



COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, 13.11.2008  
COM(2008) 780 final

2008/0223 (COD)

C6-0413/08

Proposal for a

**DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL**

**on the energy performance of buildings**

**(recast)**

(presented by the Commission)

{SEC(2008) 2864}

{SEC(2008) 2865}

# COMMUNICATION FROM THE COMMISSION

## EXPLANATORY MEMORANDUM

### 1. CONTEXT OF THE PROPOSAL

#### 1.1. Objective

The aim of the recast of Directive 2002/91/EC of the European Parliament and of the Council of 16 December 2002 on the energy performance of buildings<sup>1</sup>, hereafter referred to as "EPBD", is to clarify and simplify certain provisions, extend the scope of the Directive, strengthen some of its provisions so that their impact is more effective, and to provide for the leading role of the public sector. In doing so, the transposition and implementation of the EPBD is to be facilitated and a significant portion of the remaining cost-efficient potential in the buildings sector will be reaped. At the same time, the objectives and principles of the current Directive are retained and it is again left to Member States to determine the concrete requirements and ways to implement it as before.

#### 1.2. EU policy objectives and the buildings sector

In January 2007, the Commission proposed a comprehensive climate and energy package<sup>2</sup> containing targets of 20-20-20% reduction of energy consumption and greenhouse gas emissions, and increased share of renewables by 2020. This was endorsed by the 2007 Spring European Council. These targets have been adopted in the light of the mounting scientific evidence of climate change, high energy prices and the growing import energy dependency and its possible geo-political repercussions. The reduction of energy consumption can clearly make a significant contribution to achieving these targets. The buildings sector provides many cost-efficient opportunities for action, while at the same time contributing to the welfare of EU citizens.

The buildings sector – i.e. residential and commercial buildings - is the largest user of energy and CO<sub>2</sub> emitter in the EU and is responsible for about 40% of the EU's total final energy consumption and CO<sub>2</sub> emissions. The sector has significant untapped potential for cost-effective energy savings which, if realized, would mean that in 2020 the EU will consume 11% less final energy. This in turn translates to a number of benefits, such as reduced energy needs, reduced import dependency and impact on climate, reduced energy bills, an increase in jobs and the encouragement of local development.

Buildings essentially correspond to the needs and preferences of all European citizens in their specific environments and are therefore often regarded as a key matter of competence for local, regional and national authorities. At the same time, construction products, appliances and services are an important part of the EU internal market and nowadays many workers and businesses are not limited to a single country. Furthermore, the building sector is crucial to meet the energy and climate objectives at the least possible cost to individuals and society in all countries and the added value of common efforts is significant. This further justifies action at EU level.

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<sup>1</sup> OJ L 1, 4.1.2003, p. 65–71

<sup>2</sup> COM (2007) 1

## **2. EXISTING COMMUNITY PROVISIONS**

### **2.1. Energy Performance of Buildings Directive**

The EPBD is the main Community legal tool that provides for a holistic approach towards efficient energy use in the buildings sector. The EPBD's main objective is to promote the cost-effective improvement of the overall energy performance of buildings. Its provisions cover energy needs for space and hot water heating, cooling, ventilation and lighting for new and existing, residential and non-residential buildings. Most of the existing provisions apply to all buildings, regardless of their size and whether in residential or non-residential use. Some provisions only apply to specific building types. The Directive combines, in a legal text, different regulatory (such as the requirement for Member States to set energy performance requirements for new and large existing buildings that undergo major renovation) and information-based instruments (such as energy performance certificates, inspection of heating and air-conditioning requirements).

The EPBD does not fix EU-wide levels, but requires Member States to lay down the concrete requirements and relevant mechanisms. Thus, its approach takes national/regional boundary conditions, like outdoor climate and individual building traditions fully into consideration. Member States can go beyond the minimum requirements set in the Directive and be more ambitious. There was a delay in the EPBD's implementation, but now 22 Member States declare full transposition (under evaluation by the Commission). One of the main contributions of the EPBD so far, has been in bringing energy efficiency in buildings onto political agendas, its' integration into building codes and to the attention of citizens.

### **2.2. Other regulatory instruments**

Apart from the EPBD, there are a number of other Directives dealing with energy aspects in the buildings context, e.g. Eco-design of Energy-using Products Directive (2005/32/EC)<sup>3</sup>, Directive on the Promotion of Cogeneration (2004/8/EC)<sup>4</sup>, Energy End-use Efficiency and Energy Services Directive (2006/32/EC)<sup>5</sup>, and the proposed Directive on the Promotion of the Use of Energy from Renewable Sources<sup>6</sup>. Relevant provisions on buildings can also be found in the Construction Products Directive (89/106/EEC)<sup>7</sup>; and in the Sustainable Production and Consumption and Sustainable Industrial Policy Action Plan<sup>8</sup>.

Although these Directives are not explicitly mentioned in the proposal, as this is not a legal practice, they are an inseparable part of a mix of tools to promote sustainable construction and use of the EU buildings stock and Member States shall also take them into full account when developing their policies for the sector.

### **2.3. Need for further action?**

Despite the actions already undertaken, very large cost-efficient energy saving potential remains unexploited. This means that a lot of the potential social, economic and environmental benefits at national and EU level are not fully taken advantage of. This is due to the complexity of the sector and the existence of market failures, but also to some limitations of the wording and scope of some provisions of the current EPBD and the low level of ambition of its implementation by some Member States.

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<sup>3</sup> OJ L 191, 22.7.2005, p. 29-58.

<sup>4</sup> OJ L 52, 21.2.2004, p. 50-60.

<sup>5</sup> OJ L 191, 22.07.2005, p. 29-58.

<sup>6</sup> COM(2008) 30

<sup>7</sup> OJ L 40, 11.2.1989, p.12-26

<sup>8</sup> COM(2008) 397/3

### **3. CONSULTATIONS WITH INTERESTED PARTIES AND IMPACT ASSESSMENT**

#### **3.1. Consultations, data collection and use of expertise**

The EPBD recast proposal has been developed on the basis of a broad range of contributions from Member States and interested parties, provided on various occasions including public online consultation. Comprehensive analysis of the impacts of the various options proposed was carried out with consideration being given to their economic, social and environmental impacts and taking into account the subsidiarity and proportionality principles.

#### **3.2. Impact Assessment**

The Impact Assessment (IA) clearly demonstrated that the revision of the EPBD is the appropriate action to meet EU policy objectives. The current Directive will be the starting point and form the 'backbone'. However, it should be emphasised that the solution lies in an integrated mix of policy instruments. Thus, other non-regulatory measures, although not sufficient on their own, are necessary to complement the implementation of the Directive. Therefore, the efforts in providing more information, training of experts, and agreeing on voluntary actions should be continued and further developed further. In addition, efforts are necessary to set financial and fiscal incentives at the right level to encourage an efficient use of resources.

The IA concluded that several aspects of the EPBD should be addressed in two ways. First, clarification of ambiguous wording needs to be introduced. Also, the use of recasting (vs amendment) was suggested. Second, the main pillars (energy performance requirements for new buildings and for existing ones that undergo major renovation; energy performance certificates; and the inspection of heating and air-conditioning systems) of the current Directive need to be strengthened. The options analysed within each pillar include a mix of policy instruments and also include non-regulatory alternatives. They would allow for the potential of the current EPBD to be fully realized and for its impact to be widened.

The minimum total impact of the options identified as being most beneficial and therefore considered to be included in this recast proposal and for which quantification was possible, is significant:

- 60 – 80 Mtoe/year energy savings by 2020, i.e. a reduction of 5-6% of the EU final energy in 2020;
- 160 to 210 Mt/year CO<sub>2</sub> savings by 2020, i.e. 4-5% of EU total CO<sub>2</sub> emissions in 2020;
- 280,000 (to 450,000) potential new jobs by 2020, mainly in the construction sector, energy certifiers and auditors and inspectors of heating and air-conditioning systems. New jobs would also be stimulated by the need for products, components and material used or installed in better performing buildings (these have not been quantified in the IA).

The investment requirements and the administrative costs are relatively low compared to the benefits and the returns. For example, abolishing the 1000 m<sup>2</sup> threshold of Article 6 of the current EPBD would lead to €8 billion/year additional capital investments, but would trigger €25 billion/year energy cost savings by 2020, which also means considerable negative CO<sub>2</sub> abatement costs. These calculations have been made on the basis of conservative estimates about oil prices.

The investment requirements are not equally distributed amongst EU citizens, i.e. there will be additional costs for those who make major renovations to their buildings or are engaged in property transaction. However, with high energy prices these initial investments will generate

attractive returns and will reduce energy bills. This will have positive direct and indirect effects throughout the whole economy.

The overall benefits for society in terms of reduction of energy consumption and thus reduced CO<sub>2</sub> emissions and energy import dependency, job creation, positive health and labour productivity far exceed the costs of the measures analysed. Investments on energy savings that pay for themselves by making the use of primary energy efficient also increase welfare.

Nevertheless, some of the requirements might be a burden to some low income households. Improvement of the quality of buildings is important way to achieving long-term solutions to the problems of high energy bills and for a better quality of life and other measures at the disposal of Member States should be used to support those in such need. The revised Directive supports the case of targeted funding tools. For example, it provides the basis for linking energy efficiency improvements included in the recommendations of the certificate and financial incentives.

The IA document published and its annexes provide detailed information on the various options considered and their impact, as well as the methodological approach for their evaluation.

#### **4. BUDGETARY IMPLICATIONS**

Member States authorities, in their replies to a questionnaire prepared by the Commission for the revision, estimated that the budgetary implications resulting from the Directive are not too substantial. In addition, the administrative impact is moderate. Reducing unproductive primary energy consumption in the buildings sector will lead to cuts in expenditure for households, businesses and public authorities managing and using these buildings. The monetary and economic benefits will be higher than the additional costs of realising the investments to save energy. The administrative costs and investments required are discussed in detail in the IA document. No substantial costs for the Community budget have been identified.

The enhanced requirements would increase the workload for the Commission and would require additional personnel (approximately three full-time officials).

