TEN/082
Energy performance of buildings

Brussels, 17 October 2001

OPINION

of the Economic and Social Committee

on the

Proposal for a Directive of the European Parliament and of the Council on the energy performance of buildings

COM(2001) 226 final - 2001/0098 COD

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On 6 June 2001 the Council decided to consult the Economic and Social Committee, under Article 175 of the Treaty establishing the European Community, on the

Proposal for a Directive of the European Parliament and of the Council on the energy performance of buildings
COM(2001) 226 final - 2001/0098 (COD).

The Section for Transport, Energy, Infrastructure and the Information Society, which was responsible for preparing the Committee's work on the subject, adopted its opinion on 25 September 2001. The rapporteur was **Mr Levaux.**

At its 385th plenary session of 17 and 18 October 2001 (meeting of 17 October 2001) the Committee adopted the following opinion by 133 votes in favour, with two abstentions:

1. The Commission's proposal

1.1 The proposed directive aims to create a common framework to promote the improved energy performance of buildings within the European Union. It specifies the categories of buildings concerned - residential and tertiary - and excludes certain categories, such as industrial buildings.

1.2 The directive lays down the requirements for Member States to establish a common methodology for an integrated calculation of the energy performance of buildings.

1.3 The directive obliges Member States to set minimum standards for the energy performance of new buildings.

1.4 For new buildings with a total surface area over 1,000 m^2, Member States have to ensure that decentralised energy supply systems based on renewable energy, district heating, etc., undergo a feasibility study.

1.5 The proposed directive obliges Member States to take the necessary measures to ensure that the energy performance of existing buildings with a total surface area over 1,000 m^2 which are being renovated is improved and meets minimum energy performance standards. This principle is to apply in all those cases where the total cost of the renovation is higher than 25% of the existing insured value of the building.

1.6 The proposed directive provides for an energy performance certificate not older than five years to be made available when buildings are sold or rented out. For public buildings such a certification should take place every five years and the energy certificate must be placed in a prominent place and made clearly visible.

1.7 The directive lays down specific requirements for a regular inspection of boilers of an effective output of more than 10 kW and air-conditioning systems of an effective output of more than 12 kW.

1.8 Certification of buildings and inspection of heating and air-conditioning systems is to be carried out by qualified and independent personnel.

2. Summary of main thrust and recommendations of previous opinions

2.1 The Committee has submitted several opinions in this area. Four recent ones are referred to here to confirm the Committee's consistent line of argument.

2.1.1 The most important measure for reducing the risks associated with energy supply and other risks is to ensure the most diverse and balanced possible use of different types and forms of energy.

2.1.2 Building standards are an effective instrument with regard to saving energy in buildings; however, there can be no question of uniform, EU-wide standards because climatic and other conditions vary so much[1].

2.1.3 The Committee considers that imposing binding targets for electricity from renewable energy sources might be in conflict with the subsidiarity principle applied to actions to meet Kyoto targets[2].

2.1.4 The legal provisions on buildings should make a clear distinction between new buildings - and again between subsidised public housing and the private sector - and existing buildings. In the case of the latter, special conditions should be laid down for renovation in the historic core of cities[3].

2.1.5 Ample information should be provided for both new and existing buildings, and for both privately-owned and rented buildings. Enforcement and monitoring of rules on materials, insulation and building should be strengthened for all countries[4].

2.1.6 Preventive maintenance and servicing of equipment should be improved in industry, construction and transport in order to maintain productivity and restrict emissions. An effort should be made to introduce tax breaks for investors who implement energy-efficient measures.

3. General comments

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1 ESC opinion on the *Green Paper - Towards a European strategy for the security of energy supply* (COM(1999) 769 final): CES 705/2001

2 ESC opinion on the *promotion of electricity from renewable energy sources in the internal electricity market* (COM(2000) 279 final - OJ No. C 367 of 20.12.2000

3 ESC opinion on *Energy efficiency in the European Community - Towards a strategy for the rational use of energy* (COM(1998) 246 final); OJ No. C 407 of 28.12.1998, p. 176

4 ESC opinion on *Policies for the rational use of energy* (RUE) OJ No. C 407 of 28.12.1998, p. 160

3.1 The Commission's proposal should be examined in the broader context of Community energy policy, taking into account in particular the need to save energy in view of:

– the limited possibilities of influencing the supply of imported energy supplies;
– EU dependency on these imported energy sources, currently estimated at 50%;
– enlargement, which will increase EU dependency to 70% by 2030, without renewal of nuclear power stations;
– compliance with commitments entered into in Kyoto;
– the high level of energy consumption within buildings[5].

