



Brussels, 30.11.2016  
COM(2016) 761 final

2016/0376 (COD)

Proposal for a

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

**amending Directive 2012/27/EU on energy efficiency**

(Text with EEA relevance)

{ SWD(2016) 399 final }

{ SWD(2016) 401 final }

{ SWD(2016) 402 final }

{ SWD(2016) 403 final }

{ SWD(2016) 404 final }

{ SWD(2016) 405 final }

{ SWD(2016) 406 final }

## **EXPLANATORY MEMORANDUM**

### **1. CONTEXT OF THE PROPOSAL**

#### **• Reasons for and objectives of the proposal**

"Energy efficiency first" is a key element of the Energy Union – this proposal puts it into practice. The cheapest energy, the cleanest energy, the most secure energy is the energy that is not used at all. Energy efficiency needs to be considered as a source of energy in its own right. It is one of the most cost effective ways to support the transition to a low carbon economy and to create growth, employment and investment opportunities.

The European Union legal framework was constructed around an energy efficiency target of 20% for 2020 – this now needs to be reset with a 2030 perspective, following the European Council's agreement in 2014 on a target of at least 27% for 2030 to be reviewed by 2020 having in mind a 30% target, and the Parliament's resolution calling for a 40% binding target.

This proposal sets a 30% binding energy efficiency target for 2030 at EU level. This will give Member States and investors a long term perspective to plan their policies and investments and to adapt their strategies towards energy efficiency. Underpinned by dedicated policies at the EU, national and regional level, this target will bring substantial multiple benefits for Europe. Such a target represents a drop in final energy consumption of 17% compared to 2005. It will increase economic growth, leading to an increase in GDP of around 0.4% (€70 billion). Greater energy efficiency will help European companies improve their competitiveness by keeping their costs down, with electricity prices for household and industry expected to be reduced on average from 161 to 157 €/MWh. It will create local business opportunities and jobs, with an estimated 400,000 additional jobs in all sectors by 2030, especially in the construction sector, including by increasing the demand for skilled manual labour. Buildings are the largest single energy consumer in Europe, consuming 40% of final energy, so a 30% efficiency target has great potential in the sector. Finally, pollution control costs & health damage costs should be reduced by €4.5 – 8.3 billion and energy security will be greatly improved, reducing gas imports by 12% in 2030.

Under the Energy Efficiency Directive Member States must ensure that energy suppliers and distributors increase their energy savings by 1.5% per year. Implemented via dedicated obligation schemes and alternative measures, this is a key element of the EU energy efficiency framework. It has proved to have a strong "pulling" effect to trigger end-use energy savings, attract private investment in energy efficiency and support the emergence of new market actors. It creates a political drive for energy efficiency while increasing the building renovation rate and the uptake of energy efficient appliances and techniques. It is a key policy to unlock, after 2020 and beyond, the needed private investments and business opportunities for EU companies, especially for small and medium sized enterprises.

The proposal therefore extends beyond 2020 the energy saving obligation while retaining the rate of 1.5% and the possibility to use both energy efficiency obligation schemes and alternative measures. This keeps fully the existing flexibility for Member States in how they implement the savings obligation, in accordance with their policy environment and market conditions. This provision is central for achieving the Union's energy and climate objectives, as around half of the additional savings that are needed to achieve a 30% energy efficiency target in 2030 are expected to come from its extension beyond 2020.

To further empower consumers as key players in the energy market, the Commission proposes to improve the provision of information on their heating and cooling consumption and strengthen their rights in metering and billing of thermal energy, in particular for people living in multi-apartment buildings. In order to improve frequency of information, an obligation for heat meters to be remotely readable is introduced.

The proposal strengthens the social aspects of energy efficiency by requiring that energy poverty must be taken into account in designing energy efficiency obligation schemes and alternative measures. The decrease in energy bills will also be of particular benefit to the most vulnerable consumers.

Only those articles of the Directive which need to be updated for the 2030 timeframe, and the metering and billing provisions, are included in this proposal. Apart from technical amendments to the default coefficient in Annex IV and to the delegation in Article 22, the other articles of the Directive are untouched.

- **Consistency with existing policy provisions**

Energy efficiency and the 'energy efficiency first' principle are at the heart of the Energy Union strategy. The proposal streamlines and simplifies the existing provisions and increases coherence with other elements of the Clean Energy for All Europeans package, namely the new Governance regulation, the new electricity market design and the update of legislation on renewable energy.

