**REPORT**


Committee on Industry, Research and Energy

Rapporteur: Claude Turmes
Symbols for procedures

* Consultation procedure
*** Consent procedure
**** I Ordinary legislative procedure (first reading)
**** II Ordinary legislative procedure (second reading)
**** III Ordinary legislative procedure (third reading)

(The type of procedure depends on the legal basis proposed by the draft act.)

Amendments to a draft act

In amendments by Parliament, amendments to draft acts are highlighted in **bold italics**. Highlighting in *normal italics* is an indication for the relevant departments showing parts of the draft act which may require correction when the final text is prepared – for instance, obvious errors or omissions in a language version. Suggested corrections of this kind are subject to the agreement of the departments concerned.

The heading for any amendment to an existing act that the draft act seeks to amend includes a third line identifying the existing act and a fourth line identifying the provision in that act that Parliament wishes to amend. Passages in an existing act that Parliament wishes to amend, but that the draft act has left unchanged, are highlighted in **bold**. Any deletions that Parliament wishes to make in such passages are indicated thus: [...].
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DRAFT EUROPEAN PARLIAMENT LEGISLATIVE RESOLUTION

(Ordinary legislative procedure: first reading)

The European Parliament,

– having regard to the Commission proposal to Parliament and the Council (COM(2011)0370),
– having regard to Article 294(2) and Article 194(2) of the Treaty on the Functioning of the European Union, pursuant to which the Commission submitted the proposal to Parliament (C7-0168/2011),
– having regard to Article 294(3) of the Treaty on the Functioning of the European Union,
– having regard to the reasoned opinion submitted, within the framework of the Protocol (No 2) on the application of the principles of subsidiarity and proportionality, by the Swedish Parliament, asserting that the draft legislative act does not comply with the principle of subsidiarity,
– having regard to the opinion of the European Economic and Social Committee of 26 October 20111,
– having regard to the opinion of the Committee of the Regions of 14 December 20112,
– having regard to the undertaking given by the Council representative by letter of 27 June 2012 to approve Parliament’s position, in accordance with Article 294(4) of the Treaty on the Functioning of the European Union,
– having regard to Rule 55 of its Rules of Procedure,
– having regard to the report of the Committee on Industry, Research and Energy and the opinions of the Committee on the Environment, Public Health and Food Safety and the Committee on Women’s Rights and Gender Equality (A7-0265/2012),

1. Adopts its position at first reading hereinafter set out;

2. Calls on the Commission to refer the matter to Parliament again if it intends to amend its proposal substantially or replace it with another text;

3. Instructs its President to forward its position to the Council, the Commission and the national parliaments.

2 OJ C 54, 23.2.2012, p. 49.
DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

on energy efficiency and repealing Directives 2004/8/EC and 2006/32/EC

(TEXT with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 194(2) thereof,

Having regard to the proposal from the European Commission¹,

After transmission of the draft legislative act to the national parliaments,

Having regard to the opinion of the European Economic and Social Committee²,

Having regard to the opinion of the Committee of the Regions³,

Acting in accordance with the ordinary legislative procedure⁴,

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¹ Amendments: new or amended text is highlighted in bold italics; deletions are indicated by the symbol ▌.
² OJ C , , p.
⁴ Position of the European Parliament of
(1) The Union is facing unprecedented challenges resulting from increased dependence on energy imports and scarce energy resources, and the need to limit climate change and to overcome the economic crisis. Energy efficiency is a valuable means to address these challenges. It improves the Union's security of supply by reducing primary energy consumption and decreasing energy imports. It helps to reduce greenhouse gas emissions in a cost-effective way and thereby to mitigate climate change. Shifting to a more energy-efficient economy should also accelerate the spread of innovative technological solutions and improve the competitiveness of industry in the Union, boosting economic growth and creating high quality jobs in several sectors related to energy efficiency.

(2) The Conclusions of the European Council of 8 and 9 March 2007 emphasized the need to increase energy efficiency in the Union to achieve the objective of saving 20% of the Union’s primary energy consumption by 2020 compared to projections. The conclusions of the European Council of 4 February 2011 emphasized that the 2020 20% energy efficiency target as agreed by the June 2010 European Council, which is presently not on track, must be delivered. Projections made in 2007 showed a primary energy consumption in 2020 of 1842 Mtoe. A 20% reduction results in 1474 Mtoe in 2020, i.e. a reduction of 368 Mtoe as compared to projections.

(3) The Conclusions of the European Council of 17 June 2010 confirmed the energy efficiency target as one of the headline targets of the Union's new strategy for jobs and smart, sustainable and inclusive growth (Europe 2020 Strategy). Under this process and in order to implement this objective at national level, Member States are required to set national targets in close dialogue with the Commission and to indicate, in their National Reform Programmes, how they intend to achieve them.

(4) The Commission Communication on Energy 2020 places energy efficiency at the core of the EU energy strategy for 2020 and outlines the need for a new energy efficiency strategy that will enable all Member States to decouple energy use from economic growth.
(5) In its Resolution of 15 December 2010 on the Revision of the Energy Efficiency Action Plan, the European Parliament called on the Commission to include in its revised Energy Efficiency Action Plan measures to close the gap to reach the overall EU energy efficiency objective in 2020.

(6) One of the flagship initiatives of the Europe 2020 Strategy is the resource-efficient Europe flagship adopted by the Commission on 26 January 2011. This identifies energy efficiency as a major element in ensuring the sustainability of the use of energy resources.

(7) The Conclusions of the European Council of 4 February 2011 acknowledged that the EU energy efficiency target is not on track and that determined action is required to tap the considerable potential for higher energy savings in buildings, transport, products and processes. These conclusions also foresee that the implementation of the EU energy efficiency target will be reviewed by 2013 and further measures considered if necessary.

(8) On 8 March 2011, the Commission adopted its Communication on an Energy Efficiency Plan 2011. This confirmed that the Union is not on track to achieve its energy efficiency target. This is despite the advancements of national energy efficiency policies outlined in the first National Energy Efficiency Action Plans submitted by Member States in fulfilment of the requirements of Directive 2006/32/EC on energy end-use efficiency and energy services. Initial analysis of the second Action Plans confirms this point. To remedy this, the Plan spelled out a series of energy efficiency policies and measures covering the full energy chain, including energy generation, transmission and distribution; the leading role of the public sector in energy efficiency; buildings and appliances; industry; and the need to empower final customers to manage their energy consumption. Energy efficiency in the transport sector was considered in parallel in the White Paper on Transport, adopted on 28 March 2011. In particular, Initiative 26 of the White Paper calls for appropriate standards for CO₂ emissions of vehicles in all modes, where necessary supplemented by requirements on energy efficiency to address all types of propulsion systems.

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¹ OJ L 114, 27.4.2006, p. 64.
(9) On 8 March 2011, the Commission also adopted a Roadmap for moving to a competitive low carbon economy in 2050, identifying the need from this perspective for more focus on energy efficiency.

(10) In this context it is necessary to update the Union's legal framework for energy efficiency with a Directive pursuing the overall objective of the energy efficiency target of saving 20% of the Union’s primary energy consumption by 2020, and of making further energy efficiency improvements after 2020. To this end, it should establish a common framework to promote energy efficiency within the Union and lay down specific actions to implement some of the proposals included in the Energy Efficiency Plan 2011 adopted by the Council on 10 June 2011 and achieve the significant unrealised energy saving potentials it identifies.

(11) 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 requires the Commission to assess and report by 2012 on the progress of the Community and its Member States towards the objective of reducing energy consumption by 20% by 2020 compared to projections. It also states that, to help Member States meet the Community’s greenhouse gas emission reduction commitments, the Commission should propose, by 31 December 2012, strengthened or new measures to accelerate energy efficiency improvements. This Directive responds to this requirement. It also contributes to meeting the goals set out in the Roadmap for moving to a competitive low carbon economy in 2050, notably by reducing greenhouse gas emissions from the energy sector, and to achieving zero emission electricity production by 2050.

(12) An integrated approach has to be taken to tap all the existing energy saving potential, encompassing savings in the energy supply and the end-use sectors. At the same time, the provisions of Directive 2004/8/EC on promotion of cogeneration based on a useful heat demand in the internal energy market and Directive 2006/32/EC should be strengthened.

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(13) It would be preferable for the 20% energy efficiency target to be achieved as a result of the cumulative implementation of specific national and European measures promoting energy efficiency in different fields. Member States should be required to set indicative national energy efficiency targets, schemes and programmes. These targets and the individual efforts of each Member State should be evaluated by the Commission, alongside data on the progress made, to assess the likelihood of achieving the overall Union target and the extent to which the individual efforts are sufficient to meet the common goal. The Commission should therefore closely monitor the implementation of national energy efficiency programmes through its revised legislative framework and within the Europe 2020 process. When setting the indicative national energy efficiency targets, Member States should be able to take account of national circumstances affecting primary energy consumption such as remaining cost-effective energy-saving potential, changes of energy imports and exports, development of all sources of renewable energies, nuclear energy, carbon capture and storage (CCS), and early action.

When undertaking modelling exercises, model assumptions and draft model results should be consulted by the Commission with Member States in a timely and transparent manner. Improved modelling of the impact of energy efficiency measures and of the stock and performance of technologies is needed.

(13a) 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\(^1\) states that Cyprus and Malta, due to their insular and peripheral character, rely on aviation as a mode of transport, which is essential for their citizens and their economy. As a result, Cyprus and Malta have a gross final consumption of energy in national air transport which is disproportionally high, i.e. more than three times the Community average in 2005, and are thus disproportionately affected by the current technological and regulatory constraints.

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\(^1\) OJ L 140, 5.6.2009, p.16.
(14) The total volume of public spending is equivalent to 19 % of the Union's gross domestic product. For this reason the public sector constitutes an important driver to stimulate market transformation towards more efficient products, buildings and services, as well as to trigger behavioural changes in energy consumption by citizens and enterprises. Furthermore, decreasing energy consumption through energy efficiency improvement measures can free up public resources for other purposes. Public bodies at national, regional and local level should fulfil an exemplary role as regards energy efficiency.

(14a) Bearing in mind that the Council conclusions of 10 June 2011 on the Energy Efficiency Plan 2011 stressed that buildings represent 40% of the EU's final energy consumption, and in order to capture the growth and employment opportunities in the skilled trades and construction sectors as well as in the production of construction products and in professional activities such as architecture, consultancy and engineering, Member States should establish a long-term strategy beyond 2020 for mobilizing investment in the renovation of residential and commercial buildings with a view to improving the energy performance of the building stock. This strategy should address cost effective deep renovations which lead to a refurbishment that reduces both the delivered and the final energy consumption of a building by a significant percentage compared with the pre-renovation levels leading to a very high energy performance. Such deep renovations could also be carried out in stages.
(15) The rate of building renovation needs to be increased, as the existing building stock represents the single biggest potential sector for energy savings. Moreover, buildings are crucial to achieving the Union objective of reducing greenhouse gas emissions by 80-95% by 2050 compared to 1990. Buildings owned by public bodies account for a considerable share of the building stock and have high visibility in public life. It is therefore appropriate to set an annual rate of renovation of buildings owned and occupied by central government on the territory of a Member State to upgrade their energy performance. This renovation rate should be without prejudice to the obligations with regard to nearly-zero energy buildings set in Directive 2010/31/EU of the European Parliament and of the Council of 19 May 2010 on the energy performance of buildings. The obligation to renovate central government buildings complements that Directive, which requires Member States to ensure that when existing buildings undergo major renovation their energy performance is upgraded so that they meet minimum energy performance requirements. It is appropriate for Member States to be able to take alternative cost-efficient measures to achieve an equivalent improvement of the energy performance of the buildings within their central government estate. The obligation to renovate floor area of central government buildings should apply to the administrative departments whose competence extends over the whole territory. When in a given Member State and for a given competence no such relevant administrative department exists that covers the whole territory, the obligation should apply to those administrative departments whose competences cover collectively the whole territory.

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(16) A number of municipalities and other public bodies in the Member States have already put into place integrated approaches to energy saving and energy supply, for example via sustainable energy action plans, such as those developed under the Covenant of Mayors initiative, and integrated urban approaches which go beyond individual interventions in buildings or transport modes. Member States should encourage municipalities and other public bodies to adopt integrated and sustainable energy efficiency plans with clear objectives, to involve citizens in their development and implementation and to adequately inform them about their content and progress in achieving objectives. Such plans can yield considerable energy savings, especially if they are implemented by energy management systems that allow the concerned public bodies to better manage their energy consumption. Exchange of experience between cities, towns and other public bodies should be encouraged with respect to the more innovative experiences.

(17) With regards to the purchase of certain products and services and the purchase and rent of buildings, central governments which conclude public works, supply or service contracts should lead by example and make energy efficient purchasing decisions. This should apply to the administrative departments whose competence extends over the whole territory. When in a given Member State and for a given competence no such relevant administrative department exists that covers the whole territory, the obligation should apply to those administrative departments whose competences cover collectively the whole territory. The provisions of the Union’s public procurement directives should not however be affected.

For other products than those covered by the energy efficiency requirements for purchasing in this Directive, Member States should encourage public bodies to take into account the energy efficiency of purchase.
An assessment of the possibility of establishing a "white certificate" scheme at Union level has shown that, in the current situation, such a system would create excessive administrative costs and that there is a risk that energy savings would be concentrated in a number of Member States and not introduced across the Union. The latter objective could better be achieved, at least at this stage, by means of national energy efficiency obligation schemes for energy utilities or other alternative policy measures that achieve the same amount of energy savings. It is appropriate for the level of ambition of such schemes to be established in a common framework at Union level while providing significant flexibility to Member States to take full account of the national organisation of market actors, the specific context of the energy sector and final customers' habits. The common framework should give energy utilities the option of offering energy services to all final customers, not only to those to whom they sell energy. This increases competition in the energy market because energy utilities can differentiate their product by providing complementary energy services. The common framework should allow Member States to include requirements in their national scheme that pursue a social aim, notably in order to ensure that vulnerable customers have access to the benefits of higher energy efficiency. It is appropriate for Member States to determine, on the basis of objective and non-discriminatory criteria, which energy distributors or retail energy sales companies should be obliged to achieve the end-use energy savings target set by this Directive. Member States should in particular be allowed not to impose this obligation on small energy distributors, small retail energy sales companies and small energy sectors to avoid disproportionate administrative burden. The Commission Communication “Small Business Act”\(^1\) sets out principles that should be taken into account by Member States that decide to abstain from applying this possibility. As a way to support national energy efficiency initiatives, obligated parties under national energy efficiency obligation schemes could fulfill their obligations by contributing annually to an Energy Efficiency National Fund an equal amount to the investments required under the scheme.

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\(^1\) COM(2008)394 Final.
(18aa) Given the over-arching imperative of restoring sustainability to public finances and of fiscal consolidation, in the implementation of particular measures falling within the scope of this Directive, due regard shall be accorded to the cost effectiveness at Member State level of achieving energy efficiency measures on the basis of an appropriate level of analysis and evaluation.

(18a) The requirement to achieve savings of the annual energy sales to final customers relative to what energy sales would have been does not constitute a cap on sales or energy consumption.

It is appropriate for Member States to be able to exclude all or part of the sales of energy, by volume, used in industrial activities listed in Annex I to Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community for the calculation of the energy sales to final customers, as it is recognised that certain sectors or subsectors within these activities may be exposed to a significant risk of carbon leakage.

It is appropriate that Member States are aware of the costs of schemes to accurately assess the costs of measures.

(18b) Without prejudice to the requirements in Article 6 and with a view of limiting the administrative burden, each Member State may group all individual policy measures to implement Article 6 into a comprehensive national energy efficiency programme.

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(19) To tap the energy savings potential in certain market segments where energy audits are generally not offered commercially (such as small and medium-sized enterprises (SMEs)), Member States should develop programmes to encourage SMEs to undergo energy audits. Energy audits should be mandatory and regular for large enterprises, as energy savings can be significant. Audits should take into account relevant European or International Standards, such as EN ISO 50001 (Energy Management Systems), or pr EN 16247-1 (energy Audits) or if including an energy audit EN ISO 14000 (Environmental Management Systems) and thus be also in line with the provisions of Annex Va of this Directive as they do not go beyond the requirements of these relevant standards. At the time of the adoption of this Directive a specific European standard on energy audits is under development.

(20) Where these audits are carried out by in-house experts, the necessary independence would require these experts not to be directly engaged in the activity audited.

(21) When designing energy efficiency improvement measures, account should be taken of efficiency gains and savings obtained through the widespread application of cost-effective technological innovations such as smart meters. Where smart meters have been installed, these should not be used by companies for unjustified back billing.

(21a) In relation to electricity, and in accordance with 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, where the roll-out of smart meters is assessed positively, at least 80% of consumers should be equipped with intelligent metering systems by 2020. In relation to gas, and in accordance with Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas, where the roll-out of intelligent metering systems is assessed positively, Member States or any competent authority they designate, should prepare a timetable for the implementation of intelligent metering systems.

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(21b) Use of individual meters or heat cost allocators for measuring individual consumption of heating in multi-apartment buildings supplied by district heating or common central heating is beneficial when final customers have means to control their own individual consumption. Therefore, their application makes sense only in buildings where radiators are equipped with thermostatic radiator valves.

(21c) In some multi-apartment buildings supplied by district heating or common central heating, the use of accurate individual heat meters would be technically complicated and costly due to the fact that the hot water used for heating enters and leaves the apartments at several points. It can be assumed that individual metering of heat consumption in multi-apartment buildings is, nevertheless, technically possible when the installation of individual meters would not require changing the existing in-house piping for hot water heating in the building. In such buildings, measurements of individual heat consumption can then be carried out by means of individual heat cost allocators installed on each radiator.

(21d) Directive 2006/32/EC on energy end-use efficiency and energy services requires Member States to ensure that final customers are provided with competitively priced individual meters that accurately reflect their actual energy consumption and provide information on actual time of use. In most cases, this requirement is subject to the conditions that it should be technically possible, financially reasonable, and proportionate in relation to the potential energy savings. When connection is made in a new building or a building undergoes major renovations, as defined in Directive 2010/31/EU, such individual meters must however be always provided. Directive 2006/32/EC also requires that clear billing based on actual consumption should be provided frequently enough to enable consumers to regulate their own energy use.
The Directives on Internal Market for Electricity and Gas (Directive 2009/72/EC and 2009/73/EC) require Member States to ensure the implementation of intelligent metering systems to assist the active participation of consumers in the electricity and gas supply markets. As regards electricity, where the roll-out of smart meters is found to be cost-effective, at least 80% of consumers must be equipped with intelligent metering systems by 2020. As regards natural gas, no deadline is given but the preparation of a timetable is required. The Directives also state that final customers must be properly informed of actual electricity/gas consumption and costs frequently enough to enable them to regulate their own consumption.

The impact of the provisions on metering and billing of Directives 2006/32/EC, 2009/72/EC and 2009/73/EC on energy saving has been limited. In many parts of the Union, these provisions have not led to customers receiving up-to-date information about their energy consumption, nor billing based on actual consumption at the frequencies which studies show are needed to enable customers to regulate their energy use. In the sectors of space heating and hot water in multi-apartment buildings the insufficient clarity of these provisions has also led to numerous complaints from citizens.

In order to strengthen the empowerment of final customers as regards access to information from the metering and billing of their individual energy consumption, bearing in mind the opportunities associated with the process of the implementation of intelligent metering systems and the roll out of smart meters in the Member States, it is therefore important that the clarity of the requirements of EU legislation in this area is improved. This should help reduce the costs of the implementation of intelligent metering systems equipped with functions enhancing energy saving and support the development of markets for energy services and demand management. Implementation of intelligent metering system enables frequent billing based on actual consumption. However, there is also a need to clarify the requirements for access to information and fair and accurate billing based on actual consumption in cases where smart meters will not be available by 2020, including in relation to metering and billing of individual consumption of heating, cooling and hot water in multi-unit buildings supplied by district heating/cooling or own common heating system installed in such buildings.
(22) When designing energy efficiency improvement measures, Member States should take due account of the need to ensure the correct functioning of the internal market and the coherent implementation of the acquis, in accordance with the Treaty on the Functioning of the European Union.

(23) High-efficiency cogeneration (CHP) and district heating and cooling has significant potential for saving primary energy which is largely untapped in the Union. Member States should carry out a comprehensive assessment of the potential for high-efficiency CHP and district heating and cooling. These assessments should be updated on request by the Commission to provide investors with information concerning national development plans and contribute to a stable and supportive investment environment. New electricity generation installations and existing installations which are substantially refurbished or whose permit or licence is updated should, subject to a cost-benefit analysis showing a cost-benefit surplus, be equipped with high-efficient CHP units to recover waste heat stemming from the production of electricity. This waste heat could then be transported where it is needed through district heating networks. The events that trigger a requirement for these authorisation criteria to be applied will generally be events that also trigger requirements for permits under Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions\(^1\) (Industrial Emissions Directive) and for authorisation under Directive 2009/72/EC.

(23a) It may be appropriate for nuclear power installations, or electricity generation installations that are intended to make use of geological storage permitted under Directive 2009/31/EC of the European Parliament and of the Council of 23 April 2009 on the geological storage of carbon dioxide and amending Council Directive 85/337/EEC, European Parliament and Council Directives 2000/60/EC, 2001/80/EC, 2004/35/EC, 2006/12/EC, 2008/1/EC and Regulation (EC) No 1013/2006, to be located in places where the recovery of waste heat through high-efficiency cogeneration or by supplying a district heating or cooling network is not cost-effective. Member States should therefore be able to exempt those installations from the obligation to carry out a cost-benefit analysis for providing the installation with equipment allowing the recovery of waste heat by means of a high-efficiency cogeneration unit. Likewise peak-load and back-up electricity generation installations which are planned to operate under 1 500 operating hours per year as a rolling average over a period of five years may need to be exempted from the requirement to also provide heat.

(23b) It is appropriate for Member States to encourage the introduction of measures and procedures to promote cogeneration installations with a total rated thermal input of less than 20 MW in order to encourage distributed energy generation.

(24) High-efficiency cogeneration should be defined by the energy savings obtained by combined production instead of separate production of heat and electricity. The definitions of cogeneration and high-efficiency cogeneration used in Union legislation should not prejudge the use of different definitions in national legislation for purposes other than those of the Union legislation. To maximise energy savings and avoid energy saving opportunities being missed, the greatest attention should be paid to the operating conditions of cogeneration units.

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(25) To increase transparency for the final customer to be able to choose between electricity from cogeneration and electricity produced by other techniques, the origin of high-efficiency cogeneration should be guaranteed on the basis of harmonised efficiency reference values. Guarantee of origin schemes do not by themselves imply a right to benefit from national support mechanisms. It is important that all forms of electricity produced from high-efficiency cogeneration can be covered by guarantees of origin. Guarantees of origin should be distinguished from exchangeable certificates.

(26) The specific structure of the cogeneration and district heating and cooling sectors, which include many small and medium-sized producers, should be taken into account, especially when reviewing the administrative procedures for obtaining permission to construct cogeneration capacity or associated networks, in application of the "Think Small First" principle.

(27) Most Union businesses are SMEs. They represent an enormous energy saving potential for the Union. To help them adopt energy efficiency measures, Member States should establish a favourable framework aimed at providing SMEs with technical assistance and targeted information.

(28) The Industrial Emissions Directive includes energy efficiency among the criteria for determining the Best Available Techniques that should serve as a reference for setting the permit conditions for installations within its scope, including combustion installations with a total rated thermal input of 50 MW or more. However, that Directive gives Member States the option not to impose requirements relating to energy efficiency on combustion units or other units emitting carbon dioxide on the site, for the activities listed in Annex I to Directive 2003/87/EC. Member States could include information on energy efficiency levels in their reporting under the Industrial Emissions Directive.
(29) Member States should establish, on the basis of objective, transparent and non-discriminatory criteria, rules governing the bearing and sharing of costs of grid connections and grid reinforcements and for technical adaptations needed to integrate new producers of electricity produced from high efficiency cogeneration, taking into account guidelines and codes developed in accordance with Regulation (EC) No 714/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity\(^1\) and Regulation (EC) 715/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission networks\(^2\). Producers of electricity generated from high-efficiency cogeneration should be allowed to issue a call for tender for the connection work. Access to the grid system for electricity produced from high-efficiency cogeneration, especially for small scale and micro-cogeneration units, should be facilitated. \textit{In accordance with Article 3(2) of Directive 2009/72/EC and Article 3(2) of Directive 2009/73/EC, Member States may impose public service obligations, including relating to energy efficiency, on undertakings operating in the electricity and gas sectors.}

\textbf{(29a) Demand response is an important instrument to improve energy efficiency, since it significantly increases the opportunities for consumers or third parties nominated by them to take action on consumption and billing information and thus provides a mechanism to reduce or shift consumption resulting in energy savings in both final consumption and, through the more optimal use of networks and generation assets, in energy generation, transmission and distribution.}

\(^{1}\) OJ L 211, 14.8.2009, p. 15.
Demand response can be based on final customers’ responses to price signals or on building automation. Conditions for and access to demand response should be improved, including for small final consumers. Therefore and taking into account the continuing deployment of smart grids, Member States should ensure that national energy regulatory authorities are able to ensure that network tariffs and regulations incentivise improvements in energy efficiency and support dynamic pricing for demand response measures by final customers. Market integration and equal market entry opportunities for demand side resources (supply and consumer loads) alongside generation should be pursued. In addition, Member States should ensure that national energy regulatory authorities take an integrated approach encompassing potential savings in the energy supply and the end-use sectors.

(30) A sufficient number of reliable professionals competent in the field of energy efficiency should be available to ensure the effective and timely implementation of this Directive, for instance as regards compliance with the requirements on energy audits and implementation of energy efficiency obligation schemes. Member States should therefore put in place certification schemes for the providers of energy services, energy audits and other energy efficiency improvement measures.

(31) It is necessary to continue developing the market for energy services to ensure the availability of both the demand and the supply of energy services. Transparency, for example by means of lists of energy services providers, can contribute to this. Model contracts, exchange of best practice and guidelines, in particular for energy performance contracting, can also help stimulate demand. As in other forms of third-party financing arrangements, in an energy performance contract the beneficiary of the energy service avoids investment costs by using part of the financial value of energy savings to repay the investment fully or partially carried out by a third party.
(32) There is a need to identify and remove regulatory and non-regulatory barriers to the use of energy performance contracting and other third-party financing arrangements for energy savings. These include accounting rules and practices that prevent capital investments and annual financial savings resulting from energy efficiency improvement measures from being adequately reflected in the accounts for the whole life of the investment. Obstacles to the renovating of the existing building stock based on a split of incentives between the different concerned actors should also be tackled at national level.

(33) Member States and regions should be encouraged to make full use of the Structural Funds and the Cohesion Fund to trigger investments in energy efficiency improvement measures. Investment in energy efficiency has the potential to contribute to economic growth, employment, innovation and reduction of fuel poverty in households, and therefore has a positive contribution to economic, social and territorial cohesion. Potential areas for funding include energy efficiency measures in public buildings and housing, and providing new skills to promote employment in the energy efficiency sector.

(33a) Member States should encourage the use of financial facilities to further the objectives of this Directive. The financing facilities may include:

(a) financial contributions and fines from non-fulfilment of the provisions set out in Articles 6 to 8 as referred to in Article 9;

(b) resources allocated to energy efficiency under Article 10(3) of Directive 2003/87/EC;

(c) resources allocated to energy efficiency in the multiannual financial framework, in particular cohesion, structural and rural development funds, and dedicated European financial instruments, such as the European Energy Efficiency Fund.
Such facilities could be based, where applicable, on resources allocated to energy efficiency from EU projects bonds; resources allocated to energy efficiency from the European Investment Bank and other European financial institutions, in particular the European Bank for Reconstruction and Development and the Council of Europe Development Bank; resources leveraged in financial institutions; national resources, including through the creation of regulatory and fiscal frameworks encouraging the implementation of energy efficiency initiatives and programmes; revenues in accordance with Decision 406/2009/EC.

The financing facilities may in particular

(a) use this money to enable and encourage private capital investment, in particular drawing on institutional investors, while using criteria ensuring the achievement of both environmental and social objectives for the granting of funds;

(b) make use of innovative financing mechanisms (e.g. loan guarantees for private capital, loan guarantees to foster energy performance contracting, grants, subsidised loans and dedicated credit lines, third party financing systems) that reduce the risks of energy efficiency projects, and allow for cost effective renovations even among low and medium revenue households;

(c) be linked to programmes or agencies which will aggregate and assess the quality of energy saving projects, provide technical assistance, promote the energy services market and help to generate consumer demand for energy services, in accordance with Article 14.

The financing facilities may also:

(a) provide appropriate resources to support training and certification programmes which improve and accredit skills for energy efficiency;

(b) provide resources for research on and demonstration and acceleration of uptake of small scale and micro technologies to generate energy and the optimisation of the connections of these generators to the grid;
(c) be linked to programmes undertaking action to promote energy efficiency in all houses to prevent energy poverty and stimulate landlords letting houses to render their property as energy efficient as possible;

(d) provide appropriate resources to support social dialogue and standard-setting aiming at improving energy efficiency and ensuring good working conditions and health and safety at work.

Available Union financial instruments and innovative financing mechanisms should be used to give practical effect to the objective of improving the energy performance of public bodies' buildings. In that respect, Member States may use their revenues from annual emission allocations under Decision No 406/2009/EC in the development of such mechanisms on a voluntary basis and taking into account national budgetary rules.

(34) In the implementation of the 20 % energy efficiency target, the Commission will have to monitor the impact of new measures on Directive 2003/87/EC establishing the EU's emissions trading directive (ETS) in order to maintain the incentives in the emissions trading system rewarding low carbon investments and preparing the ETS sectors for the innovations needed in the future. It will need to monitor the impact on the industry sectors which are exposed to a significant risk of carbon leakage as determined in Commission Decision 2010/2/EU in order to ensure that the provisions of this Directive promote and do not impede the development of these sectors.

(35) Directive 2006/32/EC requires Member States to adopt and aim to achieve an overall national indicative energy savings target of 9% by 2016, to be reached by deploying energy services and other energy efficiency improvement measures. That Directive states that the second Energy Efficiency Plan adopted by the Member States shall be followed, as appropriate and where necessary, by Commission proposals for additional measures, including extending the period of application of targets. If a report concludes that insufficient progress has been made towards achieving the indicative national targets laid down by that Directive, these proposals are to address the level and nature of the targets. The impact assessment accompanying this Directive finds that the Member States are on track to achieve the 9% target, which is substantially less ambitious than the subsequently adopted 20% energy saving target for 2020, and therefore there is no need to address the level of the targets.
(35a) Intelligent Energy Europe Programme (IEE) (Decision No 1639/2006/EC of the European Parliament and of the Council) has been instrumental for creating an enabling environment for the proper implementation of EU sustainable energy policies, by removing market barriers such as insufficient awareness and capacity of market actors and institutions, national technical or administrative barriers to the proper functioning of the internal energy market or underdeveloped labour markets to match the low-carbon economy challenge. Many of these barriers are still relevant.

