**COUNCIL OF THE EUROPEAN UNION**

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**NOTE**

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| from : | General Secretariat of the Council |
| to : | Delegations |
| Subject : | Proposal for a Directive of the European Parliament and of the Council on the energy performance of buildings (recast) (first reading) |

Delegations will find in Annex I the text which reflects the agreement reached at the informal trialogue on 17 November, and in Annex II the accompanying draft Commission statement.

***N.B.*** *due to the integration of EP and Council text, some numbering is not aligned, for example in Article 2; this will be corrected during the Lawyer-Linguist examination of the text.*

↓ 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[1],
Having regard to the opinion of the Committee of the Regions[2],
Acting in accordance with the procedure laid down in Article 251 of the Treaty[3],
Whereas:

(1) Directive 2002/91/EC the European Parliament and of the Council of 16 December 2002 on the energy performance of buildings[4] has been amended[5]. Since further substantive amendments are to be made, it should be recast in the interests of clarity.

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

1 OJ C […], […], p. […].
2 OJ C […], […], p. […].
3 OJ C […], […], p. […].
4 OJ L 1, 4.1.2003, p. 65.
5 See Annex IV, Part A.

(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.

~~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.~~

(3) *As buildings account for 40 % of total energy consumption in the EU, reduction* of energy consumption *and the use of energy from renewable sources* in the buildings sector *constitute* important ‖ measures needed to reduce *the EU's energy dependency and* greenhouse gas emissions. *Together with an increased use of energy from renewable sources, measures taken to reduce energy consumption in the EU would allow the EU to* comply with the Kyoto Protocol to the United Nations Framework Convention on Climate Change *(UNFCCC), its long term commitment to maintain the global temperature rise below 2 °C, and its commitment to reduce by 2020, overall greenhouse gas emissions by at least 20 % below 1990 levels, and by 30 % in the event of an international agreement.* Reduced energy consumption *and an increased use of energy from renewable sources* also has an important part to play in promoting security of energy supply, technological *developments* and *in creating* opportunities for employment and regional development, *in particular* in rural areas.

(4) ~~Demand~~ Mmanagement 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.

~~(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.~~

(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 *Commission* Communication *entitled* "Action Plan for Energy Efficiency: Realising the Potential" . *That* Action Plan identified the significant potential for cost-effective energy savings in the buildings sector. The European Parliament, in its resolution of 31 January 2008, ‖called for *the* strengthening *of* provisions of Directive 2002/91/EC, *and has called at various times, on the latest occasion in its resolution of 3 February 2009 on the Second Strategic Energy Review*[1]*, for the 20 % energy efficiency target in 2020 to be made binding. Moreover, Decision No 406/2009/EC of the European Parliament and of the Council of 23 April 2009 on the effort of Member States to reduce their greenhouse gas emissions to meet the Community's greenhouse gas emission reduction commitments up to 2020*[2]*, sets national binding targets for $CO_2$ reduction for which energy efficiency in the building sector will be crucial, and Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources*[3] *provides for the promotion of energy efficiency in the context of a binding target for energy from renewable sources accounting for 20 % of total EU energy consumption by 2020.*

➢*(5a)(new) The European Council of March 2007 reaffirmed the Community's commitment to the Community-wide development of energy from renewable sources by endorsing a mandatory target of a 20% share of energy from renewable sources by 2020. Directive 2009/28/EC establishes a common framework for the promotion of energy from renewable sources.*≮ ➲[]➲

(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.

(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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1 ***Texts adopted P6_TA(2009)0038.***
2 ***OJ L 140, 5.6.2009, p. 136.***
3 ***OJ L 140, 5.6.2009, p. 16.***

~~(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~~

(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.

(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 be based not only on the season in which heating is required, but should cover the annual energy performance of a building. ⌫ ➢ That methodology should take into account existing European standards. ➣

(10) ➲It is the sole responsibility of➲ Member States ➲to➲ set minimum requirements for the energy performance of buildings and building elements. 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 ➲, without prejudice to the right of Member States to set minimum requirements which are more energy efficient than cost-optimal efficiency levels➲. Provision should be made for the possibility ~~of rapidly adapting the methodology of calculation and of~~ ➲ for ➲ Member States ⌦ to ⌫ regularly review~~ing~~ ⌦ 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~~.

➲(10a) The objective of cost-effective or cost-optimal energy efficiency levels, may justify in certain circumstances, for example climatic differences, the setting by Member States of cost-effective or cost-optimal requirements for building elements that would in practice limit the installation of building products that comply with standards set by Community legislation, provided that such requirements do not constitute an unjustifiable market barrier.

(10b) When setting energy performance requirements for technical building systems, Member States should use, where available and appropriate, harmonized instruments, in particular testing and calculation methods and energy efficiency classes developed under measures implementing Directive 2009/125/EC and Directive 92/75/EEC, with a view to ensure coherence with related initiatives and minimise to the extent possible potential fragmentation of the market.

(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.

(12) The Commission should lay down a comparative methodology framework for calculating cost-optimal levels of minimum energy performance requirements. Member States should use [] this framework to compare the results with the minimum energy performance requirements which they have adopted . Should significant discrepancies, i.e. exceeding 15%, exist between the calculated cost-optimal levels of minimum energy performance requirements and the minimum energy performance requirements in force, Member States should justify the difference or plan appropriate steps to reduce the discrepancy. The estimated economic life cycle of a building or building element should be determined by Member States, taking into account current practices and experience in defining typical economic life cycles. 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 and report on the progress of Member States in reaching cost-optimal levels of minimum energy performance requirements. [...]

(13) Buildings have an impact on long-term energy consumption. Given the long renovation cycle for existing buildings, new, and existing buildings that are subject to major renovation, should therefore meet minimum energy performance requirements adapted to the local climate. As the application of alternative energy supply systems is generally not explored to its full potential, alternative energy supply systems should be considered for new buildings, regardless of their size, pursuant to the principle of first ensuring that energy needs for heating and cooling are reduced to cost-optimal levels.