#### **5. LEGAL ELEMENTS OF THE PROPOSAL**

##### **5.1. Summary of the proposed action**

In the proposal the objectives and main principles of the current EPBD are retained and the role of Member States in setting up the concrete requirements is also the same as in the current EPBD. The administrative burdens are kept to a minimum, but developed in order to achieve maximum effect. It is crucial that the current EPBD be properly implemented and on time. This proposal should not be an excuse to delay implementation of the current Directive. The proposal clarifies, strengthens and extends the scope of the current EPBD's provisions by;

- Introducing clarification of the wording of certain provisions;
- Extending the scope of the provision requiring Member States to set up minimum energy performance requirements when a major renovation is to be carried out ;
- Reinforcing the provisions on energy performance certificates, inspections of heating and air-conditioning systems, energy performance requirements, information, and independent experts;

- Providing Member States and interested parties with a benchmarking calculation instrument, which allows the nationally/regionally determined minimum energy performance requirements ambition to cost-optimal levels to be compared;
- Stimulating Member States to develop frameworks for higher market uptake of low or zero energy and carbon buildings;
- Encouraging a more active involvement of the public sector to provide a leading example.

## **5.2. Legal basis**

Energy efficiency of buildings has an important place in Community environmental policy. Therefore, the current EPBD has been based on Art. 175(1) of the EC Treaty. This remains unchanged.

## **5.3. EU's right to act, subsidiarity and proportionality**

The instruments on energy efficiency adopted at EU level reflect the growing importance of energy as a political and economic challenge and its close interrelation to policy areas of security of energy supply, climate change, sustainability, the environment, internal market, and economic development.

The buildings sector is responsible for about half of the CO<sub>2</sub> emissions not covered by the Emission Trading Scheme and has significant CO<sub>2</sub> reduction potential at negative or low abatement costs. The characteristics of the buildings sector limit the rate of energy efficiency gains. The construction products, appliances and services related to buildings are an important part of the EU internal market. Without assurance that EU-wide market conditions are firmly established and long-lasting, businesses are not likely to respond rapidly to the growing demand for energy efficiency services. In addition, with the increasing mobility of workers and number of businesses with operations across the EU, measures creating more comparable national regulatory conditions would decrease the administrative burden and increase opportunities for productivity gains for them.

Energy efficiency objectives could so far not be sufficiently achieved by Member States alone, and action at Community level is needed to facilitate and support the uptake of activities at national level. The main elements of the current EPBD have already been considered pointing the context of subsidiarity and proportionality principles and the practice has demonstrated the appropriateness of the approach. In the proposed text both principles have been respected. The emphasis is on the establishment of a common approach that creates the basis for coherent and mutually reinforcing mechanisms for energy efficiency improvements, while at the same time Member States retain control over setting the individual requirements and ways to implement them.

## **5.4. Choice of legal instrument**

The energy of buildings energy efficiency is part of the Commission's Better Regulation Strategy, in particular of the Action Plan "Simplifying and improving the regulatory environment"<sup>9</sup>. It is proposed that the recasting technique is used as it improves readability and facilitates its comprehension.

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<sup>9</sup> COM/2002/0278 final

## **6. CONTENTS OF THE PROPOSAL**

A number of modifications are made to the text with some of them being adaptations, clarifications and minor corrections of the text, whilst others provide for the insertion of new provisions. The latter are described below.

### **Preamble**

Some recitals are up-dated or adapted.

### **Art. 1. Subject matter**

A reference is inserted to indicate new requirements on: (i) national plans for increasing the number of buildings of which both CO<sub>2</sub>-emissions and primary energy consumption are low or equal to zero, and (ii) independent control systems for the energy performance certificates and the inspection reports.

### **Art. 2. Definitions**

Clarifications to several terms are introduced and new definitions are added wherever necessary.

### **Art. 3. Adoption of a methodology**

The text is adapted and the technical details it contained are moved to Annex I.

### **Art. 4. Setting of minimum energy performance requirements**

At present, the energy performance requirements, as established by Member States, vary considerably in their level of ambition, with some being far from cost-optimal levels. This means that an opportunity for improving the energy performance of a building in an economic way and lowering the future energy bills is lost in many constructions and major renovations.

The text has been modified to ensure that the minimum energy performance requirements of buildings as set by Member States gradually align with cost-optimal levels. A four stages approach has been proposed:

- (1) Member States should set their requirements using their own calculation methodology with a view to achieve the cost-optimal levels determined by them;
- (2) The Commission will develop a comparative methodology and Member States will have to use it for comparison purposes only and shall report the results as described in Art. 5 below;
- (3) As from 30 June 2014, Member States are no longer able to provide incentives for the construction or renovation of buildings which do not comply with minimum energy performance requirements achieving the results of the comparative calculation described in Art. 5;
- (4) As from 30 June 2017, Member States, where they review their minimum energy performance requirements, shall ensure that these requirements achieve the results of the calculation referred to in Article 5(2).

### **Art. 5. Calculation of cost-optimal levels of minimum energy performance requirements**

The abovementioned comparative methodology would consist of a calculation methodology developed by the Commission which would take cost-optimal criteria into account by variables (such as investment costs, operating and maintenance costs, incl. energy costs). Member States would be required to use this methodology in order to calculate the cost-optimal requirements using variables as fixed by them. The results should then be compared

with the actual requirements established in the Member State, thus clearly indicating how close national requirements are to cost-optimal levels.

Member States shall report the specified variables, comparative calculation results and the comparison to requirements laid down to the Commission, which will publish progress reports.

#### **Art. 6. New buildings**

The obligation to consider alternative systems for new buildings is extended to all buildings. This enlarges the EPBD's scope and supports the EU targets on renewables.

Although not stated, the implementation of the provisions on the evaluation of the alternative systems shall be in line with the requirements under the Directive on the promotion of the use of renewable energy sources (COM(2008) 19 final).

Article 6 (2) is added to ensure that the analysis of the alternative systems is *de facto* carried out and that this is done in a transparent manner.

#### **Art. 7. Existing buildings**

The threshold of 1000 m<sup>2</sup> for meeting of the national/regional minimum energy performance requirements when the buildings undergo major renovation is deleted. This threshold in the current EPBD excludes 72% of the buildings stock which disposes of an outstanding, cost-effective energy saving potential. Clearly, the best moment for the introduction of energy efficiency measures is when the building undergoes major renovation (approx. every 25-40 years). In this way the additional investment needs are not high and due to energy savings they are repaid within the lifetime of the measures.

The definition of 'major renovation' is kept and reinforced by being moved from the preamble to Article 2. Therefore, the investment should be more than 25% of the whole buildings value, excluding the land, e.g. the actuarial value, or more than 25% of the building envelope undergoes structural renovation.

#### **Art. 8. Technical building systems in existing buildings**

Requirements are included for Member States to set up minimum energy performance requirements for the installation of new or the replacement of existing technical building systems, or their major retrofit. These should be consistent with the legislation applicable to the products which compose this system, and be based on a proper installation of the system's components and their appropriate adjustment and sizing. This aims at ensuring better efficiency of whole systems. This is needed because if the individual elements of a system are very efficient, if they are not well installed or adjusted, the efficiency of the entire system may not be high.

#### **Art. 9. Buildings of which both carbon dioxide emissions and primary energy consumption are low or equal to zero**

Member States are required to actively promote the higher market uptake of such buildings by producing national plans with clear definitions and targets for their uptake. Member States should demonstrate the leading role of public authorities in the setting up of specific targets for buildings occupied by them. Based on the Member States' information the Commission shall establish common principles for defining such buildings. The Commission will report on the progress of Member States, and on the basis of this develop a strategy, and, if necessary, develop further measures.

#### **Art. 10. Energy performance certificates**



The role of the recommendations of the certificate is strengthened and clarified by emphasizing that they shall be an indispensable part of the certificate and by including provisions on the information they shall contain.

#### **Art. 11. Issuing of energy performance certificates**

The requirements related to the provision of the certificate are reformulated to ensure that the certificates are provided every time there is a property transaction and the prospective buyer or tenant is informed of the energy performance of the building (or its parts) at an early stage (i.e. in the sale/rent announcements).

A requirement that if the total useful area over 250 m<sup>2</sup> of a building is occupied by public authorities, a certificate should be issued by 31 December 2010, is introduced.

#### **Art. 12. Display of energy performance certificates**

The scope of the obligation to display the certificate is extended: i.e. if the total useful area of a building occupied by a public authority or frequently visited by the public is over 250 m<sup>2</sup>, the certificate shall be displayed in a prominent place clearly visible to the public. For the latter, the requirement shall be imposed only if the certificate is already available.

#### **Art. 13. Inspection of heating systems**

Clarifications on the frequency of inspections are introduced in order to stress the importance of proportionality between inspection costs and anticipated energy savings (benefits) stimulated by the inspection.

A requirement for an independent control system for the inspection reports, i.e. via random sampling checks of the quality, is introduced.

#### **Art. 14. Inspection of air-conditioning systems**

Similar to Art. 13, clarification on the frequency of the inspections.

#### **Art. 15. Reports on the inspection of heating and air-conditioning systems (new)**

The requirement for an inspection report to be handed over to the owner or tenant of a building is introduced, in order to appropriately inform them about the inspection result and recommendations for cost-effective improvements.

#### **Art. 16. Independent experts**

A requirement is added that in the accreditation process the operative and technical skills of experts who carry out the certifications and inspections and their ability to carry out the service in an independent manner are taken into account.

At present, some Member States limit the accreditation of experts to specific professional groups or companies which does not guarantee their competence and prevents other skilled professionals, for example ESCOs and energy agencies, from entering the market, which limits competition.

#### **Art. 17. Independent control system**

A requirement for an independent control system for the energy performance certificates and for the reports on the inspection of heating and air-conditioning systems, i.e. via random sampling checks of the quality, is introduced.

The certificates and the inspection report shall be registered, if requested.

#### **Art. 18. Review**

Updated.

### **Art. 19. Information**

Member States are required to provide information to building owners or tenants on energy performance certificates and the inspection of heating and air-conditioning systems. During the implementation of the current Directive it became obvious that the population is not always aware of their role and added value. If this is not understood and they are treated just as an additional administrative requirement, the potential positive impact will not be realized. Therefore, all-embracing information campaigns shall be initiated by Member States.

### **Art. 20: Adaptation of Annex I to technical progress**

Adapted.

### **Art. 21. Committee**

Modified in line with the adaptations of the regulatory procedure with scrutiny.

### **Art. 22. Penalties**

Member States are required to lay down and implement rules applicable in response to infringements of the national provisions adopted pursuant to the EPBD. The fine may depend on the energy consumption, or energy demand of the certified building/effective rated output of the inspected heating/air-conditioning system.