It will also enable the Energy Performance of Buildings Directive to reach its full potential by increasing energy efficiency building renovation. Energy suppliers and distributors often achieve their 1.5% savings obligation by implementing energy efficiency measures in the homes of their individual customers. The linked staff working document gives examples of good practice in energy efficiency from across the Union<sup>1</sup>.

Energy efficiency targets are linked to climate targets and in particular the Effort Sharing Decision (ESD)<sup>2</sup> that sets greenhouse gas (GHG) emission reduction targets for Member States. Energy efficiency policies significantly increase the take-up of energy saving technologies in buildings, industry and transport. Energy efficiency measures are a cost-effective way of helping Member States achieve the Emissions Trading System (ETS)<sup>3</sup> and ESD targets, as Article 7 of the Directive requires Member States to achieve actual energy savings and therefore encourages energy efficiency measures in practice.

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<sup>1</sup> SWD (2016) 404

<sup>2</sup> 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, [http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L\\_.2009.140.01.0136.01.ENG](http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2009.140.01.0136.01.ENG)

<sup>3</sup> The European Council has agreed on a EU ETS target of -43% emission reductions compared to 2005 and a non-ETS target (comprising ESD and LULUCF) for 2030 of -30% below 2005 levels, the latter to be implemented by national binding targets.

The proposed amendments to the provisions on metering and billing will increase coherence with the internal energy market legislation on electricity and contribute to other Energy Union initiatives: the Heating and Cooling Strategy<sup>4</sup> and the New Deal for Energy Consumers.

## **2. LEGAL BASIS, SUBSIDIARITY AND PROPORTIONALITY**

### **• Legal basis**

The proposal is based on Article 194(2) of the Treaty on the Functioning of the European Union, which is the legal basis for measures on energy. This is also the legal basis for Directive 2012/27/EU on energy efficiency, which this proposal amends. As the Treaty contains a specific energy legal basis, it is appropriate to use it.

### **• Subsidiarity**

The instruments on energy efficiency adopted at EU level reflect the growing importance of energy as a political and economic challenge and its close interrelation with the policy areas of security of energy supply, climate change, sustainability, internal market, and economic development. Because of market and regulatory failures, large amounts of cost-effective investments in energy efficiency will not take place, which will lead to a level of energy consumption in 2030 which is not in line with the agreement of the European Council of October 2014. To date, energy efficiency objectives could not be sufficiently achieved by Member States alone, and action at Union level is therefore needed to facilitate and support the uptake of activities at national level. The principle of subsidiarity is respected as Member States will retain the same flexibility as today in terms of selecting their policy mix and their approach to achieving the required savings by 2030, including how the savings are phased.

### **• Proportionality**

In accordance with the principle of proportionality, the proposed amendments do not go beyond what is necessary to achieve the objectives set. The proposed amendments to the current legislative framework will adapt it to a 2030 time frame and improve its clarity and workability. The preferred option assessed for Article 7 would not go beyond what is necessary to achieve the objectives (savings requirement by 2030). The impact assessment sets out why it is appropriate for the same rate of 1.5 % per year to be also retained for the new period (2021-2030).

The scope of the elements proposed in the options is limited to those aspects that require action by the Union (setting the savings requirement and putting in place the framework to ensure that these savings are achieved in a credible way).

The simplification and clarification amendments will make it easier for the Member States to implement the provisions and to satisfy the energy savings requirements.

The amendments to Articles 9-11 are unlikely to have any major effect on how Member States already deal with obligations relating to metering and billing for energy consumers and appropriate deadlines have been set for obligations relating to remotely readable devices.

### **• Choice of the instrument**

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<sup>4</sup> COM(2016) 51 final, 16.2.2016

As this proposal amends an existing Directive, an amending Directive is the appropriate instrument.

### **3. RESULTS OF EX-POST EVALUATIONS, STAKEHOLDER CONSULTATIONS AND IMPACT ASSESSMENTS**

#### **• Stakeholder consultations**

A public consultation was launched on 4 November 2015 to receive feedback and input from stakeholders. In line with good practice, the survey accepted responses for more than 12 weeks.