4. Specific comments

4.1 Minimum standards

4.1.1 The proposed directive stipulates that new buildings must comply with minimum energy performance standards. However, nowhere in the directive or its annexes are these minimum standards - whether common or specific to each Member State - defined.

4.1.2 The Committee is in favour of the subsidiarity principle, and maintains that it should be left up to each Member State to set minimum standards, taking into account its own geographic and climatic conditions. However, it believes that the directive should refer more specifically to the objectives and commitments of Kyoto, in order to encourage Member States to set minimum standards at levels, and within time frames, that are reasonable and compatible.

4.1.3 The Committee also believes that, in the process of enlargement, targets to be met within specific time frames should be worked out with each applicant country, and support given for providing information and increasing public awareness, to help the applicant countries meet these objectives within the required time limit.

4.1.4 The Committee notes that the proposed directive, when requiring Member States to set minimum standards, takes into account energy aspects alone. It suggests that the Commission might consider whether a more global view, which takes into account other aspects - such as soundproofing - during the construction or renovation of buildings might be more advantageous, not only financially but also in terms of user comfort[6].

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5 See Table 1 set out in the appendix: European Union Final Energy Demand by Sector and by Fuel

6 Proposal for a Directive of the European Parliament and of the Council relating to the Assessment and Management of Environmental Noise, OJ No. C 116 of 20.4.2001, p. 48

4.2 **Exclusions from the scope of application**

4.2.1 The proposed directive makes it possible for Member States to exclude from the scope of application historic buildings, temporary buildings, industrial sites, workshops and residential buildings not used on a regular basis, such as second homes.

4.2.2 The Committee approves of the principle of these exclusions - to which it requests that farm buildings be added - but questions their relevance and the definitions given, as they may allow too broad an interpretation, which would make it possible - in some cases - to apply the directive in different ways in different Member States.

4.3 **New and existing buildings**

4.3.1 The proposed directive distinguishes between new buildings and existing buildings which must comply with minimum energy performance standards. The Committee would like such minimum standards to be made specific to either new buildings or existing buildings, allowing for differences in the condition of the property and differences in the respective techniques that can be used to improve energy performance.

4.3.2 A distinction is made between residential and public buildings; however, the Committee thinks that a clear distinction should be made between single and multiple occupancy buildings.

4.4 **Thresholds**

4.4.1 The draft directive provides for thresholds expressed in m^2. In the context of improving the energy performance of buildings, the Committee believes that the reference to the surface area of buildings is not always appropriate.

4.4.2 As regards heating and air conditioning, which are decisive elements in energy performance, this performance is related to the volume of buildings, which is a function of two factors: the height between floors and their respective surface areas.

4.4.3 In the case of residential buildings, floor-to-ceiling height is usually around 2.50 m. In view of this standardisation, expressing thresholds in terms of m^2 is acceptable.

4.4.4 In the case of public buildings, however, as defined in Article 2 of the draft directive, given that storey height varies, it would be more appropriate to express thresholds in terms of the volume of buildings.

4.5 **1000 m^2 thresholds**

4.5.1 The proposed directive only provides for two 1,000 m^2 thresholds - one for new buildings and one for existing buildings (Article 4 and Article 5).

4.5.2 For new buildings over 1,000 m^2, a study must be carried out before the building permit is granted to determine the technical, environmental and economic feasibility of installing decentralised energy supply systems based on renewable energy, CHP, district heating or, under certain conditions, heat pumps.

4.5.2.1 In the Committee's view there is a case for extending this requirement to public buildings, as defined in Article 2 of the directive, imposing a threshold of 2,500 m^3, in the light of the comment made in point 4.4.4 above.

4.5.2.2 The Committee agrees that, in view of the threshold of 1,000m^2, this requirement does not apply to single family houses.

4.5.2.3 As for multi-occupancy residential buildings, the Committee considers that the threshold should be extended to 2,500 m^2, but only in the case of large residential developments, which are able to bear the extra costs involved.

4.5.2.4 The Committee also believes that, for new buildings, in cases where the objectives recommended in the proposed directive cannot be implemented at the construction stage, there should be a requirement to include in the plans the possibility of implementing them easily when future major renovation work is carried out.

4.5.3 For renovation work in existing buildings, the directive provides for a threshold of 1,000 m^2, after which measures must be taken to meet minimum energy performance standards.

