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19 December 2001

# \*\*\*I REPORT

on the proposal for a directive of the European Parliament and of the Council on the energy performance of buildings (COM(2001) 226 – C5-0203/2001 – 2001/0098(COD))

Committee on Industry, External Trade, Research and Energy

Rapporteur: Alejo Vidal-Quadras Roca

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#### Symbols for procedures

*	Consultation procedure
	majority of the votes cast
**I	Cooperation procedure (first reading)
	majority of the votes cast
**II	Cooperation procedure (second reading)
	majority of the votes cast, to approve the common position
	majority of Parliament's component Members, to reject or amend
	the common position
***	Assent procedure
	majority of Parliament's component Members except in cases
	covered by Articles 105, 107, 161 and 300 of the EC Treaty and
	Article 7 of the EU Treaty
***I	Codecision procedure (first reading)
	majority of the votes cast
***II	Codecision procedure (second reading)
	majority of the votes cast, to approve the common position
	majority of Parliament's component Members, to reject or amend
	the common position
***III	Codecision procedure (third reading)
	majority of the votes cast, to approve the joint text
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(The type	of procedure depends on the legal basis proposed by the
Commiss	

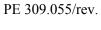
# Amendments to a legislative text

In amendments by Parliament, amended text is highlighted in *bold italics*. Highlighting in *normal italics* is an indication for the relevant departments showing parts of the legislative text for which a correction is proposed, to assist preparation of the final text (for instance, obvious errors or omissions in a given language version). These suggested corrections are subject to the agreement of the departments concerned.

# CONTENTS

# Page

PROCEDURAL PAGE	4
LEGISLATIVE PROPOSAL	5
DRAFT LEGISLATIVE RESOLUTION	22
EXPLANATORY STATEMENT	23
OPINION OF THE COMMITTEE ON THE ENVIRONMENT, PUBLIC HEALTH AND CONSUMER POLICY	27





# PROCEDURAL PAGE

By letter of 14 May 2001 the Commission submitted to Parliament, pursuant to Article 251(2) and Article 175 of the EC Treaty, the proposal for a directive of the European Parliament and of the Council on the energy performance of buildings (COM(2001) 226 – 2001/0098(COD)).

At the sitting of 17 May 2001 the President of Parliament announced that she had referred this proposal to the Committee on Industry, External Trade, Research and Energy as the committee responsible and the Committee on the Environment, Public Health and Consumer Policy for its opinion (C5-0203/2001).

The Committee on Industry, External Trade, Research and Energy appointed Alejo Vidal-Quadras Roca rapporteur at its meeting of 29 May 2001.

It considered the Commission proposal and draft report at its meetings of 18 September 2001, 5 November 2001, 20 November 2001, 3 December 2001, 4 December 2001 and 18 December 2001.

At the last meeting it adopted the draft legislative resolution by 44 votes to 2, with 2 abstentions.

The following were present for the vote: Carlos Westendorp y Cabeza (chairman), Nuala Ahern (vice-chairman), Renato Brunetta (vice-chairman), Peter Michael Mombaur (vicechairman), Alejo Vidal-Quadras Roca (rapporteur), María del Pilar Ayuso González (for Marjo Matikainen-Kallström), Guido Bodrato, Gérard Caudron, Giles Bryan Chichester, Nicholas Clegg, Willy C.E.H. De Clercq, Harlem Désir, Concepció Ferrer, Christos Folias, Glvn Ford, Per Gahrton (for Caroline Lucas), Pat the Cope Gallagher, Neena Gill (for Massimo Carraro), Norbert Glante, Alfred Gomolka (for Godelieve Quisthoudt-Rowohl), Lisbeth Grönfeldt Bergman (for Christian Foldberg Rovsing), Michel Hansenne, Malcolm Harbour (suplente de Umberto Scapagnini), Roger Helmer, Philippe A.R. Herzog (for Luisa Morgantini), Hans Karlsson, Bashir Khanbhai (for W.G. van Velzen), Werner Langen, Rolf Linkohr, Eryl Margaret McNally, Hans-Peter Martin (for Mechtild Rothe), Angelika Niebler, Reino Paasilinna, Yves Piétrasanta, Elly Plooij-van Gorsel, Samuli Pohjamo (for Colette Flesch), John Purvis, Bernhard Rapkay (for Erika Mann), Imelda Mary Read, Paul Rübig, Konrad K. Schwaiger, Esko Olavi Seppänen, Astrid Thors, Claude Turmes (suplente de Nelly Maes), Jaime Valdivielso de Cué, Dominique Vlasto, Anders Wijkman and Olga Zrihen Zaari.

The opinion of the Committee on the Environment, Public Health and Consumer Policy is attached.

The report was tabled on 19 December 2001.

The deadline for tabling amendments will be indicated in the draft agenda for the relevant part-session.

### LEGISLATIVE PROPOSAL

# Proposal for a directive of the European Parliament and of the Council on the energy performance of buildings (COM(2001) 226 – C5-0203/2001 – 2001/0098(COD))

The proposal is amended as follows:

Text proposed by the Commission <sup>1</sup>

Amendments by Parliament

#### Amendment 1 Recital 9

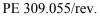
- (9) The energy performance of buildings should be calculated on the basis of a methodology that integrates, in addition to thermal insulation, *also* other factors that play an increasingly important role such as heating/air-conditioning installations, application of renewable energy sources and design of the building. A common approach to this process, carried out by qualified personnel, will contribute to a level playing field as regards efforts made in Member States to energy saving in the buildings sector and would introduce transparency for prospective owners or users with regard to the energy performance in the Community property market.
- (9) The energy performance of buildings should be calculated on the basis of a methodology that integrates, in addition to thermal insulation and the use of construction materials with inherent insulating properties, other factors that play an increasingly important role such as heating/airconditioning installations, application of renewable energy sources and design of the building. A common approach to this process, carried out by qualified personnel, will contribute to a level playing field as regards efforts made in Member States to energy saving in the buildings sector and would introduce transparency for prospective owners or users with regard to the energy performance in the Community property market.