(36a) In order to tap the considerable energy saving potential of energy-related products the implementation of Directive 2009/125/EC of 21 October 2009 establishing a framework for the setting of ecodesign requirements for energy-related products and Directive 2010/30/EU of 19 May 2010 on the indication by labelling and standard product information of the consumption of energy and other resources by energy-related products should be accelerated and widened. Priority should be given the products offering the highest energy-saving potential as identified by the Ecodesign Working Plan and the revision, where appropriate, of existing measures.

(37) Since the objective of this Directive, namely to achieve the Union's energy efficiency target of 20% by 2020 and pave the way towards further energy efficiency improvements beyond 2020, cannot be sufficiently achieved by the Member States without taking additional energy efficiency measures, and can be better achieved at Union level, the Union may adopt measures, in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty on European Union. In accordance with the principle of proportionality, as set out in that Article, this Directive does not go beyond what is necessary in order to achieve that objective.
(38) In order to permit adaptation to technical progress and changes in the distribution of energy sources, the power to adopt acts in accordance with Article 290 of the Treaty on the Functioning of the European Union should be delegated to the Commission in respect of the review of the harmonised efficiency reference values laid down on the basis of Directive 2004/8/EC and in respect of the values, calculation methods, default primary energy coefficient and requirements in the Annexes to this Directive. It is of particular importance that the Commission carry out appropriate consultations during its preparatory work, including at expert level. The Commission, when preparing and drawing up delegated acts, should ensure a simultaneous, timely and appropriate transmission of relevant documents to the European Parliament and Council.

(39) All substantive provisions of Directives 2004/8/EC and 2006/32/EC, except as regards Articles 4(1) to (4) of and Annexes I, III and IV to the latter, should be repealed. These latter provisions of Directive 2006/32/EC should continue to apply until the deadline for the achievement of the 9% target. Articles 9(1) and (2) of Directive 2010/30/EU of the European Parliament and of the Council of 19 May 2010 on the indication by labelling and standard product information of the consumption of energy and other resources by energy-related products¹, which provides for an obligation for Member States only to endeavour to procure products having the highest energy efficiency class, should also be repealed.

(40) The obligation to transpose this Directive into national law should be limited to those provisions that represent a substantive change as compared with Directives 2004/8/EC and 2006/32/EC. The obligation to transpose the provisions which are unchanged arises under those Directives.

(41) 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 Directives 2004/8/EC and 2006/32/EC.

(42) **In accordance with the Joint Political Declaration of Member States and the Commission on explanatory documents of 29 September 2011, Member States have undertaken to accompany, in justified cases, the notification of their transposition measures with one or more documents explaining the relationship between the components of a directive and the corresponding parts of national transposition instruments. With regard to this Directive, the legislator considers the transmission of such documents to be justified.**

**HAVE ADOPTED THIS DIRECTIVE:**

**CHAPTER I**
Subject matter, scope, definitions and energy efficiency targets

**Article 1**
Subject matter and scope

1. This Directive establishes a common framework of measures for the promotion of energy efficiency within the Union in order to ensure the achievement of the Union's **2020 20% headline** target on energy efficiency and to pave the way for further energy efficiency improvements beyond that date.

   It lays down rules designed to remove barriers in the energy market and overcome market failures that impede efficiency in the supply and use of energy, and provides for the establishment of indicative national energy efficiency targets for 2020.

2. The requirements laid down in this Directive are minimum requirements and shall not prevent any Member State from maintaining or introducing more stringent measures. Such measures shall be compatible with Union legislation. **Where** national legislation **provides for** more stringent measures, the Member State shall **notify such legislation** to the Commission.
Article 2

Definitions

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

1. 'energy' means all forms of energy products, **combustible fuels, heat, renewable energy, electricity, or any other form of energy**, as defined in Regulation (EC) No 1099/2008 of the European Parliament and of the Council of 22 October 2008 on energy statistics \(^1\)

2. 'primary energy consumption' means gross inland consumption, excluding non-energy uses;

2a. 'final energy consumption' means all energy supplied to industry, transport, households, services and agriculture. It excludes deliveries to the energy transformation sector and the energy industries themselves;

2b. 'energy efficiency' means a ratio between an output of performance, service, goods or energy, and an input of energy;

2c. 'energy savings' means an amount of saved energy determined by measuring and/or estimating consumption before and after implementation of one or more energy efficiency improvement measures, whilst ensuring normalisation for external conditions that affect energy consumption;

2d. 'energy efficiency improvement' means an increase in energy efficiency as a result of technological, behavioral and/or economic changes;

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3. 'energy service' means the physical benefit, utility or good derived from a combination of energy with energy efficient technology or with action, which may include the operations, maintenance and control necessary to deliver the service, which is delivered on the basis of a contract and in normal circumstances has proven to result in verifiable and measurable or estimable energy efficiency improvement or primary energy savings;

4. 'public bodies' means 'contracting authorities' as defined in Directive 2004/18/EC of the European Parliament and of the Council of 31 March 2004 on the coordination of procedures for the award of public works contracts, public supply contracts and public service contracts;¹

4a. 'central government' means all administrative departments whose competence extends over the whole territory of a Member State;

4b. 'total useful floor area' means the floor area of a building or part of a building, where energy is used to condition the indoor climate;

5. 'energy management system' means a set of interrelated or interacting elements of a plan which sets an energy efficiency objective and a strategy to achieve that objective;

5a. '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;

5b. 'International standard' means a standard adopted by the International Standardisation Organisation and made available to the public;

6. 'obligated party' means the energy distributor or retail energy sales company that is bound by the national energy efficiency obligation schemes referred to in Article 6;

6a. 'entrusted party' means a legal entity with delegated power from a government or another public body to develop, manage or operate a financing scheme on behalf of the government or other public body;

6b. 'participating party' means an enterprise or public body that has committed itself to reach certain objectives under a voluntary agreement, or is covered by a national regulatory policy instrument;

6c. 'implementing public authority' means a body governed by public law which is responsible for the carrying out or monitoring of energy or carbon taxation, financial schemes and instruments, fiscal incentives, standards and norms, energy labelling schemes, training or education;

6d. 'policy measure' means a regulatory, financial, fiscal, voluntary or information provision instrument that has been formally established and implemented in a Member State to create a supportive framework, requirement or incentive for market actors to provide and purchase energy services and to undertake other energy efficiency improvement measures;

6e. 'individual action' means an action that leads to verifiable, and measureable or estimable, energy efficiency improvements and is undertaken as a result of a policy measure;

7. 'energy distributor' means a natural or legal person, including a distribution system operator, responsible for transporting energy with a view to its delivery to final customers or to distribution stations that sell energy to final customers;

8. 'distribution system operator' means 'distribution system operator' as defined in Directive 2009/72/EC\(^1\) and Directive 2009/73/EC\(^2\) respectively;

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\(^1\) OJ L 211, 14.8.2009, p. 55.
\(^2\) OJ L 211, 14.8.2009, p. 94.
9. 'retail energy sales company' means a natural or legal person who sells energy to final customers;

10. 'final customer' means a natural or legal person who purchases energy for his or her own end use;

11. 'energy service provider' means a natural or legal person who delivers energy services or other energy efficiency improvement measures in a final customer's facility or premises;

12. 'energy audit' means a systematic procedure to obtain adequate knowledge of the existing energy consumption profile of a building or group of buildings, an industrial or commercial operation or installation or a private or public service, identify and quantify cost-effective energy savings opportunities, and report the findings;

12a. 'small and medium-sized enterprises' means enterprises as defined in Title I of the Annex to Commission Recommendation 2003/361 of 6 May 2003 concerning the definition of micro, small and medium-sized enterprises;\(^1\) the category of micro, small and medium-sized enterprises (SMEs) is made up of enterprises which employ fewer than 250 persons and which have an annual turnover not exceeding EUR 50 million, and/or an annual balance sheet total not exceeding EUR 43 million;

13. 'energy performance contracting' means a contractual arrangement between the beneficiary and the provider of an energy efficiency improvement measure, verified and monitored during the whole term of the contract, where investments (work, supply or service) in that measure are paid for in relation to a contractually agreed level of energy efficiency improvement or other agreed energy performance criterion, such as financial savings;

\(^1\) OJ L 124, 20.5.2003, p. 36.
13a. ‘smart metering system’ means an electronic system that can measure energy consumption, adding more information than a conventional meter, and can transmit and receive data using a form of electronic communication;

14. 'transmission system operator' means 'transmission system operator' as defined in Directive 2009/72/EC and Directive 2009/73/EC respectively;

15. 'cogeneration' means the simultaneous generation in one process of thermal energy and electrical or mechanical energy;

16. 'economically justifiable demand' means demand that does not exceed the needs for heating or cooling and which would otherwise be satisfied at market conditions by energy generation processes other than cogeneration;

17. 'useful heat' means heat produced in a cogeneration process to satisfy economically justifiable demand for heating or cooling;

18. 'electricity from cogeneration' means electricity generated in a process linked to the production of useful heat and calculated in accordance with the methodology laid down in Annex I;

19. 'high-efficiency cogeneration' means cogeneration meeting the criteria laid down in Annex II;

20. 'overall efficiency' means the annual sum of electricity and mechanical energy production and useful heat output divided by the fuel input used for heat produced in a cogeneration process and gross electricity and mechanical energy production;

21. 'power to heat ratio' means the ratio between electricity from cogeneration and useful heat when operating in full cogeneration mode using operational data of the specific unit;
22. 'cogeneration unit' means a unit that can operate in cogeneration mode;

23. 'small scale cogeneration unit' means a cogeneration unit with installed capacity below 1MWe;

24. 'micro-cogeneration unit' means a cogeneration unit with a maximum capacity below 50 kWe;

25. 'plot ratio' means the ratio between the land area and the building floor area in a given territory;

26. 'efficient district heating and cooling' means a district heating or cooling system using at least 50% renewable energy, 50% waste heat, 75% cogenerated heat or 50% of a combination of such energy and heat;

27. 'substantial refurbishment' means a refurbishment whose cost exceeds 50 % of the investment cost for a new comparable unit;

28. 'efficient heating and cooling' means a heating and cooling option that compared to a baseline scenario reflecting a business as usual situation measurably reduces the input of primary energy needed to supply one unit of delivered energy within a relevant system boundary in a cost-effective way, as assessed in the cost-benefit analysis referred to in this Directive, taking into account the energy required for extraction, conversion, transport and distribution;
29. 'efficient individual heating and cooling' means an individual heating and cooling supply option that compared to efficient district heating and cooling measurably reduces the input of non-renewable primary energy needed to supply one unit of delivered energy within a relevant system boundary or requires the same input of non-renewable primary energy but at a lower cost, taking into account the energy required for extraction, conversion, transport and distribution;

30. 'aggregator' means a demand service provider that combines multiple short-duration consumer loads to sell or auction in organised energy markets.

Article 3

Energy efficiency targets

1. Each Member State shall set an indicative national energy efficiency target, based on either primary or final energy consumption, primary or final energy savings, or energy intensity. In notifying these targets to the Commission in accordance with Article 19(1) and Annex XIV Part 1f), the Member States shall also express them in terms of an absolute level of primary energy consumption and final energy consumption in 2020 and shall explain how, and on the basis of which data, this has been calculated.

When setting these targets, they shall take into account: that the Union’s 2020 energy consumption has to be no more than 1474 Mtoe of primary energy or no more than 1078 Mtoe of final energy; the measures provided for in this Directive; the measures adopted to reach the national energy saving targets adopted pursuant to Article 4(1) of Directive 2006/32/EC; and other measures to promote energy efficiency within Member States and at Union level. When setting the national energy efficiency targets, Member States may take account of national circumstances affecting primary energy consumption, such as remaining cost-effective energy-saving potential, GDP evolution and forecast, changes of energy imports and exports, development of all sources of renewable energies, nuclear energy, carbon capture and storage (CCS), and early action.
2. By 30 June 2014, the Commission shall assess progress achieved and whether the Union is likely to achieve energy consumption of no more than 1474 Mtoe of primary energy and/or no more than 1078 Mtoe of final energy in 2020.

3. In carrying out the review mentioned in paragraph 2, the Commission shall:

   (i) sum the national indicative energy efficiency targets reported by Member States;

   (ii) assess whether the sum of these targets can be considered a reliable guide to whether the EU as a whole is on track, taking into account, for the assessment referred to in paragraph 2, the evaluation of the first annual report in accordance with Article 19(1), and the evaluation of the National Energy Efficiency Action Plans in accordance with Article 19(2);

   (iii) take into account complementary analysis arising from

      - an assessment of progress in energy consumption and energy consumption in relation to economic activity at EU level, including progress in the efficiency of energy supply in Member States that have based their national indicative targets on final energy consumption or final energy savings, including progress due to these Member States’ compliance with Chapter III of this Directive;

      - results from modelling exercises in relation to future trends in energy consumption at EU level;

   (iv) compare the results with the quantity of energy consumption that would be needed to achieve energy consumption of no more than 1474 Mtoe of primary energy and/or no more than 1078 Mtoe of final energy in 2020.
Article 3a
Building renovation

Member States shall establish a long-term strategy for mobilizing investment in the renovation of the national stock of residential and commercial buildings, both public and private. This strategy shall encompass:

(i) An overview of the national building stock based, as appropriate, on statistical sampling;

(ii) an identification of cost effective approaches to renovations relevant to the building type and climatic zone;

(iii) policies and measures to stimulate cost-effective deep renovations of buildings, including staged deep renovations;

(iv) a forward looking perspective to guide investment decisions of individuals, the construction industry and financial institutions;

(v) an evidence-based estimate of expected energy savings and wider benefits.

A first version of the strategy shall be published by 30 April 2014 and updated every three years thereafter and submitted to the Commission as part of the National Energy Efficiency Action Plans.
CHAPTER II
Efficiency in energy use

Article 4
Exemplary role of public bodies' buildings

1. Without prejudice to Article 7 of Directive 2010/31/EU, Member States shall ensure that, as from 1 January 2014, 3% of the total floor area of heated and/or cooled buildings owned and occupied by their central government is renovated each year to meet at least the minimum energy performance requirements set by the Member State concerned in application of Article 4 of that Directive. The 3% rate shall be calculated on the total floor area of buildings with a total useful floor area over 500 m² and, as of 9 July 2015, over 250 m² owned and occupied by the central government of the Member State concerned that, on 1 January of each year, do not meet the national minimum energy performance requirements set in application of Article 4 of Directive 2010/31/EU.

Where a Member State requires that the obligation to renovate each year 3% of the total floor area extends to floor area owned and occupied by administrative departments at a level below central government, the 3% rate shall be calculated on the total floor area of buildings with a total useful floor area over 500 m² and as of 9 July 2015 over 250 m² owned and occupied respectively by central government and these administrative departments of the Member State concerned that, on 1 January of each year, do not meet the national minimum energy performance requirements set in application of Article 4 of Directive 2010/31/EU.

When implementing measures for the comprehensive renovation of central government buildings in accordance with the first subparagraph, Member States may choose to consider the building as a whole, including building envelope, equipment, operation and maintenance.

Member States shall require that central government buildings with the lowest energy performance are a priority for energy efficiency measures, where cost-effective and technically feasible.
1a. Member States may decide not to set or apply the requirements referred to in paragraph 1 to the following categories of buildings:

(i) buildings officially protected as part of a designated environment, or because of their special architectural or historical merit, in so far as compliance with certain minimum energy performance requirements would unacceptably alter their character or appearance;

(ii) buildings owned by the armed forces or national central government and serving national defence purposes, but excluding single living quarters or office buildings for the armed forces and other staff employed by national defence authorities;

(iii) buildings used as places of worship and for religious activities.

2. Member States may count towards the annual renovation rate of central government's buildings the excess of renovated building floor area of central government buildings in a given year as if it has instead been renovated in any of the three previous or following years.

2a. Member States may count towards the annual renovation rate of central government buildings new buildings occupied and owned as replacements of specific central government buildings demolished in any of the two previous years, or buildings that have been sold, demolished or taken out of use in any of the two previous years due to more intensive use of other buildings.

3. For the purposes of paragraph 1, by 1 January 2014, Member States shall establish and make publicly available an inventory of heated and/or cooled central government buildings with a total useful floor area over 500 m² and, by 9 July 2015, over 250 m², excluding buildings exempted on the basis of paragraph 1a, containing the following data:
(a) the floor area in m²; and

(b) the energy performance of each building or relevant energy data.

3a. As an alternative approach to paragraphs 1, 1a, 2, 2a and 3, and without prejudice to Article 7 of Directive 2010/31/EU, Member States may take other cost-effective measures, including deep renovations and measures for behavioural change of occupants, to achieve by 2020 an amount of energy consumption savings in eligible buildings owned and occupied by their central government that is at least equivalent to that required in paragraph 1, reported on an annual basis. For the purpose of this alternative approach, they may estimate the energy savings that paragraphs 1, 1a and 2a would generate by using appropriate standard values for the energy consumption of reference central government buildings before and after renovation and according to estimates of the surface of their stock. The categories of reference central government buildings shall be representative of the stock of such buildings.

Member States opting for an alternative approach shall notify to the Commission, by 1 January 2014 at the latest, the alternative measures that they plan to adopt and showing how they would achieve an equivalent improvement of the energy performance of the buildings within the central government estate.

4. Member States shall encourage public bodies, including at regional and local level, and social-housing bodies governed by public law, with due regard for their respective competences and administrative set-up, to:

(a) adopt an energy efficiency plan, freestanding or as part of a broader climate or environmental plan, containing specific energy saving and efficiency objectives and actions, with a view to following the exemplary role of central government buildings laid down in paragraphs 1, 3 and 3a;
(b) put in place an energy management system, including energy audits, as part of the implementation of their plan.

(ba) use, where appropriate, ESCOs, and energy performance contracting to finance renovations and implement plans to maintain or improve energy efficiency in the long term.

Article 5
Purchasing by public bodies

Member States shall ensure that central governments purchase only products, services and buildings with high-energy efficiency performance, insofar as this is consistent with cost-effectiveness, economical feasibility, wider sustainability, technical suitability, as well as sufficient competition, as referred to in Annex III. That obligation shall apply to contracts for the purchase of products, services and buildings by public bodies in so far as these contracts have a value equal to or greater than the thresholds laid down in Article 7 of Directive 2004/18/EC as amended.

That obligation shall apply to the contracts of the armed forces, only to the extent that its application does not cause any conflict with the nature and primary aim of the activities of the armed forces and with the exception of military equipment defined by Directive 2009/81/EC of the European Parliament and of the Council of 13 July 2009 on the coordination of procedures for the award of certain works contracts, supply contracts and service contracts by contracting authorities or entities in the fields of defence and security.

Member States shall encourage public bodies, including at regional and local level, with due regard for their respective competences and administrative set-up, to follow the exemplary role of their central governments to purchase only products, services and buildings with high-energy efficiency performance.

Member States shall encourage public bodies, when tendering service contracts with significant energy content, to assess the possibility of concluding long term energy performance contracts that provide long-term energy savings.

Without prejudice to the first subparagraph, when purchasing a product package covered as a whole by a delegated act adopted under Directive 2010/30 EU, Member States may require that the aggregate energy efficiency shall take priority over the energy efficiency of individual products within that package, by purchasing the product package that complies with the criterion of belonging to the highest energy efficiency class.

Article 6
Energy efficiency obligation schemes

1. Each Member State shall set up an energy efficiency obligation scheme. That scheme shall ensure that obligated energy distributors and/or retail energy sales companies operating in each Member State's territory achieve a cumulative end-use energy savings target by 31 December 2020, without prejudice to paragraph 1aa. That target shall be at least equivalent to achieving new savings each year from 1 January 2014 to 31 December 2020 of 1.5% of the annual energy sales to final customers of all energy distributors or all retail energy sales companies by volume, averaged over the most recent three-year period prior to 1 January 2013. The sales of energy, by volume, used in transport may be partially or fully excluded from this calculation.

Member States shall decide how the calculated quantity of new savings referred to in the first sub-paragraph shall be phased over the period.

1aa. Each Member State may, without prejudice to paragraph 1ab:
    a) carry out the calculation required by the first subparagraph of paragraph 1 using values of 1% in 2014 and 2015; 1.25% in 2016 and 2017; and 1.5% in 2018, 2019 and 2020;
b) exclude from the calculation all or part of the sales, by volume, of energy used in industrial activities listed in Annex I to Directive 2003/87/EC;

c) allow energy savings achieved in the energy transformation, distribution and transmission sectors, including efficient district heating and cooling infrastructure, as a result of the implementation of the requirements set out in Article 10(2) and (3)(b) and Article 12(1) to (6) and (8) to be counted against the amount of energy savings required under paragraph 1; and

d) count energy savings resulting from individual actions newly implemented since 31 December 2008 that continue to have impact in 2020 and can be measured and verified, against the amount of energy savings required under paragraph 1.

1ab. The application of paragraph 1aa shall not lead to a reduction of more than 25% of the amount of energy savings referred to in paragraph 1. Member States making use of paragraph 1aa shall notify this to the Commission by … [date of transposition], including the elements listed under paragraph 1aa to be applied and a calculation showing their impact on the amount of energy savings referred to in paragraph 1.

1a. Without prejudice to paragraph 1, each Member State shall designate, on the basis of objective and non-discriminatory criteria, obligated parties amongst energy distributors and/or retail energy sales companies operating in its territory and may include transport fuel distributors or transport fuel retailers operating in its territory. The amount of energy savings to fulfil the obligation shall be achieved by the obligated parties among final customers, designated, as appropriate, by the Member State, independently from the calculation of the paragraph 1, or, if Member States so decide, through certified savings stemming from other parties as described in paragraph 5b.
2. Member States shall express the amount of energy savings required from each obligated party in terms of either final or primary energy consumption. The method chosen for expressing the required amount of energy savings shall also be used for calculating the savings claimed by obligated parties. The conversion factors in Annex IV shall apply.

4. Member States shall ensure that the savings stemming from paragraphs 1, 1aa, 9 and Article 15a(6) are calculated in accordance with Annex V points (2) and (3). They shall put in place measurement, control and verification systems under which at least a statistically significant proportion and representative sample of the energy efficiency improvement measures put in place by the obligated parties is verified. That measurement, control and verification shall be conducted independently of the obligated parties.

5. Within the energy efficiency obligation scheme, Member States may:

   (a) include requirements with a social aim in the saving obligations they impose, including by requiring a share of energy efficiency measures to be implemented as a priority in households affected by energy poverty or in social housing;

   (b) permit obligated parties to count towards their obligation certified energy savings achieved by energy service providers or other third parties, including where obligated parties promote measures through other state-approved bodies or through public authorities that may or may not involve formal partnerships and may be in combination with other sources of finance; in this case Member States shall ensure that an approval process is in place that is clear, transparent and open to all market actors, and that aims at minimising the costs of certification;

   (c) allow obligated parties to count savings obtained in a given year as if they had instead been obtained in any of the four previous or three following years.
6. **Once a year**, Member States shall publish the energy savings achieved by each obligated party, *or each sub-category of obligated party, and in total* under the scheme.

Member States shall *ensure that obligated parties provide on request, but not more than once a year*:

- aggregated statistical information on their final customers (identifying significant changes to previously submitted information); and
- current information on final customers' consumption, including, where applicable, load profiles, customer segmentation and geographical location of customers, while preserving the integrity and confidentiality of private or commercially sensitive information in compliance with applicable Union legislation.

9. As an alternative to paragraph 1, Member States may opt to take other *policy* measures to achieve energy savings among final customers, *provided they meet the criteria set out in paragraphs 9a and 9b*. The annual amount of *new* energy savings achieved through this approach shall be equivalent to the amount of *new* energy savings required *by paragraphs 1, 1a and 1ab*. Provided that equivalence is maintained, Member States may combine obligation schemes with alternative policy measures, including national energy efficiency programmes.

*The policy measures referred to in the first subparagraph may include, but are not restricted to, the following policy measures or combinations thereof:*
(a) energy or CO₂ taxes that have the effect of reducing end-use energy consumption;

(b) financing schemes and instruments or fiscal incentives that lead to the application of energy efficient technology or techniques and have the effect of reducing end-use energy consumption;

(c) regulations or voluntary agreements that lead to the application of energy efficient technology or techniques and have the effect of reducing end-use energy consumption;

(d) standards and norms that aim at improving the energy efficiency of products and services, including buildings and vehicles, except where these are mandatory and applicable in Member States under EU law;

(e) energy labelling schemes, with the exception of those that are mandatory and applicable in the Member States under EU law;

(f) training and education, including energy advisory programmes, that lead to application of energy-efficient technology or techniques and have the effect of reducing end-use energy consumption.

Member States shall notify to the Commission, by [6 months prior to the transposition date], the policy measures that they plan to adopt for the purposes of the first subparagraph and Article 15a(6), following the framework provided in Annex V, point 4, and showing how they would achieve the required amount of savings. In the case of the policy measures referred to in the second subparagraph and in Article 15a(6), this notification shall demonstrate how the criteria in paragraph 9a are met. In the case of policy measures other than those referred to in the second subparagraph or in Article 15a(6), Member States shall explain how an equivalent level of savings, monitoring and verification is achieved. The Commission may make suggestions for modifications in the 3 months following notification.
9a. Without prejudice to paragraph 9b, the criteria for the policy measures taken pursuant to the second subparagraph of paragraph 9 and Article 15a(6) shall be as follows:

(a) the policy measures provide for at least two intermediate periods by 31 December 2020 and leads to the achievement of the level of ambition as set in paragraph 1;

(b) the responsibility of each entrusted party, participating party or implementing public authority, whichever is relevant, is defined and the savings that are to be achieved are determined in a transparent manner;

(ba) the savings that are to be achieved are determined in a transparent manner;

(c) the amount of savings required or to be achieved by the policy measure are expressed in either final or primary energy consumption, using the conversion factors in Annex IV;

(d) energy savings are calculated using the methods and principles provided in Annex V, points (2) and (3);

(da) energy savings are calculated using the methods and principles provided in Annex V, point 3a;

(e) an annual report of the energy savings achieved is provided by participating parties unless not feasible and made publicly available;

(f) monitoring of the results is ensured and appropriate measures are envisaged if the progress is not satisfactory;
(g) a control system is put in place that also includes independent verification of a statistically significant proportion of the energy efficiency improvement measures; and

(h) data on the annual trend of energy savings are published annually.

9b. Member States shall ensure that the taxes referred to in paragraph 9, point (a) comply with the criteria listed in paragraph 9a, points (a), (b), (ba), (c), (da), (f) and (h).

Member States shall ensure that the regulations and voluntary agreements referred to in paragraph 9, point (c) comply with the criteria listed in paragraph 9a, points (a), (b), (ba), (c), (d), (e), (f), (g), (h).

Member States shall ensure that the other policy measures referred to in the second subparagraph of paragraph 9 and the Energy Efficiency National Funds referred to in Article 15a(6) comply with the criteria listed in paragraph 9a, points (a), (b), (ba), (c), (d), (f), (g), (h).

9c. Member States shall ensure that when the impact of policy measures or individual actions overlaps, no double counting of energy savings is made.

Article 7
Energy audits and energy management systems

1. Member States shall promote the availability to all final customers of high quality energy audits which are cost-effective and

   a) carried out in an independent manner by qualified and/or accredited experts according to qualification criteria; or

   b) implemented and supervised by independent authorities under national legislation.
The energy audits referred to in the first subparagraph may be carried out by in-house experts or energy auditors provided that the Member State has put in place a scheme to assure and check their quality, including, if appropriate, an annual random selection of at least a statistically significant percentage of all the energy audits they carry out.

For the purpose of guaranteeing the high quality of the energy audits and energy management systems, Member States shall establish transparent and non-discriminatory minimum criteria for energy audits based on the principles set out in Annex Va.

Audits shall not include clauses preventing the findings of the audit from being transferred to any qualified/accredited energy service provider, on condition that the customer does not object.

Member States shall develop programmes to encourage small and medium-sized enterprises to undergo energy audits, and the subsequent implementation of the recommendations from these audits.

They shall also develop programmes to raise awareness among households about the benefits of such audits through appropriate advice services.

On the basis of transparent and non-discriminatory criteria and without prejudice to EU state aid law, Member States may set up support schemes for SME, including if they have concluded voluntary agreements, to cover costs of an energy audit and of the implementation of highly cost-effective recommendations from the energy audits, if the proposed measures are implemented.

Member States shall encourage training programmes for the qualification of energy auditors in order to facilitate sufficient availability of experts.

Member States shall bring to the attention of small and medium-sized enterprises, including through their respective representative intermediary organisations, concrete examples of how energy management systems could help their business. The Commission shall assist Member States by supporting the exchange of best practices in this domain.
2. Member States shall ensure that enterprises not included in the second subparagraph of paragraph 1 are subject to an energy audit carried out in an independent and cost-effective manner by qualified and/or accredited experts or implemented and supervised by independent authorities under national legislation by … [three years after entry into force of this Directive] at the latest and at least every four years from the date of the previous energy audit.

3. Energy audits carried out in an independent manner, on the basis of minimum criteria based on the principles set out in Annex Va, implemented under voluntary agreements concluded between organisations of stakeholders and an appointed body and supervised by the Member State concerned, or other bodies to which the competent authorities have delegated the responsibility concerned, or by the Commission, shall be considered as fulfilling the requirements of paragraph 2.

Access of market participants offering energy services shall be based on transparent and non-discriminatory criteria.

3a. Enterprises falling within the scope of paragraph 2 and implementing an energy or environmental management system - certified by an independent body according to the relevant European or International Standards -shall be exempted from the requirements of paragraph 2, provided that Member States ensure that the management system concerned includes an energy audit on the basis of the minimum criteria based on the principles set out in Annex Va.

4. Energy audits may stand alone or be part of a broader environmental audit. Member States may require that an assessment of the technical and economic feasibility of connection to an existing or planned district heating or cooling network shall be part of the energy audit.
Without prejudice to EU state aid law, Member States may implement incentive and support schemes for the implementation of recommendations from energy audits and similar measures.

Article 8.4

Metering

1. Member States shall ensure that, in so far as it is technically possible, financially reasonable and proportionate in relation to the potential energy savings, final customers for electricity, natural gas, district heating, district cooling and domestic hot water are provided with competitively priced individual meters that accurately reflect the final customer's actual energy consumption and that provide information on actual time of use.

When an existing meter is replaced, such a competitively priced individual meter shall always be provided, unless this is technically impossible or not cost-effective in relation to the estimated potential savings in the long term.

When a new connection is made in a new building or a building undergoes major renovations, as set out in Directive 2010/31/EU, such competitively priced individual meters shall always be provided.

