



Brussels, 23 November 2000

M 308 - EN

MANDATE TO CEN/CENELEC FOR THE ELABORATION AND ADOPTION OF
STANDARDS FOR THE REVISION OF THE DEFINITIONS AND MEASUREMENT
METHODS FOR EFFICIENCY OF OIL-COOLED AND DRY-TYPE
TRANSFORMERS

I. Justification

The present mandate is within the actions undertaken under the SAVE¹ and PACE² programmes for the promotion of energy efficiency in the Union; both the programmes foresee initiatives to improve the energy efficiency of energy using equipment. Distribution transformers are responsible for large electricity losses and it is one of the priority area of action of the PACE programme. A comprehensive study carried out for the Commission³ indicates that substantial energy savings can be achieved with the use of more energy efficient distribution transformers.

In order to develop Union actions to enhance energy efficiency of distribution transformers it is necessary to have a uniform measurement standard of the energy efficiency of these appliances. Existing European, and International standards provide a basis for obtaining this information, but common standard(s) are required to ensure that all equipment covered by this mandate are measured on a comparable basis. This will require that existing standards are revised so as to ensure that they provide measurement methods for energy efficiency, which are representative, reproducible, and which allows methods of checking whether sample equipment conform with declared values.

¹ OJ N° L 307 of 8.11.1991, p. 34 - Specific Actions for Vigorous Energy Efficiency, Council Decision of 29.10.1991 (91/565/EEC)

² OJ N L 157 of 9.6.1989, p.32, Council Decision of 5.6.1989 (89/364/EEC) - the acronym is from the name in French: Programme d'action communautaire visant à améliorer l'efficacité de l'utilisation de l'électricité.

³ Study for the Commission of the European Communities on measures to promote energy efficient transformers in Europe, carried out by ECI (B), Pauwels (B), EDON (NL), ETSU (UK) & KEMA (NL), (Final Report December 1999).

II. Description of mandated work

1. The Commission hereby requests CEN/CENELEC to elaborate, adopt, or adapt existing European and international measurement standards for distribution transformers, so laying down the methods of measuring their efficiency. This standardisation work shall take into account international and European standards in this field, and in particular of HD 428 and HD 538.

2. Characteristics to be dealt with in the standards

The standards should define the principal characteristics referred to above to be measured.

Revision of the definition and number of efficiency classes

Revision of the levels of the efficiency classes with the view to increase the efficiency of transformers

For all the characteristics thus defined, tolerances permitted to declared values shall be fixed.

3. Transformer to be covered

The mandate covers the following transformer types as typically used in utility distribution networks and/or on industrial and commercial premises:

oil-cooled transformers, according to CENELEC HD 428

dry-type transformers, according to CENELEC HD 538,

The work may be divided into two phases as follows:

- 1 dry-type transformers: definition of reduced loss level(s) of transformers
- 2 oil-cooled transformers: definition of reduced loss level beyond CENELEC HD428 - CC'; review of feasibility to remove highest loss levels from standard HD428

III. Execution of request

1. The European Standards (EN) taking into account the principal characteristics referred to above, will be adopted by :

Phase 1: 31 December 2001

Phase 2: 31 July 2002

2. Three linguistic versions (DE, EN, FR) of the each standard will be available at adoption, together with the correct titles in the other Community languages.
3. Acceptance by CEN/CENELEC of this mandate will initiate the standstill period referred to in Article 7 of the Council Directive 83/189/EEC of 28 March 1983⁴, lastly amended by Directive 94/10/EEC⁵.
4. CEN and CENELEC will ensure a close collaboration between them in order to maintain a coherent set of European standards.
5. CEN/CENELEC may choose to adopt the European standards on the basis of the International bodies' standardisation activities, via the parallel vote procedure. However, if CEN/CENELEC notes that the target date, referred to above, will not be met, they will undertake to do the necessary in order to prepare European standards, after consulting with IEC and ISO, at their own level.

⁴ OJ n° L 109 of 26.4.1983

⁵ OJ n° L 100 of 19.4.1994