The text is similar to Article 20 (Penalties) of Directive 2005/32/EC.

### **Art. 23. Transposition**

Transposition dates are adjusted so that Member States have sufficient time to transpose (31 December 2010) and fully implement (31 January 2012) the revised/new provisions. To reinforce the important role of the public sector to act as a leading example, the public authorities' deadline for the implementation of the provision is shorter (31 December 2010).

### **Art. 24. Repeal**

Inserted so that there is a distinction between the provisions of the current EPBD and its recast.

### **Art. 25. Entry into force**

Adapted.

### **Art. 26.**

No changes.

### **Annex I**

It is important that an estimation of the 'real' impact of the building's operation on the total energy consumption and on the environment is made and therefore a primary energy indicator and CO<sub>2</sub> emissions indicator shall be used.

The annual energy performance data shall be used for the assessment so that the importance of the different energy uses throughout the year is emphasised and the cooling demand is better incorporated.

Reference to the European standards has been made to support the harmonization of the methodologies for calculating national/regional minimum energy performance requirements.

### **Annex II**

Provides a description of independent control systems for energy performance certificates and inspection reports.

**Annex III**

Added as required in Article 23.

**Annex IV**

Correlation table

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↓ 2002/91

2008/0223 (COD)

Proposal for a

**DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL**

**on the energy performance of buildings**

(recast)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,  
Having regard to the Treaty establishing the European Community, and in particular Article 175(1) thereof,

Having regard to the proposal from the Commission,

Having regard to the opinion of the European Economic and Social Committee<sup>10</sup>,

Having regard to the opinion of the Committee of the Regions<sup>11</sup>,

Acting in accordance with the procedure laid down in Article 251 of the Treaty<sup>12</sup>,

Whereas:

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↓ new

(1) Directive 2002/91/EC the European Parliament and of the Council of 16 December 2002 on the energy performance of buildings<sup>13</sup> has been amended<sup>14</sup>. Since further substantive amendments are to be made, it should be recast in the interests of clarity.

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↓ 2002/91 recital 1 (adapted)

~~(1) Article 6 of the Treaty requires environmental protection requirements to be integrated into the definition and implementation of Community policies and actions.~~

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<sup>10</sup> OJ C [...], [...], p. [...].

<sup>11</sup> OJ C [...], [...], p. [...].

<sup>12</sup> OJ C [...], [...], p. [...].

<sup>13</sup> OJ L 1, 4.1.2003, p. 65.

<sup>14</sup> See Annex IV, Part A.

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↓ 2002/91 recital 2

- (2) The natural resources, to the prudent and rational utilisation of which Article 174 of the Treaty refers, include oil products, natural gas and solid fuels, which are essential sources of energy, but also the leading sources of carbon dioxide emissions.
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↓ 2002/91 recital 3

~~Increased energy efficiency constitutes an important part of the package of policies and measures needed to comply with the Kyoto Protocol and should appear in any policy package to meet further commitments.~~

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↓ new

- (3) Reduction of energy consumption in the buildings sector constitutes an important part of the measures needed to reduce greenhouse gas emissions and comply with the Kyoto Protocol to the United Nations Framework Convention on Climate Change, and with further European and international commitments to reduce greenhouse gas emissions beyond 2012. Reduced energy consumption also has an important part to play in promoting security of energy supply, technological development and providing opportunities for employment and regional development, especially in rural areas.
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↓ 2002/91 recital 4 (adapted)

- (4) ~~Demand M~~anagement of energy ☒ demand ☒ is an important tool enabling the Community to influence the global energy market and hence the security of energy supply in the medium and long term.
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↓ 2002/91 recital 5 (adapted)

⇒ new

- ~~(5) 30 May 2000 and of 5 December 2000, the Council endorsed the Commission's action plan on energy efficiency and requested specific measures in the building sector.~~
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↓ new

- (5) The European Council of March 2007 emphasised the need to increase energy efficiency in the Community so as to achieve the objective of reducing by 20 % the Community's energy consumption by 2020 and called for a thorough and rapid implementation of the priorities established in the Communication of the Commission "Action Plan for Energy Efficiency: Realising the Potential"<sup>15</sup>. This Action Plan

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<sup>15</sup> COM(2006)545 final.

identified the significant potential for cost-effective energy savings in the buildings sector. The European Parliament, in its resolution of 31 January 2008, has called for strengthening the provisions of Directive 2002/91/EC.

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↓ 2002/91 recital 6 (adapted)

(6) The residential and tertiary sector, the major part of which is buildings, accounts for ~~more than~~ ☒ approximately ☒ 40 % of final energy consumption in the Community and is expanding, a trend which is bound to increase its energy consumption and hence also its carbon dioxide emissions.

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↓ 2002/91 recital 7 (adapted)

(7) ~~Council Directive 93/76/EEC of 13 September 1993 to limit carbon dioxide emissions by improving energy efficiency (SAVE)(5), which requires Member States to develop, implement and report on programmes in the field of energy efficiency in the building sector, is now starting to show some important benefits. However, a complementary legal instrument is needed~~ ☒ It is necessary ☒ to lay down more concrete actions with a view to achieving the great unrealised potential for energy savings ☒ in buildings ☒ and reducing the large differences between Member States' results in this sector.

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↓ 2002/91 recital 8

(8) ~~Council Directive 89/106/EEC of 21 December 1988 on the approximation of laws, regulations and administrative provisions of the Member States relating to construction products(6) requires construction works and their heating, cooling and ventilation installations to be designed and built in such a way that the amount of energy required in use will be low, having regard to the climatic conditions of the location and the occupants.~~

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↓ 2002/91 recital 9 (adapted)

⇒ new

(8) The measures further to improve the energy performance of buildings should take into account climatic and local conditions as well as indoor climate environment and cost-effectiveness. ☒ These measures should not affect ☒ ~~They should not contravene~~ other essential requirements concerning buildings such as accessibility, ~~prudence~~ ⇒ safety ⇐ and the intended use of the building.

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↓ 2002/91 recital 10 (adapted)

⇒ new

(9) The energy performance of buildings should be calculated on the basis of a methodology, which may be differentiated at ☒ national and ☒ regional level, ☒ and ☒ that includes, in addition to thermal ☒ characteristics ☒ ~~insulation~~, other factors that play an increasingly important role such as heating and air-conditioning installations, application

of renewable energy sources, ☒ passive heating and cooling elements, shading, indoor air-quality, adequate natural light ☒ and design of the building. ☒ The methodology for calculating energy performance should not only be based on the season where heating is required, but should cover the annual energy performance of a building. ☒

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↓ 2002/91 recital 22 (adapted)  
⇒ new

(10) ☒ Member States should set minimum requirements for the energy performance of buildings. The requirements should be set with a view to achieving the cost-optimal balance between the investments involved and the energy costs saved throughout the life-cycle of the building ☒ Provision should be made for the possibility of rapidly adapting the methodology of calculation and of Member States ☒ to ☒ regularly reviewing ☒ their ☒ minimum ☒ energy performance ☒ requirements ☒ for ☒ in the field of energy performance of buildings with regard to technical progress, ~~inter alia, as concerns the insulation properties (or quality) of the construction material, and to future developments in standardisation.~~

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↓ new

(11) This Directive is without prejudice to Articles 87 and 88 of the Treaty. Therefore the notion of incentive used in this Directive should not be interpreted as including state aid.

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↓ new

(12) The Commission should lay down a comparative methodology for calculating cost-optimal levels of minimum energy performance requirements. Member States should use this comparative methodology to compare the results with the minimum energy performance requirements which they have adopted. The results of this comparison and the data used to reach these results should be regularly reported to the Commission. These reports should enable the Commission to assess the progress of Member States in reaching cost-optimal levels of minimum energy performance requirements and to report on it. After a transitional period Member States should use this comparative methodology when they review their minimum energy performance requirements.

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↓ 2002/91 recital 12 (adapted)  
⇒ new

(13) Buildings ~~will~~ have an impact on long-term energy consumption and new buildings should therefore meet minimum energy performance requirements ~~tailored~~ ☒ adapted ☒ to the local climate. ~~Best practice should in this respect be geared to the optimum use of factors relevant to enhancing energy performance.~~ As the application of alternative energy supply systems is generally not explored to its full potential, the technical, environmental and economic feasibility of alternative energy supply systems should be considered ⇒, regardless of the size of the building. ⇐, ~~this can be carried out once, by the Member State, through a~~

~~study which produces a list of energy conservation measures, for average local market conditions, meeting cost-effectiveness criteria. Before construction starts, specific studies may be requested if the measure, or measures, are deemed feasible.~~

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↓ 2002/91 recital 13 (adapted)

⇒ new

(14) Major renovations of existing buildings, ~~⇒ regardless of their size, ⇐ above a certain size should be regarded as~~  provide  an opportunity to take cost-effective measures to enhance energy performance. ~~Major renovations are cases such as those where the total cost of the renovation related to the building shell and/or energy installations such as heating, hot water supply, air conditioning, ventilation and lighting is higher than 25 % of the value of the building, excluding the value of the land upon which the building is situated, or those where more than 25 % of the building shell undergoes renovation.~~ ⇒ For reasons of cost-efficiency, it should be possible to limit the minimum energy performance requirements to the renovated parts that are most relevant for the energy performance of the building. ⇐

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↓ 2002/91 recital 11

~~(11) The Commission intends further to develop standards such as EN 832 and prEN 13790, also including consideration of air conditioning systems and lighting.~~

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↓ new

(15) Measures are needed to increase the number of buildings which not only fulfill current minimum energy performance requirements, but are more energy efficient. For this purpose Member States should draw up national plans for increasing the number of buildings of which both carbon dioxide emissions and primary energy consumption are low or equal to zero and regularly report them to the Commission.

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↓ new

(16) To limit the reporting burden on the Member States it should be possible to integrate the reports required by this Directive in the Energy Efficiency Action Plans referred to in Article 14(2) of Directive 2006/32/EC of the European Parliament and of the Council of 5 April 2006 on energy end-use efficiency and energy services and repealing Council Directive 93/76/EEC<sup>16</sup>. The public sector in each Member State should lead the way in the field of energy performance of buildings, and therefore the national plans should set more ambitious targets for the buildings occupied by public authorities.