(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. Member States may choose to define a 'major renovation' either in terms of a percentage of the surface of the building envelope or in terms of the value of the building. If a Member State decides to define a major renovation in terms of the value of the building, values such as the actuarial value, or the current value based on the cost of reconstruction, excluding the value of the land upon which the building is situated, could be used. ⇦

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

(15) Measures are needed to increase the number of buildings which not only fulfil current minimum energy performance requirements, but are more energy efficient ➲ , thereby reducing both energy consumption and carbon dioxide emissions ➲. For this purpose Member States should draw up national plans for increasing the number of ➲ nearly zero energy ➲ buildings ➲ [...] ➲ and regularly report ➢ such plans ➣ to the Commission.

➲(15a) Community financial instruments and other measures are being put into place or adapted with the aim of stimulating energy efficiency-related measures. Such financial instruments at Community level include inter alia the European Regional Development Fund Regulation 397/2009, modified to allow increased investments in energy efficiency in housing; the public-private partnership on a "European energy-efficient buildings" initiative to promote green technologies and the development of energy-efficient systems and materials in new and renovated buildings; the EC-European Investment Bank initiative "EU sustainable energy Financing Initiative" which aims to enable inter alia investments for energy efficiency and the EIB-led 'Marguerite Fund': the 2020 European Fund for Energy, Climate Change and Infrastructure, Council Directive 2009/47/EC on reduced rates of VAT, structural and cohesion funds instrument JEREMIE (Joint European Resources for micro to medium enterprises), the EEFF (Energy Efficiency Finance Facility), the Competitiveness and Innovation Framework Programme (CIP) including the Intelligent Energy -Europe (IEE) II Programme focused specifically on removing market barriers related to energy efficiency and renewable energy through for example the technical assistance facility ELENA (European Local Energy Assistance); the Covenant of Mayors, the Entrepreneurship and Innovation programme, the ICT Policy Support Programme 2010, and the 7th Research Framework Programme. Also the EBRD provides funding with the aim of stimulating energy-efficiency-related measures.

(15b) Community financial instruments should be used to give practical effect to the objectives of this Directive, without however substituting national measures. In particular, they should be used for providing appropriate, innovative means of financing to catalyse investment in energy efficiency measures. They could play an important role in the development of national, regional and local energy efficiency funds, instruments, or mechanisms, which deliver such financing possibilities to private property owners, to small and medium-sized enterprises and to energy efficiency service companies (ESCO's).

(15c) In order to provide the Commission with adequate information, Member States should draw up lists of existing and proposed measures, including those of a financial nature, other than those required by this Directive, which promote the objectives of this Directive. The existing and proposed measures listed by Member States may include in particular, measures that aim to reduce existing legal and market barriers and encourage investments and/or other activities to increase the energy efficiency of new and existing buildings, thus potentially contributing to reducing energy poverty. Such measures could include, but should not be limited to, free or subsidized technical assistance and advice, direct subsidies, subsidised loan schemes or low interest loans, grant schemes and loan guarantee schemes; the public authorities and other institutions which provide those measures of a financial nature could [] link the application of such measures to the indicated energy performance and the recommendations from energy performance certificates.➲

(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[1]. 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.

(17) The prospective buyer and tenant of ➲ a ➲ building or ➲ building unit ➲ should ➢, through the energy performance certificate,➢ be given correct information about the energy performance of the building and practical advice ➢on➢ improving ➢such performance➢. Information campaigns may serve to further encourage owners and tenants to improve the energy performance of their building or building unit. ➲➢*Owners and tenants of commercial buildings should also be encouraged to exchange information regarding actual energy consumption, in order to ensure that all the data is available to make informed decisions about necessary improvements.*➢➲

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.

➲➢ *(17a)(new)Public authorities should lead by example and should strive to implement the recommendations included in the energy performance certificate. Member States should include within their national plans measures to support public authorities to become early adopters of energy efficiency improvements and to implement the recommendations included in the energy performance certificate as soon as feasible.* ➢➲

[1] OJ L 114, 27.4.2006, p. 64.

(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~~ ~~b~~Buildings ⊠ occupied by public authorities ⊠ and buildings frequently visited by the public ~~should~~ ➢should []➢ 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 ➲ , in particular in buildings of a certain size which are occupied by public authorities or which are frequently visited by the public such as shops and shopping centres, supermarkets, restaurants, theaters, banks and hotels ➲. ~~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.~~

➲➢ (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 ➲ [...] ➲. ~~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.~~ *Priority should be given to strategies which enhance the thermic performance of buildings during the summer period. To that end, there should be* ➲ focus on measures which avoid overheating, such as shading and sufficient thermal capacity in the building construction, and ➲ *further development* ➲ and application ➲ *of passive cooling techniques, primarily those that improve indoor climatic conditions and the micro-climate around buildings.* ➲

~~(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.~~

~~(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.~~

~~(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.~~

(20) Regular ➲maintenance and➲ ⇨ 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 ➢its➣ life-cycle, ➢in particular➣ before ➢its➣ replacement or upgrading. ⇦ ~~is appropriate whenever replacement could be considered on the basis of cost-effectiveness.~~ ➲➢ *In order to minimise the administrative burden on building owners and tenants, Member States should strive to combine inspections and certifications as far as possible.*➣➲

~~(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~~

(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~~ ➲ /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. ⇦

➲➢*(21a)(new) Since local and regional authorities are critical for the successful implementation of this Directive, they should be consulted* and involved, as and when *appropriate* in accordance with applicable national legislation*, on planning issues*, the development of programmes to provide information, training and awareness-raising, *and on the implementation of the Directive at national or regional level. Such consultations may also serve to promote the provision of adequate guidance to local planners and building inspectors to carry out the necessary tasks. Furthermore, Member States should enable and encourage architects and planners to properly consider* the optimal combination of improvements in energy efficiency, use of renewable energy and use of district heating and cooling when planning, designing, building and renovating industrial or residential areas.

