CIGRE Study Committee A1

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

WG* N° A1.42	**Name of Convenor :** Eduardo Guerra (Argentina) **E-mail address**: eduardo.guerra@impsa.com
Technical Issues # (2): XXXX	**Strategic Directions # (3): 2**
The WG applies to distribution networks (4): No	
Title of the Group: Influence of Key Requirements to Optimise the Value of Hydrogenerators	

Scope, deliverables and proposed time schedule of the Group:

Background :

The conception and design of a hydro generator aims to achieve a machine that maximizes the value seen from the perspective of the customer and at the same time allow the creation of value for the provider. The starting point is the technical equipment specification, if it is not properly oriented, optimal design resulting from it, will not respect the objective set forth in the preceding paragraph. This project seeks to achieve consensus between customer and supplier so that the requirements contained in the technical specification are not a mere continuation of practices originated in the past and incorporate the current state of the art in the field.

In particular, the goals of this WG are:

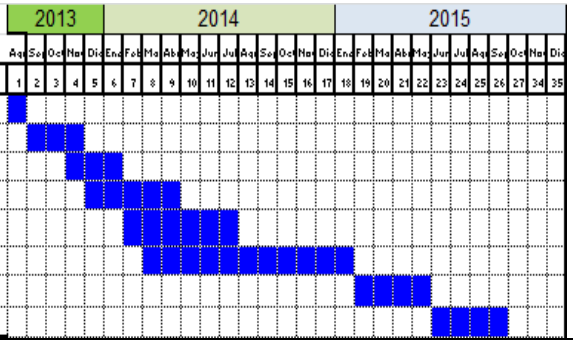
- ✓ recognize the key factors, according to their influence on the cost of the generator;
- ✓ quantify this impact;
- ✓ assess the degree of importance that the operators give to each of these factors;
- ✓ analyze the antagonistic factors arising out of the foregoing;
- ✓ identify constraints inherited from previous references that are no longer necessary nowadays, nor for all cases.

The proceeds of this WG would estimate the influence of the parameters to be specified in the value of the machine, thus guiding the specification process.

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

Main Tasks and Time Schedule:

STEP	DESCRIPTION	Start	Finish
1	Approval of TOR of WG	August 2013	
2	Questionnaire preparation		
3	Recruitment of Collaborators		
4	Subbmittal of Questionnaries		
5	Collection of Responses and follow up		
6	Data Processing		
7	First Report Draft Preparation		
8	Submittal of Report and Review		Sep 2015



Comments from Chairmen of SCs concerned :

Approval by Technical Committee Chairman :
Date : 15/08/2013

(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	Interactive communication with the public and with political decision maker