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<sup>16</sup> OJ L 114, 27.4.2006, p. 64.



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↓ new

(17) The prospective buyer and tenant of building or parts thereof should be given correct information about the energy performance of the building and practical advice about improving it, through the energy performance certificate. The certificate should also provide information about the actual impact of heating and cooling on the energy needs of the building, on its primary energy consumption and on carbon dioxide emissions.

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↓ 2002/91 recital 16 (adapted)  
⇒ new

(18) ~~The certification process may be supported by programmes to facilitate equal access to improved energy performance, based upon agreements between organisations of stakeholders and a body appointed by the Member States, carried out by energy service companies which agree to commit themselves to undertake the identified investments. The schemes adopted should be supervised and followed up by Member States, which should also facilitate the use of incentive systems. To the extent possible, the certificate should describe the actual energy performance situation of the building and may be revised accordingly.~~ Public authority buildings  occupied by public authorities  and buildings frequently visited by the public ~~should~~  provide an opportunity to  set an example by  showing  taking environmental and energy considerations  being taken  into account and therefore  those buildings  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 temperature, should discourage the misuse of heating, air conditioning and ventilation systems. This should contribute to avoiding unnecessary use of energy and to safeguarding comfortable indoor climatic conditions (thermal comfort) in relation to the outside temperature.~~

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↓ 2002/91 recital 18

(19) 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 that improve indoor climatic conditions and the microclimate around buildings.~~

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↓ 2002/91 recital 14

(14) ~~However, the improvement of the overall energy performance of an existing building does not necessarily mean a total renovation of the building but could be confined to those parts that are most relevant for the energy performance of the building and are cost effective.~~

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↓ 2002/91 recital 15 (adapted)

~~(15) Renovation requirements for existing buildings should not be incompatible with the intended function, quality or character of the building. It should be possible to recover additional costs involved in such renovation within a reasonable period of time in relation to the expected technical lifetime of the investment by accrued energy savings.~~

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↓ 2002/91 recital 17

~~(17) Member States may also employ other means/ or measures, not provided for in this Directive, to encourage enhanced energy performance. Member States should encourage good energy management, taking into account the intensity of use of buildings.~~

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↓ 2002/91 recital 19 (adapted)

⇒ new

(20) Regular ⇒ inspection ⇐ maintenance of boilers ⇒ heating ⇐ and of air-conditioning systems by qualified personnel contributes to maintaining their correct adjustment in accordance with the product specification and in that way will ensure ☒ ensures ☒ optimal performance from an environmental, safety and energy point of view. An independent assessment of the total ☒ entire ☒ heating ⇒ and air-conditioning ⇐ installation ☒ system ☒ ⇒ should occur at regular intervals during the life-cycle thereof, especially before their replacement or retrofitting. ⇐ is appropriate whenever replacement could be considered on the basis of cost effectiveness.

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↓ 2002/91 recital 20

~~(20) The billing, to occupants of buildings, of the costs of heating, air conditioning and hot water, calculated in proportion to actual consumption, could contribute towards energy saving in the residential sector. Occupants should be enabled to regulate their own consumption of heat and hot water, in so far as such measures are cost effective~~

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↓ 2002/91 recital 10 (adapted)

⇒ new

(21) A common approach to this process ☒ energy performance certification of buildings and to the inspection of heating and air-conditioning systems ☒, carried out by qualified and/or accredited experts, whose independence is to be guaranteed on the basis of objective criteria, will contribute to a level playing field as regards efforts made in Member States to energy saving in the buildings sector and will introduce transparency for prospective owners or users with regard to the energy performance in the Community property market. ⇒ In order to guarantee the quality of energy performance certificates and of the inspection of heating and air-conditioning systems throughout the Community, an independent control mechanism should be established in each Member State. ⇐

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↓ 2002/91 recital 23

(22) The measures necessary for the implementation of this Directive should be adopted in accordance with Council Decision 1999/468/EC of 28 June 1999 laying down the procedures for the exercise of implementing powers conferred on the Commission<sup>17</sup>.

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↓ new

(23) Power should in particular be conferred on the Commission to adapt certain parts of the general framework set out in Annex I to technical progress, to establish a methodologies for calculating cost-optimal levels of minimum energy performance requirements and to establish common principles for defining buildings of which both carbon dioxide emissions and primary energy consumption are low or equal to zero. Since those measures are of general scope and are designed to amend non-essential elements of this Directive, they must be adopted in accordance with the regulatory procedure with scrutiny provided for in Article 5a of Decision 1999/468/EC.

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↓ 2002/91 recital 21 (adapted)

⇒ new

(24) ⇒ Since the objectives of enhancing the energy performance of buildings cannot be sufficiently achieved by the Member States due to the complexity of the buildings sector, and the inability of the national housing markets to adequately address the challenges of energy efficiency, and can by the reason of the scale and the effects of the action be better achieved at Community level, the Community may adopt measures, ~~in~~ in accordance with the principles of subsidiarity ~~and proportionality~~ as set out in Article 5 of the Treaty, ~~general principles providing for a system of energy performance requirements and its objectives should be established at Community level, but the detailed implementation should be left to Member States, thus allowing each Member State to choose the regime which corresponds best to its particular situation.~~ ⊗ In accordance with the principles of proportionality, as set out in that Article, ⊗ ~~This Directive confines itself to the minimum required in order to achieve those objectives and does not go beyond what is necessary for that purpose~~ ⊗ in order to achieve those objectives ⊗.

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↓ new

(25) The obligation to transpose this Directive into national law should be confined to those provisions which represent a substantive change as compared with the earlier Directive. The obligation to transpose the provisions which are unchanged arises under the earlier Directive.

(26) This Directive should be without prejudice to the obligations of the Member States relating to the time-limits for transposition into national law and application of the Directive set out in Annex IV, Part B.

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<sup>17</sup> [OJ L 184, 17.7.1999, p.23.](#)

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↓ 2002/91 (adapted)  
⇒ new

HAVE ADOPTED THIS DIRECTIVE:

*Article 1*

~~Objective~~ ☒ *Subject matter* ☒

~~The objective of this Directive is to promote~~ ☒ promotes ☒ the improvement of the energy performance of buildings within the Community, taking into account outdoor climatic and local conditions, as well as indoor climate requirements and cost-effectiveness.

This Directive lays down requirements as regards:

- (a) the general framework for a methodology of calculation of the integrated energy performance of buildings ☒ and parts thereof ☒;
- (b) the application of minimum requirements on the energy performance of new buildings ☒ and parts thereof ☒;
- (c) the application of minimum requirements on the energy performance of ~~large~~ existing buildings ☒ and parts thereof ☒ that are subject to major renovation;

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↓ new

- (d) national plans for increasing the number of buildings of which both carbon dioxide emissions and primary energy consumption are low or equal zero;

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↓ 2002/91 (adapted)  
⇒ new

- ~~(d)~~(e) energy certification of buildings ☒ or parts thereof ☒ ; ~~and~~
- ~~(e)~~(f) regular inspection of ~~boilers~~ ⇒ heating ⇐ and of air-conditioning systems in buildings ~~and in addition an assessment of the heating installation in which the boilers are more than 15 years old.~~

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↓ new

- (g) independent control systems for energy performance certificates and inspection reports.

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↓ 2002/91 (adapted)  
⇒ new

*Article 2*  
*Definitions*

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

- (1) "building" ~~means~~  means  a roofed construction having walls, for which energy is used to condition the indoor climate; ~~a building may refer to the building as a whole or parts thereof that have been designed or altered to be used separately;~~

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↓ new

- (2) "technical building system" means technical equipment for heating, cooling, ventilation, hot water, lighting and electricity production or for a combination of those;

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↓ 2002/91 (adapted)  
⇒ new

- ~~(3)~~ (3) "energy performance of a building" ~~means~~  means  the ~~calculated or measured~~  amount of energy ~~actually consumed~~  needed  or ~~estimated~~  to meet the ~~different needs~~  energy demand  associated with a ~~standardised~~  typical  use of the building, which ~~may~~  include  ~~include~~  inter alia  energy used for  heating, hot water ~~heating,~~ cooling, ventilation and lighting;

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↓ new

- (4) "primary energy": means renewable and non-renewable energy which has not undergone any conversion or transformation process;

- (5) "building envelope" means elements of a building which separate its interior from the outdoor environment, including the windows, walls, foundation, basement slab, ceiling, roof, and insulation;

- (6) "major renovation": means the renovation of a building where

(a) the total cost of the renovation related to the building envelope or the technical building systems is higher than 25 % of the value of the building, excluding the value of the land upon which the building is situated, or

(b) more than 25 % of the surface of the building envelope undergoes renovation;

- (7) "European standard": means a standard adopted by the European Committee for Standardisation, the European Committee for Electrotechnical Standardisation or the European Telecommunications Standards Institute and made available for public use;

↓ 2002/91 (adapted)  
⇒ new

~~(3)(8)~~ "energy performance certificate of a building" ~~;~~ ☒ means ☒ a certificate recognised by the Member State or a legal person designated by it, which ~~includes~~ ☒ indicates ☒ the energy performance of a building ☒ or parts thereof, ☒ calculated according to a methodology ~~based on the general framework set out in the Annex~~ ☒ adopted in accordance with Article 3 ☒ ;

↓ 2002/91

~~(4)~~ "CHP" ~~the simultaneous conversion of primary fuels into mechanical or electrical and thermal energy, meeting certain quality criteria of energy efficiency;~~

↓ new

(9) "cogeneration" means simultaneous generation in one process of thermal energy and electrical and/or mechanical energy;

(10) "cost-optimal level" means the lowest level of costs during the life-cycle of a building, which are determined taking into account investment costs, maintenance and operating costs (including energy costs), earnings from energy produced, where applicable, and disposal costs, where applicable;

↓ 2002/91 (adapted)  
⇒ new

~~(5)(11)~~ "air-conditioning system" ~~;~~ ☒ means ☒ a combination of ~~all~~ ☒ the ☒ components required to provide a form of ⇒ indoor ⇐ air treatment ☒ , including ventilation ☒ ~~in which temperature is controlled or can be lowered, possibly in combination with the control of ventilation, humidity and air cleanliness;~~

~~(6)(12)~~ "boiler" ~~;~~ ☒ means ☒ the combined boiler body ~~and burner~~ ~~unit,~~ designed to transmit to ~~water~~ ⇒ a fluid ⇐ the heat released from ~~combustion~~ ☒ burning ☒ ;

~~(7)(13)~~ "effective rated output" ~~(expressed in kW);~~ ☒ means ☒ the maximum calorific output ☒ , expressed in kW, ☒ specified and guaranteed by the manufacturer as being deliverable during continuous operation while complying with the useful efficiency indicated by the manufacturer;

~~(8)(14)~~ "heat pump" ~~;~~ ☒ means ☒ a device or installation that extracts heat at low temperature from air, water or earth and supplies the heat to the building.