(21b) Installers and builders are critical to the successful implementation of this Directive. Therefore, an adequate number of installers and builders should, through training and other measures, dispose of the appropriate level of competence for the installation and integration of the energy efficient and renewable energy technology required.➢➲

(21c). Member States should take account of Directive 2005/36/EC on the recognition of professional qualifications with regard to mutual recognition of professional experts which are addressed by this Directive, and the Commission should continue its activities under the Intelligent Energy Europe Programme on guidelines and recommendations for standards for the training of professional experts addressed by this Directive.

(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[1].

(23) ➢In particular,➢ power should be conferred on the Commission to adapt to technical progress certain parts of the general framework set out in Annex I, to establish ➲ […] ➲ ➲ a methodology framework➲ for calculating cost-optimal levels of minimum energy performance requirements ➲ [...] ➲. 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.

[1] OJ L 184, 17.7.1999, p.23.

(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 accordance with the principle~~s~~ 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, ⌫ T~~t~~his 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 ⌫.

(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 III, Part B.

➲ (26a) In accordance with point 34 of the Interinstitutional Agreement on better law-making[1], Member States are encouraged to draw up, for themselves and in the interest of the Community, their own tables, illustrating, as far as possible, the correlation between this Directive and the transposition measures, and to make them public. ⇦

HAVE ADOPTED THIS DIRECTIVE:

*Article 1*

*~~Objective~~⌦ Subject matter ⌫*

~~The objective of t~~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 building units[…] ⇦ ⌫;

[1] OJ C 321, 31.12.2003, p. 1

(b) the application of minimum requirements on the energy performance of new buildings ⊠ ➲ and new building units[…] ➲ ⊠;

(c) the application of minimum requirements on the energy performance of ~~large~~ existing buildings ⊠ ➲, building units and building elements […] ➲ ⊠ that are subject to major renovation ➲➢, on building elements that form [] part of the building envelope and that have a significant impact on the energy performance of the building envelope when they are retrofitted or replaced *and* on *technical building systems whenever* a new one is installed or when one is *replaced or upgraded* ➢➲;

(d) national plans for increasing the number of ➲ nearly zero energy ➲ buildings➲ [...] ➲

~~(d)~~(e) energy certification of buildings ⊠ or ➲building units➲ ➲ […] ➲ ⊠ ; ~~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.~~;

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

*Article 2*

*Definitions*

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

(1) "building"~~:~~ ⊠ 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 seperately;~~

➲➢(1a) "nearly zero energy building" means a building that has a very high energy performance, determined in accordance with Annex I. The nearly zero or very low amount of energy required should [] to a very significant extent be covered by energy from renewable sources, including renewable energy produced on-site or nearby;➢➲

(2) "technical building system" means technical equipment for heating, cooling, ventilation, hot water, lighting ➲[ ]➲ or for a combination ➢thereof➢;

~~2)~~(3) "energy performance of a building"~~:~~ ⊠ 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~~ ⊠ includes ⊠ ~~include~~ inter alia⊠ energy used for ⊠ heating, hot water ~~heating~~, cooling, ventilation and lighting;

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

➲➢ (4a)(new) "energy from renewable sources" means energy from renewable non-fossil sources, namely wind, solar, aerothermal, geothermal, hydrothermal and ocean energy, hydropower, biomass, landfill gas, sewage treatment plant gas and biogases; ➢➲

*(9)* "building envelope" means *the integrated* elements of a building which separate its interior from the outdoor environment; ▌

➲ (5a) "building unit" means a section, floor or apartment within a building which is designed or altered to be used separately;

(5b) "building element" means a technical building system or an element of the building envelope;➲

(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;

➲Member States may choose to apply option (a) or (b). ➲

(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;

~~(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 ➲ […] ➲ ➲ building unit ➲, calculated according to a methodology ~~based on the general framework set out in the Annex~~ adopted in accordance with Article 3;

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

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

➲ (10) "Cost-optimal level" means the energy performance level which leads to the lowest cost during the estimated economic life-cycle, where:

- the lowest cost is determined taking into account energy-related investment costs, maintenance and operating costs (including energy costs and savings, ➲the category of building concerned,➲ earnings from energy produced), where applicable, and disposal costs, where applicable; and

- the estimated economic life cycle is determined by each Member State. It refers to➲ the ➲ remaining estimated economic life cycle➲ of a building ➲where energy performance requirements are set for a building as a whole, or to the estimated economic life cycle of a building element where energy performance requirements are set for building elements➲.

- the cost-optimal level shall lie within the range of performance levels where the cost-benefit analysis calculated over the estimated economic life-cycle is positive; ➲

~~(5)~~(11) "air-conditioning system"~~:~~ ⌦ means ⌫ a combination of ~~all~~⌦ the ⌫ components required to provide a form of ⇨ indoor ⇦ air treatment⌦ , ➲[ ] in which temperature is controlled or can be lowered➲ ⌫ ~~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~~⇨ ➲fluids➲ ➲ […] ➲ ⇦ 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;

➢(14) "heat pump" means *a machine*, a device or installation that *transfers* heat from *natural surroundings such as* air, water or *ground to buildings or industrial applications by reversing the natural flow of heat such that it flows from a lower to a higher temperature.* ➲For reversible heat pumps, it may also move heat from the building to the natural surroundings.➲➢

➲➢(14c)(new) "district heating' or 'district cooling' means the distribution of thermal energy in the form of steam, hot water or chilled liquids, from a central source of production through a network to multiple buildings or sites, for the use of space or process heating or cooling;➢➲

*Article 3*

*Adoption of a methodology ⌦ of calculation of the energy performance of buildings ⌫*

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 common 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).~~

*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 ➲or building units➲ are set ⇨ with a view to achieving cost-optimal levels. The energy performance shall be [] calculated in accordance with ⌫ the methodology referred to in Article 3. The calculation of cost-optimal levels shall be performed in accordance with the methodology referred to in Article 5 once this is in place.