The online survey received 332 responses, and the functional email address received an additional 69 documents, either complementary to or *in lieu* of survey-based responses. Most contributions were submitted by industry associations (140), private companies (47) and NGOs (33). A total of 19 central public authorities submitted contributions, including 18 from within the EU and Norway. Of the 18 central public authorities from within the EU, 3 asked to remain anonymous. The remaining 15 were from Austria, Belgium, Croatia, the Czech Republic, Denmark, Estonia, Finland, France, Hungary, Latvia, Lithuania, the Netherlands, Slovakia, Sweden and the UK.

A more targeted consultation with Member States took place through the Energy Efficiency Directive Committee meeting of 2 February 2016 and the Concerted Action meeting of 17-18 March 2016.

Further stakeholder inputs were collected through thematic workshops, notably on monitoring and verification (3 February 2016) and on trading of energy savings under Article 7 (29 February 2016).

A dedicated stakeholder event focussing on the policy options took place on 14 March 2016 and the discussion fed into the impact assessment process (see conclusions below). This stakeholder event, with 282 participants from European industry, civil society organisations and Member States, was also held to discuss the 2030 target. The majority of stakeholders who expressed a view, supported a target of up to 40 % in 2030, but did not come to a definitive view on whether the target should be binding.

#### **• Collection and use of expertise**

The following studies were commissioned from external contractors:

- Final Report evaluating the implementation of Article 7 of the EED, Ricardo-AEA/CE Delft.
- Draft final Report on assessing costs and benefits of the EEOSs, RAP.
- Analysis provided to the impact assessment of Article 7, EED, Ricardo AEA/CE Delft (in the framework of the 3rd follow-up study on Article 7).
- "Analysis of good practices and development of guidelines for accurate and fair allocation of costs for individual consumption of heating, cooling and domestic hot water in multi-apartment and multi-purpose buildings to support the implementation of relevant provisions of the Articles 9-11 of the Directive 2012/27/EU on energy efficiency" by Empirica.

For the amendments to Articles 1 and 3, the energy system model, PRIMES of the National Technical University of Athens (NTUA) was used. In addition, for the macro-economic modelling and analysis, expertise from NTUA, Cambridge Econometrics and Ernst and Young was used.

- **Impact assessment**

The following options were considered:

For the level of the target, a reduction of primary energy compared to a 2007 baseline of 27, 30, 33, 35 and 40 % was assessed. For the formulation of the target, a primary and/or a final energy consumption, a saving or an energy intensity target were analysed. Regarding the nature of the target, the following options were assessed:

- Option 1: indicative EU and national targets;
- Option 2: binding EU target;
- Option 3: binding Member State targets.

For Article 7:

- Option 1: no action at EU level – continue with guidance on the regulatory framework and enforcement until 2020;
- Option 2: extend Article 7 to 2030;
- Option 3: extend Article 7 to 2030, simplify and update;
- Option 4: extend Article 7 to 2030, increase the rate of savings.

For Articles 9-11:

- Option 1: enhanced implementation and further guidance (non-legislative option);
- Option 2: clarification and updating, including consolidation of certain provisions to increase coherence with the Internal energy market legislation.

All options are assessed in the Impact Assessment and compared against the baseline scenario and to each other. The assessment showed that a level higher than 27 % energy efficiency in 2030 would bring higher benefits with regard to jobs and economic growth, security of supply, greenhouse gas emission reductions, health and environment. Based on this multi-dimensional analysis a political decision of a binding 30 % energy efficiency target was taken. As a result of the analysis, option 3 for Article 7 and option 2 for Articles 9-11 are the preferred options as these are the most effective and efficient in achieving the desired objectives and are consistent with other EU energy policy areas.

Extending Article 7 to 2030 under the preferred option will help reduce energy consumption and CO<sub>2</sub> emissions and will also lead to improvements in air quality.

In terms of social impacts, the preferred option would have a positive effect on employment: a review of more than 20 studies concluded that for every 1.2 million euro spent on energy efficiency approximately 23 jobs are directly supported in the energy efficiency industry. Applying this ratio to the total expenditure by energy companies in for example Austria, Denmark France, Italy, and the UK, and assuming a leverage factor of 2, this suggests that up to 100 000 jobs are supported by energy efficiency obligation schemes in those countries. A positive impact for the 'energy poor' is also expected: a 2013 study for the European Investment Bank found that reducing fuel bills through energy efficiency measures could

mitigate energy poverty and help address issues associated with inequality and social exclusion.