*Article 3*  
*Adoption of a methodology  of calculation of the energy performance of buildings*

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↓ PE-CO\_S 3654/08 (2002/91 adapted) (adapted)

Member States shall apply a methodology, ~~at national or regional level,~~ of calculation of the energy performance of buildings ~~on the basis of~~  in accordance with  the general framework set out in ~~the Annex I to this Directive. The Commission shall adapt points 1 and 2 of the Annex to technical progress, taking into account standards or norms applied pursuant to national law. Those measures, designed to amend non-essential elements of this Directive, shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 14(2).~~

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↓ 2002/91 (adapted)  
⇒ new

This methodology shall be ~~set~~  adopted  at national or regional level.

~~The energy performance of a building shall be expressed in a transparent manner and may include a CO<sub>2</sub> indicator.~~

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↓ 2002/91 (adapted)  
⇒ new

*Article 4*  
*Setting of  minimum  energy performance requirements*

1. Member States shall take the necessary measures to ensure that minimum energy performance requirements for buildings are set, ~~with a view to achieving cost-optimal levels and  based on~~   are calculated in accordance with  the methodology referred to in Article 3.

When setting requirements, Member States may differentiate between new and existing buildings and  between  different categories of buildings.

These requirements shall take account of general indoor climate conditions, in order to avoid possible negative effects such as inadequate ventilation, as well as local conditions and the designated function and the age of the building.

These requirements shall be reviewed at regular intervals which ~~should~~  shall  not be longer than five years and, if necessary,  shall be  updated in order to reflect technical progress in the building sector.

~~2. The energy performance requirements shall be applied in accordance with Articles 5 and 6.~~

~~3.2.~~ Member States may decide not to set or apply the requirements referred to in paragraph 1 for the following categories of buildings:

(a) ~~buildings and monuments~~ officially protected as part of a designated environment or because of their special architectural or historic merit, where compliance with the  minimum energy performance  requirements would unacceptably alter their character or appearance~~;~~

(b) buildings used as places of worship and for religious activities~~;~~

(c) temporary buildings with a planned time of use of two years or less, industrial sites, workshops and non-residential agricultural buildings with low energy demand and non-residential agricultural buildings which are in use by a sector covered by a national sectoral agreement on energy performance~~;~~

(d) residential buildings which are intended to be used less than four months of the year~~;~~

(e) stand-alone buildings with a total useful floor area of less than 50 m<sup>2</sup>.

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3. As from 30 June 2014 Member States shall not provide incentives for the construction or renovation of buildings or parts thereof which do not comply with minimum energy performance requirements achieving the results of the calculation referred to in Article 5(2).

4. As from 30 June 2017, where Member States review their minimum energy performance requirements set in accordance with paragraph 1 of this Article they shall ensure that these requirements achieve the results of the calculation referred to in Article 5(2).

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## Article 5

### *Calculation of cost-optimal levels of minimum energy performance requirements*

1. The Commission shall establish by 31 December 2010 a comparative methodology for calculating cost-optimal levels of minimum energy performance requirements for buildings or parts thereof. The comparative methodology shall differentiate between new and existing buildings and between different categories of buildings.

Those measures designed to amend non-essential elements of this Directive by supplementing it shall be adopted in accordance with the procedure referred to in Article 19(2).

2. Member States shall calculate cost-optimal levels of minimum energy performance requirements using the comparative methodology established in accordance with paragraph 1 and relevant parameters, such as climatic conditions, and compare the results of this calculation to the minimum energy performance requirements which they have laid down.

They shall report to the Commission all input data and assumptions used for these calculations and all calculation results. The report may be included in the Energy Efficiency Action Plans referred to in Article 21(2) of Directive 2006/32/EC.



Member States shall submit to the Commission those reports every three years. The first report shall be submitted by 30 June 2011 at the latest.

3. The Commission shall publish a report on the progress of the Member States in reaching cost-optimal levels of minimum energy performance requirements.

↓ 2002/91 (adapted)

*Article 56*  
*New buildings*

1. Member States shall take the necessary measures to ensure that new buildings meet the minimum energy performance requirements referred to in  set in accordance with  Article 4.

For new buildings ~~with a total useful floor area over 1000 m<sup>2</sup>~~, Member States shall ensure that,  before construction starts,  the technical, environmental and economic feasibility of  the following  alternative systems  is considered and taken into account  such as:

- (a) decentralised energy supply systems based on renewable energy;
- (b) ~~CHP~~  cogeneration  ;
- (c) district or block heating or cooling, if available;
- (d) heat pumps, ~~under certain conditions~~;

~~is considered and is taken into account before construction starts.~~

↓ new

2. Member States shall ensure that the analysis of alternative systems referred to in paragraph 1 is documented in a transparent manner in the application for the building permit or for the final approval of construction works of the building.

↓ 2002/91 (adapted)

*Article 67*  
*Existing buildings*

Member States shall take the necessary measures to ensure that when buildings ~~with a total useful floor area over 1000 m<sup>2</sup>~~ undergo major renovation, their energy performance is upgraded in order to meet minimum  energy performance  requirements in so far as this is technically, functionally and economically feasible. Member States shall ~~derive~~  determine  these minimum energy performance requirements ~~on the basis of the energy performance requirements set for buildings~~ in accordance with Article 4. The requirements may be set either for the renovated building as a whole or for the renovated systems or components when these are part of a renovation to be carried out within a limited time period,

with the ~~above-mentioned~~ objective of improving the overall energy performance of the building ☒ or parts thereof ☒.

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↓ new

## Article 8

### *Technical building systems*

1. Member States shall set minimum energy performance requirements in respect of technical building systems which are installed in buildings. Requirements shall be set for new, replacement and retrofit of technical building systems and parts thereof.

The requirements shall in particular cover the following components:

- (a) boilers or other heat generators of heating systems;
- (b) water heaters in hot water systems;
- (c) central air conditioning unit or cold generator in air-conditioning systems.

2. The minimum energy performance requirements set in accordance with paragraph 1 shall be consistent with the legislation applicable to the product(s) which compose the system and be based on proper installation of the product(s) and appropriate adjustment and control of the technical building system. In particular, those requirements shall ensure that a proper hydraulic balance of hydraulic wet heating systems is achieved and that the appropriate size and type of the product(s) have been used for the installation having regard to the intended use of the technical building system.

## Article 9

### *Buildings of which both carbon dioxide emissions and primary energy consumption are low or equal to zero*

1. Member States shall draw up national plans for increasing the number of buildings of which both carbon dioxide emissions and primary energy consumption are low or equal to zero. They shall set targets for the minimum percentage which those buildings in 2020 shall constitute of the total number of buildings and represent in relation to the total useful floor area.

Separate targets shall be set for:

- (a) new and refurbished residential buildings;
- (b) new and refurbished non-residential buildings;
- (c) buildings occupied by public authorities.

Member States shall set the targets referred to in point (c) taking into account the leading role which public authorities should play in the field of energy performance of buildings.

2. The national plan referred to in paragraph 1 shall include inter alia the following elements:

(a) the Member State's definition of buildings of which both carbon dioxide emissions and primary energy consumption are low or equal to zero;

(b) intermediate targets expressed as a percentage which those buildings shall constitute of the total number of buildings and represent in relation to the total useful floor area in 2015;

(c) information on the measures undertaken for the promotion of those buildings.

3. Member States shall communicate the national plans referred to in paragraph 1 to the Commission by 30 June 2011 at the latest and report to the Commission every three years on the progress in implementing their national plans. The national plans and progress reports may be included in the Energy Efficiency Action Plans referred to in Article 14(2) of Directive 2006/32/EC.

4. The Commission shall establish common principles for defining buildings of which both carbon dioxide emissions and primary energy consumption are low or equal to zero.

Those measures designed to amend non-essential elements of this Directive by supplementing it shall be adopted in accordance with the procedure referred to in Article 21(2).

5. The Commission shall publish a report on the progress of Member States in increasing the number of buildings of which both carbon dioxide emissions and primary energy consumption are low or equal to zero. On the basis of this report the Commission shall develop a strategy, and, if necessary, propose measures to increase the number of those buildings.

↓ 2002/91 (adapted)  
⇒ new

## Article ~~7~~10

~~Energy~~ ⊗ Energy ⊗ performance certificate ⊗ certificates ⊗

~~2.1.~~ ⇒ Member States shall lay down the necessary measures to establish a system of certification of the energy performance of buildings. ⇐ The energy performance certificate for buildings shall include ⊗ the energy performance of a building and ⊗ reference values such as ~~current legal standards and benchmarks~~ ⇒ minimum energy performance requirements ⇐ in order to make it possible for ⊗ owners or tenants of the building or parts thereof ⊗ consumers to compare and assess the ⊗ its ⊗ energy performance of the building.

~~2.~~ The certificate shall ~~be accompanied by~~ ⊗ include ⊗ recommendations for the cost-effective improvement of the energy performance ⊗ of a building or parts thereof ⊗ .

The recommendations included in the energy performance certificate shall cover:

(a) measures carried out in connection with a major renovation of the building envelope or technical building system(s); and

b) measures for individual parts or elements of a building independent of a major renovation of the building envelope or technical building system(s).

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↓ new

3. The recommendations included in the energy performance certificate shall be technically feasible for the specific building and shall provide transparent information as to their cost-effectiveness. The evaluation of cost-effectiveness shall be based on a set of standard conditions, such as on the assessment of energy savings and underlying energy prices and interest rates for investments necessary to implement the recommendations.

4. The energy performance certificate shall provide an indication as to where the owner or tenant can receive more detailed information regarding the recommendations given in the certificate. In addition, it shall contain information on the steps to be taken to implement the recommendations.