➲Member States shall take the necessary measures to ensure that minimum energy performance requirements are set for building elements that form part of the building envelope and that have a significant impact on the energy performance of the building envelope, when they are replaced or retrofitted, with a view to achieving cost-optimal levels. ➲

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.

➲A Member State shall not be required to set minimum energy performance requirements which are not cost-effective over the estimated economic life-cycle.➲

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, in so far as compliance with certain ⌦ 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 ➲[]➲ 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 used or intended to be used for either less than four months of the year or, alternatively, for a limited annual time of use and with an expected energy consumption of less than 25% of what would be the result of all-year use ➲ ;

(e) stand-alone buildings with a total useful floor area of less than 50 $m^2$.

*Article 5*

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

1. The Commission shall establish by ➲30 June 2011 [] a➲ [] comparative methodology ➲framework➲ for calculating cost-optimal levels of minimum energy performance requirements for buildings and ➲ […] ➲ ➲ building elements ➲. The [] comparative methodology ➲framework➲ shall be established in accordance with Annex IIIa and 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 ➢ regulatory ➣ procedure ➢ with scrutiny ➣ referred to in Article ➲ […] ➲ ➢ 21(2) ➣.

2. Member States shall calculate cost-optimal levels of minimum energy performance requirements using the [] comparative methodology ➲framework➲ established in accordance with paragraph 1 and relevant parameters, such as climatic conditions ➲ and the practical accessibility of energy infrastructure ➲, and compare the results of this calculation to the minimum energy performance requirements ➲[] in force➲.

➲➢Member States shall report to the Commission all input data and assumptions used for these calculations and the results of those calculations➲. The report may be included in the Energy Efficiency Action Plans referred to in Article 14(2) of Directive 2006/32/EC. Member States shall submit those reports to the Commission ➲at regular intervals which shall not be longer than five []➲ years. The first report shall be submitted by ➲[] 30 June 2012 []➲.

➲ 2a. If the result of the benchmarking performed in accordance with paragraph 2 shows that the minimum energy performance requirements in force are significantly less energy efficient than cost-optimal levels of minimum energy performance requirements, the Member State shall [] justify this difference in writing to the Commission in the report referred to in paragraph 2, accompanied, to the extent that the gap can not be [] justified, by a plan outlining appropriate steps to significantly reduce the gap by the next review of the energy performance requirements as referred to in Article 4(1).➲

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

*Article ➲ […] ➲ 6*

*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 m2,~~ Member States shall ensure that, ⌦ before construction starts, ⌫ the technical, environmental and economic feasibility of ➲ […] ➲ alternative systems ➲ such as those listed below ➲ ⌦ is considered ➲ if available ➲ and taken into account ⌫ ~~such as~~:

(a) decentralised energy supply systems based on ➢[...]➢ energy ➢from renewable sources➢~~,~~;

(b) ~~CHP~~, ⌦ cogeneration ⌫ ;

(c) district or block heating or cooling ➲ […] particularly where it is based entirely or partially on energy from renewable sources➲ ~~,~~ ;

(d) heat pumps~~,~~ ~~under certain conditions,~~

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

2. Member States shall ensure that the analysis of alternative systems referred to in paragraph 1 is documented ➲ […] ➲ and available for verification purposes ➲.

➲ 3. The analysis of alternative systems may be carried out for individual buildings or for groups of similar buildings or for common typologies of buildings in the same area. As far as collective heating and cooling systems are concerned, the analyses may be carried out for all buildings connected to the system in the same area.➲

*Article ➲ [...] ➲ 7*

*Existing buildings*

Member States shall take the necessary measures to ensure that when buildings ~~with a total useful floor area over 1000 m2~~ undergo major renovation, ➲[]➲ the ➲ […] ➲ energy performance ➲ of the building or the renovated part thereof ➲ is upgraded in order to meet minimum ⌦ energy performance ⌫ requirements ➲set in accordance with Article 4➲ in so far as this is technically, functionally and economically feasible. The➲ requirements ➲shall []➲ be ➲ [] applied to the renovated building ➲[] or building unit as a whole. Additionally or alternatively, requirements may [] be applied to [] the renovated ➲ […] ➲ ➲ building elements ➲➲ […] .➲⌫

➲Member States shall in addition take the necessary measures to ensure that when a building element that forms part of the building envelope and has a significant impact on the energy performance of the building envelope, when it is retrofitted or replaced, the energy performance of the building element meets 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.

➲➢Member States shall encourage, in relation to buildings undergoing major renovation, that high-efficiency alternative systems, as referred to in Article 6(1), are considered and taken into account, in so far as this is technically, functionally and economically feasible.➢➲

*Article 8*

*Technical building systems*

1. ➲Member States shall, for the purpose of optimising the energy use of the technical building system,➲ set ➲[] system➲ requirements in respect of ➲the overall energy performance, the proper installation, and the appropriate dimensioning, adjustment and control of the➲ technical building systems which are installed in ➲ existing ➲ buildings. ➲ Member States may apply these system requirements also to new buildings. ➲

➲System➲ requirements shall be set for new, replacement and ➲[] upgrading➲ of technical building systems [ ] ➢and shall be applied in so far as they are technically➲, economically➲ and functionally feasible➢.

The ➲ system ➲ requirements shall ➲ […] ➲ cover ➲ at least ➲ the following ➲ […] ➲:

(a) ➲[]➲ heating systems;

(b) ➲[]➲ hot water systems;

(c) ➲[]➲ air-conditioning systems;

(d) ➲[]➲ large ventilation systems [];

or a combination thereof.

➲➢2a. Member States shall encourage the introduction of intelligent metering systems whenever a building is constructed or undergoes major renovation, whilst ensuring that this encouragement is in line with the provisions of point 2 of Annex I of Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity. Member States may furthermore encourage, where appropriate, the installation of active control systems such as automation, control and monitoring systems that aim to save energy➢➲.