- **Regulatory fitness and simplification**

The proposal does not exempt micro-enterprises but the Directive contains specific provisions for small and medium-sized enterprises (SMEs), which are not subject to the obligation to have an energy audit every four years. Member States are required to develop programmes to encourage SMEs to undergo energy audits, and they may set up support schemes to cover the costs of such energy audits.

The energy savings obligation in Article 7 of the Directive often translates in practice into many small scale energy saving measures, in particular related to the renovation of buildings. SMEs, for example small construction firms, benefit from these business opportunities, and extending Article 7 beyond its present 2020 limit to 2030 will allow that positive effect to continue. The expansion of energy performance contracting has led to energy suppliers using energy services companies (ESCOs), which are often SMEs.

In 2016 the Commission carried out a fitness check on the construction industry in the policy areas of internal market and energy efficiency which found that, overall, EU energy efficiency legislation has had a positive effect on the construction sector, leading to increased business opportunities linked to energy efficient renovation of buildings.

The proposed amendments on metering and billing for energy consumers will clarify and update the current provisions to take account of the development and benefits of devices to remotely measure thermal consumption and increase information on own energy use as well as its frequency.

The proposed amendments to the Directive will simplify and clarify implementation for the Member States, and will minimise, as far as possible, overlaps with other energy legislation and policies.

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

This proposal amends an existing Directive on energy efficiency, and although the requirements are extended in time, this is not expected to lead to much additional budgetary or administrative cost consequences for public authorities in the Member States as they already have measures and structures in place. In most cases, the costs associated with measures under the energy efficiency obligation schemes are passed on to final customers, but they benefit from reduced energy bills due to reduced energy consumption.

The proposal does not have any implication for the EU budget.

#### **5. OTHER ELEMENTS**

- **Implementation plans and monitoring, evaluation and reporting arrangements**

This proposal makes no change to the Member States' current reporting obligations. The legislative proposal on Energy Union Governance will ensure that a transparent and reliable planning, reporting and monitoring system will be put in place, based on integrated national energy and climate plans and progress reports by Member States, regularly assessing the implementation of national plans. This will ease the administrative burden on Member States, but will still allow the Commission to monitor Member States' progress towards their energy

efficiency targets and the overall EU target. Indicators of success in line with the preferred option once the proposal is adopted will be:

- correct transposition and implementation of the changes to the Directive;
- increased progress towards the national and EU energy efficiency targets;
- more information available to consumers about their thermal energy consumption;
- reduced administrative burden on Member States and better reporting on the measures and savings by the Member States.

One of the proposed amendments to the Directive adds a requirement for the Commission to undertake a general review of the Directive by 28 February 2024. The existing Guidance Notes on Article 7<sup>5</sup> and Articles 9-11<sup>6</sup> will be updated to reflect the changes made by this proposal.

- **Detailed explanation of the specific provisions of the proposal**

Article 1 and Article 3 of the Directive are amended to add the Union's 2030 binding 30 % energy efficiency target.

There are no national binding targets for the Member States, but their indicative national energy efficiency contributions for 2030 will be notified in Member States' Integrated National Energy and Climate Plans. The Commission will assess indicative national energy efficiency contributions for 2030 and lay down the process on how to ensure that the contributions add up to the Union's 2030 energy efficiency target in the legislative proposal on Energy Union Governance. The Commission also evaluates the energy efficiency progress towards the 2030 target and propose additional measures if the Union is not on track to reach the 2030 target. In this context, the Commission's assessment of collective progress made in implementing Integrated National Energy and Climate Plans will be of key importance. The provision for the regular evaluations by the Commission of progress by Member States and by the Union as a whole towards the 2030 targets are also specified in the legislative proposal on Energy Union Governance.

Article 4, which requires Member States to establish long-term strategies for mobilising investment in the renovation of their national building stock, will be removed from this Directive and added to the Directive on the energy performance of buildings where it fits better due to the smart financing for buildings initiative, long term plans for nearly zero energy buildings and the goal of decarbonisation of buildings.

Article 7 is amended to extend the obligation period beyond 2020 to 2030 and to make it clear that Member States can achieve the required energy savings through an energy efficiency obligation scheme, alternative measures, or a combination of both approaches. Member States will be able to take into account to some extent the installation of new renewable energy technologies on or in buildings. Annex V is also amended to simplify how energy savings must be calculated and to clarify which savings are eligible for the purposes of Article 7. This is in particular relevant as regards energy savings stemming from measures targeting the renovation of buildings which can now be claimed in full.