#### Justification

As well as referring to the use of components designed specifically to improve a building's insulation, the directive ought to mention the existence of construction materials with thermal properties that make them natural insulators.

#### Amendment 2

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<sup>&</sup>lt;sup>1</sup> OJ C 213 E, 31.7.2001, p. 266.

# Recital 11

- (11) Major renovations of existing buildings above a certain size should be regarded as an opportunity to take *cost effective* measures to enhance energy performance.
- (11) Major renovations of existing buildings above a certain size should be regarded as an opportunity to take *cost-effective* measures to enhance energy performance. *The investment required must be economically viable, i.e. offer a rate of return within a timescale such as to make it sufficiently attractive.*

# Justification

The savings on energy consumption obtained by enhancing a building's energy efficiency give a return on the corresponding investment that provides the best incentive for the owner to take such performance-enhancing measures.

#### Amendment 3 Recital 12

- (12)By providing objective information on the energy performance of buildings when they are constructed, sold or rented out, energy certification will help to improve transparency of the property market and thus encourage investment in energy savings. It should also facilitate the use of incentive systems. Public authority buildings and buildings frequently visited by the public should set an example by taking environmental and energy considerations into account and therefore, should be subject to energy certification on a regular basis. The dissemination to the public of this information on energy performance should be enhanced by clearly displaying these energy certificates. Moreover, the displaying of officially recommended indoor temperatures, together with the actual measured
- (12) By providing objective information on the energy performance of buildings when they are constructed, sold or rented out, energy certification will help to improve transparency of the property market and thus encourage investment in energy savings. The certification process may be supported by publicly funded programmes to guarantee equal access to improved energy performance, notably in the case of residential buildings constructed or administered as part of a social welfare policy. It should also facilitate the use of incentive systems. Public authority buildings and buildings frequently visited by the public should set an example by taking environmental and energy considerations into account and therefore, should be subject to energy certification on a regular basis. The dissemination to the

temperature, should discourage the misuse of heating, air-conditioning and ventilation systems. This will contribute to avoiding unnecessary use of energy and to safeguard comfortable indoor climatic conditions (thermal comfort) in relation to the outside temperature. public of this information on energy performance should be enhanced by clearly displaying these energy certificates. Moreover, the displaying of officially recommended indoor temperatures, together with the actual measured temperature, should discourage the misuse of heating, air-conditioning and ventilation systems. This will contribute to avoiding unnecessary use of energy and to safeguard comfortable indoor climatic conditions (thermal comfort) in relation to the outside temperature.

#### Justification

Social housing is a specific market targeting low-income tenants or buyers. The directive should, therefore, make allowances for the specific nature of this housing sector, thereby ensuring that, when implemented, it does not disadvantage the latter.

Amendment 4 Recital 12 a (new)

> (12a) Recent years have seen a rise in the number of air-conditioning systems in southern European countries. This creates considerable problems at peak load times, increasing the cost of electricity and disrupting the energy balance in those countries. Priority should be given to strategies which enhance the thermal performance of buildings during the summer period. To this end there should be further development of passive cooling techniques, primarily those which improve indoor climatic conditions and the microclimate around buildings.

#### Justification

It does not make sense to improve efficiency on one hand and on the other not to encourage the recourse to alternatives to air conditioning to counteract the rapidly growing use of such

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equipment.

Amendment 5 Recital 13 a (new)

> (13a) Air conditioning systems are not included in the EN832 efficiency standard; the Commission should further develop EN832 so that it includes air conditioning.

Justification

By including air conditioning in the EN832 efficiency standard, the costs of evaluating efficiency of installed indoor equipment that includes air conditioning would be less expensive.

Amendment 6 Recital 14 a (new)

> (14a) Member States can employ a number of means to encourage enhanced energy performance, in the form of tax deductions, soft credits and the inclusion of energy performance as an important factor in public purchasing and procurement policies.

Justification

Helpful inducements are invariably preferable to coercive arrangements. It would be useful for the directive to make mention of the relevant forms of inducement.

Amendment 7 Recital 14 b (new)

> (14b) The billing, to occupiers of buildings, of heating, airconditioning and hot water costs calculated, in an appropriate proportion, on the basis of actual consumption, will contribute towards energy saving in the residential sector. It is desirable that occupants of such buildings should be enabled to regulate their own consumption of heat and hot water. The Council has adopted recommendations and resolutions on the billing of such costs.<sup>1</sup> This principle is also laid down in the 'SAVE' Directive.<sup>2</sup>

#### Justification

Since billing on an individual basis clearly helps make for more prudent and efficient use of energy resources, all Member States should encourage it. This principle has already been established in a number of Council recommendations and in the 'SAVE' Directive adopted in 1993.

#### Amendment 8 Recital 15

- (15) Provision should be made for the possibility of rapidly adapting the methodology of calculation in the field of energy performance of buildings to technical progress and to future developments in standardisation.
- (15) Provision should be made for the possibility of rapidly adapting the methodology of calculation and minimum standards in the field of energy performance of buildings to technical progress and to future developments in standardisation.



<sup>&</sup>lt;sup>1</sup> Recommendation 76/493/EEC (OJ L 140, 28.5.1976, p. 12); Recommendation 77/712/EEC (OJ L 295, 18.11.1977, p. 1); Resolution of 9 June 1980 (OJ C 149, 18.6.1980, p. 3); and Resolution of 15 January 1985 (OJ C 20, 22.1.1985, p. 1).

