



Study Committee No : C3

WORKING GROUP FORM
PROPOSED TERMS OF REFERENCE

Group No : JWG C3/B2/B1.13	Name of Convener : Hector Pearson (UK)
TITLE of the Group: ENVIRONMENTAL ISSUES OF HIGH VOLTAGE TRANSMISSION LINES FOR RURAL AND URBAN AREAS	
Background: This WG would address 3 issues which relate to the processes, procedures and environmental impact assessment to obtain permits for transmission lines including the cases of proximity of electricity transmission lines and built development. These are: <ol style="list-style-type: none">1. What are general processes, procedures, methods used in different countries to explain, inform public of new transmission lines2. How transmission companies and organisations plan the routes of new transmission lines and design the lines to reduce environmental and visual impact in rural areas and near residential and commercial buildings3. How transmission companies and organisations deal with requests to underground proposed new overhead lines and with requests to relocate (or underground) existing lines when residential or commercial development is planned, or is newly built, near existing lines. These issues can be contentious, with many cases of citizens, environmental organisations and building developers lobbying electricity companies and organisations and politicians, to seek to have transmission lines located as far as possible away from buildings. Their motives may be fear of EMF, belief that visual impact will be negatively affected, or loss of monetary value of buildings or land proposed for building development. Objectors (citizens, building companies and politicians) may often give examples of practices in other countries to justify their position, with the electricity transmission company then having to research these alleged 'best practices'. The WG would seek to produce data relating to electricity companies' policies and practices worldwide. In some countries, the electricity transmission companies own the corridor in which electricity lines are situated. In other countries, for example UK, these areas below and around electricity lines are owned by other people, and the electricity company cannot prevent buildings being constructed near lines (unless safety distances may be infringed). Some developers and local government councils may seek existing overhead transmission lines to be relocated or placed underground to enable large commercial or residential developments to be built, requiring transmission companies to seek new environmental permits and consents and outages to enable lines to be constructed elsewhere. Scope : The aim of the JWG is to create a reference document to enable transmission companies and others to understand how these issues are dealt with in other countries. It will be based on available CIGRE Technical Brochures, especially TB 147 and 250 (but also TB, 194, 338, 373 and 403). The JWG would record:	



1. How companies plan new transmission lines (overhead or underground) in all cases (e.g. rural areas) and near existing built development
2. How companies control new built development near existing transmission lines (overhead or underground).
3. Circumstances in which companies consider undergrounding proposed new overhead lines and/or re-routing existing overhead lines
4. Circumstances in which companies consider undergrounding existing or new overhead lines near built development

The JWG would not attempt to promote one approach over another, because the relationship between transmission lines, the environment and built development in different countries will have grown up for different legal, socially acceptable and land ownership reasons. The JWG will create a 'picture' of practices worldwide in this area.

The JWG will proceed by developing the steps that follow:

- Analysing the existing CIGRE Technical Brochures.
- Collecting and analysing approaches used in different countries
 - o to routeing new lines in urban and rural areas, near existing development.
 - o to design to reduce visual and environmental impact
 - o to consider undergrounding of proposed new overhead lines.
 - o to retaining, or relocating (or undergrounding), existing overhead lines near new or proposed development.
- Organising the information in a database, useful to companies and other stakeholders
- Covering reasons and motivations behind approaches and methodologies, including public emotion and political involvement
- Classifying and grouping the various approaches and methodologies
- Summarising the information in a technical document, and presenting it in such a way that stakeholders outside the electricity industry can have access to it and can use it
- Considering discussing the findings with stakeholder groups.

Deliverables:

1. Database or document covering practice worldwide – available to all WG members (read only) at an early stage, but continually developed (during the WG mandate) as a live document.
2. Technical brochure summarising and discussing the various approaches worldwide, to be published on ELECTRA,

Method of Working:

- Twice-a-year meetings (depending on geographical WG membership)
- 3-monthly telephone conferences.

Time Schedule :

- a) Launch of WG: August 2010, Paris
- b) Launch of database: January 2011
- c) Continual additions to database: January 2011 – September 2012
- d) Technical Brochure: Spring 2013
- e) Disbanding: Summer 2013.

Approval by TC Chairman : Klaus Fröhlich

Date : 07/09/2010