2. Where, and to the extent that, Member States implement intelligent metering systems and roll out smart meters for gas and/or electricity in accordance with Directives 2009/72/EC and 2009/73/EC:

(a) they shall ensure that the metering systems provide to final customers information on actual time of use and that the objectives of energy efficiency and benefits for final customers are fully taken into account when establishing the minimum functionalities of the meters and the obligations imposed on market participants;
(b) they shall ensure the security of the smart meters and data communication, and the privacy of final customers, in compliance with relevant Union data protection and privacy legislation;

(c) in the case of electricity and on request of the final customer, they shall require meter operators to ensure that the meter or meters can account for electricity put into the grid from the final customer’s premises;

(d) they shall ensure that if final customers request it, metering data on their electricity input and off-take is made available to them or to a third party acting on behalf of the final customer in an easily understandable format that they can use to compare deals on a like-for-like basis;

(e) they shall require that appropriate advice and information be given to customers at the time of installation of smart meters, notably about their full potential with regard to meter reading management and the monitoring of energy consumption.

3. Where heating and cooling or hot water are supplied to a building from a district heating network or from a central source servicing multiple buildings, a heat or hot water meter shall be installed at the heating exchanger or point of delivery.
In multi-apartment and multi-purpose buildings with a central heating/cooling source or supplied from a district heating network or from a central source serving multiple buildings, individual consumption meters shall also be installed by 1 January 2017 to measure the consumption of heat or cooling or hot water for each unit where technically feasible and cost efficient. Where the use of individual meters is not technically feasible or not cost-efficient, to measure heating, individual heat cost allocators shall be used for measuring heat consumption at each radiator, unless it is shown by the Member State in question that the installation of such heat cost allocators would not be cost-efficient. In those cases, alternative cost-efficient methods of heat consumption measurement may be considered.

Where multi-apartment buildings are supplied from district heating or cooling, or where own common heating or cooling systems for such buildings are prevalent, to ensure transparency and accuracy of accounting for individual consumption, Member States may introduce transparent rules on the allocation of the cost of thermal or hot water consumption in such buildings. Where appropriate, such rules shall include guidelines on the way to allocate costs for heat and/or hot water that is used as follows:

a) hot water for domestic needs;

b) heat radiated from the building installation and for the purpose of heating the common areas (in case staircases and corridors are equipped with radiators);

c) for the purpose of heating apartments.
Article 8B
Billing information

1. Where final customers do not have smart meters referred to in Directives 2009/72/EC and 2009/73/EC, Member States shall ensure, not later than 1 January 2015, that billing information is accurate and based on actual consumption, in accordance with Annex VI (2.1), for all the sectors covered by this Directive, including energy distributors, distribution system operators and retail energy sales companies, where this is technically possible and economically justified.

This obligation may be fulfilled by a system of regular self-reading by the final customers whereby they communicate readings from their meter to the energy supplier. Only when the final customer has not provided a meter reading for a given billing interval shall billing be based on estimated consumption or a flat rate.

2. Meters installed in accordance with Directives 2009/72/EC and 2009/73/EC shall enable accurate billing information based on actual consumption. Member States shall ensure that final customers have the possibility of easy access to complementary information on historical consumption allowing detailed self-checks. Complementary information on historical consumption shall include cumulative data for at least the three previous years or the period since the start of the supply contract if this is less. The data shall correspond with the intervals for which frequent billing information has been produced. Complementary information on historical consumption shall also include detailed data according to the time of use for any day, week, month and year, and shall be made available to the final customer via Internet or the meter interface for the period of at least 24 previous months or the period since the start of the supply contract if this is less.

3. Independently of whether smart meters have been installed or not, Member States:

   a) shall require that, to the extent that information on their energy billing and historical consumption of final customers is available, on the request of the final customer it is made available to an energy service provider designated by the final customer;
b) shall ensure that final customers are offered the option of electronic billing information and bills. They shall ensure that customers receive on request a clear and understandable explanation of how their bill was derived, especially where bills are not based on actual consumption;

c) shall ensure that appropriate information is made available with the bill to provide final customers with a comprehensive account of current energy costs, in accordance with Annex VI;

d) may lay down that, on request of the final customer, the information contained in these bills shall not be considered to constitute a request for payment. In such cases, Member States shall ensure that suppliers of energy sources offer flexible arrangements for actual payments;

e) shall require that information and estimates for energy costs are provided to consumers on demand in a timely manner and in an easily understandable format enabling consumers to compare deals on a like-for-like basis.

Article 8C

Cost of access to metering and billing information

1. Member States shall ensure that final customers receive all their bills and billing information for energy consumption free of charge and that final customers also have access to their consumption data in an appropriate way and free of charge.
2. Notwithstanding paragraph 1, the distribution of costs of billing information for the individual consumption of heating and cooling in multi-apartment and multi-purpose buildings pursuant to Article 8A(3) shall be carried out on a non-profit basis. Costs resulting from the assignment of this task to a third party, such as a service provider or the local energy supplier, covering the measuring, allocation and accounting for actual individual consumption in such buildings, may be passed onto the final customers to the extent that such costs are reasonable.

Article 8a

Consumer information and empowering programme

1. Member States shall take appropriate measures to promote and facilitate an efficient use of energy by small energy customers, including domestic customers. These measures may be part of a national strategy.

2. For the purposes of paragraph 1, these measures shall include one or more of the elements listed below:

(a) a range of instruments and policies to promote behavioural change which may include:

- fiscal incentives;

- access to finance, grants or subsidies;

- information provision;

- exemplary projects;

- workplace activities;
(b) ways and means to engage consumers and consumer organisations during the possible roll-out of smart meters through communication of:

- cost-effective and easy-to-achieve changes in energy use;

- information on energy efficiency measures.

Article 9
Penalties

Member States shall lay down rules on penalties applicable in case of non-compliance with the national provisions adopted pursuant to Articles 6 to 8A, 8B, and 8C, and Article 14(3) and shall take the necessary measures to ensure that they are implemented. The penalties provided must be effective, proportionate and dissuasive. Member States shall communicate those provisions to the Commission by … [18 months after entry into force of this Directive] at the latest and shall notify it without delay of any subsequent amendment affecting them.

CHAPTER III
Efficiency in energy supply

Article 10
Promotion of efficiency in heating and cooling

1. By 31 December 2015, Member States shall carry out and notify to the Commission a comprehensive assessment of the potential for the application of high-efficiency cogeneration and efficient district heating and cooling, containing the information set out in Annex VII. If they have already carried out an equivalent assessment, they shall notify it to the Commission.
The comprehensive assessment shall take full account of the analysis of the national potentials for high-efficiency cogeneration carried out under Directive 2004/8/EC.

The assessment shall be updated and notified to the Commission every five years, subject to a request by the Commission at least one year before the due date.

1aa. Member States shall adopt policies which encourage that the potential of using efficient heating and cooling systems, in particular those using high efficiency cogeneration, is duly taken into account at local and regional levels. Account shall be taken of the potential for developing local and regional heat markets.

1a. For the purpose of the assessment referred to in paragraph 1, Member States shall carry out a cost-benefit analysis covering their territory based on climate conditions, economic feasibility and technical suitability in accordance with Part 1 of Annex VIIIbis. The cost-benefit analysis shall be capable of facilitating the identification of the most resource and cost-efficient solutions to meeting heating and cooling requirements. The cost-benefit analysis may be part of an Environmental Assessment, under Directive 2001/42/EC, for the assessment referred to in paragraph 1.

2. Where the assessments referred to in paragraphs 1 and 1a identify a potential for the application of high-efficiency cogeneration and/or efficient district heating and cooling whose benefits exceed the costs, Member States shall take adequate measures for efficient district heating and cooling infrastructure to be developed and/or to accommodate the development of high-efficiency cogeneration and the use of heating and cooling from waste heat and renewable energy sources in accordance with paragraphs 1, 3, and 5. Where the assessments referred to in paragraphs 1 and 1a do not identify a potential whose benefits exceed the costs, including the administrative costs of carrying out the cost-benefit analysis referred to in paragraph 3, the Member State concerned may exempt installations from the requirements laid down in that paragraph.
3. Member States shall ensure that a cost-benefit analysis in accordance with Part 2 of Annex VIIIbis is carried out when, after [the date of transposition]:

a) a new thermal electricity generation installation with a total thermal input exceeding 20 MW is planned, to assess the cost and benefits of providing for the operation of the installation as high-efficiency cogeneration installation;

b) an existing thermal electricity generation installation with a total thermal input exceeding 20 MW is substantially refurbished, to assess the cost and benefits of converting it to high efficiency cogeneration;

c) an industrial installation with a total thermal input exceeding 20 MW generating waste heat at a useful temperature level is planned or substantially refurbished, to assess the cost and benefits of utilising the waste heat to satisfy economically justified demand, including through cogeneration, and of the connection of this installation to a district heating and cooling network;

d) a new district heating and cooling network is planned or in an existing district heating or cooling network a new energy production installation with a total thermal input exceeding 20 MW is planned or an existing such installation is to be substantially refurbished, to assess the cost and benefits of utilising the waste heat from nearby industrial installations.

The fitting of equipment to capture carbon dioxide produced by a combustion installation with a view to its being geologically stored as provided for in Directive 2009/31/EC shall not be considered as refurbishment for the purpose of these provisions.

Member States may require the cost-benefit analysis referred to in points (c) and (d) to be carried out in co-operation with the companies responsible for the operation of the district heating and cooling networks.
4. Member States may exempt from paragraph 3:

   a) those peak load and back-up electricity generating installations which are planned to operate under 1,500 operating hours per year as a rolling average over a period of five years, based on a verification procedure established by the Member States ensuring that this exemption criterion is met;

   b) nuclear power installations;

   c) installations that need to be located close to a geological storage site approved under Directive 2009/31/EC\(^1\).

Member States may also lay down thresholds, expressed in terms of the amount of available useful waste heat, the demand for heat or the distances between industrial installations and district heating networks, for exempting individual installations from the provisions of points (c) and (d) of paragraph 3.

Member States shall notify such exemptions adopted under this paragraph to the Commission by 1 January 2014 and any subsequent changes to them thereafter.

5. Member States shall adopt authorisation criteria as referred to in Article 7 of Directive 2009/72/EC, or equivalent permit criteria, to:

   - take into account the outcome of the comprehensive assessments referred to in paragraphs 1 and 1a;

   - ensure that the requirements of paragraph 3 are fulfilled; and

   - take into account the outcome of cost-benefit analysis referred to in paragraph 3.

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6. Member States *may exempt individual installations from being required, by the authorisation and permit criteria referred to in paragraph 5, to implement options whose benefits exceed their costs, if there are imperative reasons of law, ownership or finance for so doing. In these cases the Member State concerned shall submit a motivated notification of its decision to the Commission within three months of the date of taking it.*

8a. *Paragraphs 3, 4, 5 and 6 of this Article shall apply to installations covered by the Industrial Emissions Directive 2010/75/EU without prejudice to the requirements of that Directive.*

10. On the basis of the harmonised efficiency reference values referred to in point (f) of Annex II, Member States shall ensure that the origin of electricity produced from high-efficiency cogeneration can be guaranteed according to objective, transparent and non-discriminatory criteria laid down by each Member State. They shall ensure that this guarantee of origin complies with the requirements and contains at least the information specified in Annex IX. Member States shall mutually recognise their guarantees of origin, exclusively as proof of the information referred to in this paragraph. Any refusal to recognise a guarantee of origin as such proof, in particular for reasons relating to the prevention of fraud, must be based on objective, transparent and non-discriminatory criteria. Member States shall notify the Commission of such refusal and its justification. In the event of refusal to recognise a guarantee of origin, the Commission may adopt a decision to compel the refusing party to recognise it, particularly with regard to objective, transparent and non-discriminatory criteria on which such recognition is based.

The Commission shall be empowered to review, by means of delegated acts in accordance with Article 18, the harmonised efficiency reference values laid down in Commission Decision [the number of the Decision] on the basis of Directive 2004/8/EC \* by 1 January 2015 \*.
11. Member States shall ensure that any available support for cogeneration is subject to the electricity produced originating from high-efficiency cogeneration and the waste heat being effectively used to achieve primary energy savings. Public support to cogeneration and district heating generation and networks shall be subject to State aid rules, where applicable.

Article 12
Energy transformation, transmission and distribution

1. Member States shall ensure that national energy regulatory authorities pay due regard to energy efficiency in carrying out the regulatory tasks specified in Directive 2009/72/EC regarding their decisions on the operation of the gas and electricity infrastructure. They shall in particular ensure that national energy regulatory authorities through the development of network tariffs and regulations, within the framework of Directive 2009/72/EC and taking into account the costs and benefits of each measure, provide incentives for grid operators to make available system services to network users permitting them to implement energy efficiency improvement measures in the context of the continuing deployment of smart grids.

Such systems services may be determined by the system operator and will not adversely impact the security of the system.

For electricity, Member States shall ensure that network regulation, and network tariffs, fulfil the criteria in Annex XI, taking into account guidelines and codes developed pursuant to Regulation 714/2009.
2. Member States shall ensure, by 30 June 2015 that:

   a) an assessment is undertaken of the energy efficiency potentials of their gas and electricity infrastructure, notably regarding transmission, distribution, load management and interoperability, and connection to energy generating installations, including access possibilities for micro energy generators;

   b) concrete measures and investments are identified for the introduction of cost-effective energy efficiency improvements in the network infrastructure, with a timetable for their introduction.

3. Member States may permit components of schemes and tariff structures with a social aim for net-bound energy transmission and distribution, provided that any disruptive effects on the transmission and distribution system are kept to the minimum necessary and are not disproportionate to the social aim.

4. Member States shall ensure the removal of those incentives in transmission and distribution tariffs that are detrimental to the overall efficiency (including energy efficiency) of the generation, transmission, distribution and supply of electricity or those that might hamper participation of demand response, in balancing markets and ancillary services procurement. Member States shall ensure that network operators are incentivised to improve efficiency in infrastructure design and operation, and, within the framework of Directive 2009/72/EC, that tariffs allow suppliers to improve consumer participation in system efficiency, including demand response depending on national circumstances.
5. Without prejudice to Article 16(2) of Directive 2009/28/EC and taking into account the provisions of Article 15 of Directive 2009/72/EC and the need to ensure continuity in heat supply, Member States shall ensure that, subject to requirements relating to the maintenance of the reliability and safety of the grid, based on transparent and non-discriminatory criteria defined by the competent national authorities, transmission system operators and distribution system operators when they are in charge of dispatching the generating installations in their territory:

a) guarantee the transmission and distribution of electricity from high-efficiency cogeneration;

b) provide priority or guaranteed access to the grid of electricity from high efficiency cogeneration;

c) when dispatching electricity generating installations, provide priority dispatch of electricity from high efficiency cogeneration in so far as the secure operation of the national electricity system permits.

Member State shall ensure that rules relating to the ranking of the different access and dispatch priorities granted in their electricity systems are clearly explained in detail and published. When providing priority access or dispatch for high efficiency cogeneration, Member States may set rankings as between, and within different types of, renewable energy and high efficiency cogeneration and shall in any case ensure that priority access or dispatch for energy from variable renewable energy sources is not hampered.

In addition to the obligations laid down by the first subparagraph, transmission system operators and distribution system operators shall comply with the requirements set out in Annex XII.
Member States may particularly facilitate the connection to the grid system of electricity produced from high-efficiency cogeneration from small scale and micro cogeneration units. 

**Member States shall, where appropriate, take steps to encourage network operators to adopt a simple notification "install and inform" process for the installation of micro cogeneration units to simplify and shorten authorisation procedures for individual citizens and installers.**

6. **Subject to the requirements relating to the maintenance of the reliability and safety of the grid,** Member States shall take the appropriate steps to ensure that, where this is technically and economically feasible with the mode of operation, of the high-efficiency cogeneration installation, high-efficiency cogeneration operators can offer balancing services and other operational services at the level of transmission system operators or distribution system operators. Transmission system operators and distribution system operators shall ensure that such services are part of a services bidding process which is transparent, non-discriminatory and open to scrutiny.

Where appropriate, Member States may require transmission system operators and distribution operators to encourage high-efficiency cogeneration to be sited close to areas of demand by reducing the connection and use-of-system charges.

7. Member States may allow producers of electricity from high-efficiency cogeneration wishing to be connected to the grid to issue a call for tender for the connection work.

7a. **Member States shall ensure that national energy regulatory authorities encourage demand side resources, such as demand response, to participate alongside supply in wholesale and retail markets.**
Subject to technical constraints inherent in managing networks, Member States shall ensure that transmission system operators and distribution system operators, in meeting requirements for balancing and ancillary services, treat demand response providers, including aggregators, in a non-discriminatory manner, on the basis of their technical capabilities.

7b. Subject to technical constraints inherent in managing networks, Member States shall promote demand response's access to and participation in balancing, reserve and other system services markets, inter alia by requiring national regulatory authorities or, where their national regulatory systems so require, transmission and distribution system operators in close cooperation with demand service providers and consumers, to define technical modalities for participation in these markets on the basis of the technical requirements of these markets and the capabilities of demand response. Such specifications shall include the participation of aggregators.

8. When reporting under Directive 2010/75/EU, and without prejudice to Article 9(2) of that Directive, Member States shall consider including information on energy efficiency levels of installations undertaking the combustion of fuels with total rated thermal input of 50 MW or more in the light of the relevant best available techniques developed in accordance with Directive 2010/75/EU and Directive 2008/1/EC.

Member States may encourage operators of installations undertaking the combustion of fuels with total rated thermal input of 50 MW or more to improve their annual average net operational rates.
CHAPTER IV
Horizontal provisions

Article 13
Availability of qualification, accreditation and certification schemes

1. Where the Member State considers that the national level of technical competence, objectivity and reliability is insufficient, it shall ensure that, by 1 January 2015, certification and/or accreditation schemes and/or equivalent qualification schemes, including, where necessary, suitable training programmes, become or are available for providers of energy services, energy audits, energy managers and installers of energy-related building elements as defined in Article 2(9) of Directive 2010/31/EU.

1a. Member States shall ensure that the schemes referred to in paragraph 1 provide transparency to consumers, are reliable and contribute to national energy efficiency objectives.

2. Member States shall make publicly available the certification and/or accreditation schemes or equivalent qualification schemes referred to in paragraph 1 and shall cooperate among themselves and with the Commission on comparisons between and recognition of the schemes.

Member States shall take appropriate measures to make consumers aware of the availability of qualification and/or certification schemes, in accordance with Article 14(1).
Article 13 a

Information and training

1. **Member States shall ensure that information on available energy efficiency mechanisms and financial and legal frameworks is transparent and widely disseminated to all relevant market actors, such as consumers, builders, architects, engineers, environmental and energy auditors and installers of building elements as defined in Directive 2010/31/EU.** Member States shall encourage that information is provided to banks and other financial institutions on possibilities of participating, including through the creation of public/private partnerships, in the financing of energy efficiency improvement measures.

2. **Member States shall establish appropriate conditions for market operators to provide adequate and targeted information and advice to energy consumers on energy efficiency.**

3. **The Commission shall review the impact of its measures to support the development of platforms involving inter alia the European social dialogue bodies in fostering training programmes for energy efficiency, and shall bring forward further measures if appropriate. The Commission shall encourage European social partners in their discussions on energy efficiency.**

4. **Member States, with the participation of stakeholders, including local and regional authorities, shall promote suitable information, awareness-raising and training initiatives to inform citizens of the benefits and practicalities of taking energy efficiency improvement measures.**

5. **The Commission shall encourage information on best energy efficiency practices in Member States to be exchanged and widely disseminated.**
Article 14
Energy services

1. Member States shall promote the energy services market and access for small and medium-sized enterprises to this market by:

   c) disseminating *clear and easily accessible* information on

      - available energy service contracts and clauses that should be included in such contracts to guarantee energy savings and final customers' rights;

      - *financial instruments, incentives, grants and loans to support energy efficiency service projects*;

   d) encouraging the development of quality labels, *inter alia by trade associations*;

   ea) making publicly available and regularly updating a list of available energy service providers who are qualified and/or certified and their qualifications and/or certifications in accordance with Article 13, or provide an interface where energy service providers can provide information;

   eb) supporting the public sector in taking up energy service offers, notably for building refurbishment, by:

      - providing model contracts for energy performance contracting which at least include the items listed in Annex XIII;

      - providing information on best practices for energy performance contracting, including, if available, cost and benefit analysis using a life-cycle approach;
ec) providing a qualitative review in the framework of the National Energy Efficiency Action Plan regarding the current and future development of the energy services market.

2. Member States shall support the proper functioning of the energy services market, where appropriate, by:

   a) identifying and publicising point(s) of contact where final customers can obtain the information referred to in paragraph 1;

   b) taking, if necessary, measures to remove the regulatory and non-regulatory barriers that impede the uptake of energy performance contracting and other energy efficiency service models for the identification and/or implementation of energy saving measures;

   c) considering putting in place or assigning the role of an independent mechanism, such as an ombudsman, to ensure the efficient handling of complaints and out-of-court settlement of disputes arising from energy service contract;

   d) enabling independent market intermediaries to play a role in stimulating market development on the demand and supply side.

3. Member States shall ensure that energy distributors, distribution system operators and retail energy sales companies refrain from any activities that may impede the demand for and delivery of energy services or other energy efficiency improvement measures, or hinder the development of markets for energy services or other energy efficiency improvement measures, including foreclosing the market for competitors or abusing dominant positions.
Article 15

Other measures to promote energy efficiency

1. Member States shall evaluate and if necessary take appropriate measures to remove regulatory and non-regulatory barriers to energy efficiency, without prejudice to the basic principles of the property and tenancy law of the Member States, notably as regards:

   a) the split of incentives between the owner and the tenant of a building or among owners, with a view to ensuring that these parties are not deterred from making efficiency-improving investments that they would otherwise have made by the fact that they will not individually obtain the full benefits or by the absence of rules for dividing the costs and benefits between them, including national rules and measures regulating multi-owner property decision-making processes;

   b) legal and regulatory provisions, and administrative practices, regarding public purchasing and annual budgeting and accounting, with a view to ensuring that individual public bodies are not deterred from making investments in improving energy efficiency and minimising expected life-cycle costs and from using energy performance contracting and other third-party financing mechanisms on a long-term contractual basis.

   These measures to remove barriers may include providing incentives, repealing or amending legal or regulatory provisions, or adopting guidelines and interpretative communications, or simplifying administrative procedures. These measures may be combined with the provision of education, training and specific information and technical assistance on energy efficiency.

2. The evaluation of barriers and measures referred to in paragraph 1 shall be notified to the Commission in the first National Energy Efficiency Action Plan referred to in Article 19(2). The Commission shall encourage the sharing of national best practices in this regard.
Article 15a
Energy Efficiency National Fund, Financing and Technical Support

1. Without prejudice to Articles 107 and 108 of the Treaty, Member States shall facilitate the establishment of financing facilities or use of existing ones for energy efficiency improvement measures to maximise the benefits of multiple streams of financing.

2. The Commission shall, where appropriate, directly or via the European financial institutions, assist Member States in setting up financing facilities and technical support schemes with the aim of increasing energy efficiency in different sectors.

3. The Commission shall facilitate the exchange of best practice between the responsible national or regional authorities or bodies e.g. through annual meetings of the regulatory bodies, public databases with information on the implementation of measures by Member States and country comparison.

4. Member States may set up an Energy Efficiency National Fund. The purpose of this fund shall be to support national energy efficiency initiatives.

5. Member States may allow that the obligations set out in paragraph 1 of Article 4 are fulfilled by annual contributions to the Energy Efficiency National Fund of an equal amount to the investments required to achieve the obligations under Article 4(1).

6. Member States may provide that obligated parties can fulfill their obligations set out in Article 6(1) by contributing annually to the Energy Efficiency National Fund an equal amount to the investments required to achieve their obligations under Article 6(1).
7. **Member States may use their revenues from annual emission allocations under Decision No 406/2009/EC for the development of innovative financing mechanisms to give practical effect to the objective in Article 4 of improving the energy performance of buildings.**

**Article 16**

Conversion factors

For the purpose of comparison of energy savings and conversion to a comparable unit, the conversion factors in Annex IV shall apply unless the use of other conversion factors can be justified.

**CHAPTER V**

Final provisions

**Article 17**

Delegated acts

1. The Commission shall be empowered to adopt delegated act in accordance with Article 18 to review the harmonised efficiency reference values referred to in the second subparagraph of Article 10(10).

2. The Commission shall be empowered to adopt delegated acts in accordance with Article 18 to adapt to technical progress the values, calculation methods, default primary energy coefficient and requirements in Annexes I, II, III, IV, V, VI, VII, VIIIbis and XII.

**Article 18**

Exercise of the delegation

1. The power to adopt delegated acts is conferred on the Commission subject to the conditions laid down in this Article.
2. The power to adopt delegated acts referred to in Article 17 shall be conferred on the Commission for a period of five years from [the date of entry into force of this Directive].

3. The delegation of power referred to in Article 17 may be revoked at any time by the European Parliament or by the Council. A decision to revoke shall put an end to the delegation of the power specified in that decision. It shall take effect the day following the publication of the decision in the Official Journal of the European Union or at a later date specified therein. It shall not affect the validity of any delegated acts already in force.

4. As soon as it adopts a delegated act, the Commission shall notify it simultaneously to the European Parliament and to the Council.

5. A delegated act adopted pursuant to Article 17 shall enter into force only if no objection has been expressed either by the European Parliament or the Council within a period of 2 months of notification of that act to the European Parliament and the Council or if, before the expiry of that period, the European Parliament and the Council have both informed the Commission that they will not object. That period shall be extended by two months at the initiative of the European Parliament or of the Council.
Article 19
Review and monitoring of implementation

1. By 30 April each year from 2013, Member States shall report on the progress achieved towards national energy efficiency targets, in accordance with Annex XIV(1). The report may form part of the National Reform Programmes referred to in Council Recommendation 2010/410/EU on broad guidelines for the economic policies of the Member States and of the Union.¹

2. By 30 April 2014, and every three years thereafter, Member State shall submit National Energy Efficiency Action Plans ('the Plans'). The Plans shall cover significant energy efficiency improvement measures and expected/achieved energy savings, including those in the supply, transmission and distribution of energy as well as energy end-use in view of achieving the national energy efficiency targets referred to in Article 3(1). The Plans shall be complemented with updated estimates of expected overall primary energy consumption in 2020, as well as estimated levels of primary energy consumption in the sectors indicated in Annex XIV(1).

The Commission shall, not later than 1 January 2013, provide a template as guidance for the Plans. This template shall be adopted in accordance with the advisory procedure referred to in Article 20(2). The National Energy Efficiency Action Plans shall in any case include the information specified in Annex XIV.

¹ OJ L 191, 23.7.2010, p. 28.
4. The Commission shall evaluate the annual reports and National Energy Efficiency Action Plans and assess the extent to which Member States have made progress towards the achievement of the national energy efficiency targets required by Article 3(1) and towards the implementation of this Directive. The Commission shall send its assessment to the European Parliament and the Council. Based on its assessment of the reports and the National Energy Efficiency Action Plans the Commission may issue recommendations to Member States.

5. The Commission shall monitor the impact of implementing this Directive on Directives 2003/87/EC, 2009/28/EC and 2010/31/EU and Decision No 406/2009/EC and on industry sectors, in particular those that are exposed to a significant risk of carbon leakage as determined in Commission Decision 2010/2/EU.

5a. The Commission shall review the continued need for the possibility of exemptions set out in Article 10(4) for the first time in the assessment of the first National Energy Efficiency Action Plan and every three years thereafter. Where the review shows that any of the criteria for these exemptions can no longer be justified taking into account the availability of heat load and the real operating conditions of the exempted installations, the Commission shall propose appropriate measures.

6. Member States shall submit to the Commission before 30 April each year statistics on national electricity and heat production from high and low efficiency cogeneration, in accordance with the methodology shown in Annex I, in relation to total heat and electricity capacities. They shall also submit annual statistics on cogeneration heat and electricity capacities and fuels for cogeneration, and on district heating and cooling production and capacities, in relation to total heat and electricity capacities. Member States shall submit statistics on primary energy savings achieved by application of cogeneration in accordance with the methodology shown in Annex II.
7. By 30 June 2014 the Commission shall submit the assessment referred to in Article 3(2) to the European Parliament and to the Council, accompanied, if necessary, by proposals for further measures.

7b. The Commission shall review the effectiveness of the implementation of Article 5 by … three years after entry into force, taking into account the requirements laid down in Directive 2004/18/EC as amended and shall report to the European Parliament and the Council. This report shall be accompanied, if appropriate, by proposals for further measures.

8. By 30 June 2016, the Commission shall report to the European Parliament and the Council on the implementation of Article 6. That report shall be accompanied, if appropriate, by a legislative proposal for one or more of the following purposes:

a) to change the final date laid down in Article 6(1);

   ab) to review the requirements laid down in Article 6(1), (1aa) and (1ab);

b) to establish additional common requirements, in particular as regards the matters referred to in Article 6(5).

9. By 30 June 2018, the Commission shall assess the progress made by Member States in removing the regulatory and non-regulatory barriers referred to in Article 15(1); this assessment shall be followed, if appropriate, by proposals for further measures.

10. The Commission shall make the reports referred to in paragraphs 1 and 2 publicly available.
**Article 19a**

**Online platform**

*To foster the practical implementation of this Directive at national, regional and local levels, the Commission shall establish an online platform. This platform shall support the exchange of experiences on practices, benchmarking, networking activities, as well as innovative practices.*

**Article 20**

**Committee procedure**

1. The Commission shall be assisted by a committee. *That committee shall be a committee within the meaning of Regulation (EU) No 182/2011.*


**Article 21**

**Repeal**

Directive 2006/32/EC is repealed from [the date of time-limit for transposition of this Directive], except for Article 4 (1) to (4) *thereof* and Annexes I, III and IV, without prejudice to the obligations of the Member States relating to the time-limit for its transposition into national law. Article 4 (1) to (4) *of* and Annexes I, III and IV to Directive 2006/32/EC shall be repealed with effect from 1 January 2017.

Directive 2004/8/EC is repealed from [the date of time-limit for transposition of this Directive], without prejudice to the obligations of the Member States relating to the time-limit for its transposition into national law.
Article 9(1) and (2) of Directive 2010/30/EU is repealed from [the date of time-limit for transposition of this Directive].

References to Directives 2006/32/EC and 2004/8/EC shall be construed as references to this Directive and shall be read in accordance with the correlation table set out in Annex XV.

