



CONSEIL INTERNATIONAL DES GRANDS RESEAUX ELECTRIQUES
INTERNATIONAL COUNCIL ON LARGE ELECTRIC SYSTEMS
STUDY COMMITTEE A2 TRANSFORMERS

Presentation of CIGRE activities on Power Transformers

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Chairman SC A2 'Transformers'

Nov. 2007

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Presentation of CIGRE

CIGRE aims to :

- Facilitate and develop the exchange of engineering knowledge and information, between engineering personnel and technical specialists in all countries as regards generation and high voltage transmission of electricity
- Add value to the knowledge and information by synthesizing state-of-the-art and world practices
- Make managers, decision-makers and regulators aware of CIGRE's work

16 Study Committees

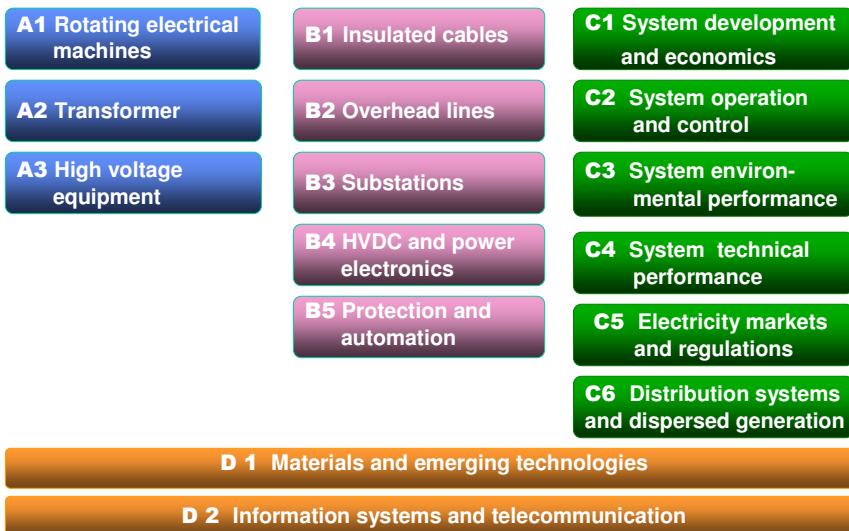
Exchanges with partners of CIGRE (IEC; Eurelectric, IEEE, CIRED, ...)

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New CIGRE SC Organization



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The Transformer Committee (A2)

Scope : Design, construction, manufacture and operation for all kinds of power transformers, including industrial , DC converters and phase-shift transformers and for all types of reactors and transformer components (bushing, tap-changer...)

In the past (*known as SC12*) activities were focused on design problems related to the rapid increase of rated voltage and power

Today, the two Strategic Directions for A2 future activities are :

- **Services to Customers** (Reliability, Life management, Economics, Tutorials, ...)
- **Technology Issues** (Safety, New technologies and New concepts, Electrical environment, Pre-standardization work, ...)

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Present A2 Activities

- 24 regular members
- 15 observer members
- + 152 experts involved in TF's and WG's
- 43 countries represented

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Recent CIGRE BROCHURES

<i>Scope</i>	<i>Ref</i>	<i>Year</i>
Thermal aspects	96	1995
Static electrification	170	2000
Effect of particles	157	2000
Customer specifications	156	2000
Design reviews	204	2002
Short circuit performance	209	2002
Life management of transformers	227	2003
Economics of Transformer Management	248	2004
Transformer Lifetime Data Management	298	2006

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Present A2 Activities

WG finishing editorial :

WG A2.27	Recommendations for monitoring facilities	Jarman (UK)
WG A2.30	Moisture in Transformers – Editorial	Sokolov (UA)

WG & TF underway :

WG A2.24	Thermal performances	Declercq (BE)
WG A2.26	Mechanical condition assessment (guidance, FRA standardization, ...)	Picher (CA)
WG A2.28	HVDC Converter Transformer	Saravolac (FR)
WG A2.32	Copper sulfide in power transformer insulation	Dahlund (SE)
WG A2.33	Aspects related to Fire Safety	Petersen (AU)
WG A2.34	Guide on maintenance	Rajotte (CA)
WG A2.35	Experiences with new liquids	Martin (UK)

New Working bodies in preparation :

- Reliability of transformers
- Electrical transient interactions between transformers and the power system (with CIGRE SC C4)
- Noise of reactors
- etc

Liaisons :

IECTC 10, IEC TC 14, IEEE, WG D1.01 – Liquid Impregnated systems for transformers	
TF D1.01.12 - Oil maintenance	WG C1.10 - CIGRE Glossary
TF D1.01.13 - Furans for diagnostic	WG A3.22 - Technical requirements for s-station equipment exceeding 800 kV
TF D1.01.14 - Dielectric Response diagnoses	
TF D1.01.15 - Progress in DGA technique	
TF D1.01.16 - Dielectric Performance of insulating liquid	

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CIGRE A2 TUTORIAL ACTIVITIES

- Objectives
 - Capture the knowledge and know-how developed by CIGRE SC A2 and other related SC and disseminate
 - Add value to this knowledge and information by synthesizing state-of-the-art documents
 - Improve visibility of recent development in transformer related topics
 - Identify the research that appear most promising
 - Disseminate at the regional level to reach a larger audience
- List of Tutorials
 - Transformer Overload Performance
 - Short Circuit Performance
 - Economics of Transformer Management
 - Partial Discharges

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SC A2 – Groupe Session – Paris 2008 Preferential Subjects

1 : *Guidance in new insulation liquids for improvement on performance and reliability*

2 : *Life estimation of transformers in service*

3 : *Reactors and related items*

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Thank you for supporting A2



see www.cigre-a2.org

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