⇒ 5. ⇐ Certification for apartments or units designed for separate use in ⇒ building ⇐ blocks may be based:

⇒ (a) ⇐ on a common certification of the whole building for blocks with a common heating system or

⇒ (b) ⇐ on the assessment of another representative apartment in the same ⇒ building ⇐ block.

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↓ new

6. Certification for single-family houses may be based on the assessment of another representative building of similar design and size with a similar actual energy performance quality if this correspondence can be guaranteed by the expert issuing the energy performance certificate.

7. The validity of the ⇒ energy performance ⇐ certificate shall not exceed 10 years.

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↓ 2002/91 (adapted)

### Article 11

#### ⊗ Issuing of energy performance certificates ⊗

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↓ new

1. Member States shall ensure that an energy performance certificate is issued for buildings or parts thereof which are constructed, sold or rented out and for buildings where a total useful floor area over 250 m<sup>2</sup> is occupied by a public authority.

2. Member States shall ~~ensure~~ ⇒ require ⇐ that, when buildings ⇒ or parts thereof ⇐ are constructed, ~~sold or rented out~~, an energy performance certificate is ~~made available~~ ⇒ handed over ⇐ to the owner ⇒ by the independent expert issuing the certificate and referred to in Article 16 or by the vendor ⇐.

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↓ new

3. Member States shall require that, when buildings or parts thereof are offered for sale, the numeric energy performance indicator of the energy performance certificate is stated in all advertisements for sale of the building or parts thereof, and that the energy performance certificate is shown to the prospective buyer.

The energy performance certificate shall be handed over by the vendor to the buyer at the moment of conclusion of the sales contract at the latest.

4. Member States shall require that, when buildings or parts thereof are offered for rent, the numeric energy performance indicator of the energy performance certificate is stated in all advertisements for rent of the building or parts thereof, and that the energy performance certificate is shown to the prospective tenant.

The energy performance certificate shall be handed over by the owner to the tenant at the moment of conclusion of the lease at the latest.

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↓ 2002/91 (adapted)  
⇒ new

5. Member States may exclude the categories  of buildings  referred to in Article 4(~~3~~2) from the application of ~~this paragraph~~ paragraphs 1, 2, 3 and 4.

~~The objective of the certificates shall be limited to the provision of information, and any effects of these certificates in terms of legal proceedings shall be decided in accordance with national rules.~~

## Article 12

### *Display of the energy performance certificates*

~~3.1.~~ Member States shall take measures to ensure that ~~for buildings with~~  where  a total useful floor area over ~~1000~~  $250$   $\text{m}^2$   of a building is  occupied by public authorities, ~~and by institutions providing public services to a large number of persons and therefore frequently visited by these persons~~  the  energy  performance  certificate ~~not older than 10 years, is placed~~  displayed  in a prominent place clearly visible to the public.

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↓ new

2. Member States shall take measures to ensure that where a total useful floor area over  $250 \text{ m}^2$  of a building for which an energy performance certificate has been issued in accordance with Article 11(1) is frequently visited by the public, the energy performance certificate is displayed in a prominent place clearly visible to the public.

↓ 2002/91 (adapted)  
⇒ new

~~2. The range of recommended and current indoor temperatures and, when appropriate, other relevant climatic factors may also be clearly displayed.~~

### Article 813

#### Inspection of ~~boilers~~ ⇒ heating systems ⇐

~~With regard to reducing energy consumption and limiting carbon dioxide emissions,~~

1. ~~Member States shall either: (a) lay down the necessary measures to establish a regular inspection of heating systems with boilers fired by non-renewable liquid or solid fuel of an effective rated output of > more than < 20 kW to 100 kW. > The inspection < shall include an assessment of the boiler efficiency and the boiler sizing compared to the heating requirements of the building. Such inspection may also be applied to boilers using other fuels.~~

↓ new

2. The Member States may set different frequencies of inspections depending on the type and effective rated output of the boiler of the heating system. When setting the frequencies Member States shall take into account the costs of the inspection of the heating system and the estimated energy cost savings that may result from the inspection.

↓ 2002/91  
⇒ new

⇒ 3. Heating systems with ⇐ ~~B~~boilers of an effective rated output of more than 100 kW shall be inspected at least every two years.

For gas boilers, this period may be extended to four years.

↓ new

~~For heating installations with boilers of an effective rated output of more than 20 kW which are older than 15 years, Member States shall lay down the necessary measures to establish a one-off inspection of the whole heating installation. On the basis of this inspection, which shall include an assessment of the boiler efficiency and the boiler sizing compared to the heating requirements of the building, the experts shall provide advice to the users on the replacement of the boilers, other modifications to the heating system and on alternative solutions; or~~

~~(b) ⇒ 4. ⇐ ⇐ By derogation from paragraphs 1, 2 and 3 Member States may decide to ⇐ take steps ⇒ measures ⇐ to ensure the provision of advice to the users on the replacement of boilers, other modifications to the heating system and on alternative solutions which may include inspections to assess the efficiency and appropriate size of the boiler. The overall~~

impact of this approach ~~should~~ ⇒ shall ⇐ be broadly equivalent to that arising from the provisions set out in ~~(a) paragraphs 1, 2 and 3.~~

⇒ Where ⇐ Member States ~~that choose this option~~ ⇒ to apply the measures referred to in the first subparagraph of this paragraph, they ⇐ shall submit ⇒ to the Commission ⇐ a report on the equivalence of ⇒ those measures to measures laid down in paragraphs 1, 2 and 3 by 30 June 2011 at the latest. Member States shall submit these reports to the Commission every three years. The reports may be included in the Energy Efficiency Action Plans referred to in Article 14(2) of Directive 2006/32/EC. ⇐ ~~their approach to the Commission every two years.~~

↓ 2002/91 (adapted)  
⇒ new

#### Article ~~9~~14

##### *Inspection of air-conditioning systems*

~~1. With regard to reducing energy consumption and limiting carbon dioxide emissions,~~ Member States shall lay down the necessary measures to establish a regular inspection of air-conditioning systems of an effective rated output of more than 12 kW. ~~This~~ ☒ The ☒ inspection shall include an assessment of the air-conditioning efficiency and the sizing compared to the cooling requirements of the building. ~~Appropriate advice shall be provided to the users on possible improvement or replacement of the air-conditioning system and on alternative solutions.~~

↓ new

2. The Member States may set different frequencies of inspections depending on the type and effective rated output of the air-conditioning system. When setting the frequencies Member States shall take into account the costs of the inspection of the air-conditioning system and the estimated energy cost savings that may result from the inspection..

↓ new

#### Article 15

##### *Reports on the inspection of heating and air-conditioning systems*

1. This Article applies to reports on the inspection of heating and air-conditioning systems.
2. Inspection report shall be issued at regular intervals for each system inspected. The inspection report shall include the following:
  - (a) a comparison of the energy performance of the system inspected with that of
    - (i) the best available system feasible; and
    - (ii) a system of similar type for which all relevant components achieve the level of energy performance required by the applicable legislation;

(b) recommendations for the cost-effective improvement of the energy performance of the system of the building or parts thereof.

The recommendations referred to in point (b) shall be specific to the system and shall provide transparent information as to their cost-effectiveness. The evaluation of cost-effectiveness shall be based on a set of standard conditions, such as on the assessment of energy savings and underlying energy prices and interest rates for investments.

3. The inspection report shall be handed over by the inspector to the owner or tenant of the building.

↓ 2002/91 (adapted)  
⇒ new

#### *Article ~~10~~ 16* *Independent experts*

Member States shall ensure that the  energy performance  certification of buildings, ~~the drafting of the accompanying recommendations and~~ the inspection of ~~boilers~~ ⇨ heating systems ⇐ and air-conditioning systems are carried out in an independent manner by qualified and ~~or~~ accredited experts, whether operating as ~~sole traders~~  self-employed  or employed by public  bodies  or private  enterprises  enterprise bodies.

↓ new

Experts shall be accredited taking into account their competence and their independence.

↓ new

#### *Article 17* *Independent control system*

1. Member States shall ensure that an independent control system for energy performance certificates and reports on the inspection of heating and air conditioning systems is established in accordance with Annex II.

2. The Member States may delegate the responsibilities for implementing the independent control systems.

Where the Member States decide to do so, they shall control that the independent control systems are implemented in compliance with Annex II.

3. Member States shall require that the energy performance certificates and the inspection reports mentioned in paragraph 1 are registered or made available to the competent authorities or bodies to whom responsibilities for implementing the independent control systems have been delegated by the competent authorities on request.



---

↓ 2002/91  
⇒ new

*Article ~~11~~18*  
*Review*

The Commission, assisted by the Committee established by Article ~~14~~20, shall evaluate this Directive in the light of experience gained during its application, and, if necessary, make proposals with respect to, inter alia:

~~(a) possible complementary measures referring to the renovations in buildings with a total useful floor area less than 1000 m<sup>2</sup>;~~

---

↓ new

- (a) methodologies to rate the energy performance of buildings on the basis of primary energy use and carbon dioxide emissions;
- (b) general incentives for further energy efficiency measures in buildings.

*Article 19*  
*Information*

Member States ~~may~~ ⇒ shall ⇐ take the necessary measures to inform the ~~users~~ ⇒ owners or tenants ⇐ of ⇐ buildings or parts thereof ⇐ as to the different methods and practices that serve to enhance energy performance.

---

↓ new

Member States shall in particular provide information to the owners or tenants of buildings on energy performance certificates and inspection reports, their purpose and objectives, on cost-effective ways to improve the energy performance of the building and on mid- and long-term financial consequences if no action is taken to improve the energy performance of the building.

---

↓ 2002/91 (adapted)  
⇒ new

Upon Member States' request, the Commission shall assist Member States in staging ~~the~~ information campaigns ~~concerned~~ ⇒ for the purposes of the first and the second paragraphs ⇐, which may be dealt with in Community programmes.

---

↓ new

*Article 20*

*Adaptation of ~~framework~~ ⇒ Annex I to technical progress ⇐*

~~Points 1 and 2 of the Annex I shall be reviewed at regular intervals, which shall not be shorter than two years.~~

---

↓ PE-CO\_S 3654/08 (2002/91 adapted) (adapted)

⇒ new

⊗ The Commission shall adapt ⊗ ~~Adaptations of points 13 and 24 of the Annex I to this Directive~~ to technical progress.

Those measures, designed to amend non-essential elements of this Directive, shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article ~~14~~21(2).