4.5.3.1 The Committee, as before, considers that this requirement should apply to:

– public buildings, as defined in Article 2, with a threshold of 2,500 m^2,
– multiple occupancy residential buildings, with a threshold extended to 2,500 m^2.

4.5.3.2 The Committee notes that the principle defined in Article 5 of the directive applies to all cases where the total cost of the renovation is higher than 25% of the "existing insured value" of the building. However, as regards the actual concept of the "existing insured value", the Committee emphasises that Member States do not all use the same criteria (in the case of public buildings approaches vary, as the criteria for assessing property values are not comparable).

4.6 **Energy performance certificate (label)**

4.6.1 In the Committee's view, the word "certificate" implies a mandatory inspection or acknowledgement of compliance with regulations. To better reflect the intentions of the Commission,

the Committee recommends replacing the word "certificate" by the word "**label**", which would enable energy performance to be described in accordance with a scale of values.

4.6.2 The proposed directive stipulates, in Article 6(1), that when buildings are constructed, sold or rented out, an energy performance certificate (label) not older than five years is made available to the buyer or tenant.

4.6.3 The Committee believes that in the case of new buildings this requirement - which constitutes a guarantee for the buyer or tenant - can easily be met at the time of taking delivery of the building, since the certificate of conformity and compliance with minimum standards drawn up at the completion of works facilitates - with no additional formalities - the granting of an energy performance label.

4.6.4 In the case of new buildings, the Committee thinks that five years is too short, and suggests that it be extended to 10 or 15 years. After this period, renovation alone will enable the certificate (label) to be renewed.

4.6.5 In the case of existing buildings, if the energy performance certificate (label) confirms the building's compliance with minimum standards, its validity should also be extended to 10 or 15 years. The certificate (label) would only have to be renewed if standards were amended. The proposed directive makes the production of a certificate (label) obligatory only when a building is sold or rented; otherwise, there is no requirement to draw up such a certificate (label). The Committee suggests that to promote energy savings, it would be a good idea to agree a transitional time frame of approx. 15 years for making the production of a certificate (label) compulsory for all existing buildings covered by the Directive.

4.6.6 Given that any shortcomings revealed in an energy performance certificate can - in accordance with Article 5 - only be corrected when major renovation work is carried out, the certificate's validity period of five years is not justified.

4.6.7 The Committee believes that certificates (labels) should include, in addition to reference values such as current legal standards, a reminder of best practice in terms of energy consumption and heat loss.

4.6.8 The Committee points out that in Article 6(2) of the proposed directive, the Commission proposes that the certificate (label) be accompanied by recommendations for the improvement of energy performance. In the Committee's view, this proposal does not go far enough, since in order to bring about real improvement and sustainable reductions in energy consumption the collective and individual behaviour of people has to change. The Committee would therefore like the directive to commit Member States to designing and systematically renewing information and education campaigns aimed at the general public, to encourage people to measure the impact of their behaviour inside buildings in order to reduce energy consumption.

4.6.9 The Committee notes that Article 9 of the proposed directive stipulates that certification (granting of a label) in respect of buildings and inspection of heating and air-conditioning systems shall be carried out by qualified and independent personnel. In the Committee's view the personnel responsible for these operations do not necessarily have to be independent, but must be approved by an official body, on the basis of proof of their skills, which may be acquired through specific training.

4.7 **Inspection of boilers (Articles 7 and 8)**

4.7.1 The proposed directive provides for the regular inspection of boilers of an effective output of more than 10 kW and the regular inspection of central air conditioning systems of an effective output of more than 12 kW.

4.7.2 These particularly low thresholds result in virtually systematic inspection for all types of buildings, including single family houses. The Committee notes that the proposed directive makes no reference to a time frame for carrying out initial inspections on existing buildings, or the duration of validity of such inspections.

4.7.3 The Committee would like Member States to be given the possibility of organising inspections in such a way that they are staggered over a period of 15 years. In the first five years installations having an effective output of more than 70 kW should be inspected, and in the following 10 years those having an effective output of more than 10 kW and less than 70 kW.

4.7.4 The annex to the proposed directive stipulates that boilers having an effective output of more than 100 kW must be inspected every two years.