**Article 21a**

*Amendments to Directive 2009/125/EC*


   *A recital is inserted:*

   a) “Directive 2010/31/EU requires Member States to set energy performance requirements for building elements that form part of the building envelope and 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. It is consistent with the objectives of this Directive that these requirements may in certain circumstances limit the installation of energy-related products which comply with this Directive and its implementing measures, provided that such requirements do not constitute an unjustifiable market barrier.”
The following is added in the end of Article 6(1):

b) “, without prejudice to the energy performance requirements and system requirements set by Member States in accordance with Articles 4(1) and 8 of Directive 2010/31/EU.”

Article 22
Transposition

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive by ... [18 months after the entry into force of this Directive] at the latest.

Notwithstanding the first subparagraph, Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with Article 3a, the first subparagraph of Article 4(1), the first subparagraph of Article 4(3), Article 4(3a), the last subparagraph of Article 6(9), Article 10(4), [Article 15(2)], [Article 19(1)] and [Article 19(2)] and point 4 of Annex V by the dates specified therein.

They shall forthwith communicate to the Commission the text of those provisions.

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. Member States shall determine how such reference is to be made.

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 23
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.

Article 24
Addressees

This Directive is addressed to the Member States.

Done at Brussels,

For the European Parliament
The President

For the Council
The President
ANNEXES

ANNEX I

General principles for the calculation of electricity from cogeneration

PART I. General principles

Values used for calculation of electricity from cogeneration shall be determined on the basis of the expected or actual operation of the unit under normal conditions of use. For micro- cogeneration units the calculation may be based on certified values.

a) Electricity production from cogeneration shall be considered equal to total annual electricity production of the unit measured at the outlet of the main generators.

   (i) in cogeneration units of type (b), (d), (e), (f), (g) and (h) referred to in Part II with an annual overall efficiency set by Member States at a level of at least 75%, and

   (ii) in cogeneration units of type (a) and (c) referred to in Part II with an annual overall efficiency set by Member States at a level of at least 80%.

b) In cogeneration units with an annual overall efficiency below the value referred to in paragraph (a) (i) (cogeneration units of type (b), (d), (e), (f), (g), and (h) referred to in Part II) or with an annual overall efficiency below the value referred to in paragraph (a) (ii) (cogeneration units of type (a) and (c) referred to in Part II) cogeneration is calculated according to the following formula:

\[ E_{\text{CHP}} = H_{\text{CHP}} \times C \]

where:
E_{CHP} is the amount of electricity from cogeneration

C is the power to heat ratio

H_{CHP} is the amount of useful heat from cogeneration (calculated for this purpose as total heat production minus any heat produced in separate boilers or by live steam extraction from the steam generator before the turbine).

The calculation of electricity from cogeneration must be based on the actual power to heat ratio. If the actual power to heat ratio of a cogeneration unit is not known, the following default values may be used, notably for statistical purposes, for units of type (a), (b), (c), (d) and (e) referred to in Part II provided that the calculated cogeneration electricity is less or equal to total electricity production of the unit:

<table>
<thead>
<tr>
<th>Type of the unit</th>
<th>Default power to heat ratio, C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combined cycle gas turbine with heat recovery</td>
<td>0.95</td>
</tr>
<tr>
<td>Steam back pressure turbine</td>
<td>0.45</td>
</tr>
<tr>
<td>Steam condensing extraction turbine</td>
<td>0.45</td>
</tr>
<tr>
<td>Gas turbine with heat recovery</td>
<td>0.55</td>
</tr>
<tr>
<td>Internal combustion engine</td>
<td>0.75</td>
</tr>
</tbody>
</table>

If Member States introduce default values for power to heat ratios for units of type (f), (g), (h), (i), (j) and (k) referred to in Part II, such default values shall be published and shall be notified to the Commission.

(d) If a share of the energy content of the fuel input to the cogeneration process is recovered in chemicals and recycled this share can be subtracted from the fuel input before calculating the overall efficiency used in paragraphs (a) and (b).
(e) Member States may determine the power to heat ratio as the ratio between electricity and useful heat when operating in cogeneration mode at a lower capacity using operational data of the specific unit.

(f) Member States may use other reporting periods than one year for the purpose of the calculations according to paragraphs (a) and (b).

PART II. Cogeneration technologies covered by this Directive

(a) Combined cycle gas turbine with heat recovery

(b) Steam backpressure turbine

(c) Steam condensing extraction turbine

(d) Gas turbine with heat recovery

(e) Internal combustion engine

(f) Microturbines

(g) Stirling engines

(h) Fuel cells
(i) Steam engines

(j) Organic Rankine cycles

(k) Any other type of technology or combination thereof falling under the definition laid down in Article 2 (19).

When implementing and applying the general principles for the calculation of electricity from cogeneration, Member States shall use the detailed Guidelines established by Decision 2008/952/EC.  

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ANNEX II

Methodology for determining the efficiency of the cogeneration process

Values used for calculation of efficiency of cogeneration and primary energy savings shall be determined on the basis of the expected or actual operation of the unit under normal conditions of use.

(a) High-efficiency cogeneration

For the purpose of this Directive high-efficiency cogeneration shall fulfil the following criteria:

- cogeneration production from cogeneration units shall provide primary energy savings calculated according to point (b) of at least 10 % compared with the references for separate production of heat and electricity,
- production from small scale and micro cogeneration units providing primary energy savings may qualify as high-efficiency cogeneration.

(b) Calculation of primary energy savings

The amount of primary energy savings provided by cogeneration production defined in accordance with Annex I shall be calculated on the basis of the following formula:

\[
\text{PES} = \left( \frac{1}{COP_{\text{H}}} + \frac{1}{COP_{\text{E}}} \right) \times E_{\text{NY}}
\]

Where:
- \( E_{\text{NY}} \) is the total primary energy input of the cogeneration unit,
- \( COP_{\text{H}} \) is the coefficient of performance for heat production,
- \( COP_{\text{E}} \) is the coefficient of performance for electricity production.

\( \text{PES} \) is the primary energy savings.
Where:

PES is primary energy savings.

CHP $H_\eta$ is the heat efficiency of the cogeneration production defined as annual useful heat output divided by the fuel input used to produce the sum of useful heat output and electricity from cogeneration.

Ref $H_\eta$ is the efficiency reference value for separate heat production.

CHP $E_\eta$ is the electrical efficiency of the cogeneration production defined as annual electricity from cogeneration divided by the fuel input used to produce the sum of useful heat output and electricity from cogeneration. Where a cogeneration unit generates mechanical energy, the annual electricity from cogeneration may be increased by an additional element representing the amount of electricity which is equivalent to that of mechanical energy. This additional element will not create a right to issue guarantees of origin in accordance with Article 10(10).

Ref $E_\eta$ is the efficiency reference value for separate electricity production.
(c) Calculations of energy savings using alternative calculation

Member States may calculate primary energy savings from a production of heat and electricity and mechanical energy as below without using Annex I to exclude the non-cogenerated heat and electricity parts of the same process. Such a production can be regarded as high-efficiency cogeneration provided it fulfills the efficiency criteria in point (a) of this Annex and, for cogeneration units with an electrical capacity larger than 25 MW, the overall efficiency is above 70%. However, specification of the quantity of electricity from cogeneration produced in such a production, for issuing a guarantee of origin and for statistical purposes, shall be determined in accordance with Annex I.

If primary energy savings for a process are calculated using alternative calculation as above the primary energy savings shall be calculated using the formula in point (b) of this Annex replacing: ‘CHP Hη’ with ‘Hη’ and ‘CHP Eη’ with ‘Eη’,

\[
H\eta \text{ shall mean the heat efficiency of the process, defined as the annual heat output divided by the fuel input used to produce the sum of heat output and electricity output.}
\]

\[
E\eta \text{ shall mean the electricity efficiency of the process, defined as the annual electricity output divided by the fuel input used to produce the sum of heat output and electricity output. Where a cogeneration unit generates mechanical energy, the annual electricity from cogeneration maybe increased by an additional element representing the amount of electricity which is equivalent to that of mechanical energy. This additional element will not create a right to issue guarantees of origin in accordance with Article 10(10).}
\]

(d) Member States may use other reporting periods than one year for the purpose of the calculations according to points (b) and (c) of this Annex.
(e) For micro-cogeneration units the calculation of primary energy savings may be based on certified data.

(f) Efficiency reference values for separate production of heat and electricity

The harmonised efficiency reference values shall consist of a matrix of values differentiated by relevant factors, including year of construction and types of fuel, and must be based on a well-documented analysis taking, inter alia, into account data from operational use under realistic conditions, fuel mix and climate conditions as well as applied cogeneration technologies.

The efficiency reference values for separate production of heat and electricity in accordance with the formula set out in paragraph (b) shall establish the operating efficiency of the separate heat and electricity production that cogeneration is intended to substitute.

The efficiency reference values shall be calculated according to the following principles:

1. For cogeneration units as defined in Article 2(24) the comparison with separate electricity production shall be based on the principle that the same fuel categories are compared.

2. Each cogeneration unit shall be compared with the best available and economically justifiable technology for separate production of heat and electricity on the market in the year of construction of the cogeneration unit.

3. The efficiency reference values for cogeneration units older than 10 years of age shall be fixed on the reference values of units of 10 years of age.

4. The efficiency reference values for separate electricity production and heat production
shall reflect the climatic differences between Member States.
ANNEX III

Energy efficiency requirements for purchasing products, services and buildings by central
government

Central governments that purchase products, services or buildings, insofar as this is consistent
with cost-effectiveness, economical feasibility, wider sustainability, technical suitability, as well
as sufficient competition, shall:

a) where a product is covered by a delegated act adopted under Directive 2010/30/EU or
Commission Directive implementing Directive 92/75/EEC, purchase only the products that
comply with the criterion of belonging to the highest energy efficiency class possible in the
light of the need to ensure sufficient competition;

b) where a product not covered under point a) is covered by an implementing measure under
Directive 2009/125/EC adopted after the entry into force of this Directive, purchase only
products that comply with energy efficiency benchmarks specified in that implementing
measure;

c) purchase office equipment products covered by Council Decision 2006/1005/EC\(^1\) that comply
with energy efficiency requirements not less demanding than those listed in Annex C of the
Agreement attached to that Decision;

\(^1\) OJ L 381, 28.12.2006, p. 24. (reference to be adapted if new Energy Star Decision is
adopted before publication)
d) purchase only tyres that comply with the criterion of having the highest fuel energy efficiency class, as defined by Regulation (EC) No 1222/2009\(^1\). This requirement shall not prevent public bodies from purchasing tyres with the highest wet grip class or external rolling noise class where justified by safety or public health reasons;

e) require in their tenders for service contracts that service providers use, for the purposes of providing the services in question, only products that comply with the requirements referred to in points (a) to (d), when providing the services in question. This requirement shall apply only to new products purchased by service providers partially or wholly for the purpose of providing the service in question;

f) purchase, or make new rental agreements for, only buildings that comply at least with the minimum energy performance requirements referred to in Article 4(1) unless the purpose of the purchase is

i) deep renovation or demolition;

ii) the public body intends to re-sell the building without using it for its own purposes, or

iii) the purpose of the purchase is to preserve it as a building officially protected as part of a designated environment, or because of its special architectural or historical merit.

Compliance with these requirements shall be verified by means of the energy performance certificates referred to in Article 11 of Directive 2010/31/EU.

\(^1\) OJ L 342, 22.12.2009, p. 46.
## ANNEX IV

Energy content of selected fuels for end use – conversion table

<table>
<thead>
<tr>
<th>Energy commodity</th>
<th>kJ (NCV)</th>
<th>kgoe (NCV)</th>
<th>kWh (NCV)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 kg coke</td>
<td>28500</td>
<td>0,676</td>
<td>7,917</td>
</tr>
<tr>
<td>1 kg hard coal</td>
<td>17200 — 30700</td>
<td>0,411 — 0,733</td>
<td>4,778 — 8,528</td>
</tr>
<tr>
<td>1 kg brown coal briquettes</td>
<td>20000</td>
<td>0,478</td>
<td>5,556</td>
</tr>
<tr>
<td>1 kg black lignite</td>
<td>10500 — 21000</td>
<td>0,251 — 0,502</td>
<td>2,917 — 5,833</td>
</tr>
<tr>
<td>1 kg brown coal</td>
<td>5600 — 10500</td>
<td>0,134 — 0,251</td>
<td>1,556 — 2,917</td>
</tr>
<tr>
<td>1 kg oil shale</td>
<td>8000 — 9000</td>
<td>0,191 — 0,215</td>
<td>2,222 — 2,500</td>
</tr>
<tr>
<td>1 kg peat</td>
<td>7800 — 13800</td>
<td>0,186 — 0,330</td>
<td>2,167 — 3,833</td>
</tr>
<tr>
<td>1 kg peat briquettes</td>
<td>16000 — 16800</td>
<td>0,382 — 0,401</td>
<td>4,444 — 4,667</td>
</tr>
<tr>
<td>1 kg residual fuel oil (heavy oil)</td>
<td>40000</td>
<td>0,955</td>
<td>11,111</td>
</tr>
<tr>
<td>1 kg light fuel oil</td>
<td>42300</td>
<td>1,010</td>
<td>11,750</td>
</tr>
<tr>
<td>1 kg motor spirit (petrol)</td>
<td>44000</td>
<td>1,051</td>
<td>12,222</td>
</tr>
<tr>
<td>1 kg paraffin</td>
<td>40000</td>
<td>0,955</td>
<td>11,111</td>
</tr>
<tr>
<td>1 kg liquefied petroleum gas</td>
<td>46000</td>
<td>1,099</td>
<td>12,778</td>
</tr>
<tr>
<td>1 kg natural gas &lt;sup&gt;[1]&lt;/sup&gt;</td>
<td>47200</td>
<td>1,126</td>
<td>13,10</td>
</tr>
</tbody>
</table>

<sup>[1]</sup> Member States may apply different conversion factors if these can be justified.
<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1 kg liquefied natural gas</td>
<td>45190</td>
<td>1,079</td>
<td>12,553</td>
</tr>
<tr>
<td>1 kg wood (25% humidity)</td>
<td>13800</td>
<td>0,330</td>
<td>3,833</td>
</tr>
<tr>
<td>1 kg pellets/wood bricks</td>
<td>16800</td>
<td>0,401</td>
<td>4,667</td>
</tr>
<tr>
<td>1 kg waste</td>
<td>7400 — 10700</td>
<td>0,177 — 0,256</td>
<td>2,056 — 2,972</td>
</tr>
<tr>
<td>1 MJ derived heat</td>
<td>1000</td>
<td>0,024</td>
<td>0,278</td>
</tr>
<tr>
<td>1 kWh electrical energy</td>
<td>3600</td>
<td>0,086</td>
<td>1 [3]</td>
</tr>
</tbody>
</table>

Source: Eurostat.

[1] 93% methane.

[2] Member States may apply other values depending on the type of wood most used in the respective Member State.

[3] Applicable when energy savings are calculated in primary energy terms using a bottom-up approach based on final energy consumption. For savings in kWh electricity Member States may apply a default coefficient of 2.5. Member States may apply a different coefficient provided they can justify it.
ANNEX V

Common methods and principles for calculating the impact of energy efficiency obligations schemes or other policy measures under Article 6, paragraphs 1 and 9 and Article 15a(6)

2. Methods for calculating energy savings for the purposes of Article 6 paragraph 1, Article 15a(6) and Article 6 paragraph 9, points (b), (c), (d), (e) and (f)

Obligated, participating or entrusted parties or implementing public authorities may use one or more of the following methods for calculating energy savings:

a) Deemed savings, by reference to the results of previous independently monitored energy improvements in similar installations. The generic approach is termed “ex-ante”;

b) Metered savings, whereby the savings from the installation of a measure, or package of measures, is determined by recording the actual reduction in energy use, taking due account of factors such as additionality, occupancy, production levels and the weather which may affect consumption. The generic approach is termed “ex-post”.

c) Scaled savings, whereby engineering estimates of savings are used. This approach may only be used where establishing robust measured data for a specific installation is difficult or disproportionately expensive e.g. replacing a compressor or electric motor with a different kWh rating than that for which independent information on savings has been measured, or where they are carried out on the basis of nationally established methodologies and benchmarks by qualified or accredited experts that are independent of the obligated, participating or entrusted parties involved.
d) Surveyed savings, where consumers’ response to advice, information campaigns, labelling or certification schemes, or smart metering is determined. This approach may only be used for savings resulting from changes in consumer behaviour. It may not be used for savings resulting from the installation of physical measures.

3. In determining the energy saving for an energy efficiency measure for the purposes of Article 6 paragraphs 1, Article 15a(6), and Article 6 paragraph 9, points (b), (c), (d), (e) and (f), the following principles shall apply:

a) Credit may only be given for savings exceeding the following levels:

i. EU emission performance standards for new passenger cars and new light commercial vehicles following the implementation of Regulation (EC) No 443/2009 and Regulation (EU) No 510/2011, respectively;

ii. EU requirements relating to the removal from the market of certain energy related products following the implementation of implementing measures under Directive 2009/125/EC; and

b) to account for climatic variations between regions, Member States may choose to adjust the savings to a standard value or to accord different energy savings in accordance with the temperature variations between regions;

c) the activities of the obligated, participating or entrusted party must be demonstrably material to the achievement of the claimed savings;

d) savings from an individual action may not be claimed by more than one party;
e) calculation of energy savings shall take into account the lifetime of savings. This may be done by counting the savings each individual action will achieve between its implementation date and 31 December 2020. Alternatively, Member States may adopt another method that is estimated to achieve at least the same total quantity of savings. When using other methods, Member States shall ensure that the total amount of energy savings calculated with these other methods does not exceed the amount of energy savings that would have been the result of their calculation when counting the savings each individual action will achieve between its implementation date and 31 December 2020. Member States shall describe in detail in their first National Energy Efficiency Action Plan according to Annex XIV of this Directive, which other methods they have used and which provisions have been made to ensure this binding calculation requirement; and

f) actions by obligated, participating or entrusted parties, either individually or together, which aim to result in lasting transformation of products, equipment, or markets to a higher level of energy efficiency are permitted; and

g) in promoting the uptake of energy efficiency measures, Member States shall ensure that quality standards for products, services and installation of measures are maintained. Where such standards do not exist, Member States shall work with obligated, participating or entrusted parties to introduce them.

3a. In determining the energy saving from policy measures applied under Article 6 paragraph 9, point (a), the following principles shall apply:

a) credit shall only be given for energy savings from taxation measures exceeding the minimum levels of taxation applicable to fuels as required in Directive 2003/96/EC or in Directive 2006/112/EC; and
b) recent and representative official data on price elasticities shall be used for calculation of the impact; and

c) the energy savings from accompanying taxation policy instruments, including fiscal incentives or payment to a fund, shall be accounted separately.

4. Notification of methodology

Member States shall by [6 months prior to the date of transposition] notify the Commission of their proposed detailed methodology for operation of the energy efficiency obligation schemes and for the purposes of Article 15a(6) and paragraph 9 of Article 6. Except in the case of taxes, such notification shall include details of:

a) obligated, participating or entrusted parties or implementing public authorities;

b) target sectors;

c) the level of the energy saving target or expected savings to be achieved over the whole and intermediate periods;

d) the duration of the obligation period and intermediate periods;

e) eligible measure categories;

f) calculation methodology, including how additionality and materiality are to be determined and which methodologies and benchmarks are used for engineering estimates;
g) lifetimes of measures;

h) approach taken to address climatic variations within the Member State;

j) quality standards;

k) monitoring and verification protocols and how the independence of these from the obligated, participating or entrusted parties is ensured;

l) audit protocols and

m) how the need to fulfil the requirement in the third sentence of Article 6, paragraph 1 is taken into account.

In the case of taxes, the notification shall include details of:

a) target sectors and segment of taxpayers;

b) implementing public authority;

c) expected savings to be achieved;

d) duration of the taxation measure and intermediate periods; and

e) calculation methodology, including which price elasticites are used.
Annex Va

Minimum criteria for energy audits including those carried out as part of energy management systems

1. The energy audits referred to in Article 7 shall be based on the following guidelines:

(a) be based on up-to-date, measured, traceable operational data on energy consumption and (for electricity) load profiles;

(b) comprise a detailed review of the energy consumption profile of buildings or groups of buildings, industrial operations or installations, including transportation;

(c) build, whenever possible, on life-cycle cost analysis (LCCA) instead of Simple Payback Periods (SPP) in order to take account of long-term savings, residual values of long-term investments and discount rates;

(d) be proportionate, and sufficiently representative to permit the drawing of a reliable picture of overall energy performance and the reliable identification of the most significant opportunities for improvement.

Audits shall allow detailed and validated calculations for the proposed measures so as to provide clear information on potential savings.

The data used in the audit shall be storable for historical analysis and tracking performance.
ANNEX VI

Minimum requirements for billing and billing information based on actual consumption

2. Minimum requirements for billing

2.1 Billing based on actual consumption

In order to enable final customers to regulate their own energy consumption, billing should take place on the basis of actual consumption at least once a year, and billing information should be made available at least quarterly, on request or where the consumers have opted to receive electronic billing or else twice yearly. Gas used only for cooking purposes may be exempted from this requirement.

2.2 Minimum information contained in the bill

Member States shall ensure that, where appropriate, the following information is made available to final customers in clear and understandable terms in or with their bills, contracts, transactions, and receipts at distribution stations:

(a) current actual prices and actual consumption of energy;

(b) comparisons of the final customer's current energy consumption with consumption for the same period in the previous year, preferably in graphic form;
(d) contact information for final customers’ organisations, energy agencies or similar bodies, including website addresses, from which information may be obtained on available energy efficiency improvement measures, comparative end-user profiles and objective technical specifications for energy-using equipment.

*In addition, wherever possible and useful, Member States shall ensure that the following information is made available to final customers in clear and understandable terms, in, with or signposted to within, their bills, contracts, transactions, and receipts at distribution stations;*

(e) *comparisons with an average normalised or benchmarked final customer in the Same user category.*

2.3 Advice on energy efficiency accompanying bills and other feedback to final customers

When sending contracts and contract changes, and in the bills customers receive or through websites addressing individual customers, energy distributors, distribution system operators and retail energy sales companies shall inform their customers in a clear and understandable manner of contact information for independent consumer advice centres, energy agencies or similar institutions, including their internet addresses, where they can obtain advice on available energy efficiency measures, benchmark profiles for their energy consumption and technical specifications of energy using appliances that can serve to reduce the consumption of these appliances.
ANNEX VII

*Potential* for efficiency in heating and cooling

1. The *comprehensive assessment of* national heating and cooling *potentials* referred to in Article 10(1) shall include:

(a) a description of heating and cooling demand;

(b) a forecast of how this demand will change in the next 10 years, taking into account in particular the evolution of demand in buildings and the different sectors of industry;

(c) a map of the national territory, identifying, *while preserving commercially sensitive information*:

(i) heating and cooling demand points, including:

   - municipalities and conurbations with a plot ratio of at least 0.3; and
   - industrial zones with a total annual heating and cooling consumption of more than 20 GWh;

(ii) existing and planned district heating and cooling infrastructure;

(iii) potential heating and cooling supply points, including:

   - electricity generation installations with a total annual electricity production of more than 20 GWh; and
   - waste incineration plants;
   - existing and planned cogeneration installations, classified according to
Annex VII, and district heating installations.
(d) identification of the heating and cooling demand that could be satisfied by high-efficiency cogeneration, including residential micro-cogeneration, and by district heating and cooling;

(e) identification of the potential for additional high-efficiency cogeneration, including from the refurbishment of existing and the construction of new generation and industrial installations or other facilities generating waste heat;

(f) identification of energy efficiency potentials of district heating and cooling infrastructure;

(g) strategies, policies and measures that may be adopted up to 2020 and up to 2030 to realise the potential in (e) in order to meet the demand in (d), including, where appropriate, proposals to:

(i) increase the share of cogeneration in heating and cooling production and in electricity production;  

(ii) develop efficient district heating and cooling infrastructure to accommodate the development of high-efficiency cogeneration and the use of heating and cooling from waste heat and renewable energy sources;

(iii) encourage new thermal electricity generation installations and industrial plants producing waste heat to be located in sites where a maximum amount of the available waste heat will be recovered to meet existing or forecasted heat and cooling demand;
(iv) encourage new residential zones or new industrial plants which consume heat in their production processes to be located where available waste heat, as identified in the comprehensive assessment, can contribute to meeting their heat and cooling demands. This could include proposals that support the clustering of a number of individual installations in the same location with a view to ensuring an optimal matching between demand and supply for heat and cooling;

(v) encourage thermal electricity generating installations, industrial plants producing waste heat, waste incineration plants and other waste-to-energy plants to be connected to the local district heating or cooling network;

(vi) encourage residential zones and industrial plants which consume heat in their production processes to be connected to the local district heating or cooling network.

(h) the share of high efficiency cogeneration and the potential established and progress achieved under Directive 2004/8/EC.

(i) an estimate of the primary energy to be saved;

(j) an estimate of public support measures to heating and cooling, if any, with the annual budget and identification of the potential aid element. This does not prejudge a separate notification of the public support schemes for a State aid assessment.

2. To the extent appropriate, the comprehensive assessment may be made up of an assembly of regional or local plans and strategies.
ANNEX VIIIbis

Cost-benefit analysis

Part 1: General principles of the cost-benefit analysis

The purpose of preparing cost benefit analyses in relation to measures for promoting efficiency in heating and cooling as referred to in Article 10, paragraph 1a is to provide a decision base for qualified prioritisation of limited resources at society level.

The cost-benefit analysis may either cover a project assessment or a group of projects for a broader local, regional or national assessment in order to establish the most cost-effective and beneficial heating or cooling option for a given geographical area for the purpose of heat planning.

Cost-benefit analyses for the purposes of Article 10(1a) shall include an economic analysis covering socio-economic and environmental factors.

The cost-benefit analyses shall include the following steps and considerations:

a) Establishing a system boundary and geographical boundary

The scope of the cost-benefit analyses in question determines the relevant energy system. The geographical boundary shall cover a suitable well-defined geographical area, e.g. a given region or metropolitan area, to avoid selecting sub-optimized solutions on a project by project basis.
b) **Integrated approach to demand and supply options**

The cost-benefit analysis shall take into account all relevant supply resources available within the system and geographical boundary, using the data available, including waste heat from electricity generation and industrial installations and renewable energy, and the characteristics of and trends in heat and cooling demand.

c) **Constructing a baseline**

The purpose of the baseline is to serve as a reference point, to which the alternative scenarios are evaluated.

d) **Identifying alternative scenarios**

All relevant alternatives to the baseline shall be considered. Scenarios that are not feasible due to technical reasons, financial reasons, national regulation or time constraints may be excluded at an early stage of the cost benefit analysis if justified based on careful, explicit and well-documented considerations.

Only high-efficiency cogeneration, efficient district heating and cooling or efficient individual heating/cooling supply options as defined in Article 2 should be taken into account in the cost-benefit analysis as alternative scenarios compared to the baseline.

e) **Method for the calculation of cost-benefit surplus**
(i) The total long-term costs and benefits of heat or cooling supply options shall be assessed and compared.

(ii) The criterion for evaluation shall be the net present value (NPV) criterion.

(iii) The time horizon shall be chosen such that all relevant costs and benefits of the scenarios are included. For example, for a gas-fired power plant an appropriate time horizon could be 25 years, for a district heating system, 30 years, or for heating equipment such as boilers 20 years.

f) Calculation and forecast of prices and other assumptions for the economic analysis.

(i) Member States shall provide assumptions, for the purpose of the cost-benefit analyses, on the prices of major input and output factors and the discount rate.

(ii) The discount rate used in the economic analysis for the calculation of net present value shall be chosen according to European or national guidelines.²

(iii) Member States shall use national, European or international energy price development forecasts if appropriate in their national and/or regional/local context.

(iv) The prices used in the economic analysis shall reflect the true socio economic costs and benefits and should include external costs, such as environmental and health effects, to the extent possible, i.e. when a market price exists or when it is already included in European or national regulation.

g) Economic analysis: Inventory of effects

The economic analyses shall take into account all relevant economic effects.

² The national discount rate chosen for the purpose of economic analysis should take into account data provided by the European Central Bank.
Member States may assess and take into account in decision making costs and energy savings from the increased flexibility in energy supply and from a more optimal operation of the electricity networks, including avoided costs and savings from reduced infrastructure investment, in the analysed scenarios.

The costs and benefits taken into account shall include at least the following:

(i) Benefits

a. Value of output to the consumer (heat and electricity)

b. External benefits such as environmental and health benefits, to the extent possible.

(ii) Costs

a. Capital costs of plants and equipments

b. Capital costs of the associated energy networks

c. Variable and fixed operating costs

d. Energy costs

e. Environmental and health cost, to the extent possible

h) Sensitivity analysis:

A sensitivity analysis shall be included to assess the costs and benefits of a project or group of projects based on different energy prices, discount rates and other variable factors having a significant impact on the outcome of the calculations.
The Member States shall designate the competent authorities responsible for carrying out the cost-benefit analyses under Article 10. They may require competent local, regional and national authorities or operators of individual installations to carry out the economic and financial analysis. They shall provide the detailed methodologies and assumptions in accordance with this Annex and establish and make public the procedures for the economic analysis.

Part 2: Principles for the purpose of Article 10(3) and (5)

The cost-benefit analyses shall provide information for the purpose of the measures referred to in Article 10(3) and (5):

If an electricity-only installation or an installation without heat recovery is planned, a comparison shall be made between the planned installations or the planned refurbishment and an equivalent installation producing the same amount of electricity or process heat, but recovering the waste heat and supplying heat through high efficiency cogeneration and/or district heating and cooling networks.

Within a given geographical boundary the assessment shall take into account the planned installation and any appropriate existing or potential heat demand points that could be supplied from it, taking into account rational possibilities (for example technical feasibility and distance).

The system boundary shall be set to include the planned installation and the heat loads, such as building/s and industrial process. Within this system boundary the total cost of providing heat and power shall be determined for both cases and compared.
Heat loads shall include existing heat loads, such as an industrial installation or an existing district heating system, and also, in urban areas, the heat load and costs that would exist if a group of buildings or part of a city were provided with and/or connected into a new district heating network.

The cost-benefit analysis shall be based on a description of the planned installation and the comparison installation(s), covering electrical and thermal capacity, as applicable, fuel type, planned usage and the number of planned operating hours annually, location and electricity and thermal demand.

For the purpose of the comparison, the thermal energy demand and the types of heating and cooling used by the nearby heat demand points shall be taken into account. The comparison shall cover infrastructure related costs for the planned and comparison installation.

Cost-benefit analyses for the purposes of Article 10(3) shall include an economic analysis covering a financial analysis reflecting actual cash flow transactions from investing in and operating individual installations.

Projects with positive cost-benefit outcome are those where the sum of discounted benefits in the economic and financial analysis exceeds the sum of discounted costs (cost-benefit surplus).

Member States shall set guiding principles for the methodology, assumptions and time horizon for the economic analysis.

