

CENELEC/TC or SC <b>TC 11</b>	Secretariat <b>FR</b>	Date <b>2013-05-07</b>
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**TC or SC title: Overhead electrical lines exceeding 1 kV a.c. (1,5 kV d.c.)****A Background**

The scope of CLC/TC 11 is to establish and maintain standards on design criteria to be used as a framework for national regulations, differing from each other only in local conditions and in the assumed safety level.

CLC/TC 11 deals with the design and testing of components of the overhead lines (towers, foundations, fittings) which are not covered by other technical committees. Regarding conductors which are dealt with by CLC/TC 7X 'Overhead electrical conductors' CLC/TC 11 covers only the aspects relating to structural design criteria of these components.

The scope of CLC/TC 11 concerns the reliability of overhead lines, and also deals with the safety aspects, including definition of clearances, the tests on structures, foundations and fittings, and erection methods.

**B Business Environment****B.1 General**

In developing countries, there are many new overhead line constructions, in contrast to other countries, especially the developed countries where new constructions have slowed and older overhead lines have started reaching the end of their life cycle, and may need refurbishment.

There is the challenge of reducing the environmental impact of overhead lines both from an aesthetic impact and minimization of electric and magnetic fields.

In addition to the primary aspect of transportation of electric power, the safety of workers involved in the erection and maintenance of overhead lines has to be taken into account.

**B.2 Market demand**

The customers for standards developed by CLC/TC 11 are electricity utilities, overhead line contractors and designers.

**B.3 Trends in technology**

There are new technologies in the construction of overhead lines.

**B.4 Market trends**

In many European countries there is considerable expansion of the overhead line transmission network. The increased use of renewable energy generation where generation centres are remote from the load centres has led to increased interest in AC or DC transmission.

**B.5 Ecological environment**

Transmission line towers are generally steel, concrete or wood construction, conductors are generally aluminum alloy or aluminum and steel, while insulators may be glass, porcelain or polymeric. All components are more or less fully recyclable.

With the development of AC and DC transmission, the effects of corona, Radio Interference Voltage (RIV) and electro-magnetic fields will have to be taken into consideration, together with land occupation and visual impact.

## **B.6 Involvement of societal stakeholders**

The societal stakeholders are generally the end users of electricity. Some of them live near overhead lines, others are worried by the climate change, the natural resources management, ..., finally all are concerned by the cost of construction of the overhead lines. So the societal stakeholders are more particularly interested by the reliability and the cost of new overhead lines, the quality level of the electricity which they allow and the sustainability issues.

## **B.7 Involvement of SMEs**

Many CLC/TC 11 experts are coming from transmission system operators or companies designing and/or building the overhead lines that include SMEs.

## **C System approach aspects**

CLC/TC 11 operates by consensus and maintains the exchange with other relevant committees.

Cooperation is established with CEN/TC 250 'Structural Eurocodes' and experts working in other TC CIGRE SCB2 'Overhead Lines'.

## **D Objectives and strategies (3 to 5 years)**

- To continuously review and maintain existing standards.
- To develop new standards as technological need arises.
- To maintain and to promote the awareness of CLC/TC 11 publications.

## **E Action plan**

- Complete the revision of EN 50341.
- Seek for solutions based on mutual agreement between CEN/TC 250 and CLC/TC 11.

## **F Useful links to CENELEC web site**

TC home page giving access to Membership, TC/SC Officers, Scope, Publications, Work programme [password-protected area].

[http://www.cenelec.eu/dyn/www/f?p=104:7:2524078778514664:::FSP\\_ORG\\_ID,FSP\\_LANG\\_ID:62,25](http://www.cenelec.eu/dyn/www/f?p=104:7:2524078778514664:::FSP_ORG_ID,FSP_LANG_ID:62,25)

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