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<sup>5</sup> SWD (2013) 451 final,  
<http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52013SC0451&from=EN>

<sup>6</sup> SWD (2013) 48 final  
<http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52013SC0448&from=EN>



The calculation of the amount of savings required for the 2021 to 2030 period will continue to be based on annual energy sales to final customers averaged over the three years preceding the start of that obligation period. Member States may already include social requirements targeting households affected by energy poverty in their energy efficiency obligation schemes. The amended Article 7 strengthens this provision and requires Member States to take energy poverty into account when designing alternative measures. The Commission will continue to support the accessibility of energy efficiency measures for energy poor consumers through the exchange of best practice.

Article 9 on metering and Article 10 on billing are amended to make them applicable only to gas while complementing them with new, similar and clear provisions applicable only to heating, cooling and domestic hot water supplied from central sources.

A distinction between final customers and final consumers is introduced to clarify the applicability of the rules in sub-metered multi-apartment and purpose buildings. Timely and clear feedback to consumers about their actual energy consumption can help reduce energy bills but feedback works best when it is delivered frequently; devices to measure thermal energy should therefore over time be remotely readable to ensure that consumers can be provided, in a cost-effective way, with consumption information on a frequent basis, ultimately monthly. As an additional benefit, remote reading eliminates the need for consumers to be home and give meter readers access to their dwellings. Annex VII is also amended to ensure coherence with Articles 9 to 11.

The provisions of Article 15(5) and 15(8) of the Directive on energy transformation, transmission and distribution are repealed so that new equivalent provisions can be included in the legislative proposals made under the Market Design Initiative. In the case of Article 15(8), this will be done in such a way as to ensure that the duties laid on Member States by these requirements are fully maintained.

Article 23 on delegated powers is amended to delete the current time limit on the delegation, replacing it with the standard five year period set out in the common understanding of the European Parliament and the Council on delegated acts.

Article 24 will be amended by the legislative proposal on Energy Union Governance.

A general review clause is added to the Directive, under which the Commission must evaluate the Directive and submit a report to the European Parliament and Council by 28 February 2024, and then every five years.

The default primary energy factor (PEF) in Annex IV is amended to take into account technological advances. This could be amended through a delegated act, but it is considered to be more appropriate to use this legal proposal to achieve the same end.

Proposal for a

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

**amending Directive 2012/27/EU on energy efficiency**

(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 Commission,

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

Having regard to the opinion of the European Economic and Social Committee<sup>7</sup>,

Having regard to the opinion of the Committee of the Regions<sup>8</sup>,

Acting in accordance with the ordinary legislative procedure,

Whereas:

- (1) Moderation of energy demand is one of the five dimensions of the Energy Union Strategy adopted on 25 February 2015. Improving energy efficiency will benefit the environment, reduce greenhouse gas emissions, improve energy security by reducing dependence on energy imports from outside the Union, cut energy costs for households and companies, help alleviate energy poverty and lead to increased jobs and economy-wide economic activity. This is in line with the Union commitments made in the framework of the Energy Union and global climate agenda established by the Paris Agreement of December 2015 by the Parties of the United Nation Framework Convention on Climate Change.
- (2) Directive 2012/27/EU of the European Parliament and of the Council<sup>9</sup> is an element to progress towards the Energy Union, under which energy efficiency should be treated as an energy source in its own right. The 'energy efficiency first' principle should be taken into account when setting new rules for the supply side and other policy areas. The Commission should ensure that energy efficiency and demand side response can compete on equal terms with generation capacity. Energy efficiency needs to be considered whenever energy system relevant planning or financing decisions are taken. Energy efficiency improvements need to be realised whenever it is more cost-effective than equivalent supply-side solutions. This should help to exploit the

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<sup>7</sup> OJ C , , p. .

<sup>8</sup> OJ C , , p. .

<sup>9</sup> Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC (OJ L 315, 14.11.2012, p. 1).

multiple benefits of energy efficiency for Europe's society, in particular for citizens and businesses.