<sup>&</sup>lt;sup>2</sup> Article 3 of Council Directive 93/76/EEC of 13 September 1993 to limit carbon dioxide emissions by improving energy efficiency (OJ L 237, 22.9.1993, p. 28).

## Justification

Both the methodology for calculating energy efficiency and minimum standards will need to be adapted regularly to technical progress, so that new solutions can be taken on board.

#### Amendment 9 Article 1, first subparagraph

#### **Objective**

A common framework is hereby created to promote the improvement of the energy performance of buildings within the Community, taking into account climatic *and* local conditions. A common framework is hereby created to promote the improvement of the energy performance of buildings within the Community, taking into account *outdoor and indoor* climatic *conditions,* local conditions *and cost-effectiveness*.

#### Justification

Energy efficiency in a building should not be improved to the detriment of its indoor climatic conditions, and this aspect should thus be borne in mind. The arguments in favour of including cost-effectiveness in this article are the same as those applied in the case of recital 11.

#### Amendment 10 Article 2, first subparagraph and point 1

#### **Definitions**

For the purpose of this Directive, the following definitions shall apply:

 building: a *building* as a whole or, in the residential sector, parts of the *building* which have been designed to be used *separately* such as apartments or semi-detached houses; For the purpose of this Directive, the following definitions shall apply: (1) building: a *covered*, *walled* 

(1) building: a *coverea, wanea structure* as a whole or, in the residential sector, parts of the *structure* which have been designed to be used *separately*, such as apartments or semi-detached houses;

#### Justification

The term being defined ought not to feature in the definition itself.

Amendment 11 Article 2, point 2

- (2) energy performance of a building: the total energy efficiency of a building, reflected in one or more numeric indicators which have been calculated, taking into account insulation, installation characteristics, design and positioning, own energy generation and other factors that influence the net energy demand;
- (2) energy performance of a building: the proportion of energy consumed and actually used to meet the different needs associated with the use of the building (heating, water heating, cooling, ventilation, lighting, etc.). This amount should be reflected in one or more numeric indicators which have been calculated taking into account the factors specified in Annex A, sections 1 and 2;

#### Justification

It is desirable to state the factors used to estimate energy performance in a way which accords with the provisions in the annex.

#### Amendment 12 Article 2, point 3

- (3) minimum energy performance standard of a building: a regulated minimum requirement as regards the energy performance of buildings;
- (3) minimum energy performance standard of a building: a regulated minimum requirement as regards the energy performance of buildings *and the factors that determine it*;

#### Justification

If this directive is to work, in addition to the minimum energy performance requirement the other factors influencing performance should be brought into play, including thermal insulation, light fittings, useful boiler efficiency and so on. Furthermore, the same factors must be taken into account when the methodology for calculating energy efficiency is established.

#### Amendment 13 Article 2, point 10

- (10) useful efficiency (expressed in %): the ratio between the heat output
- (10) useful efficiency (expressed in %): the ratio between the heat output



transmitted to the boiler water and the product of the net calorific value at constant fuel pressure and the consumption expressed as a quantity of fuel *per unit time*; transmitted to the boiler water and the product of the net calorific value at constant fuel pressure and the consumption expressed as a quantity of fuel;

#### Justification

As regards dimensions, the Commission's proposed definition is unsound.

Amendment 14 Article 2, point 11 a (new)

> (11a) thermal insulation: any component part of the building serving to reduce heat exchange with the outside, including construction materials whose thermal properties are such that they inherently act as insulators.

#### Justification

The directive in its present form fails to provide a definition of the term 'thermal insulation', despite its recurrent use and its key role in improving buildings' energy efficiency.

Amendment 15 Article 3, first subparagraph

Member States shall adopt a methodology of calculation of the energy performance of buildings of which the general framework is set out in the Annex. *This* methodology shall be further developed and defined in accordance with the procedure referred to in *article* 11(2).

#### Methodology and standards Member States shall adopt a methodology of calculation of, and minimum standards for, the energy performance of buildings of which the general framework is set out in the Annex. The broad outline of this methodology and the minimum standards shall be further developed and defined in accordance with the procedure referred to in Article 11(2). The minimum standards may draw a distinction between new buildings and existing buildings and may take account of climatic conditions, local

conditions and the designated function and age of the building. Member States may exclude listed buildings, temporary buildings (i.e. buildings occupied for less than two years), specific parts of industrial sites (i.e. process plant production facilities), workshops and residential buildings which are not used as normal residences for more than three months per year.

#### Justification

If this directive is to prove effective, it would be advisable to lay down at Community level the broad outline of the common methodology, together with minimum energy performance standards. Many of the provisions in this directive had already been envisaged in the 'SAVE' Directive adopted in 1993. Experience has proved that strictly voluntary measures are patently inadequate and that binding standards are therefore required. The Commission reached the same conclusion in the Green Paper on energy supply.

Excluding industrial sites is far too vague: only some technical parts of industrial sites should be excluded, and not office buildings (or residential buildings) present on the site.

For buildings not occupied for most of the year a more precise definition (buildings occupied for less than three months per year) should be used.

#### Amendment 16 Article 3, second subparagraph

The energy performance of a building shall be expressed in a transparent and simple manner and may include a  $CO_2$  emission indicator.

The energy performance of a building shall be expressed in a transparent and simple manner and may – *and*, *in the case of new buildings, must* – include a  $CO_2$  emission indicator.

# Justification

The considerable potential for reductions in  $CO_2$  emissions in many buildings is the product of an integrated approach combining traditional savings opportunities with the introduction of cleaner energy supply alternatives. It therefore seems reasonable to expect certificates for new buildings to include a  $CO_2$  emission indicator, so as to provide the buyer or tenant with the relevant information and enable him to make comparative judgements.