Time frame for the inspection of boilers and air-conditioning systems

Effective or installed output	Boilers	Air-conditioning systems
Less than 10 kW	N/A	N/A
10 to 70 kW	Within 15 years	Within 15 years
More than 70 kW	Within 5 years	Within 5 years
More than 100 kW	Every 2 years	N/A

4.7.5 For heating installations older than 15 years featuring boilers of an effective output of more than 10 kW, Member States must lay down the necessary measures to establish a one-off inspection of the whole heating installation, as provided for in the annex to the proposed directive. The Committee would like these inspections - which in particular should inspect the level of greenhouse gas emissions - to be held within the time frames specified in point 4.7.3 above. These inspections could be carried out during the customary preventive maintenance operations.

4.7.6 These inspections will be valid for a period of ten years, starting from the time of acknowledgement of compliance with recommendations or requirements issued during the inspection.

4.7.7 In the Committee's view the certificate of compliance issued when delivery is taken of boiler and air-conditioning installations should be valid for 10 years, even if the applicable standards are subsequently modified.

5. Incentives to promote energy savings

5.1 The Committee believes that all measures, without exception, should be considered if they save energy, spread the use of renewable energies and reduce greenhouse gas emissions. It notes, however, that the directive focuses solely on the possibility of owners recovering costs by passing them on in rents. Yet this remains a limited possibility, since in some countries the methods used to calculate rents are regulated.

5.2 The Committee points out that in its opinion of 30 May 2001[7] it stated that "Tax incentives to promote technological innovation and guide industrial processes along more environment-friendly lines are also appropriate, provided they do not entail market distortions".

5.2.1 In the context of the present opinion, the Committee would suggest that Member States give priority to tax measures and incentives such as:

– application of a reduced rate of VAT, as authorised by the Council Decision of 28/2/2000, for "certain labour-intensive services" featuring work to improve housing, which may include work related to energy performance;

– for owners renting out their property, the deduction from their declared rental income of the expenditure incurred in applying the directive;

– the deduction of this expenditure from their taxable income.

6. Conclusions

6.1 The Committee draws the Commission's attention to the common practice in Member States which consists in systematically taxing all fuels currently used, in particular fossil fuels. All policies featuring energy-saving incentives or policies to promote the use of other energies (producing less greenhouse gases) are based on economic models which do not take into account tax base reductions. One example is the case of 160 000 residences in Denmark where the 13% rate of return on investment results in a corresponding tax reduction.

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7 ESC opinion on the Proposal for a Decision of the European Parliament and of the Council laying down the Community Environment Action Programme 2001-2010 of 30.5.2001; CES 711/2001

6.2 The Committee, while stressing its support for the Commission's approach and its attempt to develop a common methodology for assessing and monitoring the energy performance of buildings, points out that care should be taken to:

– avoid creating intolerable constraints for Member States in terms of international competition. The European Union must therefore adapt its policy to the commitment of all countries concerned to implementing the Kyoto protocol;

– ensure that applicant countries commit themselves - in particular for new buildings - to measures that are compatible with the objectives pursued by Member States to keep any increase in energy dependence to a minimum, and that they rapidly reach the same level as other Member States;

– avoid imposing charges on property owners - whether renting out or living in their property - that are disproportionate to their means, as this could have the effect of neutralising the objectives of the directive, and encouraging people to reject a united Europe.

6.3 The Committee would like Article 3 of the proposed directive to read that the task of developing the methodology of calculation of the energy performance of buildings should not be

entrusted to a committee set up in accordance with the procedure described in Article 11, but be covered by a separate directive, the preparation of which will give rise to debate which is of a more open and rallying nature.

Brussels, 17 October 2001

The President of the Economic and Social Committee	The Secretary-General of the Economic and Social Committee
Göke Frerichs	**Patrick Venturini**

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N.B.: Appendices overleaf.

Appendix 1

Table 1: European Union Final Energy Demand by Sector and by Fuel in 1997 (Mtoe)[8]

Final Energy Demand by sector / Final Energy Demand by fuel	**Buildings (residential + tertiary)**	% of total final energy demand	**Industry**	% of total final energy demand	**Transport**	% of total final energy demand	**Total**	**% of total final energy demand**
Solid fuels	8.7	0.9%	37.2	4.0%	0.0	0.0%	**45.9**	**4.9%**
Oil	101	10.8%	45.6	4.9%	283.4	30.5%	**430.1**	**46.2%**
Gas	129.1	13.9%	86.4	9.3%	0.3	0.0%	**215.9**	**23.2%**
Electricity (incl. 14% from RES)	98	10.5%	74.3	8.0%	4.9	0.5%	**177.2**	**19.0%**
Derived heat	16.2	1.7%	4.2	0.5%	0.0	0.0%	**20.4**	**2.2%**
Renewables	26.1	2.8%	15.0	1.6%	0.0	0.0%	**41.1**	**4.4%**
Total	**379.2**	40.7%	**262.7**	28.2%	**288.6**	31.0%	**930.5**	**100.0%**

8 "Energy in Europe - European Union Energy Outlook to 2020", Special Issue November 1999, the Shared Analysis Project, European Commission.

