

PROPOSAL FOR THE CREATION OF A NEW WORKING GROUP¹

WG N° C3.18	Name of Convenor: Anne-Sophie DESALEUX France	
Strategic Directions #²: 3		Technical Issues #³: 7, 10
The WG applies to distribution networks⁴: Yes		
Potential Benefit of WG work #⁶: 6		
Title of the Group: Eco-friendly approaches in Transmission and Distribution		
Scope, deliverables and proposed time schedule of the Group:		
Background:		
<p>Grid activities are driven by a range of external influences including legislation, regulation and community expectations. Often the concern of Regulatory bodies is to balance reliability of the service, market facilitation, and cost for the customer. In that framework, environmental issues are mainly considered as extra cost, not as added value for the society.</p> <p>The interest of the global community in paradigm changes for the electricity supply industry keeps growing, especially to help fight against global warming, but also for bio-diversity or a general sustainable approach. The electricity industry is responding to this with a lot of fruitful initiatives in the companies. However, these can face difficulties to roll out because they cannot find a financial track in the existing regulation, in terms of incentives and sometimes even in terms of cost recovery.</p>		
Scope:		
<p>The scope of this Working Group is to focus on all eco-friendly approaches in electricity transmission and distribution which in any sense require extra funds. It will identify the incentives and disincentives for such approaches faced by companies, related to regulatory and other drivers, as well as good practices in dealing with external influences including:</p> <ul style="list-style-type: none"> • Pressures from energy regulatory agencies, such as efficiency and reduction of costs and timeframes and the potential conflict of interest with the wish of companies to do more about environmental and sustainable development • Pressures from environmental agencies, such as increase of studies, databases, environmental and social mitigation, compensation measures • Pressures from other institutions such as the ones related to wildlife conservation, archaeological heritage, traditional population etc. • Pressures from society requiring an extended timeframe to discuss and negotiate the proposals and projects • Opportunities to value externalities (e.g. benefit in terms of bio diversity) and how to have the extra cost covered by the tariff (especially for OPEX) • Inventory of the different aspects of grid operator activities which can enter in this field of interest, and be possible candidates for positive regulation (green bonds, responsible sourcing, ...) • Inventory of good practices in existing regulation to be promoted <p>This working group will identify conflicts among the different demands and pressures and</p>		

will investigate and document the ways that T&D companies are dealing with the situation. The group will make recommendations to improve the situation, but also to develop a fruitful debate about that with energy regulators association such as ACER, CEER, MEDREG, NARUC, ICER, ... The working group will consider other work on related aspects such as in WG C5.21 to avoid duplication and to enhance the outcome.

One of the deliverables will be a workshop organised by SC C3 with help from other SCs and with representative regulatory bodies, to share objectives and ideas in that field and define a common roadmap that can be used by the industry.

Whilst T&D companies are not the only ones to be affected by regulatory frameworks, the issues faced by T&D are distinct in nature from those faced by other industry participants. To ensure the focus & manageability of the work, this Working Group will focus specifically on T&D activities.

Deliverables: Technical brochure, summary in Electra, Symposium, Tutorial

- Technical Brochure and Executive summary in Electra
- Electra report
- Tutorial⁵

Time Schedule: start: September 2017

Final Report: September 2020

Approval by Technical Council Chairman:

Date: 15/08/2017



Notes: ¹ or Joint Working Group (JWG), ² See attached Table 2, ³ See attached Table 1, ⁴ Delete as appropriate, ⁵ Presentation of the work done by the WG, ⁶ See attached table 3

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
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 (ref. 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

Table 3: Potential benefit of work

1	Commercial, business or economic benefit for industry or the community can be identified as a direct result of this work
2	Existing or future high interest in the work from a wide range of stakeholders
3	Work is likely to contribute to new or revised industry standards or with other long term interest for the Electric Power Industry
4	State-of-the-art or innovative solutions or new technical direction
5	Guide or survey related to existing techniques. Or an update on past work or previous Technical Brochures
6	Work likely to have a safety or environmental benefit