- (3) The European Council of October 2014 set a 27 % energy efficiency target for 2030, to be reviewed by 2020 'having in mind an Union level of 30 %'. In December 2015, the European Parliament called upon the Commission to also assess the viability of a 40 % energy efficiency target for the same timeframe. It is therefore appropriate to review and consequently amend the Directive to adapt it to the 2030 perspective.
- (4) There are no binding targets at national level in the 2030 perspective. The need for the Union to achieve its energy efficiency targets at EU level, expressed in primary and final energy consumption, in 2020 and 2030 should be clearly set out in the form of a binding 30 % target. This clarification at Union level should not restrict Member States as their freedom is kept to set their national contributions based on either primary or final energy consumption, primary or final energy savings, or energy intensity. Member States should set their national indicative energy efficiency contributions taking into account that the Union's 2030 energy consumption has to be no more than 1 321 Mtoe of primary energy and no more than 987 Mtoe of final energy. This means that primary energy consumption should be reduced by 23 % and final energy consumption should be reduced by 17 % in the Union compared to 2005 levels. A regular evaluation of progress towards the achievement of the Union 2030 target is necessary and is provided for in the legislative proposal on Energy Union Governance.
- (5) The obligation on Member States to establish long-term strategies for mobilising investment in the renovation of their national building stock and notify them to the Commission should be removed from Directive 2012/27/EU and added to Directive 2010/31/EU of the European Parliament and of the Council<sup>10</sup> where it fits with long term plans for nearly zero energy buildings and the decarbonisation of buildings.
- (6) In view of the climate and energy framework for 2030 the energy savings obligation should be extended beyond 2020. Extending the commitment period beyond 2020 would create greater stability for investors and thus encourage long term investments and long term energy efficiency measures, such as the renovation of buildings.
- (7) Member States are required to achieve a cumulative end-use savings requirement for the entire obligation period, equivalent to 'new' savings of 1.5 % of annual energy sales. This requirement could be met by new policy measures that are adopted during the new obligation period from 1 January 2021 to 31 December 2030 or by new individual actions as a result of policy measures adopted during or before the previous period, but in respect of which the individual actions that trigger energy savings are actually introduced during the new period.
- (8) Long term energy efficiency measures will continue delivering energy savings after 2020 but in order to contribute to the next Union 2030 energy efficiency target, those measures should deliver new savings after 2020. On the other hand, energy savings achieved after 31 December 2020 may not count towards the cumulative savings amount required for the period from 1 January 2014 to 31 December 2020.
- (9) New savings should be additional to business as usual, so that savings that would have occurred in any event may not be claimed. In order to calculate the impact of measures

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<sup>10</sup> Directive 2010/31/EU of the European Parliament and of the Council of 19 May 2010 on the energy performance of buildings (OJ L 153, 18.6.2010, p. 13).

introduced only net savings, measured as the change of energy consumption that is directly attributable to the energy efficiency measure in question, may be counted. To calculate net savings Member States should establish a baseline scenario of how the situation would evolve in the absence of the policy in question. The policy intervention should be evaluated against this defined baseline. Member States should take into account that other policy interventions may be undertaken in the same time frame which may also have an impact on energy savings, so that not all changes observed since the introduction of the policy intervention being evaluated can be attributed to that policy measure only. The actions of the obligated, participating or entrusted party should actually contribute to the achievement of the savings claimed to ensure the fulfilment of the materiality requirement.

- (10) Energy savings which result from the implementation of Union legislation may not be claimed unless the measure in question goes beyond the minimum required by the Union legislation in question, whether by setting more ambitious energy efficiency requirements at national level or increasing the take up of the measure. Recognising that renovation of buildings is an essential and long term element in increasing energy savings, it is necessary to clarify that all energy savings stemming from measures promoting the renovation of existing buildings can be claimed if they are additional to developments that would have happened in the absence of the policy measure and if the Member State demonstrates that the obligated, participating or entrusted party has actually contributed to the achievement of the savings claimed from the measure in question.
- (11) In accordance with the Energy Union Strategy and the principles of better regulation, monitoring and verification rules should be given greater prominence, including the requirement to check a statistically representative sample of measures. References to 'a statistically significant proportion and representative sample' should be understood as requiring the establishment of a subset of a statistical population (of energy saving measures) in such a way that it accurately reflects the entire population in question (all energy saving measures), and thus allows drawing reasonable conclusions regarding confidence in the totality of measures.
- (12) Improvements to the energy efficiency of buildings should benefit in particular consumers affected by energy poverty. Member States can already require obligated parties to include social aims in energy saving measures, in relation to energy poverty, and this possibility should now be extended to alternative measures and transformed into an obligation while leaving full flexibility to Member States with regard to the size, scope and content of such measures. In line with Article 9 of the Treaty, the Union's energy efficiency policies should be inclusive and therefore also ensure accessibility of energy efficiency measures for energy poor consumers.
- (13) Energy generated on or in buildings from renewable energy technologies reduces the supplied fossil energy. The reduction of energy consumption and the use of energy from renewable sources in the buildings sector are important measures to reduce the Union's energy dependency and greenhouse gas emissions, especially in view of ambitious climate and energy objectives set for 2030 as well as the global commitment made in the Conference of the Parties of the United Nation Framework Convention on Climate Change (COP21) held in Paris in December 2015. Member States should therefore be able to take into account a certain amount of renewable energy generated on or in buildings for own use into account to satisfy their energy savings requirements. For this purpose Member States should be allowed to use calculation methodologies established under Directive 2010/31/EU.