Member States may require that the companies responsible for the operation of thermal electric generation installations, industrial companies, district heating and cooling networks, or other parties influenced by the defined system boundary and geographical boundary, contribute data for use in assessing the costs and benefits of an individual installation.
ANNEX IX

Guarantee of origin for electricity produced from high efficiency cogeneration

a) Member States shall take measures to ensure that:

i) the guarantee of origin of the electricity produced from high-efficiency cogeneration:

- enable producers to demonstrate that the electricity they sell is produced from high-efficiency cogeneration and is issued to this effect in response to a request from the producer;
- is accurate, reliable and fraud-resistant;
- is issued, transferred and cancelled electronically;

ii) the same unit of energy from high-efficiency cogeneration is taken into account only once.

b) The guarantee of origin referred to in Article 10(10) shall contain at least the following information:

- the identity, location, type and capacity (thermal and electrical) of the installation where the energy was produced;
- the dates and places of production;
- the lower calorific value of the fuel source from which the electricity was produced;
- the quantity and the use of the heat generated together with the electricity;
- the quantity of electricity from high efficiency cogeneration in accordance with Annex II that the guarantee represents;

- the primary energy savings calculated in accordance with Annex II based on the harmonised efficiency reference values indicated in Annex II paragraph (f);

- the nominal electric and thermal efficiency of the plant;

- whether and to what extent the installation has benefited from investment support;

- whether and to what extent the unit of energy has benefited in any other way from a national support scheme, and the type of support scheme;

- the date on which the installation became operational; and

- the date and country of issue and a unique identification number.

The guarantee of origin shall be of the standard size of 1 MWh. It shall relate to the net electricity output measured at the station boundary and exported to the grid.
ANNEX XI

Energy efficiency criteria for energy network regulation and for electricity network tariffs

1. Network tariffs shall be cost-reflective of cost-savings in networks achieved from demand side and demand response measures and distributed generation, including savings from lowering the cost of delivery or of network investment and a more optimal operation of the network.

2. Network regulation and tariffs shall not prevent network operators or energy retailers making available system services for demand response measures, demand management and distributed generation on organised electricity markets, in particular:

   a) the shifting of the load from peak to off-peak times by final customers taking into account the availability of renewable energy, energy from cogeneration and distributed generation;

   b) energy savings from demand response of distributed consumers by energy aggregators;

   c) demand reduction from energy efficiency measures undertaken by energy service providers, including energy service companies;

   d) the connection and dispatch of generation sources at lower voltage levels;

   e) the connection of generation sources from closer location to the consumption; and

   f) the storage of energy.
For the purposes of this provision the term "organised electricity markets" shall include over-the-counter markets and electricity exchanges for trading energy, capacity, balancing and ancillary services in all timeframes, including forward, day-ahead and intra-day markets.

3. Network or Retail tariffs may support dynamic pricing for demand response measures by final customers, such as:

   a) time-of-use tariffs;

   b) critical peak pricing;

   c) real time pricing; and

   d) peak time rebates.
ANNEX XII

Energy efficiency requirements for transmission system operators and distribution system operators

Transmission and distribution system operators shall:

a) set up and make public their standard rules relating to the bearing and sharing of costs of technical adaptations, such as grid connections and grid reinforcements, improved operation of the grid and rules on the non-discriminatory implementation of the grid codes, which are necessary in order to integrate new producers feeding electricity produced from high efficiency cogeneration into the interconnected grid;

b) provide any new producer of electricity produced from high-efficiency cogeneration wishing to be connected to the system with the comprehensive and necessary information required, including:

   (i) a comprehensive and detailed estimate of the costs associated with the connection;

   (ii) a reasonable and precise timetable for receiving and processing the request for grid connection;

   (iii) a reasonable indicative timetable for any proposed grid connection. The overall process to become connected to the grid should be no longer than 24 months, bearing in mind what is reasonably practicable and non-discriminatory.

(c) provide standardised and simplified procedures for the connection of distributed high efficiency cogeneration producers to facilitate their connection to the grid.

The standard rules referred to in a) shall be based on objective, transparent and non-discriminatory criteria taking particular account of all the costs and benefits associated with the connection of those producers to the grid. They may provide for different types of connection.
ANNEX XIII

Minimum items to be included in energy performance contracts with the public sector or in the associated tender specifications

- Clear and transparent list of the efficiency measures to be implemented or the efficiency results to be obtained.

- Guaranteed savings to be achieved by implementing the measures of the contract.

- Duration and milestones of the contract, terms and period of notice.

- Clear and transparent list of the obligations of each contracting party.

- Reference date(s) to establish achieved savings.

- Clear and transparent list of steps to be performed to implement a measure or package of measures and, where relevant, associated costs.

- Obligation to fully implement the measures in the contract and documentation of all changes made during the project.

- Regulations specifying the inclusion of equivalent requirements in any subcontracting with third parties.

- Clear and transparent display of financial implications of the project and distribution of the share of both parties in the monetary savings achieved (i.e. remuneration of the service provider).

- Clear and transparent provisions on measurement and verification of the guaranteed savings achieved, quality checks and guarantees.
- Provisions clarifying the procedure to deal with changing framework conditions that affect the content and the outcome of the contract (i.e. changing energy prices, use intensity of an installation).

- Detailed information on the obligations of each of the contracting party and of the penalties for their breach.
ANNEX XIV

General framework for reporting

PART 1. General framework for annual reports

The annual reports referred to in Article 19(1) provide a basis for the monitoring of the progress towards national 2020 targets. Member States shall ensure that the reports include the following minimum information:

a) an estimate of following indicators in the year before last (year $X^{1-2}$):

(i) primary energy consumption as defined in Article 2(2)

(ii) total final energy consumption

(iii) final energy consumption by sector

- industry

- transport (split between passenger and freight transport, if available)

- households

- services

(iv) gross value added by sector

- industry

- services

$^{1}$ To be understood as $X$=current year.
(v) disposable income of households

(vi) gross domestic product (GDP)

(vii) electricity generation from thermal power generation

(vii bis) electricity generation from combined heat and power

(viii) heat generation from thermal power generation

(viii bis) heat generation from combined heat and power plants, including industrial waste heat

(ix) fuel input for thermal power generation

(x) passenger kilometers (pkm), if available

(xi) tonne kilometers (tkm), if available

(xi bis) combined transport kilometres (pkm + tkm), in case (x) and (xi) are not available

(xii) population

In sectors where energy consumption remains stable or is growing, Member States shall analyse the reasons for it and attach their appraisal to the estimates.

The second and subsequent reports shall also include b) to e) below:

b) updates on major legislative and non-legislative measures implemented in the previous year which contribute towards the overall national energy efficiency targets for 2020.

c) the total building floor area of the buildings with a total useful floor area over 500 m² and as of 9 July 2015 over 250 m² owned and occupied by its central government that, on 1 January of the year in which the report is due, did not meet the energy performance requirements referred to in Article 4(1);
d) the total building floor area of heated and/or cooled buildings owned and occupied by the Member States' central government that was renovated in the previous year referred to in Article 4(1) or the amount of energy consumption savings in eligible buildings owned and occupied by their central government as referred to in Article 4(3a).

e) energy savings achieved through the national energy efficiency obligation schemes referred to in Article 6(1) or the alternative measures adopted in application of Article 6(9).

f) The first report shall also include the national target referred to in Article 3(1).

In the annual reports referred to in Article 19(1) Member States may also include additional national targets. These may be related in particular to the statistical indicators enumerated in Annex XIV, Part 1a or combinations thereof, such as primary or final energy intensity or sectoral energy intensities.


The Plans referred to in Article 19(2) shall provide a framework for the development of national energy efficiency strategies.

The Plans shall cover significant energy efficiency improvement measures and expected/achieved energy savings, including those in the supply, transmission and distribution of energy as well as energy end-use. Member States shall ensure that the Plans include the following minimum information:

1. Targets and strategies
   - The indicative national energy efficiency target for 2020 as required by Article 3(1);
   - The national indicative energy savings target set in Article 4(1) of Directive 2006/32/EC;
   - Other existing energy efficiency targets addressing the whole economy or specific sectors.
2. Measures and energy savings

The Plans shall provide information on measures adopted or planned to be adopted in view of implementing the main elements of this Directive and on their related savings.

a) Primary energy savings

The Plans shall list significant measures and actions taken towards primary energy saving in all sectors of the economy. For every measure or package of measures/actions estimations of expected savings for 2020 and savings achieved by the time of the reporting shall be provided.

Where available, information on other impacts/benefits of the measures (greenhouse gas emissions reduction, improved air quality, job creation, etc.) and the budget for the implementation should be provided.

b) Final energy savings

The first and second National Energy Efficiency Action Plans shall include the results with regard to the fulfilment of the final energy savings target set out in Article 4(1) and (2) of the Directive 2006/32/EC. If calculation/estimation of savings per measure is not available, sector level energy reduction shall be shown due to (the combination) of measures.

The first and second National Energy Efficiency Action Plans shall also include the measurement and/or calculation methodology used for calculating the energy savings. If the "recommended methodology1" is applied, the Plan should provide references to this.

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3. Specific information related to provisions of this Directive

3.1. Public bodies (Article 4)

*National Energy Efficiency Action Plans* shall include the list of public bodies having developed an energy efficiency plan in accordance with *Article 4(4).*

3.2. Energy efficiency obligations (Article 6)

*National Energy Efficiency Action Plans* shall include the national coefficients chosen in accordance with Annex IV.

The first *National Energy Efficiency Action Plan* shall include a short description of the national scheme referred to in Article 6(1) or the alternative measures adopted in application of Article 6(9).

3.3. Energy audits and management systems (Article 7)

*National Energy Efficiency Action Plans* shall include:

(a) the number of energy audits carried out in the previous period;

(b) the number of energy audits carried out in large enterprises in the previous period;

(c) the number of large companies in their territory, with an indication of the number of those to which Article 7(3) is applicable.
3.4. Promotion of efficient heating and cooling (Article 10)

National Energy Efficiency Action Plans shall include an assessment of the progress achieved in implementing the comprehensive assessment referred to in Article 10(1).

3.6. Energy transmission and distribution (Article 12)

The first National Energy Efficiency Action Plan and the subsequent reports due every 10 years thereafter shall include the assessment made, the measures and investments identified to utilise the energy efficiency potentials of gas and electricity infrastructure referred to in Article 12(2).

3.6a. Member States shall report, as part of their National Energy Efficiency Action Plans, on the measures undertaken to enable and develop demand response as referred to in Article 12.

3.7. Availability of qualification, accreditation and certification schemes (Article 13)

National Energy Efficiency Action Plans shall include information on the available qualification, accreditation and certification schemes or equivalent qualification schemes for the providers of energy services, energy audits and energy efficiency improvement measures.

3.8. Energy Services (Article 14)

National Energy Efficiency Action Plans shall include an internet link to the website where the list or the interface of energy services providers referred to in Article 14 can be accessible.
3.9. Other measures to promote energy efficiency (Article 15)

The first *National Energy Efficiency Action Plan* shall include a list of the measures referred to in Article 15(2).
### ANNEX XV

**Correlation table**

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 Draft Statement by the European Parliament, the Council and the Commission on the exemplary role of their buildings in the context of the Energy Efficiency Directive

The European Parliament, the Council and the Commission declare that, due to the high visibility of their buildings and the leading role they should play with regard to their buildings’ energy performance, they will, without prejudice to applicable budgetary and procurement rules, undertake to apply the same requirements to the buildings they own and occupy as those applicable to the buildings of Member States’ central government under Articles 4 and 5 of Directive 2012/XX/EU of the European Parliament and of the Council on energy efficiency and repealing Directives 2004/8/EC and 2006/32/EC.

Draft Commission statement in relation to energy audits

As explained in its Communication to the European Parliament, the Council, the Economic and Social Committee and the Committee of Regions on EU State Aid Modernisation (COM(2012) 2009 final of 8.5.2012), the Commission has identified the EU Guidelines on State Aid for Environmental Protection as one of the instruments which can contribute to the Europe 2020 Growth Strategy and objectives and which may be revised by the end of 2013. In such context, the Commission may verify that the future rules on State Aid for Environmental Protection continue to promote in an optimal way sustainable growth, inter alia through promotion of energy efficiency in line with the objectives of the present Directive.
Draft Commission statement in relation to EU ETS

In the light of the need to maintain the incentives in the EU's Emissions Trading System the Commission undertakes:

- to urgently present the first report pursuant to Article 10(5) of Directive 2003/87/EC on the carbon market accompanied by a review of the auction time profile of phase 3

- to examine in this report options, including among others permanent withholding of the necessary amount of allowances, for action with a view to adopting as soon as possible further appropriate structural measures to strengthen the ETS during phase 3, and make it more effective.
EXPLANATORY STATEMENT

I. ENERGY EFFICIENCY – MAKE OR BREAK!

If the European Union fails on energy efficiency, it fails on climate change, energy security, green growth and social protection.

1) Tackling Climate Change and Resource scarcity

Those climate and energy scenarios that meet the 2 degree Celsius global temperature target require ambitious energy saving and energy efficiency policies. Energy efficiency has also been shown to be the cheapest and quickest way to reduce C0₂ emissions.

2) Reducing EU’s foreign energy dept and increasing EU’s geopolitical independence and energy security

The EU is spending more than €400 billion per year to import energy. Realising the minimum 20% energy savings target will not only enhance our energy security but also reduce by at least €50 billion per year the wealth transfer from EU economies to energy producing countries.

3) Ensuring sustainable growth in a time of economic crisis

The EU's leading role in the design, operation and production of efficiency technology and services is under threat. While European companies are still market leaders in certain fields, widening and deepening a market for energy efficiency within the EU will help these green technology companies to compete globally.

Millions of jobs will be created in the EU at the local and national levels, including in the building sector, by leveraging additional private investment capital. In addition the EU’s heavy industry and small and medium enterprises will be supported to deliver higher energy productivity, which is essential to compete in the global market.

4) Keeping energy costs under control

Competition between energy suppliers will not be sufficient to keep energy costs under control as prices per energy unit are likely to continue to rise. Therefore, policies and measures must lead to an absolute reduction in energy consumption, which will reduce the overall energy cost for consumers and therefore freeing the income of EU citizens and businesses and also reduce expenditure in the public sector.

Effective saving measures can reduce the investment needs of power plants by 50% and the transmission grid by 30% until 2030. In addition the creation of national and regional demand

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2 HSBC Global Research, September 2010 - Sizing the climate economy
response markets will create a downward pressure on the wholesale electricity prices.\(^1\)

Increasing prices per energy unit in the middle of an economic crisis will also affect the low income households. Combating fuel poverty must be at the heart of this legislation.

II. THE EU ENERGY EFFICIENCY DIRECTIVE - CONCRETE MEASURES TO FILL AN URGENT NEED

A common EU approach is necessary to reinforce energy savings, energy efficiency and innovation, achieve economies of scale and reduce the bureaucratic burden in all Member States. EU-Efficiency policy will build on existing and well-functioning regional and national policies while leaving the necessary flexibility to take account of local and national specificities.

The European success story has to be built on two foundations:

\( a\) \textit{pre-financing of efficiency measures} \\

In times of fiscal uncertainty, investors' confidence can not (only) rely on public support. In order to direct the necessary private capital into the energy efficiency sector your Rapporteur proposes

- binding targets and measures: experience from the EU climate and renewables legislation shows that binding targets for Member States are necessary. They create higher visibility, political commitment and investment certainty and mobilise resources and actions. The overall positive macro-economic and geopolitical benefits for the EU economy and citizens of stringent energy efficiency measures justify binding targets.

- new stable non-government funds: experience in the US with system public benefit charges and in several EU countries with energy saving obligations (UK, DK or FR) shows that small levies or obligations on all customers or retailers can raise substantial and constant funding.

- new business models: energy saving companies (ESCOs) in the US and China are pre-financing large amount of the energy efficiency investments. Their benefits are then shared between them and their customers. The UK energy saving obligation model is also going into that direction.

\( b\) \textit{Triggering technological, financial and social innovation} \\

- accelerating the learning curve: In order to speed up the reduction of costs for far reaching renovation, a critical mass of investments are needed to kick start the necessary technological but above all organisational innovation.

\(^1\) IEA (2011) - Summing up the parts - Combining Policy Instruments for Least-Cost Climate Mitigation Strategies
- strengthen public participation: Consumer organisations at the local and regional levels need to be involved in the setting up of efficiency measures.

Your Rapporteur suggests therefore the following approach for the proposed Directive.

1) Set binding targets at EU and national level (Art. 1&3)

This Directive is Europe’s chance to honour the Heads of State’s energy and climate commitment of March 2007 and February 2011: Realising a 20% rise in the EU's energy efficiency will lead to a 368 million tons of oil equivalents (Mtoe) reduction against the trend by 2020.

However, current efforts will only achieve half of the target, wasting €1,000 per household per year and leading to the unnecessary construction of new power plants and the importation of greater quantities of gas and oil.

Extensive studies have shown that this energy saving gap can be closed with the rapid introduction of new measures, yet, the two step approach on target setting proposed by EU commission will de facto mean that the required action is put on hold until at least 2016 - this is unacceptable.

Binding targets should be applied uniformly through an effort sharing system using the country specific energy use starting points. Current energy improvement potentials across the EU are similar and a number of studies have shown that even countries with long standing energy efficiency policies have not yet captured their full economic benefits nor reached the technical limits.

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Therefore your Rapporteur believes that each country should achieve the same percentage of energy savings based on the current country specific energy consumption level. The respective national targets should be expressed in primary energy terms to allow the measurement and comparison of progress across the EU over time.

As the graph ¹ below shows, the 20% efficiency targets at national level can be achieved by combining a number of policies and measures in different sectors. However, by far the most important measure to be able to realise the overall 20% target is the 1.5% yearly end-use energy saving obligation (as introduced by art. 6).

![Graph showing energy saving mechanisms](https://example.com/graph.png)

Source: Dr. Felix Matthes, Öko-Institut - Institute for Applied Ecology, 2011

2) **Design and reinforce (pre-) financing energy efficiency instruments** (art. 2. a new)

Achieving Europe’s energy saving objective requires investments of between €800 – 1200 billion in the next decade. ² The pay-back period of these investments is usually between 4 - 8 years and will create numerous jobs and trigger innovation. However, support to leverage the necessary private capital has to be organised.

- The proposed directive should establish dedicated national funds using existing EU funding

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¹ F. Matthes, Institute for Applied Ecology, September 2011 - Analysis and classification of the energy efficiency obligation as per Art. 6 of the EU Commission’s Proposal for an Energy Efficiency Directive

streams, for example the Structural and Cohesion Funds which should prioritise energy efficiency and project bonds focused on efficiency investments. In addition innovative financing instruments, like revolving funds, should use the EU funds and the national revenues from EU ETS auctioning to leverage private capital. The existing EU programs like the “Energy Intelligent Europe” program should also be prolonged.

- The proposed savings obligations, as created by art. 6, can provide much of the necessary funds. Achieving these savings obligations would mobilise around €400 billion by 2020. Savings obligation schemes are a stable, predictable and powerful financial instrument and will also accelerate the transformation to a new business model for EU energy companies.

- National authorities should also consider encouraging the use of private savings in energy efficiency investments through dedicated financial instruments (like the French project for a “livret d’épargne Vert” or the upcoming EU legislation on green investment funds).

3) Re却是 the energy proofing of our buildings (art. 4a new, art. 4)

Today's EU legislation does not offer a sufficient foundation for the necessary paradigm shift, therefore your Rapporteur proposes to opt for a longer term approach through the establishment of national "2050 building roadmaps", as are currently developed in Germany. EU buildings represent 40% of all EU energy consumption and the potential of savings in the existing building stock is considerable and largely untapped.

As illustrated by the graph below Member States will have to increase both the energy related renovation rate up to at least 2% yearly and go “deeper” with the savings with each renovation.

Source: Karsten Neuhoff et al. DIW - CPI, September 2011 - Thermal efficiency retrofit of residential buildings: The German experience
Your Rapporteur welcomes the 3% binding renovation rate for buildings of public bodies. Buildings owned and occupied by public bodies can serve as a leverage to trigger the necessary technical, financial and organisational innovation (especially for “deep renovation”) and to create an ESCO market.

4) **Strengthen public procurement and other measures to accelerate the replacement rate of old inefficient energy using products** (art. 5)

To get the full benefit of policies for energy savings of products vigorous action are needed on the national level both on public procurement and on the creation of the general market pull by consumers for the best of class products.

5) **Set an energy end use saving target** (art. 6)

This article is the center-piece of the directive. Your Rapporteur believes that the proposed 1.5% annual savings obligation must apply to the economy as a whole and must include the transport sector, which holds a significant economic but yet unrealised saving potential.

Electricity savings have to be prioritised, as electricity consumption is growing fast and because one unit of electricity requires several units - at least 2.5 - of primary energy input.

The obligated parties should be allowed to realise part of their obligations by paying into a dedicated fund. Measures that prevent double counting will have to be introduced, i.e. the required energy savings must be achieved by measures which are additional to existing legislative requirements like the Ecodesign legislation.

6) **Help industry and SMEs to be more energy productive** (art. 7)

Additional incentives will be needed for the industrial and SME sectors to move quickly from audits to new energy management systems and investments that capture real and significant energy savings. Building on the positive experiences from Denmark, Finland, Netherlands and Sweden your Rapporteur proposes to create a link between energy savings obligations schemes, national tax reduction regimes and EU state aid rules to help EU businesses become more competitive by reducing their energy costs.

7) **Trigger behavioural changes by involving consumers, cities and regions** (art. 8)

Your Rapporteur welcomes the deployment of smart meters which can help the consumers improve their energy efficiency behaviour.

Consumer organisations must be given a more prominent role in the designing of national energy policies and the necessary safeguards have to be introduced to protect consumers against unjustified price rises.

The role of local and regional governance structures in making energy efficiency happen on the ground must be strengthened (“Low Energy Cities” “2000 Watt Society”, “Covenant of
8) Reduce the inefficiencies in EU power system (art. 10; art. 11; art 19.5)

The EU’s energy transformation system – from conventional power plants to refineries – has relatively low efficiencies, below 35%. Therefore, significant and rapid savings are possible here.

Over and above making sure that new investments are using best available technologies (BAT standards) the EU needs to review once again the potential of combined production of power, heat and cooling. Thus, the exemptions foreseen in art. 10 will have to be limited. However, the benefits which cogeneration plants bring to the electricity system as a whole will have to be rewarded as well designed CHP devices could also play a role in energy and electricity storage.

Priority grid access and dispatch for CHP is welcomed but should not impede the priority access already created for renewable energy.

9) Define clear roles for regulators and Transmission System Operators while creating a demand side market (art.12)

The practical realisation of energy efficiency measures needs the full involvement of the regulators, TSOs and DSOs. In addition to the speeding up of the deployment of smart grids, the establishment of national and regional demand response markets should be prioritised.

In the US, demand saving and demand response programs are already producing huge savings for consumers ($1.2 billion in recent PJM capacity auction). Building on art.12 EU regulators should remove the barriers for smaller consumers and aggregators to participate in balancing and other ancillary services.

10) Guarantee fair and open competition in a bigger EU energy service market (art. 13, 14, 15)

In the growing EU energy saving service market red tape needs to be reduced e.g. national barriers preventing third party investments should be removed. Safeguards should also be put in place to ensure that the energy utilities do not impose anti-competitive behaviour on their smaller competitors.

11) Improve the governance of energy efficiency policies (art.19)

The reporting system under this directive should be as lean as possible but yet still concrete and clear enough to be comparable and identify best practice. The system should monitor progress and assess the effectiveness of the different measures. The information should be publicly disclosed.

References

1 http://www.ferc.gov/market-oversight/mkt-electric/pjm.asp
18.1.2012

OPINION OF THE COMMITTEE ON THE ENVIRONMENT, PUBLIC HEALTH AND FOOD SAFETY

for the Committee on Industry, Research and Energy


Rapporteur: Peter Liese

SHORT JUSTIFICATION

Energy efficiency is the most cost-efficient way to reduce greenhouse gas emissions and other emissions related to fossil fuels. It makes us less dependent on energy imports, for which the EU currently pays more than 400 billion Euros per year. By investing in energy efficiency, the EU reduces its dependence on Russia and the OPEC States and invests in European industries. SMEs in particular – including installers and the building sector – would benefit.

In the coming years significant investment in energy infrastructure will be necessary, for example for production capacity and storage. This will be a major challenge for the EU's economy. Energy efficiency can help to reduce costs, because energy that is not used does not need production capacity or storage or the grid.

A common European approach on energy efficiency will bring costs for energy efficient products and services down and increase the business opportunities for the industries involved. The creation of a common energy efficiency market is more than just a useful policy objective. The Treaty of Lisbon obliges the EU to promote energy efficiency (Art. 194 (2)).

The 20 percent energy efficiency target has already been set by unanimous decision of the Heads of State in 2007. According to the analysis of the Commission, the existing legal framework and the current measures of the Member States will only help us to achieve half of the target. Achieving the target is a key element of the 2050 Low Carbon Roadmap. That is why further action is urgently needed. The Commission proposal is aimed in the right direction. Of course it is easy to criticise specific parts, but the Commission has to be
applauded for presenting a solution to the problem. **Whoever criticises the Commission should immediately present alternative proposals on how to achieve the target.**

The draft opinion is a first attempt to this direction. The main changes are:

**1. Strengthening the two-step-approach**

The draftsman doesn't present binding targets - even though the European Parliament has in the past continuously voted for this. The recommendation is to accept the Commission's two-step approach, but to strengthen it. To avoid an unjustifiably low ambition in the national indicative targets, a European methodology should be fixed. The proposed methodology is based on the Commission PRIMES model from 2007. This model takes account of the different situation in the Member States, for example the necessity in Central and Eastern European countries to catch up with development in other areas of the EU and the need for economic growth. For example, the absolute reduction target for Poland compared to 2007 is only -5.5 percent. **For some Member States the model generates an unbearable burden (e.g. Malta) or unjustifiably low ambition (e.g. Latvia).** That is why a correction factor linked to the economic situation of the country should be applied. It needs to be emphasised that the EU-target is only 20% compared to business as usual; the absolute reduction for the EU-27 compared to 2009 is **only 7.7%**. This means that the target is not at all overambitious, but very realistic. Achieving the EU-target of 368,4 Mtoe savings is key for the credibility of the EU and the achievement of the milestones in the Low Carbon Roadmap for 2050.

**The Member States need to deliver national action plans.** It is important that these plans do not include only good intentions but also concrete measures. That is why the Commission needs to have the right to assess and amend them. In these national action plans measures to avoid carbon leakage should also be included.

**2. More emphasis on incentives**

The Commission proposal, if implemented correctly, leads to a lot of incentives, for example through the energy saving support system. But the Commission proposal should be much more clear in that energy efficiency should be delivered not mainly by the regulation of every individual citizen and SME, but by incentives. Clarification in this respect is also necessary to avoid national incentives being seen as illegal state aid.

**3. Energy saving support system - sustainable framework for the economic actors and the citizens against the stop and go-effect**

One of the biggest problems is that financial support for energy efficiency measures is often unsustainable and unpredictable. Sometimes market actors do not have access to the respective programme in January, because the budget has not been approved, and in September the budget line is already expired. This causes frustration among all partners and prevents long-term investment in the area. That is why the Commission has rightly proposed an energy saving obligation scheme that guarantees a permanent flow of finance. Similar kinds of systems have been successfully introduced in a lot of Member States, including Italy, France, Poland, UK, Denmark, Ireland and the region of Flanders. Moreover, a lot of states in the USA use this system. A problematic aspect of Article 6 is that it refers to
"obligation". It has to be clarified that the obligation is only on the energy distributing company. SMEs and the average citizen will benefit from incentives. Therefore the draftsman suggests changing the name to **energy saving support system**.

Article 6, paragraph 9 foresees an opt-out clause for the Member States. To make sure that this is not a loophole it needs to be guaranteed that those Member States that opt out guarantee the same permanent and predictable support for energy efficiency as the energy saving support system as designed by the Commission.

**AMENDMENTS**

The Committee on the Environment, Public Health and Food Safety calls on the Committee on Industry, Research and Energy, as the committee responsible, to incorporate the following amendments in its report:

**Amendment 1**

**Proposal for a directive**

**Recital 1**

**Text proposed by the Commission**

(1) The Union is facing unprecedented challenges resulting from increased dependence on energy imports and scarce energy resources, and the need to limit climate change and to overcome the economic crisis. Energy efficiency is a valuable means to address these challenges. It improves the Union's security of supply by reducing primary energy consumption and decreasing energy imports. It helps to reduce greenhouse gas emissions in a cost-effective way and thereby to mitigate climate change. Shifting to a more energy-efficient economy should also accelerate the spread of innovative technological solutions and improve the competitiveness of industry in the Union, boosting economic growth and creating high quality jobs in several sectors related to energy efficiency.

**Amendment**

(1) The Union is facing unprecedented challenges resulting from increased dependence on energy imports and scarce energy resources, and the need to limit climate change and to overcome the economic crisis. Energy efficiency is a valuable means to address these challenges. It improves the Union's security of supply by reducing primary energy consumption and decreasing energy imports. It helps to reduce greenhouse gas emissions in a cost-effective way and thereby to mitigate climate change. Shifting to a more energy-efficient economy should also accelerate the spread of innovative technological solutions and improve the competitiveness of industry in the Union, boosting economic growth and creating high quality jobs in several sectors related to energy efficiency that can be defendable in the medium and long term in terms of global competition.
Justification

Energy efficiency, when done properly, can lead to job creation on a local level, which can be maintained in the medium and long term and withstand global competition.

Amendment 2
Proposal for a directive
Recital 1 a (new)

Text proposed by the Commission

Amendment

(1a) In this context, a specific emphasis should be placed on local European producers and SMEs fulfilling high quality standards for their products and services. To this end, the European Union should effectively control related imports from third countries to guarantee that such products and services fulfil the same high quality standards as local producers and service providers in the European Union.

Amendment 3
Proposal for a directive
Recital 5

Text proposed by the Commission

(5) In its Resolution of 15 December 2010 on the Revision of the Energy Efficiency Action Plan¹⁹, the European Parliament called on the Commission to include in its revised Energy Efficiency Action Plan measures to close the gap to reach the overall EU energy efficiency objective in 2020.

Amendment

(5) In its Resolution of 15 December 2010 on the Revision of the Energy Efficiency Action Plan, the European Parliament called on the Commission to include in its revised Energy Efficiency Action Plan a binding energy efficiency target, alongside measures to close the gap to reach the overall EU energy savings objective in 2020.

Amendment 4
Proposal for a directive
Recital 9 a (new)
Text proposed by the Commission

(9a) On 22 June 2011 the European Commission impact assessment demonstrated that national binding energy efficiency targets for primary energy consumption would be more appropriate than indicative national energy efficiency targets in order to ensure the fulfilment of the overall 20% energy savings target. Furthermore, the impact assessment indicated that binding targets would allow more flexibility for Member States in designing energy savings measures appropriated to the diversity of Member States.