Amendment 17

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Member States shall take the necessary measures to ensure that new buildings which are intended to be regularly used meet minimum energy performance standards, calculated according to the methodology framework set out in the Annex. These standards should include general indoor climate requirements in order to avoid possible negative effects such as inadequate ventilation. These energy performance standards shall be updated at least every five years in order to reflect technical progress in the building sector. Member States may exclude historic buildings, temporary buildings, industrial sites, workshops and residential buildings which are not used as normal residences.

For new buildings with a total surface area over 1000 m<sup>2</sup>, Member States shall ensure that 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, is assessed before the building permit is granted. The result of such an assessment shall be available to all stakeholders for consultation.

#### New buildings

Member States shall take the necessary measures to ensure that new buildings which are intended to be regularly used meet *the* minimum energy performance standards *referred to in Article 3*, calculated according to the methodology framework set out in the Annex. These standards should include general indoor climate requirements in order to avoid possible negative effects such as inadequate ventilation. These energy performance standards shall be updated at least every five years in order to reflect technical progress in the building sector.

For new buildings with a total surface area over 1000 m<sup>2</sup>, Member States shall ensure that 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, is assessed before the building permit is granted. The result of such an assessment shall be available to all stakeholders for consultation, and shall be taken into account at the planning stage before work on constructing the building commences.

#### Justification

Placing the list of exemptions in Article 3 would make the directive more accurate. Furthermore, mention should be made of the need, before work on constructing a building begins, to give due consideration to the outcome of the assessment of 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. Member States shall take the necessary measures to ensure that the energy performance of existing buildings with a total surface area over 1000 m<sup>2</sup> which are being renovated, are upgraded in order to meet minimum energy performance standards in so far as these are technically feasible and *involve additional costs that can on the basis of the current average mortgage rate be recovered within a period of 8 years by the accrued energy savings.* 

This principle shall apply in all those cases where the total cost of the renovation is higher than 25 % of the existing insured value of the building.

#### Existing buildings

Member States shall take the necessary measures to ensure that the energy performance of existing buildings with a total surface area over 1000 m<sup>2</sup> which are being renovated, *whether this applies to the structure of the building or to the energyconsuming systems (heating, hot water, cooling, ventilation, etc.)*, are upgraded in order to meet minimum energy performance standards *referred to in Article 3* in so far as these are technically feasible and *the requisite investment is economically viable.* 

#### Justification

Setting a minimum size for renovation projects would invite evasion by means of such practices as dividing a project into several parts. Moreover, it is not right for a directive to include detailed provisions which would be more appropriate in a regulation or in the corresponding legislation of each Member State.

#### Amendment 19 Article 6, paragraph 1

1. Member States shall ensure that, when buildings are constructed, sold or rented out, an energy performance certificate, being not older than 5 years, is made available to the prospective buyer or tenant.

#### Energy performance certificate

1. Member States shall ensure that, when buildings are constructed, sold or rented out, an energy performance certificate, being not older than 5 years, is made available to the prospective buyer or tenant. Where possible, the certificate may also concern the building as a whole, in which case it shall serve as a certificate for the individual flats in the building. In the case of existing buildings, Member States must have complied fully with the



Member States may exclude *historic* buildings, temporary buildings, industrial sites, workshops and residential buildings which are not used as normal residences.

Directive within 5 years of its having entered into force. Member States may exclude listed buildings, temporary buildings (i.e. buildings occupied for less than two years), specific parts of industrial sites (i.e. process plant production facilities), workshops and residential buildings which are not used as normal residences for more than three months per year.

# Justification

In practice, certificates relating to individual flats will be impractical: a certificate relating to the whole building will suffice.

In view of the huge stock of existing buildings in the European Union, it would appear reasonable to lay down a realistic transition period to facilitate the certification process and enable owners of all types of existing building to adjust to this rule. (The question of exemptions is addressed in the justification for the amendment to Article 3, first subparagraph.)

#### Amendment 20 Article 6, paragraph 2

- 2. The energy performance certificate for buildings shall provide relevant information for prospective users. It shall include reference values such as current legal standards and best practice in order to make it possible for consumers to compare and assess the energy performance of the building. The certificate shall be accompanied by recommendations for the improvement of the energy performance.
- 2. The energy performance certificate for buildings shall provide relevant information for prospective users. It shall include reference values such as legal standards current when it is drawn up and best practice in order to make it possible for consumers to compare and assess the energy performance of the building. The certificate shall be accompanied by recommendations for the improvement of the energy performance and, in the case of new buildings, by a  $CO_2$  emission indicator. The aforementioned information and recommendations included on the certificate shall be further developed and defined in accordance with the procedure

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# referred to in Article 11(2).

# Justification

It should be made clear that an amendment to the legal standards in force will not necessitate changes to every energy performance certificate but need be taken into account only when a fresh certificate is drawn up.

Energy performance certificates in the different Member States ought to carry comparable information. To that end, this information should be defined in accordance with the regulatory procedure referred to in Article 11(2).

Amendment 21 Article 6, paragraph 3, subparagraph (a)

- (a) the range of indoor temperatures and, when appropriate, other relevant climatic factors such as relative humidity, that are recommended by the authorities for that specific type of building.
- (a) the range of indoor temperatures and, when appropriate, other relevant climatic factors such as relative humidity, that are recommended by the authorities for that specific type of building *and for the energy-consuming systems (heating, hot water, cooling, ventilation, etc.) installed*.

# Justification

It should be stated that the rule also applies to systems which consume energy, in order to take account of the diversity of climate within the European Union.

# Amendment 22 Article 9

Member States shall ensure that the certification of buildings and inspection of heating and air-conditioning systems are carried out by *qualified and independent personnel*.