*Article 9*

*➲ [...] ⊂ ➲ Nearly zero energy buildings ⊂*

1. Members States shall ensure that:

a) by 31 December 2020, all new buildings are nearly zero energy buildings as defined in Article 2(1a), and

b) after 31 December 2018, public authorities that occupy and own a new building shall ensure that the building is a nearly zero energy building as defined in Article 2(1a).

Member States shall draw up national plans for increasing the number of ➲ nearly zero energy ⊂ buildings ➲ [...] ⊂. These national plans may include targets differentiated according to the category of building.

➲ 1a. Member States shall furthermore, following the leading example of the public sector, develop policies and take measures such as targets in order to stimulate the transformation of buildings that are refurbished into nearly zero energy buildings, and inform the Commission thereof in their national plans referred to in paragraph 1. ⊂

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

➢ [...] ≺

(a) the Member State's ➲ detailed application in practice of the ⊂ definition of ➲ nearly zero energy buildings, [] reflecting their national, regional or local conditions, and including a numeric indicator of primary energy use expressed in kWh/$m^2$ per year. Primary energy factors used for the determination of the primary energy use may be based on national or regional yearly average values and may take into account relevant European standards;⊂

(b) intermediate targets ➲ [...] ⊂ ➲ for improving the energy performance of new []⊂ buildings ➲ [...] ⊂ ➲ for ⊂ 2015, with a view to preparing the implementation of paragraph 1;

(c) information on the ➲ policies and financial or other ⊂ measures undertaken ➲ in the context of paragraphs 1 and 1a ⊂ for the promotion of ➲ nearly zero energy ⊂ buildings, including details of national requirements and measures concerning the use of energy from renewable sources in new buildings and existing buildings undergoing major renovation in the context of Article 13(4) of Directive 2009/28/EC and Articles 6 and 7 of this Directive.

➲➢4. The Commission shall evaluate the national plans referred to in paragraph 1, notably the adequacy of the measures envisaged by the Member State in relation to the objectives of this Directive. The Commission, taking full account of the principle of subsidiarity, may request further specific information regarding the requirements set out in paragraphs 1, 1a and 2. In this case, the Member State concerned shall present the requested information or propose amendments within nine months following the request from the Commission. Following its evaluation, the Commission may issue a recommendation. ➲

5. The Commission shall ➢➲*by 31* December *2012 and every three years thereafter*➲ publish a report on the progress of Member States in increasing the number of ➲➢nearly zero energy➲ buildings ➲[...]➲. On the basis of this report the Commission shall develop [] an action plan, and, if necessary, propose measures to increase the number of those buildings and encourage best practices as regards the cost-effective transformation of existing buildings into nearly zero energy buildings.

6. Member States may decide not to apply the requirements set out in (a) and (b) of paragraph 1 in specific and justifiable cases where the cost-benefit analysis over the economic life-cycle of the building in question is negative. Member States shall inform the Commission of the principles of the relevant legislative regimes.

➲*Article 9a*

*Financial Incentives and Market Barriers*

1. Recognising the importance of providing appropriate financing and other instruments to catalyse the energy performance of buildings and the transition to nearly zero energy buildings, Member States shall take appropriate steps to consider the most relevant such instruments given national circumstances.

2. *Member States shall draw up* by 30 June 2011, a list of existing and, if appropriate, *proposed measures* and instruments including those of a financial nature, other than those required by the provisions of this Directive, which promote the objectives of *this Directive.*

Member States shall update this list every three years. Member States shall communicate these lists to the Commission, *which they may do by including them in the Energy Efficiency Action Plans referred to in Article 14(2) of Directive 2006/32/EC.*

3. The Commission shall examine the effectiveness of the listed existing and proposed measures referred to in paragraph 2 as well as of relevant Community instruments, in supporting the implementation of this Directive. On the basis of this examination, and taking due account of the principle of subsidiarity, the Commission may provide advice or recommendations as regards specific national schemes and coordination with Community and international financial institutions. The Commission may include its examination and possible advice or recommendations in its Report on the National Energy Efficiency Plans referred to in Article 14(5) of Directive 2006/32/EC.

3b. The Commission shall, where appropriate, assist upon request Member States in setting up national or regional financial support programmes with the aim of increasing energy efficiency in buildings, especially of existing buildings, by supporting the exchange of best practices between the responsible national or regional authorities or bodies.

4. In order to improve financing in support of the implementation of this Directive and taking due account of the principle of subsidiarity, the Commission shall, preferably by 2011, present an analysis on, in particular:

(a) the effectiveness, the appropriateness of the level, and the actual amount used, of structural funds and framework programmes that were used for increasing energy efficiency in buildings, especially in housing;

(b) the effectiveness of the use of funds from the EIB and other public finance institutions;

(c) the coordination of Community and national funding and other forms of support that can act as a leverage for stimulating investments in energy efficiency and the adequacy of these funds for achieving Community objectives.

On the basis of that analysis, and in accordance with the multiannual financial framework, the Commission may subsequently submit, if it considers this appropriate, proposals with respect to Community instruments to the European Parliament and the Council.

5. Member States shall take account of the cost-optimal levels of energy performance when providing incentives for the construction or major renovation of buildings.

6. The provisions of this Directive shall not prevent Member States from providing incentives for new buildings, renovations or building elements which go beyond the cost-optimal levels. ⊂

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 ➲ […] ➲ building unit ➲⌫~~consumers~~ to compare and assess ~~the~~ ⌦ its ⌫ energy performance ~~of the building~~.

➲➢ The certificate *may include additional information such as the annual energy* consumption for non-residential buildings and the percentage of renewable energy in the total energy consumption. .➢➲

2. The certificate shall ~~be accompanied by~~ ⌦ include ⌫ recommendations for the cost-optimal or cost-effective improvement of the energy performance ⌦ of a building or ➲ […] ➲ ➲ building unit, unless there is no reasonable potential for such improvement compared to energy performance requirements in force➲ ⌫.