SEC(2011) 779

Amendment 5
Proposal for a directive
Recital 15

Text proposed by the Commission

(15) The rate of building renovation needs to be increased, as the existing building stock represents the single biggest potential sector for energy savings. Moreover, buildings are crucial to achieving the EU objective of reducing greenhouse gas emissions by 80-95% by 2050 compared to 1990. Buildings owned by public bodies account for a considerable share of the building stock and have high visibility in public life. It is therefore appropriate to set an annual rate of renovation of all buildings owned by public bodies to upgrade their energy performance. This renovation rate should be without prejudice to the obligations with regard to nearly-zero energy buildings set in Directive 2010/31/EU of the European Parliament and of the Council of 19 May 2010 on the energy performance of buildings. The

Amendment

(15) The rate of building renovation needs to be increased, as the existing building stock represents the single biggest potential sector for energy savings. Moreover, buildings are crucial to achieving the EU objective of reducing greenhouse gas emissions by 80-95% by 2050 compared to 1990. Buildings owned by public bodies account for a considerable share of the building stock and have high visibility in public life. It is therefore appropriate to set an annual rate of renovation of all buildings owned by public bodies to upgrade their energy performance. This renovation rate should be without prejudice to the obligations with regard to nearly-zero energy buildings set in Directive 2010/31/EU of the European Parliament and of the Council of 19 May 2010 on the energy performance of buildings.
obligation to renovate public buildings complements the provisions of that Directive, which requires Member States to ensure that when existing buildings undergo major renovation their energy performance is upgraded so that they meet minimum energy performance requirements.

Specific attention should be paid to ensuring good indoor air quality, e.g. through adequate ventilation requirements and the use of low-emission building materials, equipment and products. Where energy efficiency measures concern public buildings, such as day care centres, kindergartens or schools, a health impact assessment should be carried out.

Justification

Europeans spend the majority of their time indoors. The quality of the indoor air is a crucial determinant of their health, and a factor for chronic diseases such as asthma and allergies. When renovating buildings for better energy efficiency, potential health risks should be addressed, that is risks arising from insufficient ventilation because of greater air-tightness and harmful emissions from building material and construction products.

Amendment 6

Proposal for a directive
Recital 18

Text proposed by the Commission

(18) An assessment of the possibility of establishing a ‘white certificate’ scheme at Union level has shown that, in the current situation, such a system would create excessive administrative costs and that there is a risk that energy savings would be concentrated in a number of Member States and not introduced across the Union. The latter objective can better be achieved, at least at this stage, by means of national energy efficiency obligation schemes or other alternative measures that achieve the same amount of energy savings. The Commission should however define, by a

Amendment

(18) An assessment of the possibility of establishing a ‘white certificate’ scheme at Union level has shown that, in the current situation, such a system would create excessive administrative costs and that there is a risk that energy savings would be concentrated in a number of Member States and not introduced across the Union. The latter objective can better be achieved, at least at this stage, by means of national energy efficiency obligation schemes or other alternative measures that achieve the same amount of energy savings. The common framework should give energy
delegated act, the conditions under which a Member State could in future recognise the energy savings achieved in another Member State. It is appropriate for the level of ambition of such schemes to be established in a common framework at Union level while providing significant flexibility to Member States to take full account of the national organisation of market actors, the specific context of the energy sector and final customers’ habits. The common framework should give energy utilities the option of offering energy services to all final customers, not only to those to whom they sell energy. This increases competition in the energy market because energy utilities can differentiate their product by providing complementary energy services. The common framework should allow Member States to include requirements in their national scheme that pursue a social aim, notably in order to ensure that vulnerable customers have access to the benefits of higher energy efficiency. It should also allow Member States to exempt small companies from the energy efficiency obligation. The Commission Communication ‘Small Business Act’ sets out principles that should be taken into account by Member States that decide to abstain from applying this possibility.

**Justification**

*A system of mutual recognition of energy savings would effectively mean that consumers in one Member State could end up paying for savings counted towards a target in another Member State. This is not fair, as consumers in all Member States must benefit. It could also lead to gaming by energy companies.*

**Amendment 7**

**Proposal for a directive**

**Recital 19**
(19) To tap the energy savings potential in certain market segments where energy audits are generally not offered commercially (such as households or small and medium-sized enterprises), Member States should ensure that energy audits are available. Energy audits should be mandatory and regular for large enterprises, as energy savings can be significant.

**Amendment 8**

**Proposal for a directive**

**Recital 21**

(21) When designing energy efficiency improvement measures, account should be taken of efficiency gains and savings obtained through the widespread application of cost-effective technological innovations such as smart meters. To maximise the saving benefits of these innovations, final customers should be able to visualise indicators of cost and consumption and have regular individual billing based on actual consumption.

**Amendment**

(21) When designing energy efficiency improvement measures, account should be taken of efficiency gains and savings obtained through the widespread application of cost-effective technological innovations such as smart meters. To maximise the saving benefits of these innovations, final customers should be able to visualise indicators of cost and consumption and have regular individual billing based on actual consumption. *Meters of this kind should only be installed, however, if the potential benefit outweighs the cost of installing them, and their installation does not result in significant additional expense for the final consumer.*
(27) Most EU businesses are small and medium-sized enterprises (SMEs). They represent an enormous energy saving potential for the EU. To help them adopt energy efficiency measures, Member States should establish a favourable framework aimed at providing SMEs with technical assistance and targeted information.

Amendment

Proposal for a directive
Recital 30

(30) A sufficient number of reliable qualified professionals competent in the field of energy efficiency should be available to ensure the effective and timely implementation of this Directive, for instance as regards compliance with the requirements on energy audits and implementation of energy efficiency obligation schemes. Member States should therefore put in place certification schemes for the providers of energy services, energy audits and other energy efficiency improvement measures.

Amendment

Proposal for a directive
Recital 30 a (new)

(30a) The necessary increase in energy efficiency will only be achieved through a comprehensive change in society’s
thinking. Today’s children are tomorrow’s workers, engineers, architects, entrepreneurs and energy users. The decisions they take will influence the way in which society produces and uses energy in the future. Energy education is therefore important so that future generations can be instructed in how to contribute to efficient energy consumption through their lifestyle and personal behaviour. The Member States should therefore take targeted action to promote energy education in schools, with particular stress on how each individual can contribute to more efficient, sustainable energy use through their personal behaviour.

Justification

If we want energy use to be sustainable we must start with future generations. In them lies the potential for major savings, as long as children are brought up from an early age to use energy responsibly.

Amendment 12

Proposal for a directive
Recital 33 a (new)

Text proposed by the Commission

Amendment

(33a) Under the Commission’s legislative proposals of 6 October 2011 concerning the future of the European Union’s cohesion policy, it is likely that there will be a significant increase in the financial support for energy efficiency provided by the Structural Funds and the Cohesion Fund in the 2014-2020 period compared to the 2007-2013 period. Such funding will make a decisive contribution to the attainment of this Directive’s objectives.

Amendment 13
Proposal for a directive
Recital 33 b (new)

Text proposed by the Commission

(33b) The Commission and the Member States should seek to establish research schemes to come up with technology for use in historic buildings, covering all aspects connected with the use of renewable energy, the installation of smart meters and other technologies that would need to be installed in such buildings. The Commission and the Member States should also undertake to disseminate the findings of research that has already been carried out.

Amendment 14

Proposal for a directive
Recital 33 c (new)

Text proposed by the Commission

(33c) Given the special characteristics of historic buildings, research would need to be carried out into the different energy consumption profile involved, taking into account the insulation qualities of traditional architecture, the way in which it is adapted to its environment and the good practices employed in the past with regard to the use and function of such buildings.

Amendment 15

Proposal for a directive
Recital 34

Text proposed by the Commission

(34) In the implementation of the 20% energy efficiency target, the Commission will have to monitor the impact of new

Amendment

(34) The implementation of the 20% energy efficiency target could result in reduced demand for EU ETS allowances
measures on Directive 2003/87/EC establishing the EU’s emissions trading directive (ETS) in order to maintain the incentives in the emissions trading system rewarding low carbon investments and preparing the ETS sectors for the innovations needed in the future.

and entail distortions in the EU carbon price, therefore the Commission should conduct an assessment report of the impacts that the new measures will have on Directive 2003/87/EC establishing the EU’s emissions trading system (ETS), in order to create incentives in the emissions trading system triggering additional energy efficiency measures, rewarding low carbon investments and preparing the ETS sectors for the innovations needed in the future.

Amendment 16
Proposal for a directive
Recital 34 a (new)

Text proposed by the Commission

Amendment

(34a) In order to provide for a framework for long term energy efficiency improvements and to be consistent with the European Council objective to achieve 80-95% greenhouse gas reductions by 2050, it is necessary to adjust the linear factor under the Directive 2003/87/EC.

Amendment 17
Proposal for a directive
Recital 34 b (new)

Text proposed by the Commission

Amendment

(34b) In deciding about the amount of allowances to be withheld, as referred to in Article 19 (5), the Commission should pay attention that this measure does not result in a carbon price that exceeds the price expected to result from the Commission impact assessment in 2008 accompanying the proposals for the energy and climate package (30 EUR).
Amendment 18

Proposal for a directive
Recital 35

Text proposed by the Commission

(35) Directive 2006/32/EC requires Member States to adopt and aim to achieve an overall national indicative energy savings target of 9% by 2016, to be reached by deploying energy services and other energy efficiency improvement measures. That Directive states that the second Energy Efficiency Plan adopted by the Member States shall be followed, as appropriate and where necessary, by Commission proposals for additional measures, including extending the period of application of targets. If a report concludes that insufficient progress has been made towards achieving the indicative national targets laid down by that Directive, these proposals are to address the level and nature of the targets. The impact assessment accompanying this Directive finds that the Member States are on track to achieve the 9% target, which is substantially less ambitious than the subsequently adopted 20% energy saving target for 2020, and therefore there is no need to address the level of the targets.

Amendment

(35) Directive 2006/32/EC requires Member States to adopt and achieve an overall national indicative energy savings target of 9% by 2016, to be reached by deploying energy services and other energy efficiency improvement measures. That Directive states the second Energy Efficiency Plan adopted by the Member States shall be followed by Commission proposals for additional measures. The impact assessment accompanying the Directive finds that the Member States are on track to achieve the 9% target, which is substantially less ambitious than the subsequently adopted 20% energy saving target for 2020 and therefore there is need to address the level of the individual national targets as quickly as possible.

Justification

The overall approach in the Directive is to be changed. The Commission did not propose binding targets but instead suggested a multitude of binding measures and this decreases the flexibility for Member States without ensuring that the overall 20% target is achieved. Therefore, this is reversed in order to achieve the target while giving the Member States freedom to choose from several non-binding measures.
Amendment 19

Proposal for a directive
Recital 37

Text proposed by the Commission

(37) Since the objective of this Directive, which is to achieve the Union's energy efficiency target of 20% primary energy savings by 2020 and pave the way towards further energy efficiency improvements beyond 2020, is not on track to be achieved by the Member States without taking additional energy efficiency measures, and can be better achieved at Union level, the Union may adopt measures, in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty on European Union. In accordance with the principle of proportionality, as set out in that Article, this Directive does not go beyond what is necessary in order to achieve that objective.

Amendment

(37) Since the objective of this Directive, which is to achieve the Union's energy efficiency target of 20% primary energy savings by 2020 and pave the way towards further energy efficiency improvements beyond 2020, is not on track to be achieved by the Member States without taking additional energy efficiency measures, and can be better achieved at Union level, the Union may adopt measures, in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty on European Union. Common action at Union level in the field of energy efficiency will reduce the costs of energy efficient products and services and increase business opportunities for industries involved in energy efficiency. It is worthwhile to create a common market for energy efficient products and services. The authors of the treaties have explicitly included energy efficiency in the treaties, which creates a duty to act in this field. In accordance with the principle of proportionality, as set out in that Article, this Directive does not go beyond what is necessary in order to achieve that objective.

Amendment 20

Proposal for a directive
Recital 37 a (new)

Text proposed by the Commission

(37a) When targets and indicators are established, account should be taken of the differences between the respective situations of the various Member States
and, in particular, their climatic conditions, economic situation and predicted growth.

Amendment 21

Proposal for a directive
Recital 38

Text proposed by the Commission

(38) In order to permit adaptation to technical progress and changes in the distribution of energy sources, the power to adopt acts in accordance with Article 290 of the Treaty on the Functioning of the European Union should be delegated to the Commission in respect of certain matters. It will be of particular importance that the Commission carry out consultations during its preparatory work, including at expert level.

Amendment

(38) In order to permit adaptation to technical progress and changes in the distribution of energy sources, the power to adopt acts in accordance with Article 290 of the Treaty on the Functioning of the European Union should be delegated to the Commission in respect of certain matters. The Commission should carry out consultations during its preparatory work, including with the corresponding committee at the European Parliament, and at expert level.

Amendment 22

Proposal for a directive
Article 1 - paragraph 1

Text proposed by the Commission

1. This Directive establishes a common framework for the promotion of energy efficiency within the Union in order to ensure the achievement of the Union's target of 20% primary energy savings by 2020 and to pave the way for further energy efficiency improvements beyond that date.

Amendment

1. This Directive establishes a common framework for the promotion of energy efficiency within the Union in order to achieve at least the Union's target of 20% primary energy savings compared to the projections of 2007 by 2020, which amount to an annual primary energy consumption of 1470.5 Mtoe, and pave the way for further energy efficiency improvements for 2030 and beyond.

It lays down rules designed to remove barriers in the energy market and overcome market failures that impede efficiency in the supply and use of energy, and provides
for the establishment of national energy efficiency targets for 2020. regards small consumers, small and micro enterprises and perverse incentives for large energy producers promoting energy efficiency, and provides for the establishment of national energy efficiency targets for 2020.

1 Commission Non-Paper: Achieving 20 % Energy Efficiency

Amendment 23
Proposal for a directive
Article 2 – paragraph 1 – point 6 a (new)

Text proposed by the Commission

Amendment

6a. "closed distribution system" means a system which distributes energy products within a geographically confined industrial, commercial or shared service site and does not supply household customers except incidental use by a smaller number of households with employment or similar associations with the owner of the distribution system and located within the area served by a closed system.

Justification

This is a consequence of the amendment on Article 6 paragraph 1 new subparagraph. The definition relates to Article 28 of the Directive 2009/72/EC and Article 28 of the Directive 2009/73/EC on the internal market in electricity and natural gas.

Amendment 24
Proposal for a directive
Article 2 – paragraph 1 – point 11 a (new)

Text proposed by the Commission

Amendment

11a. "Demand Response" means changes in electric usage by end-use customers/micro generators from their current/normal consumption/injection patterns in response to changes in
electricity prices and/or incentive payments designed to adjust electricity usage, or in response to acceptance of the consumer’s bid, alone or through aggregation, to sell demand reduction at a price in an organized electricity markets or to a retail provider. Demand Response programs are designed to increase the efficiency of the energy value chain and/or increase the consumption and integration of intermittent renewables.

Justification

Demand response is a key concept which shall be defined in the Directive since it is relatively new but has a huge potential both economically and environmentally. Demand response improves energy efficiency of supply and demand by unlocking demand-side capacity.

Amendment 25

Proposal for a directive
Article 2 – paragraph 1 – point 12

Text proposed by the Commission

12. ‘energy audit’ means a systematic procedure to obtain adequate knowledge of the existing energy consumption profile of a building or group of buildings, an industrial or commercial operation or installation or a private or public service, identify and quantify cost-effective energy savings opportunities, and report the findings;

Amendment

12. ‘energy audit’ means a systematic procedure to obtain adequate knowledge of the existing energy consumption profile of a building or group of buildings, an industrial or commercial operation or installation or a private or public service, identify and quantify cost-effective energy savings opportunities, taking into account health impacts, and report the findings;

Justification

When assessing cost-effective energy savings opportunities, impacts on health should be taken into account in order to ensure a balance between good indoor air quality, moisture control and comfort and an increase in energy efficiency.

Amendment 26

Proposal for a directive
Article 2 – paragraph 1 – point 13
Text proposed by the Commission

13. ‘energy performance contracting’ means a contractual arrangement between the beneficiary and the provider of an energy efficiency improvement measure, according to which the payment for the investment made by the provider is in relation to a contractually agreed level of energy efficiency improvement or other agreed energy performance criterion, such as financial savings;

Amendment

13. 'energy performance contracting’ means a contractual arrangement between the beneficiary and the provider (normally an energy service company, "ESCO") of an energy efficiency improvement measure, verified and monitored during the whole term of the contract, where investments (work, supply or service) in that measure are paid for in relation to a contractually agreed level of energy efficiency improvement or other agreed energy performance criterion.

Amendment 27

Proposal for a directive
Article 2 – paragraph 1 – point 24 a (new)

Text proposed by the Commission

24a. 'micro technologies to generate energy’ means a variety of small-scale electrical and heat generation technologies that can be installed and used in individual households;

Amendment

24a. 'micro technologies to generate energy’ means a variety of small-scale electrical and heat generation technologies that can be installed and used in individual households;

Amendment 28

Proposal for a directive
Article 2 – paragraph 1 – point 27 a (new)

Text proposed by the Commission

27a. 'Deep renovation’ means a refurbishment that reduces both the delivered and the final energy consumption of a building by at least 80% compared with the pre-renovation levels.
Amendment 29
Proposal for a directive
Article 3 – paragraph 1

Text proposed by the Commission

1. Member States shall set a national energy efficiency target expressed as an absolute level of primary energy consumption in 2020. When setting these targets, they shall take into account the Union's target of 20% energy savings, the measures provided for in this Directive, the measures adopted to reach the national energy saving targets adopted pursuant to Article 4(1) of Directive 2006/32/EC and other measures to promote energy efficiency within Member States and at Union level.

Amendment

1. Each Member State shall ensure that its national absolute level of primary energy consumption is at least below its target as set out in Annex Ia. Such mandatory national targets ensure the achievement of the Union's target of 20% primary energy savings by 2020, requiring a reduction of EU primary energy consumption of 368 Mtoe in 2020. The national energy efficiency targets shall take into account the measures provided for in this Directive.

Amendment 30
Proposal for a directive
Article 3 – paragraph 1 a (new)

Text proposed by the Commission

1a. The Member States shall ensure that policies and measures are implemented to ensure that their primary energy consumption equals or is below the 2020 target set out in Annex Ia.

Amendment

Amendment 31
Proposal for a directive
Article 3 – paragraph 2

Text proposed by the Commission

2. By 30 June 2014, the Commission shall assess whether the Union is likely to achieve its target of 20% primary energy savings by 2020, requiring a reduction of EU primary energy consumption of 368

Amendment

2. By 30 June 2014, the Commission shall come forward with a proposal for energy efficiency targets for 2030.
Mtoe in 2020, taking into account the sum of the national targets referred to in paragraph 1 and the evaluation referred to in Article 19(4).

Amendment 32
Proposal for a directive
Article 3a (new)

Text proposed by the Commission

Amendment

Article 3a

Building stock

1. Member States shall draft national strategies to reduce the energy consumption of the national existing building stock.

2. The national strategies shall include legislative, financial, and training measures to achieve a reduction of energy consumption of the exiting building stock by 80% compared to 2010 levels by 31 December 2050, mainly through deep renovations.

3. The national strategies shall also include the following intermediate objectives:

   (a) a reduction of energy consumption of the existing building stock by 30% compared to 2010 levels by 31 December 2030.

   (b) a reduction of energy consumption of the exiting building stock by 60% compared to 2010 levels by 31 December 2040.

They shall allow, when constructing public buildings, for carbon dioxide emissions from building materials, for the energy consumption brought about by the
manufacture of building materials, and for the lifetime environment-friendliness of building materials, and promote the use of renewable natural resources, such as wood, in construction work.

4. Member States may adopt differentiated approaches for commercial, residential and public buildings and may start by tackling the worst performing buildings first. These approaches shall ensure measured reductions of delivered or final energy consumption (kWh and KWh/m² or equivalent) as defined in Directive 2010/31 EU, Annex I, of at least 20%, 40% and 80% by 2020, 2030 and 2045, respectively.

5. Member States shall base their national strategies and measures for the private buildings sector and social housing on incentives.

Amendment 33

Proposal for a directive

Article 3b (new)

Text proposed by the Commission

Amendment

Article 3b

Indicative long-term targets

The long-term indicative energy efficiency target for the Union shall be 33.3 % until 2030, 46.6 % thereafter until 2040, and 60 % thereafter until 2050, expressed as an absolute level of reduction in primary energy consumption.

Justification

2020 is not far off. The business actors need long-term planning security. To achieve our target of 80-95 % reduction of CO₂, an increase of the share of renewables in the energy mix and a further improvement of energy efficiency are important.
Amendment 34

Proposal for a directive
Article 4 – paragraph 1

Text proposed by the Commission

1. Without prejudice to Article 7 of Directive 2010/31/EU, Member States shall ensure that as from 1 January 2014, 3% of the total floor area owned by their public bodies is renovated each year to meet at least the minimum energy performance requirements set by the Member State concerned in application of Article 4 of Directive 2010/31/EU. The 3% rate shall be calculated on the total floor area of buildings with a total useful floor area over 250 m² owned by the public bodies of the Member State concerned that, on 1 January of each year, does not meet the national minimum energy performance requirements set in application of Article 4 of Directive 2010/31/EU.

Amendment

1. Without prejudice to article 7 of Directive 2010/31, Member States shall ensure that as from 1 January 2014, 2,5% of the energy consumption (KWh and KWh/m² or equivalent) of buildings owned or newly leased or newly rented by public bodies is reduced each year.

Amendment 35

Proposal for a directive
Article 4 – paragraph 1 a (new)

Text proposed by the Commission

1a. Member States shall establish a national effort-sharing mechanism for achieving the 2,5% target applicable to public buildings. In establishing this effort-sharing mechanism, they shall take into account the financial resources of regional and local authorities and the practical possibilities of renovating such buildings. They shall support their regional and local public bodies, for example by improving access to contracting and intracting.

Amendment

1a. Member States shall establish a national effort-sharing mechanism for achieving the 2,5% target applicable to public buildings. In establishing this effort-sharing mechanism, they shall take into account the financial resources of regional and local authorities and the practical possibilities of renovating such buildings. They shall support their regional and local public bodies, for example by improving access to contracting and intracting.
Specific attention shall be paid to ensuring good indoor air quality through adequate ventilation requirements and the use of low-emission building materials, equipment and products.

Amendment 36

Proposal for a directive
Article 4 – paragraph 2

Text proposed by the Commission

2. Member States may allow their public bodies to count towards their annual renovation rate the excess of renovated building floor area in a given year as if it has instead been renovated in any of the two previous or following years.

Amendment

2. Member States may allow their public bodies to count towards their annual renovation rate the excess of renovated building floor area in a given year as if it has instead been renovated in any of the three previous or following years.

Amendment 37

Proposal for a directive
Article 4 – paragraph 3 – introductory part

Text proposed by the Commission

3. For the purposes of paragraph 1, by 1 January 2014, Member States shall establish and make publicly available an inventory of buildings owned by their public bodies indicating:

Amendment

3. For the purposes of paragraph 1, by 1 January 2014, Member States shall establish and make publicly available an inventory of buildings owned or newly leased or newly rented by their public bodies indicating:

Amendment 38

Proposal for a directive
Article 4 – paragraph 4 – points b, b a (new) and b b (new)

Text proposed by the Commission

(b) put in place an energy management system as part of the implementation of

Amendment

(b) put in place an energy management system as part of the implementation of
The energy efficiency plan and management system shall take due account of health risks and beneficial measures.

(ba) allow, when constructing public buildings, for carbon dioxide emissions from building materials, for the energy consumption brought about by the manufacture of building materials, and for the lifetime environment-friendliness of building materials, and promote the use of renewable natural resources, such as wood, in construction work.

(bb) put in place contracts for energy services aimed at keeping or improving energy efficiency in the long term, including energy performance contracting.

Amendment 39
Proposal for a directive
Article 4 – paragraph 4 a (new)

Text proposed by the Commission

4a. As an alternative approach to paragraphs 1 and 2, Member States may take other measures to achieve an equivalent amount of energy savings (opt-out). For the purpose of this alternative approach, they may estimate the energy savings that paragraphs 1 and 2 would result in by using appropriate standard values. Member states may use the alternative approach to Article 4 (1) to value the specific architectural or historical merit of buildings or ensembles officially protected, to assess and promote their traditional features which respond to energy performance requirements, and to consider measures to improve specific
cases without altering their authenticity.

They constantly monitor the progress in developing new technologies, especially in this case. Member States may also apply this approach for municipalities in respect to the principle of subsidiarity.

When considering alternative measures, Member States should mainly address to overachieve the target in article 3a designed for private buildings.

Member States opting for this alternative approach shall notify to the Commission, by 1 January 2013 at the latest, the alternative measures that they plan to adopt and showing how they would achieve an equivalent improvement of the energy performance of public or private buildings. The Commission examines these measures and rejects or amends them if appropriate.

The Commission shall constantly monitor the progress achieved through the alternative measures in the Member States. If the savings achieved through these measures do not add up to the amount of energy savings required in paragraph 1, the Commission shall inform the Member State and make proposals to improve the measures. If after due consideration these proposals or other measures which the Member States and the Commission agree on are not implemented by the Member State, the Commission shall decide to apply the binding measure referred to in paragraph 1.

Amendment 40

Proposal for a directive
Article 5 – paragraph 1
Member States shall **ensure** that public bodies purchase only products, services and buildings with high energy efficiency performance, *as referred to in Annex III.*

Member States shall **encourage as far as possible**, public bodies to purchase only products, services and buildings with high energy efficiency performance *in a cost-effective manner.* Public bodies will thus be taking into account cost-effectiveness, economical feasibility and technical arrangements as well as sufficient competition.

Member States shall encourage the development and uptake of energy services, *as defined in Article 2.3.* In this respect, public bodies shall assess the possibility of concluding long term energy performance contracts as referred to in Article 14b.

**Justification**

The overall approach to in the Directive is to be changed. The Commission did not propose binding targets but instead suggested a multitude of binding measures and this decreases the flexibility for Member States without ensuring that the overall 20% target in achieved. Therefore, this is reversed in order to achieve the target while giving the Member States freedom to choose from several non-binding measures.

**Amendment 41**

**Proposal for a directive**

**Article 6 – paragraph 1**

**Text proposed by the Commission**

1. Each Member State shall set up an energy efficiency obligation scheme. This scheme shall ensure that either all energy distributors or all retail energy sales companies operating on the Member State's territory achieve annual energy savings equal to 1.5% of their energy sales, by volume, *in the previous year* in that Member State **excluding energy used in transport.** This amount of energy savings shall be achieved by the obligated parties

**Amendment**

1. Each Member State shall set up an energy efficiency obligation scheme. This scheme shall ensure that either all energy distributors and/or all retail energy sales companies operating on the Member State's territory achieve **additional** annual *end-use* savings equal to *at least* 1.5% of their annual energy sales, by volume, *averaged over the most recent three year period* in that Member State. *The Commission shall make an assessment of possible double regulation in the transport sector.* This
among final customers.

amount of energy savings shall be achieved by the obligated parties among final customers.

Amendment 42

Proposal for a directive
Article 6 - paragraph 4

<table>
<thead>
<tr>
<th>Text proposed by the Commission</th>
<th>Amendment</th>
</tr>
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<tbody>
<tr>
<td>4. Member States shall ensure that the savings claimed by obligated parties are calculated in accordance with Annex V(2). They shall put in place control systems under which at least a statistically significant proportion of the energy efficiency improvement measures put in place by the obligated parties is independently verified.</td>
<td>4. Member States shall ensure that the savings claimed by obligated parties are calculated in accordance with Annex V(2). They shall put in place independent measurement, control and verification systems under which at least a statistically significant proportion of the energy efficiency improvement measures put in place by the obligated parties is independently verified.</td>
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Amendment 43

Proposal for a directive
Article 6 – paragraph 5 – introductory part, points a, b, c and c a (new)

<table>
<thead>
<tr>
<th>Text proposed by the Commission</th>
<th>Amendment</th>
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<tr>
<td>5. Within the energy efficiency obligation scheme, Member States may: (a) include requirements with a social aim in the saving obligations they impose, including by requiring measures to be implemented in households affected by energy poverty or in social housing;</td>
<td>5. Within the energy efficiency obligation scheme, Member States shall (a) include mandatory requirements with a social aim in the saving obligations they impose, including by requiring measures to be implemented in low-income households affected by energy poverty or in social housing; These measures must be decided in consultation with the public authorities.</td>
</tr>
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</table>
(b) permit obligated parties to count towards their obligation certified energy savings achieved by energy service providers or other third parties; in this case they shall establish an accreditation process that is clear, transparent and open to all market actors, and that aims at minimising the costs of certification;

(c) allow obligated parties to count savings obtained in a given year as if they had instead been obtained in any of the two previous or two following years.

(b) permit obligated parties to count towards their obligation certified energy savings achieved by energy service providers or other third parties; in this case they shall ensure that an accreditation process is in place that is clear, transparent and open to all market actors, and that aims at minimising the costs of certification;

(c) allow obligated parties to count savings obtained in a given year as if they had instead been obtained in any of the two previous or two following years, so as to enhance the system’s flexibility;

(ca) take special measures to address the perverse incentives that exist when energy distributors and retail energy sales companies are also energy producers.

Amendment 44

Proposal for a directive
Article 6 – paragraph 6 – point (c a) (new)

Text proposed by the Commission

(ca) any costs passed through to their customers, while preserving the integrity and confidentiality of private or commercially sensitive information in compliance with applicable European Union legislation;

Amendment

Justification

More emphasis should be given to the principle of incentives. The burden of proof in case the incentive is challenged as unjustifiable state aid should be with the Commission and not with the Member State that wants to give incentives.
Amendment  45
Proposal for a directive
Article 6 – paragraph 6a (new)

Text proposed by the Commission

6a. Using all the information in Article 6(6), national regulatory authorities shall publish annual reports on whether energy efficiency obligation schemes are meeting their objectives at the lowest possible cost to consumers. The national regulatory authorities shall also regularly commission independent reviews on the impacts that the scheme has on energy bills and fuel poverty as well as the energy savings from the scheme to ensure maximum cost-effectiveness. Member States shall be required to take these impacts into account through scheme adjustments.

Amendment  46
Proposal for a directive
Article 6 – paragraph 8

Text proposed by the Commission

8. Member States may exempt small energy distributors and small retail energy sales companies, namely those that distribute or sell less than the equivalent of 75 GWh of energy per year, employ fewer than 10 persons or have an annual turnover or annual balance sheet total that does not exceed EUR 2,000,000, from the application of this Article. Energy produced for self use shall not count towards these thresholds.