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Member States shall ensure that the certification of buildings and inspection of heating and air-conditioning systems – whether performed by public bodies or by private-enterprise bodies authorised to do so – are carried out by personnel duly authorised in such a way as to guarantee that they will act independently and who possess a particular grounding in the various techniques for enhancing the energy performance of buildings.

#### Justification

The adjective 'independent' – once authorisation by the public authorities is guaranteed – may result in an excessively restrictive interpretation which would make it impossible in practice to comply with the requirement. The option of delegating verification to private-enterprise bodies will facilitate compliance with the requirements contained in the directive.

Amendment 23 Article 9 a (new)

> The Commission shall, assisted by the committee established by Article 10, evaluate the Directive in the light of the experience gained during its operation no later than five years after its entry into force, and shall, if necessary, propose to the European Parliament and Council the appropriate amendments. As a part of this evaluation the Commission shall consider:

- (a) measures making existing buildings with a total surface area less than 1000 m<sup>2</sup> which are being renovated subject to the requirements laid down in Article 5;
- (b) general incentives for energy efficiency investments in buildings not undergoing major renovations, in order to overcome the owner/tenant dilemma.

#### Justification

In the directive it is proposed that only buildings larger than  $1000 \text{ m}^2$  should be obliged to consider investments in energy efficiency in the context of major renovations. The threshold chosen can be discussed. The next step should be to consider including buildings below  $1000 \text{ m}^2$ , like private dwellings, in the directive. One interesting idea could be to offer a lower property tax for buildings that are well insulated.

Amendment 24 Article 9 a (new)

> Information measures Member States shall take the necessary measures to inform the users of buildings

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as to the different methods and practices that serve to enhance energy performance. The Commission shall assist Member States in staging the information campaigns concerned, which may be dealt with in Community programmes.

#### Justification

The success of this directive will depend in large measure on the degree of acceptance and active involvement that it can elicit from the public. This will require information and awareness campaigns on the impact of the buildings sector on overall energy consumption, the considerable savings potential afforded by that sector and best practice to help improve energy performance.

#### Amendment 25 Article 12, paragraph 1

1. Member States shall bring into force the laws, regulations and administrative provisions to comply with this Directive *by 31 December 2003 at the latest*.

#### Entry into force

1. Member States shall bring into force the laws, regulations and administrative provisions to comply with this Directive within 36 months of its entry into force, without prejudice to the provisions of Article 6(1).

#### Justification

As regards compliance with the provisions contained in this directive, a reasonable transition period should apply. Given the nature and scope of the measures to be enforced, a three-year period would appear sufficient. In the specific case of certification, it would be prudent to apply a rather longer transition period along the lines of that proposed in the amendment to Article 6.

#### Amendment 26 Annex, paragraph A, subparagraph 1, letter f a (new)

#### fa. indoor climatic conditions



# Justification

Indoor climatic conditions are a key consideration whose impact on the health and well-being of the users of buildings is by no means negligible.

#### Amendment 27 Annex, paragraph A, subparagraph 1, letter f b (new)

# fb. intensity of use of the building

# Justification

The methodology for calculating energy performance should also take account of the intensity of use of a building - i.e. the number of persons who use it on a regular basis and the frequency of use involved.

Amendment 28 Annex, paragraph A, subparagraph 2, letter b a (new)

> ba. elements, products or components whose thermal or energy characteristics are certified in accordance with a process pursuant to standard EN 45011.

# Justification

This additional point will make it possible to encourage builders to use insulation products with a high energy performance and thus to promote a reduction in the energy consumed in heating buildings.

In view of the energy savings which it seeks to bring about, this amendment would help to reduce energy dependence and combat greenhouse gas emissions.

Amendment 29 Annex, paragraph A, subparagraph 3, letter f a (new)

fa. sports facilities

# Justification

Sports facilities together form a sizeable buildings category and as such ought to be listed in the Annex.



# DRAFT LEGISLATIVE RESOLUTION

# European Parliament legislative resolution on the proposal for a directive of the European Parliament and of the Council on the energy performance of buildings (COM(2001) 226 – C5-0203/2001 – 2001/0098(COD))

#### (Codecision procedure: first reading)

#### The European Parliament,

- having regard to the Commission proposal to the European Parliament and the Council (COM(2001) 226<sup>1</sup>),
- having regard to Articles 251(2) and 175 of the EC Treaty, pursuant to which the Commission submitted the proposal to Parliament (C5-0203/2001),
- having regard to Rule 67 of its Rules of Procedure,
- having regard to the report of the Committee on Industry, External Trade, Research and Energy and the opinion of the Committee on the Environment, Public Health and Consumer Policy (A5-0465/2001),
- 1. Approves the Commission proposal as amended;
- 2. Asks to be consulted again should the Commission intend to amend the proposal substantially or replace it with another text;
- 3. Instructs its President to forward its position to the Council and Commission.

<sup>&</sup>lt;sup>1</sup> OJ C 213 E, 31.7.2001, p. 266.

# **EXPLANATORY STATEMENT**

#### 1. Energy consumption and potential savings in the buildings sector

Total final energy consumption in the EU in 1997 was about 930 Mtoe (million tonnes of oil equivalent). According to the Commission's figures, 40.7% of total energy demand is used in the residential and tertiary sectors, with most of the such energy consumption building-related. Space heating is by far the largest energy end-use of households in Member States (57%), followed by water heating (25%). Electrical appliances and lighting make up 11% of the sector's total energy consumption. For the tertiary sector the importance of space heating is somewhat lower (52% of total consumption of the sector), while energy consumption for lighting and office equipment and 'others' (which is mainly office equipment) stands at 14% and 16% respectively. Approximately 10% of the consumed energy in buildings comes from renewable energy sources.