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 ➲ […] ➲ ➲ building ➲ elements ➲ […] ➲ independent of a major renovation of the building envelope or technical building system(s).

3. The recommendations included in the energy performance certificate shall be technically feasible for the specific building ➲ […] and may provide an estimate for the range of payback periods or cost-benefits over its economic life-cycle.➲

➲4. The energy performance certificate shall provide an indication as to where the owner or tenant can receive more detailed information, including as regards the cost-effectiveness of the recommendations given in the certificate. ➲ 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 a preliminary cost forecast.➲ In addition, it shall contain information on the steps to be taken to implement the recommendations. Other information on related topics, such as energy audits or ➢incentives of a financial or other nature and financing possibilities➢ may also be provided to the owner or tenant.

➲➢5. Subject to national rules, Member States shall encourage public authorities to take into account the leading role which they should play in the field of energy performance of buildings, *inter alia* by implementing the recommendations included in the energy performance certificate issued for buildings owned by them within its validity period [].➲

⇨ 5.⇦ Certification for ➲building➲ ➲[...]➲ units ➲[...]➲ may be based:

⇨ (a) ⇦ on a common certification of the whole building ➲[...]➲ or

⇨ (b) ⇦ on the assessment of another representative ➲ building unit with the same energy-relevant characteristics ➲ in the same ⇨ building ⇦ block.

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.

➲➢*7c. (new) The Commission shall, by 2011, in consultation with the relevant sectors, adopt a voluntary common European Union certification* ➲scheme➲ *for the energy performance of non-residential buildings. This measure shall be adopted in accordance with the procedure referred to in Article 21(3)].* Member States are encouraged to recognise or use the scheme, or use part thereof by adapting it to national circumstances [].➲

*Article 11*

⌦ *Issuing of energy performance certificates* ⌫

➲1. Member States shall ensure that an energy performance certificate is issued for:

a) buildings or building units which are constructed, sold or rented out to a new tenant; and

b) buildings where a total useful floor area over 500m$^2$ is occupied by a public authority and frequently visited by the public. Five years after [the date of entry into force referred to in Article 25], this threshold of 500m$^2$ shall be lowered to 250 m$^2$.

The requirement to issue a certificate does not apply when a certificate, issued in accordance with either Directive 2002/91/EC on the energy performance of buildings or this Directive, for the building or building unit concerned is available and valid.

2. Member States shall require that, when buildings or building units are constructed, sold or rented out, the energy performance certificate or a copy thereof is shown to the prospective new tenant or buyer and handed over to the buyer or new tenant.

2a. Where a building is sold or rented out in advance of construction, Member States may require the seller to provide an assessment of its future energy performance, as a derogation from article 11(1) and (2); in this case, the energy performance certificate shall be issued at the latest once the building has been constructed.◅ C

3. Member States shall require that when:
- buildings having an energy performance certificate;
- building units in a building having an energy performance certificate; and
- building units having an energy performance certificate

are offered for sale or for rent, the energy performance indicator of the energy performance certificate of the building or the building unit, as applicable, is stated in the advertisements in commercial media.

4. The provisions of this Article shall be implemented in accordance with applicable national rules on joint ownership or common property.C

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.

➲ 6. Possible effects of these certificates in terms of legal proceedings, if any, shall be decided in accordance with national rules. C

*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~~ ⇨ ➲ [ ] 500 C ⇦ $m^2$ ⌦ of a building ➲for which an energy performance certificate has been issued in accordance with Article 11(1)C is ⌫ occupied by public authorities ➲and frequently visited by the publicC ~~, and by institutions providing public services to a large number of persons and therefore frequently visited by these persons~~ ~~an~~ ⌦ the ⌫ energy ⌦ performance ⌫ certificate ~~not older than 10 years,~~ is ~~placed~~ ⌦ displayed ⌫ in a prominent place clearly visible to the public.
Five years after [the date of entry into force referred to in Article 25], this threshold of 500$m^2$ shall be lowered to 250 $m^2$.

2. Member States shall ➲ require ⊂➲ […] ⊂ that where a total useful floor area over ➲500⊂ $m^2$ 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.

➲2a. The provisions of this article do not include an obligation to display the recommendations included in the energy performance certificate.⊂

*Article ~~8~~13*

*Inspection of ~~boilers~~ ⇨ heating systems ⇦*

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

1. Member States shall lay down the necessary measures to establish a regular inspection of ➲ the accessible parts of ⊂ systems used for heating buildings ➲ , such as the heat generator, control system and circulation pump(s) [], ⊂ with boilers [] of an effective rated output for space heating purposes of more than 20 kW. The inspection shall include an assessment of the boiler efficiency and the boiler sizing compared to the heating requirements of the building➲. The assessment of the boiler sizing does not have to be repeated as long as no changes were made to this heating system or as regards the heating requirements of the building in the mean time ⊂.➢*Member States may* ➲reduce the frequency of these inspections or lighten them, [] ⊂as appropriate,⊂ *where an electronic monitoring and control system is in place.*➢

➲➢2. The Member States may set different frequencies of inspections depending on the type and effective rated output of the [...]heating system, whilst taking []into account the costs of the inspection of the heating system and the estimated energy cost savings that may result from the inspection. ➢⊂

⇨ 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.

~~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. ⇦ ⇨ ➲As an alternative to the option described in ➲ [...] ➲ 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 includes inspections~~ to assess the efficiency and appropriate size of the boiler. The overall impact of this approach ➲shall ➲➲ [...] ➲ be [] ~~broadly~~ equivalent to that arising from the provisions set out in ➲[] 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~~.