Amendment

8. Member States may exempt small energy distributors and small retail energy sales companies, namely those that distribute or sell less than the equivalent of 200 GWh of energy per year, employ fewer than 50 persons or have an annual turnover or annual balance sheet total that does not exceed EUR 8,000,000, from the application of this Article. Energy produced for self use shall not count towards these thresholds.
Amendment 47

Proposal for a directive
Article 6 – paragraph 8 a (new)

Text proposed by the Commission

8a. The Member States ensure that the energy distributors or retail energy sales companies cooperate with specialized providers during the implementation of measures to achieve energy savings among final customers. By means of an energy service concept worked out by the interest groups of the market partners, an agreement shall be reached as to which specific offers of the market partners can be reasonably brought together and offered co-operatively at the local level.

Amendment 48

Proposal for a directive
Article 6 – paragraph 8 b (new)

Text proposed by the Commission

8b. Sales or deliveries of energy products shall not result in energy savings obligations of paragraph 1, if

- they consist of unavoidable gas from steel production; or

- they are delivered or sold mainly to own sites and subsidiaries; or

- they are conducted within "closed distribution systems"
Amendment 49

Proposal for a directive
Article 6 – paragraph 9

Text proposed by the Commission

9. As an alternative to paragraph 1, Member States may opt to take other measures to achieve energy savings among final customers. The annual amount of energy savings achieved through this approach shall be equivalent to the amount of energy savings required in paragraph 1. Member States opting for this option shall notify to the Commission, by 1 January 2013 at the latest, the alternative measures that they plan to adopt, including the rules on penalties referred to in Article 9, and demonstrating how they would achieve the required amount of savings. The Commission may refuse such measures or make suggestions for modifications in the 3 months following notification. In such cases, the alternative approach shall not be applied by the Member State concerned until the Commission expressly accepts the resubmitted or modified draft measures.

Amendment

9. As an alternative to paragraph 1, Member States may opt to take other measures to achieve additional energy savings among final customers (opt-out). The annual amount of additional energy savings achieved through this approach shall be equivalent to the amount of energy savings required in paragraph 1. Member States opting for this option shall notify to the Commission, by 1 January 2013 at the latest, the alternative measures that they plan to adopt, including the rules on penalties referred to in Article 9, and demonstrating how they would achieve the required amount of savings. The Commission may refuse such measures or make suggestions for modifications in the 3 months following notification. In such cases, the alternative approach shall not be applied by the Member State concerned until the Commission expressly accepts the resubmitted or modified draft measures.

The Commission shall constantly monitor the progress achieved through the alternative measures in the Member States. If the savings achieved through these measures do not add up to the amount of energy savings required in paragraph 1, the Commission shall inform the Member State and make proposals to improve the measures. If after due consideration these proposals or other measures which the Member States and the Commission agree on are not implemented by the Member State, the Commission shall decide to apply the binding measure referred to in paragraph
1.

Measures taken under this paragraph shall ensure equal planning reliability as regards the energy saving support systems for all market actors. Financial facilities for energy efficiency must be guaranteed independently of annual changes in the budget, in a continuous and long-term way, if appropriate on a diminishing scale.

Amendment 50

Proposal for a directive
Article 6 – paragraph 10

Text proposed by the Commission

10. If appropriate, the Commission shall establish, by means of a delegated act in accordance with Article 18, a system of mutual recognition of energy savings achieved under national energy efficiency obligation schemes. Such a system shall allow obligated parties to count energy savings achieved and certified in a given Member State towards their obligations in another Member State.

Amendment

deleted

Amendment 51

Proposal for a directive
Article 6 – paragraph 10 a (new)

Text proposed by the Commission

10a. When encouraging energy
companies to achieve the energy efficiency objectives set out in Article 1(2), Member States should be urged to include the whole value-creation chain, from energy production through distribution to consumption.

Amendment 52

Proposal for a directive
Article 7 – paragraph 1 a (new)

Text proposed by the Commission

Amendment

a. Member States shall ensure that national incentive schemes are put in place to refund audit costs to those companies that implement an acceptable share of proposed measures from the recommendations of their energy audits, and to provide further incentives to implement those measures.

Amendment 53

Proposal for a directive
Article 7 – paragraph 2

Text proposed by the Commission

2. Member States shall ensure that enterprises not included in the second subparagraph of paragraph 1 are subject to an energy audit carried out in an independent and cost-effective manner by qualified or accredited experts at the latest by 30 June 2014 and every three years from the date of the previous energy audit.

Amendment

2. Member States shall ensure that enterprises not included in the second subparagraph of paragraph 1 are subject to an energy audit carried out in an independent and cost-effective manner by qualified and/or accredited experts at the latest by 30 June 2014 and every three years from the date of the previous energy audit. Audits may be carried out by in-house experts, provided that these are qualified and accredited, that they are not directly engaged in the activity audited, and that the Member State has put in...
place a scheme to assure and check their quality.

Justification

For large companies, in which energy is a major part of operating costs, energy audits or energy/environmental management systems are already recognised as essential tools to monitor and optimise energy consumption. It is therefore important to allow the possibility for these large enterprises to be able to carry out energy audits by in-house staff, as long as they are appropriately trained and certified to do so.

Amendment 54

Proposal for a directive
Article 7 – paragraph 2 a (new)

<table>
<thead>
<tr>
<th>Text proposed by the Commission</th>
<th>Amendment</th>
</tr>
</thead>
<tbody>
<tr>
<td>2a. Member States shall provide small and medium-sized enterprises, and where appropriate, households with incentives and financial support, such as tax rebates or subsidies, to cover totally or partly the costs of an energy audit, to implement energy management systems, to perform lifecycle cost assessments of energy-using facilities or to implement the recommendations of an energy audit or to reduce their energy dependence.</td>
<td></td>
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</tbody>
</table>

Justification

More emphasis should be given to the principle of incentives. The burden of proof in case the incentive is challenged as unjustifiable state aid should be with the Commission and not with the Member State that wants to give incentives.

Amendment 55

Proposal for a directive
Article 7 – paragraph 3

<table>
<thead>
<tr>
<th>Text proposed by the Commission</th>
<th>Amendment</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Energy audits carried out in an independent manner resulting from energy management systems or implemented</td>
<td>3. Energy audits carried out in an independent manner resulting from energy management systems or implemented</td>
</tr>
</tbody>
</table>
under voluntary agreements concluded between organisations of stakeholders and an appointed body and supervised by the Member State concerned or by the Commission, shall be considered as fulfilling the requirements of paragraph 2.

The requirement for independence allows the audits to be carried out by in-house experts, provided that these are qualified or accredited, that they are not directly engaged in the activity audited, and that the Member State has put in place a scheme to assure and check their quality and to impose sanctions if needed.

Justification

The provision of Recital 20 on in-house experts should also be included in the article.

Amendment 56

Proposal for a directive  
Article 7 – paragraph 4

Text proposed by the Commission

4. Energy audits may stand alone or be part of a broader environmental audit.

Amendment

4. Energy audits may stand alone or be part of a broader environmental audit. As a minimum requirement, such audits shall include a health impact assessment.

Amendment 57

Proposal for a directive  
Article 7 – paragraph 4 a (new)

Text proposed by the Commission

4a. Energy audits and energy management systems implemented under this article shall not exclude the same or similar measures to be used as a justification for existing or future financial incentive and support schemes such as tax rebates. If necessary, the European state aid guidelines in this field
and Directive 2003/96/EC are to be adapted accordingly.

Justification

The energy audits and energy management systems should not prevent existing or future incentive and support schemes of Member States. Tax rebates have proven to be a good incentive to establish energy management systems.

Amendment 58

Proposal for a directive
Article 7 – paragraph 4 b (new)

<table>
<thead>
<tr>
<th>Text proposed by the Commission</th>
<th>Amendment</th>
</tr>
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<tbody>
<tr>
<td>4b. No later than 30 June 2013, the Commission shall adopt, by means of delegated acts, general criteria on which energy audits shall be based.</td>
<td></td>
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</tbody>
</table>

Amendment 59

Proposal for a directive
Article 8 – paragraph 1 – subparagraph 1

<table>
<thead>
<tr>
<th>Text proposed by the Commission</th>
<th>Amendment</th>
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<tbody>
<tr>
<td>Member States shall ensure that final customers for electricity, natural gas, district heating or cooling and district-supplied domestic hot water are provided with individual meters that accurately measure and allow to make available their actual energy consumption and provide information on actual time of use, in accordance with Annex VI.</td>
<td></td>
</tr>
<tr>
<td>Member States shall ensure that final customers for electricity, natural gas, district heating or cooling and district-supplied domestic hot water are provided with individual meters that accurately measure and allow to make available their actual energy consumption and provide information on actual time of use, in accordance with Annex VI. <strong>Meters must be cost-effective and must improve the energy efficiency of households.</strong></td>
<td></td>
</tr>
</tbody>
</table>

Amendment 60

Proposal for a directive
Article 8 – paragraph 1 – subparagraph 2
When Member States put in place the roll-out of smart meters foreseen by Directives 2009/72/EC and 2009/73/EC concerning electricity and gas markets, **they shall ensure that the objectives of energy efficiency and final customer benefits are fully taken into account when establishing the minimum functionalities of the meters and obligations imposed on market participants.**

**Amendment**

When Member States put in place the roll-out of smart meters, **these should be subject to a full cost-benefit analysis of the consumer interest, as foreseen by Directives 2009/72/EC and 2009/73/EC concerning electricity and gas markets.**

When establishing the minimum functionalities of the meters and obligations imposed on market participants, **Member States shall ensure that the objectives of energy efficiency and final customer benefits are fully taken into account. This includes ensuring that smart meters are user-friendly and provide clear, accurate and detailed real-time information on energy consumption in order to enable the final customer to make energy savings.**

**Justification**

The third legislative package for an internal EU gas and electricity market allows Member States to undertake a cost-benefit analysis before smart meters are rolled out. Only where the cost-benefit analysis is positive, should smart meters be installed in 80% of households by 2020. Costly schemes should only be done if they are in the consumer’s interest. The money spent in rolling out smart meters may be better spent on other energy efficiency measures, such as insulation.

**Amendment 61**

**Proposal for a directive**

**Article 8 – paragraph 1 – subparagraph 4**

**Text proposed by the Commission**

*In case of heating and cooling, where a building is supplied from a district heating network, a heat meter shall be installed at the building entry. In multi-apartment buildings, individual heat consumption meters shall also be installed to measure the consumption of heat or cooling for each apartment. Where the use of individual heat consumption meters is not*

**Amendment**

*Member States shall ensure that in buildings with several units (residential and commercial), whose units are supplied with heat and domestic hot water from central systems the consumption is measured for each unit; Member States shall introduce rules for the annual consumption-based cost allocation of heat and domestic hot water in these buildings.*
technically feasible, individual heat cost allocators, in accordance with the specifications in Annex VI(1.2), shall be used for measuring heat consumption at each radiator.

Exceptions are allowed if the installation of measuring devices or the consumption based cost allocation turns out to be technically not feasible, and/or a cost-benefit analysis shows that the costs outweigh the benefits, e.g. in high efficient buildings. The metering of cooling is optional.

Amendment 62

Proposal for a directive
Article 8 – paragraph 3 a (new)

Text proposed by the Commission

3a. Member States shall require national regulatory authorities to test the accessibility and usability for consumers of energy bills on an annual basis. The findings shall be made publically available.

Amendment

Justification

Consumers need to be able to understand their energy bills in order to change their energy consumption. NRAs should therefore be required to test whether consumers are able to understand their bills. By making the information public, consumers will be able to select the companies with the best practice.

Amendment 63

Proposal for a directive
Article 10 - paragraph 1

Text proposed by the Commission

1. By 1 January 2014, Member States shall establish and notify to the Commission a national heating and cooling plan for developing the potential for the application of high-efficiency cogeneration and efficient district heating and cooling, containing the information set out in Annex VII. The plans shall be updated and notified to the Commission every five years. Member States shall ensure by

Amendment

1. By 1 January 2014, Member States shall establish and notify to the Commission a national heating and cooling plan for developing the potential for the application of high-efficiency cogeneration including small- and micro-cogeneration, and efficient district heating and cooling, containing the information set out in Annex VII. The administrative outlay on this should be minimised. The plans shall
means of their regulatory framework that national heating and cooling plans are taken into account in local and regional development plans, including urban and rural spatial plans, and fulfil the design criteria in Annex VII.

be updated and notified to the Commission every five years. Member States shall ensure by means of their regulatory framework that national heating and cooling plans are taken into account in local and regional development plans, including urban and rural spatial plans, and fulfil the design criteria in Annex VII.

**Justification**

**Amendment 64**

**Proposal for a directive**

**Article 10 – paragraph 2**

*Text proposed by the Commission*

2. Member States shall take the necessary measures to develop efficient district heating and cooling infrastructure to *accommodate* the development of high-efficiency cogeneration and the use of heating and cooling from waste heat and renewable energy sources in accordance with paragraphs 1, 3, 6 and 7. When developing district heating and cooling, they shall to the extent possible opt for high-efficiency cogeneration rather than heat-only generation.

*Amendment*

2. Member States shall take the necessary measures to develop efficient district heating and cooling infrastructure to *support* the development of high-efficiency cogeneration *including small* and *micro-cogeneration, and* the use of heating and cooling from waste heat and renewable energy sources in accordance with paragraphs 1, 3, 6 and 7. When developing district heating and cooling, they shall to the extent possible opt for high-efficiency cogeneration rather than heat-only generation.

**Amendment 65**

**Proposal for a directive**

**Article 10 – paragraph 4**

*Text proposed by the Commission*

4. Member States may lay down *conditions for exemption from the provisions of paragraph 3 when:*

*Amendment*

deleted
a) the threshold conditions related to the availability of heat load set out in point 1 of Annex VIII are not met;

b) the requirement in point (b) of paragraph 3 related to the location of the installation cannot be met due to the need to locate an installation close to a geological storage site permitted under Directive 2009/31/EC; or

c) a cost-benefit analysis shows that the costs outweigh the benefits in comparison with the full life-cycle costs, including infrastructure investment, of providing the same amount of electricity and heat with separate heating or cooling. Member States shall notify such conditions for exemption to the Commission by 1 January 2014. The Commission may refuse those conditions or make suggestions for modifications in the 6 months following notification. In such cases, the conditions for exemption shall not be applied by the Member State concerned until the Commission expressly accepts the resubmitted or modified conditions.

Amendment 66

Proposal for a directive
Article 10 - paragraph 7

Text proposed by the Commission

Amendment

7. Member States may lay down conditions for exemption from the provisions of paragraph 6 when:

a) the threshold conditions related to the availability of heat load set out in point 1 of Annex VIII are not met; or
b) a cost-benefit analysis shows that the costs outweigh the benefits in comparison with the full life-cycle costs, including infrastructure investment, of providing the same amount of electricity and heat with separate heating or cooling. Member States shall notify such conditions for exemption to the Commission by 1 January 2014. The Commission may refuse those conditions or make suggestions for modifications in the 6 months following notification. In such cases, the conditions for exemption shall not be applied by the Member State concerned until the Commission expressly accepts the resubmitted or modified conditions.

Amendment 67

Proposal for a directive
Article 10 - paragraph 8

Text proposed by the Commission

8. Member States shall adopt authorisation or equivalent permitting criteria to ensure that industrial installations with a total thermal input exceeding 20 MW generating waste heat that are built or substantially refurbished after [the entry into force of this Directive] capture and make use of their waste heat. Member States shall establish mechanisms to ensure the connection of these installations to district heating and cooling networks. They may require these installations to bear the connection charges and the cost of developing the district heating and cooling networks necessary to transport their waste heat to consumers. 

Amendment

8. Member States shall adopt authorisation or equivalent permitting criteria to ensure that industrial installations with a total thermal input exceeding 20 MW generating waste heat that are built or substantially refurbished after [the entry into force of this Directive] capture and make use of their waste heat. Member States shall establish mechanisms to ensure the connection of these installations to district heating and cooling networks. They may require these installations to bear the connection charges and the cost of developing the district heating and cooling networks necessary to transport their waste heat to consumers.
a) the threshold conditions related to the availability of heat load set out in point 2 of Annex VIII are not met; or

b) a cost-benefit analysis shows that the costs outweigh the benefits in comparison with the full life-cycle costs, including infrastructure investment, of providing the same amount of heat with separate heating or cooling. Member States shall notify such conditions for exemption to the Commission by 1 January 2014. The Commission may refuse those conditions or make suggestions for modifications in the 6 months following notification. In such cases, the conditions for exemption shall not be applied by the Member State concerned until the Commission expressly accepts the resubmitted or modified conditions.

Amendment 68

Proposal for a directive
Article 10 – paragraph 9

Text proposed by the Commission

9. The Commission shall establish by 1 January 2013 by means of a delegated act in accordance with Article 18 a methodology for the cost-benefit analysis referred to in paragraphs 4 (c), 7 (b) and 8(b).

Amendment

9. The Commission shall establish by 1 January 2013 by means of a delegated act in accordance with Article 18 a methodology for the cost-benefit analysis referred to in paragraph 10a(b) and (e).

Amendment 69

Proposal for a directive
Article 10 – paragraph 10 a (new)

Text proposed by the Commission

10a.Member States may partly or
completely opt-out from the obligation of paragraphs 3, 6, and 8 if they guarantee that alternative measures to promote CHP, e.g. through sustainable financial support schemes, are developed and can be guaranteed independent from changes in the annual budget. The Member States, after establishment of the national heating and cooling plans, shall calculate and notify to the Commission the achievable potential amount of energy savings under paragraphs 3, 6 and 8. The Commission shall review these calculations. The equivalent measures shall add up to the same amount of energy savings that has been determined in these calculations.

Member States may achieve part of the savings calculated through other measures, additional to the other paragraphs of this directive, if the analysis of the respective Member State concludes that CHP is not feasible because

a) the threshold conditions related to the availability of heat load set out in point 1 of Annex VIII are not met;

b) a cost-benefit analysis in accordance with paragraph 9 shows that the costs outweigh the benefits in comparison with the full life-cycle costs, including infrastructure investment, of providing the same amount of electricity and heat with separate heating or cooling;

c) the requirement in point (b) of paragraph 3 related to the location of the installation cannot be met due to the need to locate an installation close to a geological storage site permitted under Directive 2009/31/EC; or

d) the installation is located close to a geological storage site permitted under Directive 2009/31/EC; or
e) a cost-benefit analysis in accordance with paragraph 9 shows that the costs allow no competitive return on investments, taking into account the full life-cycle costs, including infrastructure investment, of providing the same amount of electricity and heat with separate heating or cooling;

f) high efficiency gas or coal-fired power stations are to be permitted for economic reasons or to ensure network stability without cogeneration units;

g) the installation is using non-combustion technologies.

Not more than half of these equivalent measures shall be located outside the field of CHP, e.g. through financial incentives.

Member States opting for these options shall notify to the Commission, by 1 January 2013 at the latest, the alternative measures that they plan to adopt, including the rules on penalties referred to in Article 9, and demonstrating how they would achieve the required amount of savings. The Commission may refuse such measures or make suggestions for modifications in the 3 months following notification, especially in cases where no sustainable financial support is guaranteed. In such cases, the alternative approach shall not be applied by the Member State concerned until the Commission expressly accepts the resubmitted or modified draft measures.

The Commission shall constantly monitor the progress achieved through the alternative measures in the Member States. If the savings achieved through these measures do not add up to the amount of energy savings required in paragraph 1, the Commission shall inform the Member State and make proposals to improve the measures. If
after due consideration these proposals or other measures which the Member States and the Commission agree on are not implemented by the Member State, the Commission shall decide to apply the binding measures referred to in paragraphs 3, 6, and 8.

Amendment 70
Proposal for a directive
Article 12 – paragraph 1 a (new)

Text proposed by the Commission

1a. Member States shall ensure that demand-side resources, such as demand response, can be introduced as part of the energy management system.

Amendment

Amendment 71
Proposal for a directive
Article 12 – paragraph 4

Text proposed by the Commission

4. Member States shall ensure the removal of those incentives in transmission and distribution tariffs that unnecessarily increase the volume of distributed or transmitted energy. In this respect, in accordance with Article 3(2) of Directive 2009/72/EC and Article 3(2) of Directive 2009/73/EC, Member States may impose public service obligations relating to energy efficiency on undertakings operating in the electricity and gas sectors.

Amendment

4. Member States shall ensure the removal of those incentives in transmission and distribution tariffs that unnecessarily increase the volume of distributed or transmitted energy, or those that might hamper participation of demand response in balancing and ancillary services. In this respect, in accordance with Article 3(2) of Directive 2009/72/EC and Article 3(2) of Directive 2009/73/EC, Member States may impose public service obligations relating to energy efficiency on undertakings operating in the electricity and gas sectors.

Amendment 72
Proposal for a directive
Article 12 – paragraph 5 – subparagraph 1 – introductory part

**Text proposed by the Commission**
Member States shall ensure that, subject to requirements relating to the maintenance of the reliability and safety of the grid, based on transparent and non-discriminatory criteria defined by the competent national authorities, transmission system operators and distribution system operators in their territory:

**Amendment**
Member States shall ensure that, subject to requirements relating to the maintenance of the reliability and safety of the grid, based on transparent and non-discriminatory criteria defined by the competent national authorities and in compliance with the criteria harmonized at EU level, transmission system operators and distribution system operators in their territory:

Amendment 73

Proposal for a directive
Article 12 - paragraph 5 - subparagraph 3

**Text proposed by the Commission**
Member States may particularly facilitate the connection to the grid system of electricity produced from high-efficiency cogeneration from small scale and micro cogeneration units.

**Amendment**
Member States may particularly facilitate the connection to the grid system of electricity produced from high-efficiency cogeneration from small scale and micro cogeneration units. For micro cogeneration units installed by individual citizens, the relevant authorities shall consider the possibility of replacing authorisations by simple notifications – “install and inform process”- to the competent body.

**Justification**
This proposed change aims at removing unnecessary administrative process applied to micro CHP being installed at individual premises and then at fostering the development of this technology.

Amendment 74

Proposal for a directive
Article 12 – paragraph 5 – subparagraph 3 a (new)
3a. Furthermore, Member States may make provisions for continuous and long-term feed-in tariffs, if appropriate on a diminishing scale, in the case of electricity produced by small scale and micro-cogeneration units.

Justification

Distributed generation of electricity, even at the individual citizen level, is now a reality. Access to the grid system for electricity produced from high-efficiency small scale and micro-CHP units should be facilitated. Member States should therefore make provisions for feed-in tariffs for highly efficient micro-CHP. Such feed-in tariffs could be reduced in a planned manner over time.

Amendment 75

Proposal for a directive
Article 12 – paragraph 7 a (new)

Text proposed by the Commission

7a. Member States shall ensure that national energy regulatory authorities encourage demand response, to participate in a non-discriminatory manner alongside supply in local or regional energy and tertiary reserve markets, if necessary by requiring national regulatory authorities and TSOs to define technical specifications for participation in energy and tertiary reserve markets, on the basis of the technical requirements of these markets and demand response capabilities.

Tender specifications for Demand Response participating in the energy and tertiary reserve markets shall include reasonable specifications on the:

(a) minimum number of kW aggregated capacity needed for participation;

(b) baseline measurement methodology;
(c) minimum number of kW needed for participation per metered location (if any);
(d) duration of demand response activation;
(e) timing of demand response activation;
(f) notice time for activation of demand response;
(g) telemetry requirements;
(h) penalty requirements;
(i) frequency of demand response activation;
(j) intervals between activation;
(k) tender duration timeframe;
(l) the option to bid on positive or negative capacity;
(m) availability payments.

The potential of demand response should be taken fully into account when implementing national capacity adequacy or other energy security related measures. When implementing capacity adequacy schemes, Member States shall ensure that the potential for contribution of Demand Response is fully taken into consideration.

Justification

Without appropriate market participation rules (tender requirements) it is impossible for demand side resources to participate in the markets. This in turn blocks the markets competition from the demand side and blocks new entrants. In markets such as the UK and France, where tender specifications have been adjusted to fit demand side resources, Demand Response is being established now on a commercial level. Adding this article to the Energy Efficiency Directive would therefore be a powerful, one-step measure, toward substantially forwarding the active participation of European consumers in the electricity markets, ensuring that they also are able to benefit financially from Smart Grid rollout.

Amendment 76

Proposal for a directive
Article 12 – paragraph 7 b (new)
7b. Member States shall adopt a Demand Response action plan for the promotion and deployment of demand response in the context of the future action plans for the implementation of smart grids. The plan should include the implementation of appropriate enabling technical specifications for participation of aggregated Demand Response in energy and tertiary reserve markets. Member States shall report to the Commission, by 31 December 2013 and every two years afterwards, on the measures implemented to fulfil the objectives set out in this paragraph.

Justification

Energy Markets and Member States’ infrastructure vary widely. They should therefore have the possibility of defining for themselves how best to ensure that Demand Response is established and how they enable third party entrants and market competition. This will ensure that end consumers are provided the ability to benefit from controlling their consumption periods - to the extent which is reasonable and practicable in a given Member State.

Amendment 77

Proposal for a directive
Article 13 – paragraph 1

1. With a view to achieving a high level of technical competence, objectivity and reliability, Member States shall ensure that, by 1 January 2014, certification schemes or equivalent qualification schemes are available for providers of energy services, energy audits and energy efficiency improvement measures, including for installers of building elements as defined in Article 2(9) of Directive 2010/31/EU. The Member States examine, whether their respective own educational and retraining systems cover
the required knowledge.

Justification

In several Member States efficient systems for vocational education and further training already exist. They guarantee that measures concerning the increase of energy efficiency, energy guidance and energy services are already carried out on a high level of qualification. Therefore it should be clarified that Member States can base actions on existing qualification systems / regulatory frameworks.

Amendment 78

Proposal for a directive
Article 13 – paragraph 2

<table>
<thead>
<tr>
<th>Text proposed by the Commission</th>
<th>Amendment</th>
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<tbody>
<tr>
<td>2. Member States shall make publicly available the certification schemes or equivalent qualification schemes referred to in paragraph 1 and shall cooperate among themselves and with the Commission on comparisons between and recognition of the schemes.</td>
<td>2. Member States shall make publicly available the qualification schemes referred to in paragraph 1 and shall work on comparisons between and recognition of the schemes. This shall be without prejudice to directive 2005/36/EC.</td>
</tr>
</tbody>
</table>

Justification

Directive 2005/36/EC lays down requirements for the mutual recognition of professional qualifications. It has to be clarified that discussions about the recognition of qualification will not interfere with directive 2005/36/EC.

Amendment 79

Proposal for a directive
Article 13 a (new)

<table>
<thead>
<tr>
<th>Text proposed by the Commission</th>
<th>Amendment</th>
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<tr>
<td>Article 13a Information and training 1. Member States shall ensure that information on available energy efficiency mechanisms and financial and legal frameworks is transparent and widely and actively disseminated to all relevant market actors, including...</td>
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EN
consumers, builders, architects, engineers, environmental auditors and installers of building elements as defined in Directive 2010/31/EU. They shall ensure that banks and other financial institutions are informed of the possibilities of participating, including through the creation of public/private partnerships, in the financing of energy efficiency improvement measures.

2. Member States shall establish appropriate conditions and incentives for market operators to provide adequate and targeted information and advice to energy consumers on energy efficiency.

3. Member States, with the participation of stakeholders, including local and regional authorities, shall develop suitable information, awareness-raising and training programmes to inform citizens of the benefits and practicalities of taking energy efficiency improvement measures.

4. The Commission shall ensure that information on best energy-saving practices in Member States is exchanged and widely disseminated.

5. Member States shall ensure that data from smart meters systems provide a detailed base for advice.

6. Member states shall at the latest on year after this legislation enters into force provide a plan to the Commission of the initiatives they are going to take on, the availability of information on available energy efficiency mechanisms and financial and legal frameworks.

Justification

Information and training is key to energy efficiency. The Member States should not be able to avoid responsibility in this field.
Amendment 80
Proposal for a directive
Article 14 - point d a (new)

Text proposed by the Commission
(da) removing the regulatory and non-regulatory barriers to the use of energy performance contracting and other third-party financing arrangements or services for energy savings;

Justification
Contracting and other third-party financing arrangements are an important instrument to generate the necessary financial resources. The third party will take the responsibility for the necessary investment - including the risk - and will benefit partly from the saving. Barriers to this innovative financing instrument must be abolished.

Amendment 81
Proposal for a directive
Article 14 – paragraph 1 – point e a (new)

Text proposed by the Commission
(ea) requiring public authorities to consider the use of Energy Performance Contracting (EPC), when carrying out a buildings renovation;

Amendment 82
Proposal for a directive
Article 14 – paragraph 1 – point e b (new)

Text proposed by the Commission
(eb) monitoring, together with the Commission, the functioning of the market, in view of possible market distortions resulting from the entry on the energy services market by the energy
distributors or retail energy sales companies.

Amendment 83

Proposal for a directive
Article 15 – paragraph 1 – subparagraph 1 – introductory part

<table>
<thead>
<tr>
<th>Text proposed by the Commission</th>
<th>Amendment</th>
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<tbody>
<tr>
<td>Member States shall evaluate and take appropriate measures to remove regulatory and non-regulatory barriers to energy efficiency, notably as regards:</td>
<td>The competent authorities of the Member States shall evaluate and take appropriate measures to remove regulatory and non-regulatory barriers to energy efficiency, notably as regards:</td>
</tr>
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Amendment 84

Proposal for a directive
Article 15 – paragraph 1 – subparagraph 1 – point b a (new)

<table>
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<th>Text proposed by the Commission</th>
<th>Amendment</th>
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<tbody>
<tr>
<td>(ba) provisions on listed buildings which are officially protected as part of a designated environment or because of their special architectural or historic merit with a view to give owners more flexibility to implement energy efficiency measures to these buildings in line with generally accepted conservation practices, i.e. thermal insulation of the outer shell (walls, roof, windows), bearing in mind a balanced weighing of cultural conservation and energy efficiency</td>
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</tbody>
</table>

Justification

Owners of buildings should be allowed to be more flexible in their decisions to implement energy efficiency measures to their buildings.

Amendment 85

Proposal for a directive
Article 15 – paragraph 1 – subparagraph 1 – point b b (new)
Amendment 86

Proposal for a directive
Article 15 – paragraph 1 – subparagraph 1-point b c (new)

Text proposed by the Commission

(b) the removal of regulated prices which do not reflect costs.

Amendment

(b) legal and regulatory provisions, and administrative practices, regarding purchase, installation, authorisation and connecting to the grid of small scale energy generators, with a view to ensuring that households are not deterred from using micro technologies to generate energy.

