CIGRE Study Committee A1

PROPOSAL FOR THE CREATION OF A NEW WORKING GROUP (1)

WG* N° A1.39	**Name of Convenor : Howard Sedding (CA)** **E-mail address**: **howard.sedding@kinectrics.com**
Technical Issues # (2): XXXXXX	**Strategic Directions # (3): 2**
The WG applies to distribution networks (4): No	
Title of the Group: Application of dielectric dissipation factor measurements on new stator coils and bars	

Scope, deliverables and proposed time schedule of the Group :

Background :

This WG is intended to support the work of IEC TC2 WG29 that is currently developing an IEC standard for dielectric dissipation factor measurements of stator coils and bars, and in particular what are acceptable limits of dissipation factor and tip-up.

Scope :

The purpose of the working group is to clarify a number of questions related to the use of dielectric dissipation factor measurements to new stator coils and bars for installation in turbogenerators, hydrogenerators and motors.

In particular, the working group will develop a questionnaire, perform a survey and prepare a report covering the following:

- Determination of how widespread dielectric dissipation factor methods are used worldwide to assess stator insulation.
- Identify the methods of test employed.
- Review criteria being used to interpret dielectric dissipation factor measurements.

Deliverables : Report to be published in Electra or Technical Brochure with summary in Electra

Time Schedule : start: November 2012 **Final report:** September 2014

- TOR submitted for approval on September, 2012
- Draft questionnaire by November , 2012
- Comments by members and experts – February 2013
- Final questionnaire – April 2013.
- Survey – answers – July 2013
- Draft report – August 2013
- Comments by members and experts - SC-A1 Colloquium Romania 2013
- Final document (Report or Technical Brochure) – March 2014
- Approval of final document – Paris 2014.

Comments from Chairmen of SCs concerned :

Approval by Technical Committee Chairman :

Date : 11/11/2012

M. Wald

(1) Joint Working Group (JWG) - (2) See attached table 1 – (3) See attached table 2
(4) Delete as appropriate

Table 1: Technical Issues of the TC project "Network of the Future" (cf. Electra 256 June 2011)

1	Active Distribution Networks resulting in bidirectional flows within distribution level and to the upstream network.
2	The application of advanced metering and resulting massive need for exchange of information.
3	The growth in the application of HVDC and power electronics at all voltage levels and its impact on power quality, system control, and system security, and standardisation.
4	The need for the development and massive installation of energy storage systems, and the impact this can have on the power system development and operation.
5	New concepts for system operation and control to take account of active customer interactions and different generation types.
6	New concepts for protection to respond to the developing grid and different characteristics of generation.
7	New concepts in planning to take into account increasing environmental constraints, and new technology solutions for active and reactive power flow control.
8	New tools for system technical performance assessment, because of new Customer, Generator and Network characteristics.
9	Increase of right of way capacity and use of overhead, underground and subsea infrastructure, and its consequence on the technical performance and reliability of the network.
10	An increasing need for keeping Stakeholders aware of the technical and commercial consequences and keeping them engaged during the development of the network of the future.

Table 2: Strategic directions of the TC (cf. Electra 249 April 2010)

1	The electrical power system of the future
2	Making the best use of the existing system
3	Focus on the environment and sustainability
4	Preparation of material readable for non technical audience