As regards energy in buildings that is used for heating, hot water, air-conditioning or lighting purposes, the Commission estimates that a savings potential of around 22% of present consumption exists and could be fully realised by the year 2010. This figure has been based on the assumption of a normal rate of retrofitting and rehabilitation for existing buildings, a net increase in the building stock of around 1.5% per year, and a successively increasing share in the use of best available technologies in buildings<sup>1</sup>.

The most recent available EUROSTAT statistics show significant differences in terms of the insulation measures carried out among Member States, connected in part to the varying climatic conditions between countries.

# 2. Background to the directive

The target of improved energy efficiency in buildings has already been set out in earlier existing legal instruments, including the 'Action Plan to improve Energy Efficiency in the European Community'<sup>2</sup> or the European Climate Change Programme<sup>3</sup>. Parliament has already pointed to the need to make this target a priority of Community energy policy on a number of occasions<sup>4</sup>.

Among the main existing Community legislation for the building sector are the 'Boilers Directive' (92/42/EEC), the 'Construction Products Directive' (89/106/EEC) and the 'buildings' articles in 'SAVE' Directive 93/76/EEC. The last of these directives requires Member States to draw up and implement programmes in six specific fields in order to improve energy efficiency. These programmes can be in the form of laws, regulations, economic and administrative instruments, information, education and voluntary agreements.



<sup>&</sup>lt;sup>1</sup> see ECCP Progress Report (2000), http://europa.eu.int/comm/environment/climat/eccp.htm

<sup>&</sup>lt;sup>2</sup> COM(2000) 247 final.

<sup>&</sup>lt;sup>3</sup> COM(2000) 88 final of 8 March 2000.

<sup>&</sup>lt;sup>4</sup> see for instance the European Parliament resolution on the Communication from the Commission on the European Union's oil supply (A5-0163/2001), adopted on 14 June 2001.

Although some of the measures provided for in the Commission proposal - including the certification of buildings, the thermal insulation of new buildings or the regular inspection of boilers - were already contained in the 'SAVE' Directive, they were not binding on the Member States.

Furthermore, Directive 93/76 was agreed in another political context, before the Kyoto Protocol came into being and before new doubts surfaced recently as to the growing dependence of the EU on external energy suppliers. Although this Directive has made a contribution, the Commission asserts that 'it has not proven to be completely adequate in reaching the important objective of improving the energy performance of buildings to the degree which is judged to be economically and technically feasible'.

In its Green Paper on energy supply the Commission suggested further demand-related measures, mainly involving promoting energy savings in buildings and in the transport sector. In the same document it concluded that, in general, Community programmes for the support and promotion of new technologies have failed to result in the application of standards on energy efficiency in buildings in many EU Member States.

In view of the above considerations the Commission sees the need for more concrete action and is thus suggesting a legal framework that can complement or reinforce existing national measures in this field and achieve some degree of convergence of standards with regard to the energy performance of buildings.

# 3. Objective and scope of the proposed directive

The basic objective underlying this draft directive is to promote the improvement of the energy performance of buildings in *all* EU Member States, ensuring as much as possible that only such measures as are the most cost-effective are undertaken. Given the low turnover rate of buildings (their typical lifetime being 50 to 100 years), the Commission has included in its proposal certain measures that also target the existing stock of buildings, which houses the largest potential for improving energy performance in the short and medium term. The proposed directive lays down a framework that will lead to increased coordination between Member States of legislation in this field and covers the building envelope, including windows, and installed equipment such as heating, air-conditioning and ventilation. It does not cover measures for non-installed equipment such as domestic appliances (including kitchen appliances), which together are responsible for 18% of the total energy consumption in the residential sector.

The proposal covers four main elements:

A) Establishment of a general framework of a common methodology for calculating the integrated energy performance of buildings (articles 1 and 3). This approach is already being applied both in EU Member States such as Germany, France, the UK, Italy and the Netherlands and outside the EU (in the US, Australia, Canada and New Zealand, for instance). A common methodology would facilitate the comparison of buildings throughout the EU for prospective users and form the basis for the adoption of integrated minimum energy performance standards for different building categories reflecting local circumstances, particularly climatic differences.

B) Application of minimum standards on the energy performance to new buildings and to certain existing buildings when they are renovated (articles 4 and 5). Under the Commission proposal, new residential buildings and dwellings as well as new buildings in the tertiary sector should meet the minimum energy performance standards based on an integrated methodology. Furthermore these standards should also be applied to larger existing buildings (i.e. those with more than 1000 m<sup>2</sup>) when the buildings undergo larger renovations.

C) Certification schemes for new and existing buildings on the basis of the above standards and public display of energy performance certificates and recommended indoor temperatures and other relevant climatic factors in public buildings and buildings frequented by the public (Article 6). The Commission believes that clear information will influence the rent that owners can set and therefore will be an incentive for them to make investments in the energy efficiency of buildings and houses. As the renter normally pays the energy bill, the incentive for the owner to invest in energy efficiency is weak. Making clear and reliable information available to prospective renters ought to help make these investments more attractive. The certificates, which should not be more than five years old, should include accompanying advice on how to improve the energy performance of the building. Certification for new buildings is at present mandatory in Denmark, Germany and the UK. For existing buildings only Denmark has a mandatory scheme, but several Member States have voluntary programmes. The Commission highlights the example of Denmark, where 'certification, together with the implementation of identified measures, provided a more than 13% return on investments'.

D) Specific inspection and assessment of boilers and heating/cooling installations (articles 7 and 8). Boilers with an effective output of more than 10 kW, the power necessary for smaller households with accumulation capacity, up to boilers for blocks of flats and offices, should be regularly inspected to improve their operating conditions. Such an inspection is compulsory in 10 Member States, whilst the others apply voluntary schemes and information programmes. Provision has also been made for the regular inspection of air conditioning systems with an effective output of more than 12 kW.