Appendix 2

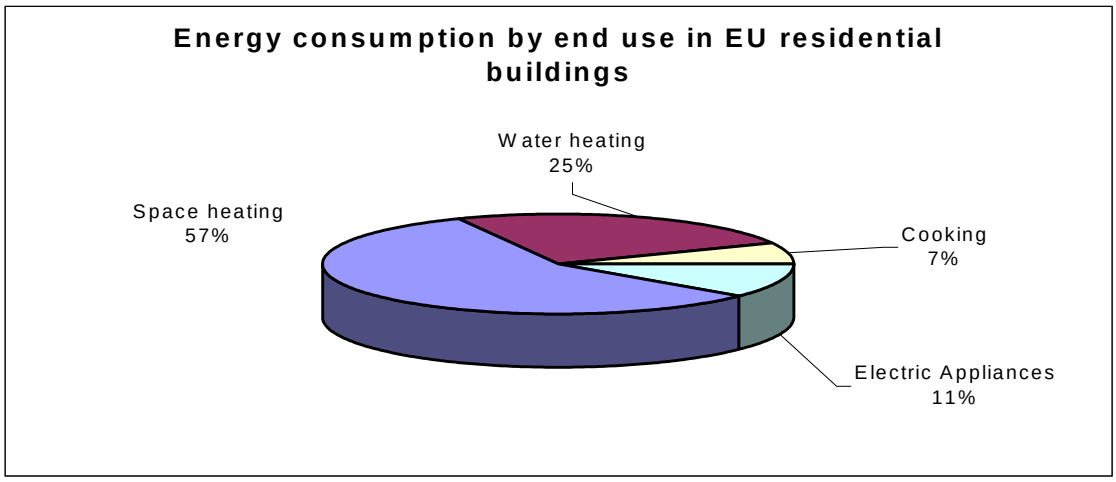

Figure 1: Energy consumption in the residential sector[9]

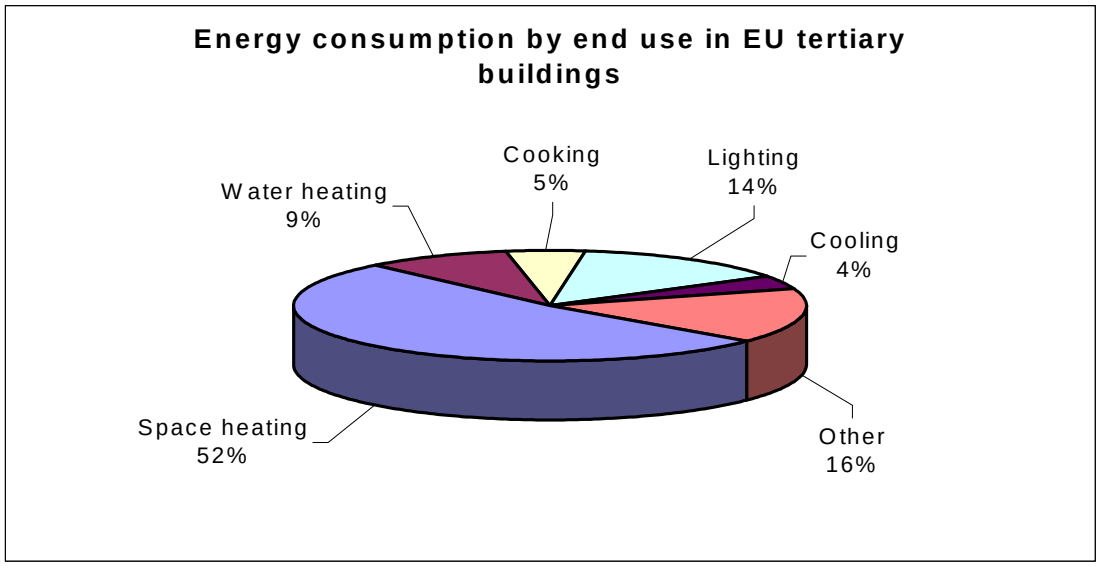

Figure 2: Energy consumption in the tertiary sector[10].

9 COM(2000) 769 of 29.11.2000

10 *Ibid*