- (14) As part of the measures set out in the Commission's Communication New Deal for Energy Consumers, in the context of the Energy Union and the Heating and Cooling strategy, consumers' minimum rights to clear and timely information about their energy consumption need to be strengthened. Articles 9 to 11 and Annex VII of Directive 2012/27/EU should be amended to provide for frequent and enhanced feedback on energy consumption. It should also be clarified that rights relating to billing and billing information apply for consumers of heating, cooling or hot water supplied from a central source even where they have no direct, individual contractual relationship with an energy supplier. Therefore, for the purposes of these provisions, the term 'final user', should cover final customers purchasing heating, cooling or hot water for their own use as well as occupants of individual units of multi-apartment or multi-purpose buildings where such units are supplied from a central source. The term 'sub-metering' should refer to measuring consumption in individual units of such buildings. By 1 January 2020 newly installed heat meters and heat cost allocators should be remotely readable to ensure cost-effective, frequent provision of consumption information. The new Article 9a is intended to apply only to heating, cooling and hot water supplied from a central source.
- (15) Certain provisions of Article 15 of Directive 2012/27/EU on energy transformation, transmission and distribution should be repealed. The review of the *acquis* in the energy field may result in Member States' obligations under the different energy related acts being structured differently. This restructuring should not affect Member States' obligation to comply with the substantive requirements of Directive 2012/27/EU which may be reintroduced, completely or partially, in other acts.
- (16) Reflecting technological progress and the growing share of renewable energy sources in the electricity generation sector, the default coefficient for savings in kWh electricity should be reviewed in order to reflect changes in the primary energy factor (PEF) for electricity. Calculations of the PEF for electricity are based on annual average values. The Physical energy content accounting method is used for nuclear electricity and heat generation and the Technical conversion efficiency method is used for electricity and heat generation from fossil fuels and biomass. For non-combustible renewable energy, the method is the direct equivalent based on the Total primary energy approach. To calculate the primary energy share for electricity in CHP the method set out in Annex II of Directive 2012/27/EU is applied. An average market position is used rather than a marginal one. Conversion efficiencies are assumed to be 100 % for non-combustible renewables, 10 % for geothermal power stations and 33 % for nuclear power stations. Total efficiency for cogeneration is calculated based on the most recent data from Eurostat. As for system boundaries the PEF is 1 for all energy sources. Calculations are based on the most recent version of the PRIMES Reference Scenario. The PEF value is based on the projection for 2020. The analysis covers the EU Member States and Norway. The dataset for Norway is based on ENTSO-E data.
- (17) In order to ensure that the Annexes to the Directive and the harmonised efficiency reference values referred to in Article 14(10) can be updated, it is necessary to extend the delegation of powers granted to the Commission.
- (18) In order to be able to evaluate the effectiveness of Directive 2012/27/EU, a requirement for a general review of the Directive and a report to the European Parliament and the Council by 28 February 2024 should be introduced.