# 4. Main thrust of the rapporteur's proposed amendments

Some of the provisions, including the definitions employed for the purposes of the proposal in question, require further elucidation and detail in order to ensure that the directive is complied with in full. Furthermore, certain simplistic generalisations fail to cater for the potentially sizeable differences between new and existing buildings. Further emphasis needs to be placed on important aspects such as cost-effectiveness and indoor climatic conditions.

In your rapporteur's view, energy performance certificates in the different Member States ought to carry comparable information. In addition, the technical personnel in charge of certification and inspection should hold the duly authorised qualifications enabling them to perform their work with the appropriate safeguards.

If the directive under scrutiny here is indeed to prove effective, the broad outline of a common methodology, coupled with minimum energy performance standards, ought to be laid down at Community level. The experience amassed from implementation of the 'SAVE' Directive has shown that strictly voluntary measures are patently inadequate and that binding standards are therefore required. What is more, the success of the directive will depend largely on the

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degree of acceptance and active involvement that it can elicit from the public. To that end, your rapporteur has proposed measures designed to inform and alert citizens as to the considerable savings potential afforded by the buildings sector and best practice to help improve its energy performance.

A reasonable transition period for compliance with the provisions of the directive would be advisable, so that all necessary measures can be adopted and the buildings sector as a whole can adjust to the new legislative framework. Given the nature and scope of the proposed measures, a three-year period would appear sufficient. In the specific case of certification, a longer transition period for the existing building stock would be prudent to take account of the huge stock of buildings in the European Union.

# OPINION OF THE COMMITTEE ON THE ENVIRONMENT, PUBLIC HEALTH AND CONSUMER POLICY

for the Committee on Industry, External Trade, Research and Energy

on the proposal for a directive of the European Parliament and of the Council on the energy performance of buildings (COM(2001) 226 – C5-0203/2001 – 2001/0098 (COD))

Draftsman: Cristina García-Orcoyen Tormo

# PROCEDURE

The Committee on the Environment, Public Health and Consumer Policy appointed Cristina García-Orcoyen Tormo draftsman at its meeting of 29 May 2001.

It considered the draft opinion at its meetings of 5 November and 21 November 2001.

At the latter meeting it adopted the amendments unanimously.

The following were present for the vote: <u>Guido Sacconi</u> (<u>presidente(a)</u>/acting chairman); <u>...</u> (vicepresidente(a)), ...<u>Cristina García-Orcoyen Tormo</u> (draftsman); <u>Per-Arne Arvidsson</u>, María del Pilar Ayuso González, Hans Blokland, John Bowis, Philip Bushill-Matthews (for Karl-Heinz Florenz), Martin Callanan, Dorette Corbey, Nirj Deva (for Caroline F. Jackson), Avril Doyle, Anne Ferreira, Marialiese Flemming, Robert Goodwill, Françoise Grossetête, Cristina Gutiérrez Cortines, Christa Klass, Riitta Myller, Giuseppe Nisticò, Marit Paulsen, Frédérique Ries, Karin Scheele, Ursula Schleicher (for Eija-Riitta Anneli Korhola), Horst Schnellhardt, Renate Sommer (for Peter Liese), María Sornosa Martínez, Catherine Stihler and Kathleen Van Brempt (for David Robert Bowe)..., ... (suplente de ...), ... (suplente de ...., de conformidad con el apartado 2 del artículo 153 del Reglamento), ... y ....

# SHORT JUSTIFICATION

**Background** 

The European Union is consuming more and more energy and importing more and more energy products. Community production is insufficient to meet the Union's energy needs.

In November 2000 the Commission published a Green Paper entitled 'Towards a European strategy for the security of energy supply' (COM (2000) 769), advocating measures which have not been adopted and warning that, unless something was done, the Union's dependency on imports to meet its energy needs would rise to 70% in 20 to 30 years compared to the current 50%.



The Green Paper concludes that, in general, the Community programmes for the support and promotion of new technologies have not succeeded in introducing new standards on energy efficiency in buildings in many Member States.

Concrete measures are therefore needed such as the establishment of a clear legislative framework to reduce growth in demand.

The Commission has proposed a new directive on the energy performance of buildings (COM (2001) 226) designed to improve the energy performance of new and existing buildings in the European Union. The aim is to achieve potential savings of 22% of present consumption by the year 2010.

The basic objective of the proposed directive is to improve the energy performance of buildings in the EU, particularly as regards energy used for heating, hot water, air-conditioning or lighting purposes.

The Union's efforts are focused mainly on demand, seeking above all to encourage energy savings in buildings.

The proposal for a directive aims to achieve harmonisation of buildings standards, by moving towards those already in force in some Member States.

The Community approach should be the one which offers the best possibilities for ensuring a level playing field for consumers and operators in this sector within the internal market.

Main points of the amendments proposed by the draftsman

• Article 1 of the directive defines its scope and establishes a framework to promote improvements in the energy performance of buildings.

The measures it lays down for buildings with a total surface area over 1000 m<sup>2</sup> are introducing what is clearly a **sectoral restriction**, since residential buildings and the tertiary sector are excluded. This limit is jeopardising the very purpose of the directive, namely **potential energy savings**, by missing the opportunities for such savings provided by the directive (Amendments 1 and 2). The residential housing and tertiary sectors account for the majority of final energy consumers, thanks to the use of heating, lighting, electrical appliances and other equipment. In addition, these sectors, mainly involving buildings, account for more than 40% of the Community's final energy consumption.