➲➢ 5. After receiving the communication by a Member State of the national report about the application of the option as described in paragraph 4, the Commission may request further specific information regarding the requirements and equivalence of the measures set in paragraph 4. In this case, the Member State concerned shall present the requested information or propose amendments within nine months. ➣➲

*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 ➲the accessible parts 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➲. The assessment of the sizing does not have to be repeated as long as no changes were made to this air-conditioning system or as regards the cooling requirements of the building in the mean time. ~~Appropriate advice shall be provided to the users on possible improvement or replacement of the air-conditioning system and on alternative solutions.~~

➲➢ Member States may ➲reduce the frequency of these inspections or lighten them, as appropriate, ➲ where an electronic monitoring and control system is in place.➣➲

2. The Member States may set different frequencies of inspections depending on the type and effective rated output of the air-conditioning system ➲, whilst taking []➲ into account the costs of the inspection of the air-conditioning system and the estimated energy cost savings that may result from the inspection.

*2a. In laying down the measures referred to in paragraphs 1 and 2, Member States shall, as far as is economically and technically feasible, ensure that inspections are carried out in accordance with the inspection of heating systems and other technical systems referred to in Article 14 of this Directive and the inspection of leakages referred to in Regulation (EC) No 842/2006 of the European Parliament and of the Council of 17 May 2006 on certain fluorinated greenhouse gases*[1].

➲➢2b. As an alternative to the option described in paragraphs 1 and 2 Member States may decide to take measures to ensure the provision of advice to users on the replacement of air conditioning systems or on other modifications to the air conditioning system which may include inspections to assess the efficiency and appropriate size of the air conditioning system. The overall impact of this approach shall be equivalent to that arising from the provisions set out in paragraphs 1 and 2.

Where Member States apply the measures referred to in the first subparagraph, they shall by [30 June 2011] at the latest, submit to the Commission a report on the equivalence of those measures to measures laid down in paragraphs 1 and 2. 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.

2c. *After receiving the communication by a Member State of the national report about the application of the option as described in paragraph 2b, the Commission may request further specific information regarding the requirements* and equivalence of the measures *set in paragraph 2b. In this case, the Member State concerned shall present the requested information or propose amendments within nine months. .*➢➲

*Article 15*

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

➲1. [] An ➲ inspection report shall be issued ➲ after each inspection of a heating or airconditioning system ➲➲ [...] ➲. The inspection report shall ➲ [...] ➲ ➲ contain the result of the inspection performed in accordance with article 13 or 14 and include ➲ recommendations for the cost-effective improvement of the energy performance of the ➲ inspected ➲ system ➲ []➲.

[1] ***OJ L 161, 14.6.2006, p. 1.***

➲ The recommendations may be based on a comparison of the energy performance of the system inspected with that of the best available system feasible and a system of similar type for which all relevant components achieve the level of energy performance required by the applicable legislation; [...] ➲

➲2. ➲ The inspection report shall be handed over ➲ [...] ➲ to the owner or tenant of the building.

*Article ~~10~~ 16*

*Independent experts*

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

Experts shall be accredited taking into account their competence ➲ [...] ➲.

➲➢4. Member States shall make available to the public information on training and accreditations. Member States shall ensure that either regularly updated lists of qualified and/or accredited experts or regularly updated lists of accredited companies which offer the services of such experts are made available to the public.➢➲

*Article 17*

*Independent control system*

1. Member States shall ensure that [] independent control systems for energy performance certificates and reports on the inspection of heating and air conditioning systems are established in accordance with Annex II. ➲➢Member States may establish separate systems for the control of energy performance certificates and for the control of reports on the inspection of heating and air conditioning systems.➢➲

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 ➲[]➲ made available to the competent authorities or bodies ➲ [] ➲ on request.

*➲➢Article ~~11~~18*

*Review*

The Commission, assisted by the Committee established by Article ~~14~~21, shall evaluate this Directive ➲➢by 1 January 2017 at the latest,➲≺ [] in the light of experience gained and progress made during its application, and, if necessary, make proposals.

*Article 19*

*Information*

1. Member States ~~may~~ ⇨ shall ⇦ take the necessary measures to inform the ~~users~~ ⇨ owners and tenants ⇦ of ⇨ buildings or ➲ [...] building units ➲⇦ as to the different methods and practices that serve to enhance energy performance.

2. 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, where appropriate, on financial instruments available≺ to improve the energy performance of the building.

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.

➲➢4. Member States shall ensure that guidance and training is made available for those responsible for implementing this Directive. Such guidance and training shall address the importance of improving energy performance, and shall enable consideration of the optimal combination of improvements in energy efficiency, use of energy from renewable sources and use of district heating and cooling when planning, designing, building and renovating industrial or residential areas. ≺➲

⌦5. The Commission is invited to continuously improve its information services, in particular the website that has been set up as a European portal for energy efficiency in buildings directed towards citizens, professionals and authorities, in order to assist Member States in their information and awareness-raising efforts. Information displayed on this website might include links to relevant European Community and national, regional and local legislation, links to EUROPA websites that display the National Energy Efficiency Action Plans, links to available financial instruments, as well as best practice examples at national, regional and local level. In the context of the European Regional Development Fund (ERDF), the Commission shall continue and further intensify its information services with the aim of facilitating the use of available funds by providing assistance and information to interested stakeholders, including national, regional and local authorities, on funding possibilities, taking into account the last changes in the regulatory framework.⌫

➲*Article 19a*

*Consultation*

In order to facilitate the effective implementation of the Directive, Member States shall consult the stakeholders involved, including local and regional authorities, in accordance with the national legislation applicable and as relevant. This consultation is of particular importance for the application of the provisions of Articles 9 and 19. ➲

*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.~~

⌦ The Commission shall adapt ⌫ ~~Adaptations of~~ points ~~1~~3 and ~~2~~4 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).

*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.

➲3. Where reference is made to this paragraph, Articles 3 and 7 of Decision 1999/468/EC shall apply, having regard to the provisions of Article 8 thereof.➲

*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 ➲ [...] [two years and six months after the entry into force] ➲ at the latest and shall notify it without delay of any subsequent amendment affecting them.

*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.~~

1. Member States shall adopt and publish, by ➲ [two years after the date of entry into force] ➲ 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 apply those provisions as far as Articles 2, 3, 9, 10 to 12, 16, 17, 19 and 22 are concerned, from ➲ [two years and six months after the entry into force] ➲ at the latest.