Amendment 87

Proposal for a directive
Article 16 a (new)

Text proposed by the Commission

Article 16a

Funds and funding mechanisms

1. Without prejudice to Articles 107 and 108 of the Treaty on the Functioning of the European Union, Member States may establish a fund or funds to subsidise the delivery of energy efficiency improvement programmes and measures and to promote the development of a market for energy efficiency improvement measures. Such measures may include the promotion of energy auditing and financial instruments for energy savings. The fund may, among other sources, include the revenues generated by the auctions under the emission trading
scheme.

2. When funds subsidise the delivery of energy efficiency improvement measures, access to funds shall be made conditional upon the actual achievement of energy savings or energy efficiency improvements. Such achievement shall be proved by appropriate means, such as energy performance certificates for buildings or energy labels for products.

Justification

Financial incentives are a key instrument to promote energy efficiency. Member States should be encouraged to use this instrument. The burden of proof in case of a possible state aid should be with DG Competition and not with the Member States. The revenues generated by the ETS are a possible financial source for funds in the Member States.

Amendment 88

Proposal for a directive
Article 17 – paragraph 2 a (new)

<table>
<thead>
<tr>
<th>Text proposed by the Commission</th>
<th>Amendment</th>
</tr>
</thead>
<tbody>
<tr>
<td>2a. No later than 6 months after the entry into force of this Directive, the Commission shall adopt a decision to reduce the number of allowances pursuant to Article 9 of Directive 2003/87/EC by 1.4bn allowances so as to maintain the incentives for investment in energy efficiency measures and low carbon technologies and the level of ambition envisaged in Directive 2003/87/EC.</td>
<td></td>
</tr>
</tbody>
</table>

Justification

There is a need to compensate for the reduced demand for ETS allowances that will result from the implementation of this Directive and the 20% energy saving objective to restore the price mechanism to levels envisaged in the impact assessment on which basis Directive 2003/87/EC was agreed, and to maintain incentives for investments in energy efficiency measures and low carbon energy technologies in installations covered by the ETS.

Amendment 89
Proposal for a directive
Article 19 - paragraph 1

Text proposed by the Commission

1. By 30 April each year, Member States shall report on the progress achieved towards national energy efficiency targets, in accordance with Annex XIV(1).

Amendment

1. By 30 April each year, Member States shall report on the progress achieved towards national energy efficiency targets, in accordance with Annex XIV(1). Every two years the national reports shall be accompanied by supplementary information in accordance with Annex XIV(2).

Amendment 90

Proposal for a directive
Article 19 – paragraph 2

Text proposed by the Commission

2. By 30 April 2014, and every three years thereafter, Member States shall submit supplementary reports with information on national energy efficiency policies, action plans, programmes and measures implemented or planned at national, regional and local level to improve energy efficiency in view of achieving the national energy efficiency targets referred to in Article 3(1). The reports shall be complemented with updated estimates of expected overall primary energy consumption in 2020, as well as estimated levels of primary energy consumption in the sectors indicated in Annex XIV(1).

Amendment

2. By 31 December 2013 at the latest, and every three years thereafter, the Member States shall provide the Commission with national energy efficiency plans which describe how the Member States intend to achieve the national energy efficiency targets referred to in Article 3(1). These plans shall include measures implemented or planned at national, regional and local level to improve energy efficiency.

Amendment 91

Proposal for a directive
Article 19 – paragraph 2 - subparagraph 1 a (new)

Text proposed by the Commission

When setting their national energy efficiency plans, the Member States shall take into account cost-effective energy
efficiency measures and the risk of carbon leakage.

Amendment 92
Proposal for a directive
Article 19 – paragraph 2 - subparagraph 1 b (new)

Text proposed by the Commission

Amendment

When setting their national energy efficiency action plans, Member States shall ensure the promotion of a system approach, e.g. for lighting, at national level, to encourage the use of additional energy saving potentials existing beyond the single product approach.

Amendment 93
Proposal for a directive
Article 19 – paragraph 2 - subparagraph 1 c (new)

Text proposed by the Commission

Amendment

Member States should not set targets for the industries which are exposed to a significant risk of carbon leakage, as determined in Commission Decision 2010/2/EU. Should they nonetheless decide to do so, Member States shall express possible sectoral targets for production processes in these industries in energy use per output unit so as to avoid impeding industrial growth.

Amendment 94
Proposal for a directive
Article 19 – paragraph 4

Text proposed by the Commission

Amendment

4. The Commission shall evaluate the annual reports and supplementary reports and assess the extent to which Member States have made progress towards the achievement of the national energy
efficiency targets required by Article 3(1) and towards the implementation of this Directive. The Commission shall send its assessment to the European Parliament and the Council. Based on its assessment of the reports the Commission may issue recommendations to Member States.

efficiency targets required by Article 3(1), and towards the implementation of this Directive. The Commission shall send its assessment to the European Parliament and the Council. Based on its assessment of the reports the Commission may issue recommendations or suggest modifications to the instruments applied by Member States. If the assessment shows that a Member State is not on track to achieve the national energy efficiency target, the Member State shall, on request of the Commission, revise its national energy efficiency plan referred to in paragraph 2 of this article.

Amendment 95

Proposal for a directive
Article 19 – paragraph 5 - subparagraph 2

Text proposed by the Commission


Amendment


The Commission shall carefully monitor the impact of implementing this directive on Directive 2003/87/EC. Immediately after the entering into force of this directive, the Commission shall present a report to Parliament and Council. This report shall examine, amongst others, the impacts on incentives for investments in low carbon technologies and the risk of carbon leakage. Before the start of the third phase, the Commission shall amend the regulation referred to in article 10 (4) of Directive 2003/87/EC in order to
withhold a significant amount of allowances.

Amendment 96
Proposal for a directive
Article 19– paragraph 7

Text proposed by the Commission

7. By 30 June 2014 the Commission shall submit the assessment referred to in Article 3(2) to the European Parliament and to the Council, followed, if appropriate, by a legislative proposal laying down mandatory national targets.

Amendment

deleted

Amendment 97
Proposal for a directive
Article 22 a (new)

Text proposed by the Commission

Amendment

Article 22a

Amendments to Directive 2003/87/EC

In Article 9 of Directive 2003/87/EC the following paragraph shall be added after the second paragraph:

‘From 2014 onwards the linear reduction factor shall be 2.25%.’

Justification

The linear factor of the ETS cap should be adjusted to the energy efficiency measures as well as to the EU climate objective of achieving at least 80% domestic greenhouse gas emissions reductions by 2050. The 2.25% represents a linear reduction based on shares of emissions of sectors covered by the ETS in 2050 as outlined in the Commission Climate Roadmap 2050.

Amendment 98
Proposal for a directive  
Annex - 1 (new)

Text proposed by the Commission

Amendment

Annex -1

Calculation methodology for national energy efficiency targets

When setting their national energy efficiency targets, Member States shall take into account the methodology laid out below. The baseline for the 2020 primary energy consumption projection is the Primes 2007 model.

Methodology:

Primes 2007 Baseline Projection 2020 in Mtoe - 20% savings

The following correction factors may apply: The reduction targets in absolute terms as compared to their 2007 level of primary energy consumption:

- shall not exceed 8% for the group of the nine EU countries with the lowest real household per capita income (L9),

- shall not exceed 12% for the group of the 15 countries that are eligible under the Cohesion Fund (C15),

- shall not exceed 20% for any country,

- shall not be lower than 12% for any country not eligible under the Cohesion Fund (EU-27 minus C15),

- shall equal at least 5% for any country eligible under the Cohesion Fund (C15),

- shall not represent an absolute increase in energy consumption of more than 5%.

The following targets result:

Belgium

50,2
<table>
<thead>
<tr>
<th>Country</th>
<th>42,7</th>
<th>19,3</th>
<th>17,8</th>
</tr>
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<tbody>
<tr>
<td><strong>Bulgaria</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Czech Republic</strong></td>
<td>43,6</td>
<td>40,1</td>
<td></td>
</tr>
<tr>
<td><strong>Denmark</strong></td>
<td>20,2</td>
<td>16,2</td>
<td></td>
</tr>
<tr>
<td><strong>Germany</strong></td>
<td>314,9</td>
<td>251,9</td>
<td></td>
</tr>
<tr>
<td><strong>Estonia</strong></td>
<td>5,9</td>
<td>5,4</td>
<td></td>
</tr>
<tr>
<td><strong>Ireland</strong></td>
<td>15,8</td>
<td>14,2</td>
<td></td>
</tr>
<tr>
<td><strong>Greece</strong></td>
<td>32,6</td>
<td>28,8</td>
<td></td>
</tr>
<tr>
<td><strong>Spain</strong></td>
<td>138,9</td>
<td>130,7</td>
<td></td>
</tr>
</tbody>
</table>
France
254,8
221,1
Italy
173,3
152,5
Cyprus
2,7
2,4
Latvia
4,7
4,9
Lithuania
7,8
7,8
Luxembourg
4,6
4,0
Hungary
24,7
23,7
Malta
0,9
0,8
Netherlands
Austria
32,0
28,2
Poland
93,1
87,9
Portugal
23,8
24,0
Romania
37,5
39,4
Slovenia
7,0
7,0
Slovak Republic
16,8
16,3
Finland
36,2
29,9
Sweden
48,1
Amendment 99
Proposal for a directive
Annex III – paragraph 1 – point a

Text proposed by the Commission

(a) where a product is covered by a
delegated act adopted under Directive
2010/30/EU or Commission Directive
implementing Directive 92/75/EEC,
purchase only the products that comply
with the criterion of belonging to the
highest energy efficiency class while
taking into account cost-effectiveness,
economical feasibility and technical
suitability, as well as sufficient
competition;

Amendment

(a) where a product is covered by a
delegated act adopted under Directive
2010/30/EU or Commission Directive
implementing Directive 92/75/EEC,
purchase only the products that comply
with the criterion of belonging to the
highest energy efficiency class while
taking into account cost-effectiveness,
health impact, economical feasibility and
technical suitability, as well as sufficient
competition;

Justification

Health concerns should also be taken into account when deciding on purchasing, to facilitate
for example the purchase of products which do not contain substances harmful to human
health.

Amendment 100
Proposal for a directive
Annex III – paragraph 1 – point e

Text proposed by the Commission

(e) require in their tenders for service

Amendment

(e) require in their tenders for service
contracts that service providers use, for the purposes of providing the services in question, only products that comply with the requirements referred to in points (a) to (d), when providing the services in question; contracts that service providers use, for the purposes of providing the services in question, only products that comply with the requirements referred to in points (a) to (d), when providing the services in question. When tendering service contracts, public bodies shall assess the possibility of concluding long term energy performance contracts as referred to in Article 14 (b).

Amendment 101

Proposal for a directive
Annex V – part 2 – paragraph 2 – introductory part

Text proposed by the Commission
Obligated parties may use one or more of the following methods for calculating energy savings for the purposes of Article 6(2):

Amendment
Obligated parties may use one or more of the following methods for calculating energy savings:

Justification
The overall approach to in the Directive is to be changed. The Commission did not propose binding targets but instead suggested a multitude of binding measures and this decreases the flexibility for Member States without ensuring that the overall 20% target in achieved. Therefore, this is reversed in order to achieve the target while giving the Member States freedom to choose from several non-binding measures.

Amendment 102

Proposal for a directive
Annex VI – part 2 – point 2.2-paragraph 1a (new)

Text proposed by the Commission

Member States shall also ensure that a summary box containing the following information is included on the front of each gas and electricity bill:

Amendment
(a) the exact tariff name;
(b) the amount of energy used;
(c) the rate of gas and/or electricity per
kWh and how this is broken down on a daily basis;
(d) how the cost has been calculated;
(e) any discounts the customer is benefiting from and when the discounts end;
(f) any fees the customer will have to pay if he/she changes supplier.

Justification

Consumers need to be able to understand their energy bills in order to change their energy consumption. In conjunction with consumer groups, the Commission has developed a model energy bill, which contains the above summary box. This would allow consumers, at a glance, to understand their bills.

Amendment 103
Proposal for a directive
Annex VII – point 3 – point b

Text proposed by the Commission
(b) new residential zones or new industrial plants which consume heat in their production processes are located in sites where a maximum amount of their heat demand will be met by the available waste heat, as identified in national heating and cooling plans. To ensure an optimal matching between demand and supply for heat and cooling, spatial plans shall favour the clustering of a number of industrial plants in the same location;

Amendment
(b) new residential or tertiary zones, new public or tertiary buildings or new industrial plants which consume heat in their production processes are located in sites where a maximum amount of their heat demand will be met by the available waste heat, as identified in national heating and cooling plans. To ensure an optimal matching between demand and supply for heat and cooling, spatial plans shall favour the clustering of a number of industrial plants in the same location;

Amendment 104
Proposal for a directive
Annex VII – point 3 – point d

Text proposed by the Commission
(d) residential zones and industrial plants which consume heat in their production

Amendment
(d) residential or tertiary zones, public or tertiary building and industrial plants
processes are connected to the local district heating or cooling network.

Amendment 105

Proposal for a directive
Annex 11 – point 2 – introductory part

Text proposed by the Commission

2. Network regulation and tariffs shall allow network operators to offer system services and system tariffs for demand response measures, demand management and distributed generation on organised electricity markets, in particular:

Amendment

2. Network regulation and tariffs shall encourage network operators to promote system services and system tariffs for demand response measures, demand management and distributed generation on organized electricity markets, subject to a cost-effectiveness impact per types of targeted customers (residential, commercial and industrial). Systems services include:

Amendment 106

Proposal for a directive
Annex XI – point 2 – paragraph 2

Text proposed by the Commission

For the purposes of this provision the term ‘organised electricity markets’ shall include over-the-counter markets and electricity exchanges for trading energy, capacity, balancing and ancillary services in all timeframes, including forward, day-ahead and intra-day markets.

Amendment

The potential of demand response should be taken fully into account when implementing regional network capacity adequacy or other energy security related measures. For the purposes of this provision the term ‘organised electricity markets’ shall include over-the-counter markets and electricity exchanges for trading energy, capacity, balancing and ancillary services in all timeframes, including forward, day-ahead and intra-day markets.

Justification

This section must be strengthened in light of the importance of demand response. In parallel, cost-effectiveness assessment must be carried out in order to ensure that promotion of...
demand response will not negatively affect any types of targeted audiences. Industrial storages must furthermore be highlighted.

Amendment 107

Proposal for a directive
Annex XI – point 3 – introductory part

<table>
<thead>
<tr>
<th>Text proposed by the Commission</th>
<th>Amendment</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Network tariffs shall be available that support dynamic pricing for demand response measures by final customers, including:</td>
<td>3. Network tariffs should be available that support dynamic pricing for demand response measures by final customers, including:</td>
</tr>
</tbody>
</table>

Justification

The overall approach to in the Directive is to be changed. The Commission did not propose binding targets but instead suggested a multitude of binding measures and this decreases the flexibility for Member States without ensuring that the overall 20% target in achieved. Therefore, this is reversed in order to achieve the target while giving the Member States freedom to choose from several non-binding measures.

Amendment 108

Proposal for a directive
Annex XIII – indent -1 (new)

<table>
<thead>
<tr>
<th>Text proposed by the Commission</th>
<th>Amendment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contents and methodology of the energy audit</td>
<td></td>
</tr>
</tbody>
</table>

Amendment 109

Proposal for a directive
Annex XIV – part 2 – title

<table>
<thead>
<tr>
<th>Text proposed by the Commission</th>
<th>Amendment</th>
</tr>
</thead>
<tbody>
<tr>
<td>General framework for supplementary reports</td>
<td>General framework for supplementary information</td>
</tr>
</tbody>
</table>
**Justification**

The overall approach to in the Directive is to be changed. The Commission did not propose binding targets but instead suggested a multitude of binding measures and this decreases the flexibility for Member States without ensuring that the overall 20% target in achieved. Therefore, this is reversed in order to achieve the target while giving the Member States freedom to choose from several non-binding measures.

**Amendment 110**

**Proposal for a directive**
**Annex XIV –part 2- paragraph 1**

<table>
<thead>
<tr>
<th>Text proposed by the Commission</th>
<th>Amendment</th>
</tr>
</thead>
</table>
| The reports referred to in Article 19(2) shall provide a framework for the development of national energy efficiency strategies. | The supplementary information referred to in Article 19(1) shall provide a framework for the development of national energy efficiency strategies.
[This amendment applies throughout Annex XIV(2). Adopting it would necessitate corresponding changes throughout Annex XIV(2)] |

**Justification**

The overall approach to in the Directive is to be changed. The Commission did not propose binding targets but instead suggested a multitude of binding measures and this decreases the flexibility for Member States without ensuring that the overall 20% target in achieved. Therefore, this is reversed in order to achieve the target while giving the Member States freedom to choose from several non-binding measures.
## PROCEDURE

<table>
<thead>
<tr>
<th>Title</th>
<th>Energy efficiency, repealing Directives 2004/8/EC and 2006/32/EC</th>
</tr>
</thead>
<tbody>
<tr>
<td>References</td>
<td>COM(2011)0370 – C7-0168/2011 – 2011/0172(COD)</td>
</tr>
<tr>
<td>Committee responsible</td>
<td>ITRE</td>
</tr>
<tr>
<td>Date announced in plenary</td>
<td>7.7.2011</td>
</tr>
<tr>
<td>Committee(s) asked for opinion(s)</td>
<td>ENVI</td>
</tr>
<tr>
<td>Date announced in plenary</td>
<td>7.7.2011</td>
</tr>
<tr>
<td>Rapporteur(s)</td>
<td>Peter Liese</td>
</tr>
<tr>
<td>Date appointed</td>
<td>27.7.2011</td>
</tr>
<tr>
<td>Discussed in committee</td>
<td>26.10.2011  22.11.2011</td>
</tr>
<tr>
<td>Date adopted</td>
<td>20.12.2011</td>
</tr>
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| Result of final vote | +: 52  
-: 3  
0: 0 |
| Substitute(s) present for the final vote | João Ferreira, Matthias Groote, Jutta Haug, Alojz Peterle, Rovana Plumb, Michail Tremopoulos, Peter van Dalen |
| Substitute(s) under Rule 187(2) present for the final vote | Phil Prendergast, Joanna Katarzyna Skrzydlewska |
21.12.2011

OPINION OF THE COMMITTEE ON WOMEN'S RIGHTS AND GENDER EQUALITY

for the Committee on Industry, Research and Energy

(COM(2011)0370 – C7-0168/2011 – 2011/0172(COD))

Rapporteur: Edite Estrela

SHORT JUSTIFICATION

Energy efficiency is one of the key features of the flagship initiative “A resource-efficient Europe” announced in the Europe 2020 strategy. As outlined in the Commission Communication “A Roadmap for moving to a competitive low carbon economy in 2050”, energy efficiency is one of the aspects of low carbon economy that can help to create new jobs both in the short and the medium-term, through increased education, training, programmes to foster acceptability of new technologies, R&D and entrepreneurship.

This proposal for a Directive underlines that shifting to a more energy-efficient economy will also improve the competitiveness of industry in the Union, boosting economic growth and creating high quality jobs in several sectors related to energy efficiency. In order to remove non regulatory barriers to energy efficiency, measures such as the provision of education, training and specific information and technical assistance on energy efficiency are also proposed. From the perspective of the draftspeople, this proposal for a Directive may represent an opportunity to underline the importance of women's access to specialized training in order to reach the targets of energy efficiency and create the possibility for women to be employed in these future new jobs in the sectors related to energy efficiency.

Another aspect which would be underlined by this opinion is that Member States should also promote a social objective within the measures to achieve their energy efficiency targets, by including measures to be implemented in households affected by energy poverty or in social housing. Specific measures and incentives for vulnerable social groups should be provided, to help these households to upgrade the energy efficiency of their homes and to reduce the costs of energy. These measures should be tailored to take into account also the gender perspective.
AMENDMENTS

The Committee on Women's Rights and Gender Equality calls on the Committee on Industry, Research and Energy, as the committee responsible, to incorporate the following amendments in its report:

Amendment 1
Proposal for a directive
Recital 3 a (new)

<table>
<thead>
<tr>
<th>Text proposed by the Commission</th>
<th>Amendment</th>
</tr>
</thead>
<tbody>
<tr>
<td>(3a) In 2010 the Commission adopted a strategy for promoting equality between women and men in Europe aiming in particular to make better use of women's potential, thereby contributing to the EU's overall economic and social goals. The under-representation of women in the energy sector and the lack of gender specific approaches and demands can be observed on national, European and international level; consequently, and in order to implement the EU gender equality strategy at national level, Member States are required to integrate this strategy in the sense of screening of all politics to their different impacts on women and men including research on energy and the sustainable production and consumption of energy in close dialogue with the energy related industry, institutions, organisations and decision makers.</td>
<td></td>
</tr>
</tbody>
</table>

Amendment 2
Proposal for a directive
Recital 16

<table>
<thead>
<tr>
<th>Text proposed by the Commission</th>
<th>Amendment</th>
</tr>
</thead>
<tbody>
<tr>
<td>(16) A number of municipalities and other public bodies in the Member States have already put into place integrated</td>
<td>(16) A number of municipalities and other public bodies in the Member States have already put into place integrated</td>
</tr>
</tbody>
</table>
approaches to energy saving and energy supply, for example via sustainable energy action plans, such as those developed under the Covenant of Mayors initiative, and integrated urban approaches which go beyond individual interventions in buildings or transport modes. Member States should encourage municipalities and other public bodies to adopt integrated and sustainable energy efficiency plans with clear objectives, to involve citizens in their development and implementation and to adequately inform them about their content and progress in achieving objectives. Such plans can yield considerable energy savings, especially if they are implemented by energy management systems that allow the concerned public bodies to better manage their energy consumption. Exchange of experience between cities, towns and other public bodies should be encouraged with respect to the more innovative experiences.

approaches to energy saving and energy supply, for example via sustainable energy action plans, such as those developed under the Covenant of Mayors initiative, and integrated urban approaches which go beyond individual interventions in buildings or transport modes, in order to design "low energy cities and regions". This concept of "low energy cities and regions" considers energy issues as an essential component of urban and regional development embedded in local democratic and governance processes. As a precondition to local integrated and sustainable energy efficiency plans, Member States should encourage local authorities to define such local development strategies based on a dialogue with local public, commercial and social stakeholders, including social partners. Member States should encourage municipalities and other public bodies to adopt integrated and sustainable energy efficiency plans with clear objectives, which also include specific measures to address energy poverty and to promote energy efficiency for vulnerable social groups, including from a gender perspective, to involve local stakeholders, including social partners and citizens in their development and implementation to provide education and training programmes to workers and entrepreneurs to help them develop the required skills, and to adequately inform them and citizens about their content and progress in achieving objectives. Such plans can yield considerable energy savings, especially if they are implemented by energy management systems that allow the concerned public bodies to better manage their energy consumption. Exchange of experience between cities, towns and other public bodies as well as with and between social partners should be encouraged with respect to the more innovative experiences.
Amendment 3
Proposal for a directive
Recital 16 a (new)

Text proposed by the Commission

(16a) Most energy savings in housing are made by women. It is important to promote women's responsibility and training and to create technical and environmental energy experts who can control and follow the energy efficiency of the private building management.

Amendment 4
Proposal for a directive
Recital 18

Text proposed by the Commission

(18) An assessment of the possibility of establishing a "white certificate" scheme at Union level has shown that, in the current situation, such a system would create excessive administrative costs and that there is a risk that energy savings would be concentrated in a number of Member States and not introduced across the Union. The latter objective can better be achieved, at least at this stage, by means of national energy efficiency obligation schemes or other alternative measures that achieve the same amount of energy savings. The Commission should however define, by a delegated act, the conditions under which a Member State could in future recognise the energy savings achieved in another Member State. It is appropriate for the level of ambition of such schemes to be established in a common framework at Union level while providing significant flexibility to Member States to take full account of the national organisation of...
market actors, the specific context of the energy sector and final customers' habits. The common framework should give energy utilities the option of offering energy services to all final customers, not only to those to whom they sell energy. This increases competition in the energy market because energy utilities can differentiate their product by providing complementary energy services. The common framework should allow Member States to include requirements in their national scheme that pursue a social aim, notably in order to ensure that vulnerable customers have access to the benefits of higher energy efficiency. It should also allow Member States to exempt small companies from the energy efficiency obligation. The Commission Communication “Small Business Act” sets out principles that should be taken into account by Member States that decide to abstain from applying this possibility.

**Amendment 5**

**Proposal for a directive**

**Recital 30**

*Text proposed by the Commission*

(30) A sufficient number of reliable professionals competent in the field of energy efficiency should be available to ensure the effective and timely implementation of this Directive, for instance as regards compliance with the requirements on energy audits and implementation of energy efficiency obligation schemes. Member States should therefore put in place certification schemes

*Amendment*

(30) A sufficient number of reliable professionals competent in the field of energy efficiency should be available to ensure the effective and timely implementation of this Directive, while ensuring equal participation of both women and men professionals, for instance as regards compliance with the requirements on energy audits and implementation of energy efficiency
for the providers of energy services, energy audits and other energy efficiency improvement measures.

obligation schemes. Member States should therefore put in place certification schemes for the providers of energy services, energy audits and other energy efficiency improvement measures.

Amendment 6
Proposal for a directive
Recital 30 a (new)

Text proposed by the Commission

Amendment

(30a) Today’s children are tomorrow’s workers, engineers, architects, entrepreneurs and energy users. The decisions they take will influence the way in which society produces and uses energy in the future. Energy education is therefore important so that future generations can be instructed in how to contribute to efficient energy consumption through their lifestyle and personal behaviour.

Amendment 7
Proposal for a directive
Recital 33 a new

Text proposed by the Commission

Amendment

(33a) Appropriate resources should be provided to support specific education, training and information programmes that take into account also the gender perspective. Member States should be encouraged to adapt their vocational education and training curricula to reflect the new qualification needs, while ensuring equal access and participation to these training schemes and specific guidance and information for both women and men.
Amendment 8
Proposal for a directive
Article 4 - paragraph 1

Text proposed by the Commission

(1) Without prejudice to Article 7 of Directive 2010/31/EU, Member States shall ensure that as from 1 January 2014, 3% of the total floor area owned by their public bodies is renovated each year to meet at least the minimum energy performance requirements set by the Member State concerned in application of Article 4 of Directive 2010/31/EU. The 3% rate shall be calculated on the total floor area of buildings with a total useful floor area over 250 m² owned by the public bodies of the Member State concerned, that, on 1 January of each year, does not meet the national minimum energy performance requirements set in application of Article 4 of Directive 2010/31/EU.

Amendment

(1) Without prejudice to Article 7 of Directive 2010/31/EU, Member States shall ensure that as from 1 January 2014, 3% of the total floor area owned by their public bodies is renovated each year to meet at least the minimum energy performance requirements set by the Member State concerned in application of Article 4 of Directive 2010/31/EU. The 3% rate shall be calculated on the total floor area of buildings owned by the public bodies of the Member State concerned, including social housing, that, on 1 January of each year, does not meet the national minimum energy performance requirements set in application of Article 4 of Directive 2010/31/EU.

Amendment 9
Proposal for a directive
Article 4 – paragraph 1 a (new)

Text proposed by the Commission

1a. The participatory processes to improve energy efficiency shall be designed to enable everyone to take part in the energy change. Women in particular need to be integrated into these processes, since they are the main private decision makers and users of efficient energy in private households, and through their daily family interaction they lay the foundations for conscious and sustainable energy use by family members.

Amendment
Amendment 10

Proposal for a directive
Article 4 - paragraph 4 - point a

Text proposed by the Commission

(a) adopt an energy efficiency plan, freestanding or as part of a broader climate or environmental plan, containing specific energy saving objectives, with a view to continuously improving the body's energy efficiency;

Amendment

(a) adopt an integrated and sustainable energy efficiency plan, freestanding or as part of a broader climate or environmental plan, containing specific energy saving objectives and also specific measures to address energy poverty with a view to continuously improving the body's energy savings and efficiency;

Amendment 11

Proposal for a directive
Article 6 - paragraph 4 a new

Text proposed by the Commission

(4a) Member States shall include requirements with a social aim in the saving obligations they impose, including by requiring measures to be implemented in households affected by energy poverty or in social housing, taking into account the needs of vulnerable social groups and providing appropriate incentives to upgrade the energy efficiency of their households.

Amendment

(4a) include requirements with a social aim in the saving obligations they impose, including by requiring measures to be implemented in households affected by energy poverty or in social housing;

Amendment 12

Proposal for a directive
Article 6 - paragraph 5 - point a

Text proposed by the Commission

(a) include requirements with a social aim in the saving obligations they impose, including by requiring measures to be implemented in households affected by energy poverty or in social housing;

Amendment

deleted
Amendment 13
Proposal for a directive
Article 6 – paragraph 5 a (new)

Text proposed by the Commission

5a. Member States are called on to incorporate women’s skills in the area of 'sustainable housekeeping'. They are in a position to provide education and advice on the spot. Education would include, for example, planned shopping to avoid purchasing inappropriate quantities, the conscious use of food to avoid food waste, paying attention to energy efficiency classes when purchasing new household appliances, appropriate heating and ventilation and the energy-conscious use of household appliances.

Amendment 14
Proposal for a directive
Article 6 – paragraph 7 a (new)

Text proposed by the Commission

7a. Member States contribute inter alia through adequate financing of training programmes, to ensuring that information and consultation rights explicitly extend to include energy efficiency.

Amendment 15
Proposal for a directive
Article 6 – paragraph 10 a (new)

Text proposed by the Commission

10a. The Commission contributes inter alia through inclusion of a chapter dedicated to energy efficiency in training
programmes for social partners and through adequate financing of these programmes, to ensuring that the remit of European social dialogue bodies (European Works’ Councils, European sectoral social dialogue committees, European works’ councils employment-skill) is extended to include energy efficiency.

Amendment 16
Proposal for a directive
Article 15 - paragraph 1 - subparagraph 2

Text proposed by the Commission
These measures to remove barriers may include providing incentives, repealing or amending legal or regulatory provisions, or adopting guidelines and interpretative communications. These measures may be combined with the provision of education, training and specific information and technical assistance on energy efficiency.

Amendment
These measures to remove barriers may include providing incentives, repealing or amending legal or regulatory provisions, or adopting guidelines and interpretative communications. These measures may be combined with the provision of education, training and specific information and technical assistance on energy efficiency that take into account also the gender perspective.

Amendment 17
Proposal for a directive
Article 15 – paragraph 1 – subparagraph 2 a (new)

Text proposed by the Commission
Member States are called upon to take appropriate measures to promote energy education in families, schools and society, with particular stress on how each individual can contribute to more efficient, sustainable energy use through their personal behaviour.

Amendment


### PROCEDURE

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<th>Energy efficiency, repealing Directives 2004/8/EC and 2006/32/EC</th>
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<td>Kent Johansson, Christa Klaß, Mariya Nedelcheva, Angelika Werthmann</td>
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