



EUROPEAN COMMISSION

DIRECTORATE GENERAL III

INDUSTRY

Directorate B: legislation and standardization; telematics networks

Unit III/B-2 : standardization

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M/077

Proposal for a mandate to CEN/CENELEC on standards for thermal solar systems and components

I - Grounds

- 1.1 The present mandate is part of the policy of the European Union to encourage the development of renewable energies. Adopted on 13 September 1993, the Council Decision (93/500/EEC) concerning the promotion of renewable energies in the Community (the ALTENER Programme) establishes for the year 2005 indicative objectives for a reduction of 180 million tons of carbon dioxide emissions and a doubling of the share of renewable energies in the total energy demand (from 4 % in 1991 to 8 % in 2005¹). In relative terms, the contribution of thermal solar energy to the realization of these objectives should be higher than the general average.
- 1.2. During the last decade significant progress has been made in all the basic applications of active solar energy: heating of swimming pools, production of domestic hot water, space-heating, heat for commercial, agricultural and craft end-uses. As a result of the progress made, certain technologies, such as the heating of swimming pools and the production of domestic hot water, have reached a high level of maturity. The efficiency of commercial solar panels has increased by 30 % compared with the last decade and certain new types of solar collectors (vacuum tubes) have been developed and launched on the market. In the world as a whole, there are some 30 million m² of solar panels installed. In the Community, the total surface area of solar panels installed at the end of 1993 was 3,6 million m²; the annual production of these installations can be estimated to 200,000 toe.
- 1.3. Established in a federation (European Solar Industry Federation - E.S.I.F.) for more than two years, the European thermal solar industry is a mature and efficient industry present on the world market. It produces 350,000 m² of solar collectors, its turn-over amounts to 250 million ECU, and in terms of manpower it employs 3,500 persons.

¹ OJ. of 18.09.1993 no 235/p.41

In 1993 the intra-Community trade in solar collectors represented about a quarter of the total production. According to recent studies, this trade is estimated to grow in the years to come. For some countries the export could surpass sales on the domestic market. With such future perspectives, the definition and harmonization of technical standards for solar thermal systems and components (S.T.S.C.) are essential for a healthy and balanced development of this branch of the European manufacturing industry.

The existence of common standards could help the European solar collector manufacturing industry in the context of both Community single market and the world market.

- 1.4. This mandate reflects the need for measures to be taken within the European Union in connection with the opening up of public contracts, especially under Directive 93/38/EEC on the procurement procedures of entities operating in the water, energy, transport and telecommunications sector (OJEC No L 199 of 9 August 1993). Public contracts relating to the supply and installation of thermal solar equipment may involve considerable investments in the case of hospitals, barracks, schools and other public buildings and must therefore be open to competition. Reference to common European standards will help to open up these contracts since it ensures that their technical aspects are transparent and that economic operators can respond to invitations to tender on the basis of equal conditions. Technical harmonization will also benefit private consumers if they are offered officially approved possibly bearing a quality label.
- 1.5. The Commission draws the attention to the fact that the European Standards (EN) established according to the present mandate cannot be considered harmonized standards in the sense of the "new approach".

2 - Description of the mandate

2.1. Introduction

The Commission hereby entrusts to CEN/CENELEC the task of drawing up, adopting and adapting European standards or developing new ones if necessary for thermal solar systems and components. This mandate will make it possible to define the terminology and the thermal performance of the S.T.S.C. and will establish the test and calculation methods to be used in order to determine their performance. These standards will also cover the aspects of conformity evaluations.

2.2. Characteristics to be determined by these standards

The standards should define the main performance characteristics of thermal solar systems and components in respects of each of the following work items;

- 1. Collectors - General requirements**
(To include evaluation of conformity)

2. Collectors - Test methods

(To include more than one test method if necessary)

3. Factory made solar systems) Test methods

(To include evaluation of conformity)

4. Factory made solar systems - Test methods

(To include more than one test method if necessary)

5. Custom-built solar systems - General requirements

6. Custom-built solar systems - Thermal performance characterization and systems performance prediction

3 - Execution of mandate

- 3.1.** Taking into account the characteristics referred to above, the European Standards (En) will be adopted by 31 August 1998.
- 3.2.** Three language versions (EN, D, FR) of each standard will be available for adoption, together with the titles accurately translated into the other Community languages.
- 3.3.** Acceptance of the mandate by CEN/CENELEC will signal the beginning of the standstill period referred to in Article 7 of Council Directive 83/189/EEC of 28 March 1983.
- 3.4.** CEN/CENELEC will inform the Commission of the existence of national legal or regulatory requirements requiring action on the part of the public authorities to ensure that the market is properly opened up.
- 3.5.** CEN and CENELEC will cooperate closely in order to produce a coherent set of European standards.
- 3.6.** CEN and CENELEC may opt to adopt standards harmonized on the basis of standardization work carried out by international bodies, using the parallel vote procedure. However, if CEN or CENELEC finds it impossible to meet the deadline fixed above (point 3.1), they will take the necessary steps to prepare European standards after consulting the IEC and ISO at the appropriate level.