

### CIGRE Study Committee A1

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

WG* N° A1.48	Name of Conven	or: Ben Adams (UK)
	E-mail address: k	pen.adams@gdfsuez.com
Technical Issues # (2):		Strategic Directions # (3): 2
The WG applies to distri	bution networks (	4): No
		Requirements for High Speed Balancing / Rotors Following Maintenance or Repair.
Scope, deliverables and	proposed time sc	hedule of the Group :
Background :		
	nding retaining ring	rotor can encompass anything from minor work s in-situ, to a full rewind and/or mechanical
tests to prove the perform carried out. These tests s with the relatively low geo commercial pressure on o	ance of the rotor, be hould be at both op graphical availabilit utage timescales, c	the rotor to service with the lowest risk, a set of oth mechanically and electrically, should be perating and over-speed conditions. However, y of high speed balancing facilities and operators are increasingly asking if the work is ying out the high speed testing.
over-speed testing following		ator rotor requires high speed balancing and
Scope :	(	
		our pole round rotor type turbine-generators.
<ol> <li>The goal of this stu</li> <li>The type of wo</li> </ol>		estigate: uire high speed testing
The availability	of high speed testi	ng facilities
	already in existence	on this subject. airs with or without high speed testing.
	e and experience.	ans with or without high speed testing.
<ul> <li>3<sup>rd</sup> party service</li> </ul>	e provider's guidan	ce and experience.
		wing rotor maintenance or repair work. esting is not carried out.
	the risk could be m	
	atrix showing what	types work can be carried out and what the
<b>Deliverables :</b> Report to Electra	be published in E	lectra or Technical Brochure with summary in
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#### Time Schedule : start: September 2014

#### Final report: September 2016

- Working Group Established 30 November 2014
- Draft questionnaire issued 30 December, 2014
- Comments by members and experts -1 March 2015
- Final questionnaire issued for responses 15 April 2015.
- Responses due 15 June 2015
- Analysis of answers issued 30 August 2015
- Discussion by members and experts SC-A1 Colloquium Spain 2015
- Revised document (Report or Technical Brochure Format) for approval 30 November 2015
- Comments by SC Members (if any) 15 February 2016
- Final document for approval under the six weeks rule 15 April 2016

#### Comments from Chairmen of SCs concerned :

Approval by Technical Committee Chairman :

Date : 03/11/2014

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