- In order to **ensure an increase in energy savings**, it is important that the directive should apply to as many buildings as possible, within realistic limits. Consideration should be given to a broader and more detailed definition of buildings which remain excluded (Amendment 3).
- In order to improve **acceptance by the Member States**, emphasis should be placed on the reference in Article 1 to promoting the improvement of the energy performance of buildings, taking into account climatic and local conditions. This is vital if Member States are to be receptive to the proposal. A higher level of acceptance can be achieved if provision is made for a reasonable cost-effectiveness assessment.

- with regard to the certification proposal, it would be useful for **certificates to be standardised** for buildings in the Member States so as to make it possible to compare the energy efficiency of different buildings in different States. This would be particularly useful in the commercial sector, where data that cannot be compared are completely useless (Amendment 4). It is important that the proposed certification should be recognised by the Member States and valid in all of them.
- Although the proposal represents progress compared to the SAVE Directive currently in force (93/76/EEC) designed to limit carbon dioxide emissions by improving energy efficiency, the annex in particular contains a number of ambiguities which need to be cleared up in order to establish a common European methodology for determining building performance requirements.
- There are **no incompatibilities as regards transposing** the directive in connection with work in progress on energy requirements for buildings and energy assessment.
- The directive states that both new and existing buildings must comply with minimum energy performance requirements. However, no mention is made of what this minimum requirement should be.

# AMENDMENTS

The Committee on the Environment, Public Health and Consumer Policy calls on the Committee on Industry, External Trade, Research and Energy, as the committee responsible, to include the following amendments in its report:

Text proposed by the Commission

Amendment by Parliament

Amendment 1 Recital 12a (new)

> (12a) Recent years have seen a sharp rise in the number of air-conditioning systems in southern European countries. This creates considerable problems at peak load times, increasing the cost of electricity and disrupting the energy balance in those countries. Priority should be given to strategies which enhance the thermal performance of buildings during the summer period. To this end there should be further development of passive cooling techniques, primarily those which improve shading, ventilation, natural lighting and the microclimate around buildings.



# Justification

The object is to reduce the energy load of buildings, particularly during the summer.

#### Amendment 2 Recital 12b (new)

(12b) Provision must be made for measures aimed at enhancing the urban thermal environment, combating the heat island effect, and improving the urban microclimate.

# Justification

The object is improvement of the urban environment to reduce the energy requirements of buildings.

#### Amendment 3 Article 1, last sentence

Member States may exclude historic buildings, temporary buildings, industrial sites, workshops and residential buildings which are not used as normal residences. Member States may exclude *listed* historic buildings *and buildings of artistic interest*, temporary buildings *(with a life of less than two years)*, industrial sites, workshops and residential buildings which are not used as normal residences.

# Justification

The description of the buildings which the Member States may exclude leaves scope for a wide variety of interpretations and there is no clear indication of what kind of buildings are encompassed by each definition. A more detailed definition is need of each type of building excluded from the directive.

#### Amendment 4 Article 4, paragraph 2

For new buildings with a *total surface area over 1000 m2*, Member States shall ensure that 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, is assessed before the building permit is granted. The result of such an assessment shall be available to all stakeholders for consultation. For new buildings with a *total surface area over 500 m2*, Member States shall ensure that 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, is assessed before the building permit is granted. The result of such an assessment shall be available to all stakeholders for consultation.

#### Justification

See Justification to Amendment 5 below.

# Amendment 5 Article 5, paragraph 1

Member States shall take the necessary measures to ensure that the energy performance of existing buildings with a *total surface area over 1000 m2* which are being renovated, are upgraded in order to meet minimum energy performance standards in so far as these are technically feasible and involve additional costs that can on the basis of the current average mortgage rate be recovered within a period of 8 years by the accrued energy savings. Member States shall take the necessary measures to ensure that the energy performance of existing buildings with a *total surface area over 500 m2* which are being renovated, are upgraded in order to meet minimum energy performance standards in so far as these are technically feasible and involve additional costs that can on the basis of the current average mortgage rate be recovered within a period of 8 years by the accrued energy savings.

# Justification (Amendments 4 and 5)

The directive stipulates that certain measures should be taken for buildings with a total surface area over  $1000 \text{ m}^2$ , which would exclude practically all private residences in the EU, amounting to something like around 150 m residences.

The aim of these amendments is to extend the requirements to a greater number of buildings, with the additional energy savings this would involve.





The certificate must also be recognised by the Member States and valid in each of them.

#### Justification

Certification of new and existing building is one of the measures proposed. Although the directive does not say so specifically, the certification of buildings in the Member States needs to be standardised so that certificates issued for buildings in different countries will be comparable. This will also enable undertakings to issue certificates in other countries, thereby opening up the market.

#### Amendment 7 Article 7

Member States shall lay down the necessary measures to establish a regular inspection of boilers of an effective output of more than 10 kW of which the requirements are set out in the Annex. These requirements shall be further developed and defined in accordance with the procedure referred to in article 11(2). Member States shall lay down the necessary measures to establish a regular inspection, *at least every five years*, of boilers of an effective output of more than 10 kW of which the requirements are set out in the Annex. These requirements shall be further developed and defined in accordance with the procedure referred to in article 11(2).

#### Justification

See justification to Amendment 8 below.

#### Amendment 8 Article 8

Member States shall lay down the necessary measures to establish a regular inspection of central air conditioning systems of an effective output of more than 12 kW of which the requirements are set out in the Annex. These requirements shall be further developed and defined in accordance with the procedure referred to in article 11(2). Member States shall lay down the necessary measures to establish a regular inspection, *at least every five years*, of central air conditioning systems of an effective output of more than 12 kW of which the requirements are set out in the Annex. These requirements shall be further developed and defined in accordance with the procedure referred to in article 11(2).

# Justification (Amendments 7 and 8)

The inspections should be held regularly enough to ensure proper compliance with the principles laid down in this directive. In the various Member States, boiler inspections are generally held at least every five years.