---

↓ PE-CO\_S 3654/08 (2002/91 adapted)

*Article ~~14~~21*

*Committee procedure*

1. The Commission shall be assisted by a Committee.
  2. Where reference is made to this paragraph, Article 5a(1) to (4) and Article 7 of Decision 1999/468/EC shall apply, having regard to the provisions of Article 8 thereof.
- 

↓ new

*Article 22*

*Penalties*

Member States shall lay down the rules on penalties applicable to infringements of the national provisions adopted pursuant to this Directive and shall take all measures necessary to ensure that they are implemented. The penalties provided for must be effective, proportionate and dissuasive. Member States shall communicate those provisions to the Commission by 31 December 2010 at the latest and shall notify it without delay of any subsequent amendment affecting them

---

↓ 2002/91 (adapted)

*Article ~~23~~ 15*  
*Transposition*

~~1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive at the latest on 4 January 2006. They shall forthwith inform the Commission thereof.~~

~~When Member States adopt these measures, they shall contain a reference to this Directive or shall be accompanied by such reference on the occasion of their official publication. Member States shall determine how such reference is to be made.~~

~~2. Member States may, because of lack of qualified and/or accredited experts, have an additional period of three years to apply fully the provisions of Articles 7, 8 and 9. When making use of this option, Member States shall notify the Commission, providing the appropriate justification together with a time schedule with respect to the further implementation of this Directive.~~

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↓ new

1. Member States shall adopt and publish, by 31 December 2010 at the latest, the laws, regulations and administrative provisions necessary to comply with Articles 2 to 17, 19 and 22 and Annexes I and II of this Directive. They shall forthwith communicate to the Commission the text of those provisions and a correlation table between those provisions and this Directive.

They shall apply those provisions as far as Articles 2, 3, 9, 10 to 12, 16, 17, 19 and 22 are concerned, from 31 December 2010 at the latest.

They shall apply those provisions as far as Articles 4 to 8, 13 to 15, and 17 are concerned, to buildings occupied by the public authorities from 31 December 2010 at the latest and to other buildings from 31 January 2012 at the latest.

When Member States adopt those provisions, they shall contain a reference to this Directive or be accompanied by such a reference on the occasion of their official publication. They shall also include a statement that references in existing laws, regulations and administrative provisions to the Directive repealed by this Directive shall be construed as references to this Directive. Member States shall determine how such reference is to be made and how that statement is to be formulated.

2. Member States shall communicate to the Commission the text of the main provisions of national law which they adopt in the field covered by this Directive.

*Article 24*  
*Repeal*

Directive 2002/91/EC, as amended by the Regulation indicated in Annex III, Part A, is repealed with effect from 1 February 2012, without prejudice to the obligations of the Member States relating to the time-limit for transposition into national law and application of the Directive set out in Annex III, Part B.

References to the repealed Directive shall be construed as references to this Directive and shall be read in accordance with the correlation table in Annex IV.

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↓ 2002/91 (adapted) ⇒ new
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*Article 25 ~~16~~*  
*Entry into force*

This Directive shall enter into force on the  twentieth  day following that of its publication in the *Official Journal of the European Communities*.

*Article ~~17~~26*

This Directive is addressed to the Member States.

Done at [...].

*For the European Parliament*  
*The President*  
[...]

*For the Council*  
*The President*  
[...]

---

↓ 2002/91  
⇒ new

**ANNEX I**

**General framework for the calculation of energy performance of buildings ( ⇒ referred to in ⇐ Article 3)**

---

↓ new

1. The energy performance of a building shall be determined on the basis of the calculated or actual annual energy that is consumed in order to meet the different needs associated with its typical use and shall reflect the heating energy needs and cooling energy needs (energy needed to avoid over-heating) to maintain the envisaged temperature conditions of the building.

2. The energy performance of a building shall be expressed in a transparent manner and shall also include a numeric indicator of carbon dioxide emissions and primary energy use.

The methodology of calculation of energy performance of buildings should take into account European standards.

---

↓ 2002/91 (adapted)  
⇒ new

~~13.~~ The methodology of calculation of energy performances of buildings shall include  be laid down taking into consideration  at least the following aspects:

(a) ⇒ the following actual ⇐ thermal characteristics of the building ~~(shell and~~ ⇒ including its ⇐ internal partitions, etc.)

---

↓ new

- (i) thermal capacity;
  - (ii) insulation;
  - (iii) passive heating;
  - (iv) cooling elements; and
  - (v) thermal bridges;
- 

↓ 2002/91 (adapted)  
⇒ new

~~These characteristics may also include air tightness.~~

(b) heating installation and hot water supply, including their insulation characteristics;

(c) air-conditioning ~~installation~~ installations ;

(d) natural and mechanical ventilation, what may include airtightness;

---

↓ 2002/91 (adapted)

⇒ new

(e) built-in lighting installation (mainly in the non-residential sector);

(f) the design, position positioning and orientation of the buildings, including outdoor climate;

(g) passive solar systems and solar protection;

~~(h) natural ventilation;~~

(i) indoor climatic conditions, including the designed indoor climate;

---

↓ new

(i) internal loads.

---

↓ 2002/91 (adapted)

⇒ new

24. The positive influence of the following aspects shall, where relevant in this calculation, be taken into account:

(a) local solar exposure conditions, active solar systems and other heating and electricity systems based on renewable energy sources;

(b) electricity produced by CHP cogeneration ;

(c) district or block heating and cooling systems;

(d) natural lighting.

25. For the purpose of this calculation buildings should be adequately classified into the following categories such as:

(a) single-family houses of different types;

(b) apartment blocks;

(c) offices;

(d) education buildings;

(e) hospitals;

(f) hotels and restaurants;

(g) sports facilities;

- (h) wholesale and retail trade services buildings;
- (i) other types of energy-consuming buildings.

## **ANNEX II**

### **Independent control systems for energy performance certificates and inspection reports**

1. The competent authorities or bodies to whom responsibilities for implementing the independent control system have been delegated by the competent authorities shall make a random selection of at least 0.5 % of all the energy performance certificates issued annually and subject these to verification. The verification shall be carried out at one of the three alternative levels indicated below and each verification level shall be carried out at least for a statistically significant proportion of the certificates selected:

- (a) validity check of input data of the building used to issue the energy performance certificate and the results stated in the certificate;
- (b) check of the input data and verification of the results of the certificate, including the recommendations given;
- (c) full check of input data of the building used to issue the energy performance certificate, full verification of the results stated in the certificate, including the recommendations given, and on-site visit of the building to check correspondence between specifications given in the energy performance certificate and the building certified.

2. The competent authorities or bodies to whom responsibilities for implementing the independent control system have been delegated by the competent authorities shall make a random selection of at least 0.1 % of all the inspection reports issued annually and subject these to verification. The verification shall be carried out at one of the three alternative levels indicated below and each verification level shall be carried out at least for a statistically significant proportion of the inspection reports selected:

- (a) validity check of input data of the technical building system inspected used to issue the inspection report and the results stated in the inspection report;
- (b) check of the input data and verification of the results of the inspection report including the recommendations given;
- (c) full check of input data of the technical building system inspected used to issue the inspection report, full verification of the results stated in the inspection report including the recommendations given and an on-site visit of the building to check correspondence between specifications given in the inspection report and the technical building system inspected.



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↓ 2002/91  
⇒ new

**ANNEX III**

**Part A**

**Repealed Directive with its successive amendment**  
(referred to in Article 24)

Directive 2002/91/EC of the European Parliament and of the Council  
(OJ L 1, 4.1.2003, p. 65)

Regulation [...] of the European Parliament and of the Council only point 9.9 of the Annex  
(OJ [...])

**Part B**

**Time-limits for transposition into national law and application**  
(referred to in Article 24)

Directive	Time-limit for transposition	Date of application
2002/91/EC	4 January 2006	4 January 2009 as regards Articles 7, 8 and 9 only



**ANNEX IV**

**CORRELATION TABLE**

Directive 2002/91/EC	This Directive
Article 1	Article 1
Article 2, introductory wording	Article 2, introductory wording
Article 2, point (1)	Article 2, point (1)
-	Article 2, point (2)
Article 2, point (2)	Article 2, point (3) and Annex I
-	Article 2, points (4), (5), (6) and (7)
Article 2, point (3)	Article 2, point (8)
Article 2, point (4)	Article 2, point (9)
-	Article 2, point (10)
Article 2, point (5)	Article 2, point (11)
Article 2, point (6)	Article 2, point (12)
Article 2, point (7)	Article 2, point (13)
Article 2, point (8)	Article 2, point (14)
Article 3	Article 19 and Annex I
Article 4, point (1)	Article 4, point (1)
Article 4, point (2)	-
Article 4, point (3)	Article 4, point (2)
-	Article 4, point (3)
-	Article 4, point (4)
-	Article 5
Article 5	Article 6, point (1)
-	Article 6, point (2)
Article 6	Article 7
-	Article 8

-

Article 7, point (1)

Article 7, point (2)

Article 7, point (3)

-

Article 8, introductory wording

Article 8, sub (a)

-

Article 8, sub (b)

Article 9

-

-

Article 10

-

Article 11, introductory wording

Article 11, sub (a)

-

Article 11, sub (b)

Article 12

Article 13

Article 14, point (1)

Article 14, point (2)

Article 14, point (3)

-

Article 15, point (1)

Article 15, point (2)

Article 9

Article 10, point (5), Article 11, point (1), (2), (3), (5) and (6)

Article 10, point (1) and (2)

Article 12

Article 11, point (4), (7) and (8)

Article 13, introductory wording

Article 13, point (1) and (3)

Article 13, point (2)

Article 13, point (4)

Article 14, point (1)

Article 14, point (2)

Article 15

Article 16

Article 17

Article 18, introductory wording

-

Article 18, sub (a)

Article 18, sub (b)

Article 19

Article 20

Article 21, point (1)

Article 21, point (2)

-

Article 22

Article 23, point (1) and (2)

-

-

Article 16

Article 17

Annex

-

Article 24

Article 25

Article 26

Annex I

Annexes II to IV

## LEGISLATIVE FINANCIAL STATEMENT

**1. NAME OF THE PROPOSAL:**

Proposal for a Directive of the European Parliament and of the Council on the Energy Performance of Buildings

**2. ABM / ABB FRAMEWORK**

Policy Area(s) concerned and associated Activity/Activities:

06: Energy and Transport

**3. BUDGET LINES**

**3.1. Budget lines (operational lines and related technical and administrative assistance lines (ex- B..A lines)) including headings:**

06 01 01: Expenditure related to staff in active employment of "Energy and transport, policy area"

**3.2. Duration of the action and of the financial impact:**

Start 2010 end: not determinated

**3.3. Budgetary characteristics :**

Budget line	Type of expenditure		New	EFTA contribution	Contributions from applicant countries	Heading in financial perspective
06 01 01	Non-comp	Non-diff	NO	NO	NO	No 5

## 4. SUMMARY OF RESOURCES

### 4.1. Financial Resources

#### 4.1.1. Summary of commitment appropriations (CA) and payment appropriations (PA)

EUR million (to 3 decimal places)

Expenditure type	Section no.		Year n	n + 1	n + 2	n + 3	n + 4	n + 5 and later	Total
------------------	-------------	--	--------	-------	-------	-------	-------	-----------------	-------

#### Operational expenditure

Commitment Appropriations (CA)	8.1.	a							
Payment Appropriations (PA)		b							

#### Administrative expenditure within reference amount

Technical & administrative assistance (NDA)	8.2.4.	c							
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#### TOTAL REFERENCE AMOUNT

Commitment Appropriations		a+c							
Payment Appropriations		b+c							

#### Administrative expenditure not included in reference amount

Human resources and associated expenditure (NDA)	8.2.5.	d	0,366	0,366	0,366	0,366	0,366	0,366	2,196
Administrative costs, other than human resources and associated costs, not included in reference amount (NDA)	8.2.6.	e							

#### Total indicative financial cost of intervention

<b>TOTAL CA including cost of Human Resources</b>		a+c +d +e	0,366	0,366	0,366	0,366	0,366	0,366	2,196
<b>TOTAL PA including cost of Human Resources</b>		b+c +d +e	0,366	0,366	0,366	0,366	0,366	0,366	2,196

#### Co-financing details

If the proposal involves co-financing by Member States, or other bodies (please specify which), an estimate of the level of this co-financing should be indicated in the table below (additional lines may be added if different bodies are foreseen for the provision of the co-financing):

EUR million (to 3 decimal places)

Co-financing body		Year n	n + 1	n + 2	n + 3	n + 4	n + 5 and later	Total
.....	f							
TOTAL CA including co-financing	a+c +d +e +f	0,366	0,366	0,366	0,366	0,366	0,366	2,196

4.1.2. *Compatibility with Financial Programming*

- Proposal is compatible with existing financial programming.
- Proposal will entail reprogramming of the relevant heading in the financial perspective.
- Proposal may require application of the provisions of the Interinstitutional Agreement (i.e. flexibility instrument or revision of the financial perspective).

4.1.3. *Financial impact on Revenue*

- Proposal has no financial implications on revenue
- Proposal has financial impact – the effect on revenue is as follows:

EUR million (to one decimal place)

		Prior to action [Year n-1]	Situation following action					
Budget line	Revenue		[Year n]	[n+1]	[n+2]	[n+3]	[n+4]	[n+5] 18
	a) Revenue in absolute terms							
	b) Change in revenue	Δ						

4.2. **Human Resources FTE (including officials, temporary and external staff) – see detail under point 8.2.1.**

Annual requirements	Year n	n + 1	n + 2	n + 3	n + 4	n + 5 and later
Total number of human resources						

<sup>18</sup> Additional columns should be added if necessary i.e. if the duration of the action exceeds 6 years

## 5. CHARACTERISTICS AND OBJECTIVES

Details of the context of the proposal are required in the Explanatory Memorandum. This section of the Legislative Financial Statement should include the following specific complementary information:

### 5.1. Need to be met in the short or long term

The Directive requires the Commission to establish and implement a methodology for the calculation of the cost-optimal level of minimum energy performance requirements for buildings. This methodology needs to be operational by 31 December 2010 at the latest. The Commission also needs to lay down the principles for defining low or zero energy and carbon buildings.

The Directive requires Member States to use the abovementioned methodology and to report on its results every three years, starting on 30 June 2011. Member States are also required to report their national plans on low or zero energy and carbon buildings which have to be analysed by the Commission followed by a progress report. Finally, Member States are required to report on the equivalence of informational and volunteer measures on heating systems and inspection schemes.

### 5.2. Value-added of Community involvement and coherence of the proposal with other financial instruments and possible synergy

The buildings sector is the largest user of energy and CO<sub>2</sub> emitter in the EU and is responsible for about 40% of the EU's total final energy consumption and CO<sub>2</sub> emissions. The sector has significant untapped potential for cost-effective energy savings which, if realized, would mean that in 2020 the EU will consume 11% less final energy.

### 5.3. Objectives, expected results and related indicators of the proposal in the context of the ABM framework

The objective of the Directive is to save energy and to reduce greenhouse gas emission in the buildings sector.

### 5.4. Method of Implementation (indicative)

Show below the method(s) chosen for the implementation of the action.

***Centralised Management***

X directly by the Commission

indirectly by delegation to:

executive Agencies

bodies set up by the Communities as referred to in art. 185 of the Financial Regulation

X national public-sector bodies/bodies with public-service mission

***Shared or decentralised management***

with Member states

with Third countries

***Joint management with international organisations (please specify)***

Relevant comments:



## **6. MONITORING AND EVALUATION**

### **6.1. Monitoring system**

*Standard text*

### **6.2. Evaluation**

#### **6.2.1. Ex-ante evaluation**

**6.2.2. Measures taken following an intermediate/ex-post evaluation (lessons learned from similar experiences in the past)**

#### **6.2.3. Terms and frequency of future evaluation**

## **7. ANTI-FRAUD MEASURES**

*Standard text*

## 8. DETAILS OF RESOURCES

### 8.1. Objectives of the proposal in terms of their financial cost

Commitment appropriations in EUR million (to 3 decimal places)

(Headings of Objectives, actions and outputs should be provided)	Type of output	Av. cost	Year n		Year n+1		Year n+2		Year n+3		Year n+4		Year n+5 and later		TOTAL	
			No. outputs	Total cost	No. outputs	Total cost	No. outputs	Total cost	No. outputs	Total cost	No. outputs	Total cost	No. outputs	Total cost	No. outputs	Total cost
OPERATIONAL OBJECTIVE No.1 <sup>19</sup> .....																
<b>Action 1</b> .....																
- Output 1																
- Output 2																
<b>Action 2</b> .....																
- Output 1																
Sub-total Objective 1																
OPERATIONAL OBJECTIVE No.2 <sup>1</sup> .....																
<b>Action 1</b> .....																

<sup>19</sup> As described under Section 5.3

- Output 1																
Sub-total Objective 2																
OPERATIONAL OBJECTIVE No.n 1																
Sub-total Objective n																
<b>TOTAL COST</b>																

## 8.2. Administrative Expenditure

### 8.2.1. Number and type of human resources

Types of post		Staff to be assigned to management of the action using existing and/or additional resources ( <b>number of posts/FTEs</b> )					
		Year n	Year n+1	Year n+2	Year n+3	Year n+4	Year n+5
Officials	AD	3	3	3	3	3	3
	B*, C*/AST						
Staff financed by art. XX 01 02							
Other staff financed by art. XX 01 04/05							
<b>TOTAL</b>		3	3	3	3	3	3

### 8.2.2. Description of tasks deriving from the action

Establish and monitor a methodology for the calculation of the cost-optimal level of minimum energy performance requirements for buildings

Follow-up of the implementation of the Directive by the Member States and report on it. Preparation, organisation and follow-up of the meetings of the (commitology) committee.

### 8.2.3. Sources of human resources (statutory)

- Posts currently allocated to the management of the programme to be replaced or extended
- Posts pre-allocated within the APS/PDB exercise for year n
- Posts to be requested in the next APS/PDB procedure
- Posts to be redeployed using existing resources within the managing service (internal redeployment)
- Posts required for year n although not foreseen in the APS/PDB exercise of the year in question

8.2.4. *Other Administrative expenditure included in reference amount (XX 01 04/05 – Expenditure on administrative management)*

EUR million (to 3 decimal places)

Budget line (number and heading)	Year n	Year n+1	Year n+2	Year n+3	Year n+4	Year n+5 and later	TOTAL
<b>1 Technical and administrative assistance (including related staff costs)</b>							
Executive agencies <sup>20</sup>							
Other technical and administrative assistance							
- <i>intra muros</i>							
- <i>extra muros</i>							
<b>Total Technical and administrative assistance</b>							

8.2.5. *Financial cost of human resources and associated costs not included in the reference amount*

EUR million (to 3 decimal places)

Type of human resources	Year n	Year n+1	Year n+2	Year n+3	Year n+4	Year n+5 and later
Officials and temporary staff (XX 01 01)	0,366	0,366	0,366	0,366	0,366	0,366
Staff financed by Art XX 01 02 (auxiliary, END, contract staff, etc.) (specify budget line)						
<b>Total cost of Human Resources and associated costs (NOT in reference amount)</b>	0,366	0,366	0,366	0,366	0,366	0,366

Calculation– *Officials and Temporary agents*

<sup>20</sup> Reference should be made to the specific legislative financial statement for the Executive Agency(ies) concerned.

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Calculation– *Staff financed under art. XX 01 02*

8.2.6. *Other administrative expenditure not included in reference amount*

EUR million (to 3 decimal places)

	Year n	Year n+1	Year n+2	Year n+3	Year n+4	Year n+5 and later	TOTAL
XX 01 02 11 01 – Missions							
XX 01 02 11 02 – Meetings & Conferences							
XX 01 02 11 03 – Committees <sup>21</sup>							
XX 01 02 11 04 – Studies & consultations							
XX 01 02 11 05 - Information systems							
<b>2 Total Other Management Expenditure (XX 01 02 11)</b>							
<b>3 Other expenditure of an administrative nature</b> (specify including reference to budget line)							
<b>Total Administrative expenditure, other than human resources and associated costs (NOT included in reference amount)</b>							

Calculation - *Other administrative expenditure not included in reference amount*

*The needs for human and administrative resources shall be covered within the allocation that can be granted to the managing DG in the framework of the annual allocation procedure in the light of budgetary constraints.*

<sup>21</sup> Specify the type of committee and the group to which it belongs.