They shall apply those provisions as far as Articles 4 to 8, 13 to 15 ➲ […] ➲ are concerned, to buildings occupied by the public authorities from ➲ [two years and six months after the entry into force] ➲ at the latest and to other buildings from ➲ [three years after the entry into force] ➲ at the latest.

➲They may defer the application of the provisions of Article 11(1) and (2) to single building units that are rented out, until 31 December 2015. This shall however not result in fewer certificates being issued than would have been the case under the application of the current Directive 2002/91/EC in the Member State concerned. ➲

When Member States adopt ➲ […] ➲ ➲ measures ➲ 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.

*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* ➲ *Union []* ➲.

ANNEX I

Common general framework for the calculation of energy performance of buildings ( ⇨ referred to in ⇦ Article 3)

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 ➲, and domestic hot water needs➲.

2. The energy performance of a building shall be expressed in a transparent manner and shall include an energy performance indicator and a numeric indicator of primary energy use, based on primary energy factors per energy carrier , which may be based on national or regional annual weighted averages or a specific value for on-site production.

The methodology of calculation of energy performance of buildings should take into account European standards ➲➢and shall be consistent with relevant Community legislation, including Directive 2009/28/EC on the promotion of energy from renewable sources➲.

~~1~~3. 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.).~~

(i) thermal capacity;

(ii) insulation;

(iii) passive heating;

(iv) cooling elements; and

(v) thermal bridges;

~~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, ➲ […] ➲ which ➲ may include air-tightness;

(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~~h) indoor climatic conditions, including the designed indoor climate;

(i) internal loads.

~~2~~4. 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.

~~3~~5. 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 ➲ […] ➲➲ a statistically significant percentage ➲ of all the energy performance certificates issued annually and subject these to verification.

The verification ➲shall➲ be based on the options ➲as➲ indicated below or on equivalent measures ➲ […] ➲:

(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 ➲ ,if possible , ➲ 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 ➲ […] ➲➲ a statistically significant percentage ➲ of all the inspection reports issued annually and subject these to verification. ➲ […] ➲:

ANNEX III

Part A

Repealed Directive with its successive amendment

(referred to in Article 24)

| | |
|---|---|
| Directive 2002/91/EC the European Parliament and of the Council (OJ L 1, 4.1.2003, p. 65) | |
| Regulation […] of the European Parliament and of the Council (OJ […]) | only point 9.9 of the Annex |

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 IIIa (new)

Comparative methodology framework to identify cost-optimal levels of energy performance requirements for buildings and building elements

The comparative methodology shall enable Member States to determine the energy performance of buildings and building elements and economic aspects of measures related to the energy performance, and to link these with a view to identifying the cost-optimal level.

The comparative methodology framework shall be accompanied by guidelines outlining how to apply this framework in the calculation of cost-optimal performance levels.

The comparative methodology framework shall allow for taking into account use patterns, outdoor climate conditions, investment costs, building category, maintenance and operating costs (including energy costs and savings), earnings from energy produced, where applicable, and disposal costs, where applicable. It should be based on relevant European standards related to this Directive.

The Commission shall also:

- provide guidelines to accompany the comparative methodology framework; these guidelines will serve to enable the Member States to undertake the steps listed below;
- provide information as regards estimated long-term energy price developments.

For the application of the comparative methodology by Member States, general conditions, expressed by parameters, shall be fixed at Member State level.

The comparative methodology framework shall require Member States to:

- define reference buildings that are characterised by and representative for their functionality and geographic location, including indoor and outdoor climate conditions. The reference buildings shall cover residential and non-residential buildings, both new and existing ones;

- define energy efficiency measures to be assessed for the reference buildings. These may be measures for individual buildings as a whole, for individual building elements, or for a combination of building elements;

- assess the final and primary energy need of the reference buildings and the reference buildings with the defined energy efficiency measures applied;

- calculate the costs (i.e. the net present value) of the energy efficiency measures during the expected economic life cycle (as referred to in the second indent) applied to the reference buildings (as referred to in the first indent) by applying the comparative methodology principles.

By calculating the costs of the energy efficiency measures during the expected economic life cycle, the cost-efficiency of different levels of minimum energy performance requirements is assessed by the Member States. This will allow the determination of cost-optimal levels of energy performance requirements.◄C

**ANNEX II**

The following draft Commission Statement[1] will be entered into the minutes of the Council when the Directive will be adopted:

## Draft Commission Statement on Financing for Energy Efficiency in Buildings

"The Commission underlines the crucial role that financing instruments play for a successful transformation of the European building sector into an energy-efficient and low carbon one. The Commission will continue to encourage Member States to use extensively the available funds under the European Regional Development Fund (currently up to 4 % of the total national amounts of the European Regional Development Fund, representing an amount of EUR 8 billion, can be used for increasing energy efficiency and use of renewable energy in the housing sector, in addition to the un-capped financial support already available for sustainable energies in public and commercial/industrial buildings) and will also support Member States in better use of all available funds and funding that can act as a leverage for stimulating investments in energy efficiency.

In addition, the Commission will explore the possibility to further develop all existing initiatives, such as the Smart Cities initiative[2] or the use of the Intelligent Energy - Europe II budget, e.g. for the purpose of knowledge sharing and technical assistance on the establishment of national revolving funds.

Moreover, the Commission shall prepare an overview and analysis of financing mechanisms currently in place in Member States and take account of the findings to endeavour to disseminate best practice across the EU.

Finally, the Commission, following the analysis referred to in Article [9a(4a)] of Directive [2010/XXX/EC], will reflect on possible future development of financial incentives (*inter alia* with regard to the Community instruments referred to for this purpose in Article 9a(4a)) and their optimal use for investments in improved energy efficiency of buildings."

_____

1 Note: this *draft* statement will be formally adopted by the Commission on 19 November.
2 SET-Plan COM (2009) 519