



## STUDY COMMITTEE B2

### Terms of reference of Working Group WG B2.34 : 2008- 2010

<b>Working Group title:</b> <b>The Impact of Line Configurations on electric and magnetic fields, radio interference and audible noise for 800 and 1100 kV OHL</b>	
<b>Convenor:</b> Angel Gallego (Spain)	
<b>Needs of Target Groups: (ref. SC B2 Strategic Plan of March 2006):</b> <ul style="list-style-type: none"><li>• Update of IEC &amp; CENELEC Standards: e.g. IEC 60826, EN 50341. (§ 4.4 )</li><li>• Factors to determine the reliability of existing lines (in collaboration with IEC &amp; CENELEC) (§ 7.3.7)</li><li>• Methods that will increase the reliability of lines (in collaboration with IEC &amp; CENELEC- § 7.3.8 ).</li><li>• Needs of developing countries such as CHINA, INDIA and BRAZIL</li></ul>	
<b>Terms of reference</b> The influence of line configuration on environment impacts of electrical origin for 800 and 1100 kV overhead lines. Investigate the effect that varying line parameters has on the electrically generated environmental impacts of 800 and 1100 kV overhead lines.	
<b>Background</b> The aim of this new work is to show how different design parameters of 800 and 1100 kV overhead lines affect on electrical impacts and the way to reduce these impacts by using appropriate parameters. The design parameters considered are the phase configuration, the number and diameter of sub-conductors per phase, the sub-conductor spacing, the phase to phase distance and the clearance to ground. The impacts include electric and magnetic fields, radio interference and audible noise. This work is an extension to 800 and 110 kV of TB No. 278 and ER on “ <i>The influence of line configuration on environmental impacts of electrical origin</i> ”, August 2005 which was limited to voltage levels of 400 kV.	
<b>Deliverables and Time Schedule</b> <ul style="list-style-type: none"><li>• A questionnaire will be issued in 2008 to collect current data about the configurations and tower top dimensions for 800 and 1100 kV lines;</li><li>• Technical Brochure / Electra Report: June 2010;</li><li>• Tutorial will be available just after issuing the relevant brochure.</li></ul>	
<b>Countries that already expressed their interest to contribute:</b> Brazil, Canada, China, Korea, Japan, Poland, South Africa, Spain	
<b>Links with other SCs:</b> CIGRE SCs: C3; CIGRE SC B2 AGs: AGB2.05 and AGB2.07 IEC: TC 11; TC 11/MT1; CENELEC: TC 11; TC11/WG 08.	
<b>Approval by Technical Committee Chairman: Klaus Fröhlich</b> <b>Date: 26-02-2008</b>	