 2024
  - Date and location to be announced soon
- **CIGRÉ Symposium**
  - Spring 2025
  - Date and location to be announced soon



# IEEE Liaison Report



THANK YOU!