- (19) In accordance with the Joint Political Declaration of 28 September 2011 of Member States and the Commission on explanatory documents<sup>11</sup>, 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.
- (20) Directive 2012/27/EU should therefore be amended accordingly,  
HAVE ADOPTED THIS DIRECTIVE:

#### *Article 1*

Directive 2012/27/EU is amended as follows:

- (1) In Article 1, paragraph 1 is replaced by the following:
- ‘1. This Directive establishes a common framework of measures to promote energy efficiency within the Union in order to ensure that the Union’s 2020 20 % headline targets and its 2030 30 % binding headline targets on energy efficiency are met and paves the way for further energy efficiency improvements beyond those dates. 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 and contributions for 2020 and 2030.’;
- (2) Article 3 is replaced by the following:

#### ‘Article 3

#### **Energy efficiency targets**

1. Each Member State shall set an indicative national energy efficiency target for 2020, based on either primary or final energy consumption, primary or final energy savings, or energy intensity. Member States shall notify those targets to the Commission in accordance with Article 24(1) and Annex XIV Part 1. When doing so, they shall also express those targets 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 those targets, Member States shall take into account:

- (a) that the Union’s 2020 energy consumption has to be no more than 1 483 Mtoe of primary energy and no more than 1 086 Mtoe of final energy;
- (b) the measures provided for in this Directive;
- (c) the measures adopted to reach the national energy saving targets adopted pursuant to Article 4(1) of Directive 2006/32/EC; and
- (d) other measures to promote energy efficiency within Member States and at Union level.

When setting those targets, Member States may also take into account national circumstances affecting primary energy consumption, such as:

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<sup>11</sup> OJ C 369, 17.12.2011, p. 14.

- (a) remaining cost-effective energy-saving potential;
- (b) GDP evolution and forecast;
- (c) changes of energy imports and exports;
- (d) development of all sources of renewable energies, nuclear energy, carbon capture and storage; and
- (e) 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 1 483 Mtoe of primary energy and no more than 1 086 Mtoe of final energy in 2020.

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

- (a) sum the national indicative energy efficiency targets reported by Member States;
- (b) assess whether the sum of those targets can be considered a reliable guide to whether the Union as a whole is on track, taking into account the evaluation of the first annual report in accordance with Article 24(1), and the evaluation of the National Energy Efficiency Action Plans in accordance with Article 24(2);
- (c) take into account complementary analysis arising from:
  - (i) an assessment of progress in energy consumption, and in energy consumption in relation to economic activity, at Union 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;
  - (ii) results from modelling exercises in relation to future trends in energy consumption at Union level.
- (d) compare the results under points (a) to (c) with the quantity of energy consumption that would be needed to achieve energy consumption of no more than 1 483 Mtoe of primary energy and no more than 1 086 Mtoe of final energy in 2020.

4. Each Member State shall set indicative national energy efficiency contributions towards the Union's 2030 target referred to in Article 1 paragraph 1 in accordance with Articles [4] and [6] of Regulation (EU) XX/20XX [Governance of the Energy Union]. When setting those contributions, Member States shall take into account that the Union's 2030 energy consumption has to be no more than 1 321 Mtoe of primary energy and no more than 987 Mtoe of final energy. Member States shall notify those contributions to the Commission as part of their integrated national energy and climate plans in accordance with the procedure pursuant to Articles [3] and [7] to [11] of Regulation (EU) XX/20XX [Governance of the Energy Union].';

(3) Article 7 is replaced by the following:

‘Article 7

**Energy savings obligation**

1. Member States shall achieve cumulative end-use energy savings at least equivalent to:

- (a) new savings each year from 1 January 2014 to 31 December 2020 of 1.5 % of annual energy sales to final customers by volume, averaged over the most recent three-year period prior to 1 January 2013;
- (b) new savings each year from 1 January 2021 to 31 December 2030 of 1.5 % of annual energy sales to final customers by volume, averaged over the most recent three-year period prior to 1 January 2019.

Member States shall continue to achieve new annual savings of 1.5% for ten year periods after 2030, unless reviews by the Commission by 2027 and every 10 years thereafter conclude that this is not necessary to achieve the Union's long term energy and climate targets for 2050.

For the purposes of point (b), and without prejudice to paragraphs 2 and 3, Member States may count only those energy savings that stem from new policy measures introduced after 31 December 2020 or policy measures introduced during the period from 1 January 2014 to 31 December 2020 provided it can be demonstrated that those measures result in individual actions that are undertaken after 31 December 2020 and deliver savings.

The sales of energy, by volume, used in transport may be partially or fully excluded from these calculations.

Member States shall decide how the calculated quantity of new savings is to be phased over each period referred to in points (a) and (b) as long as the required total cumulative savings have been achieved by the end of each period.

2. Subject to paragraph 3, each Member State may:

- (a) carry out the calculation required by point (a) 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 implementing the requirements set out in Article 14(4), point (b) of Article 14(5) and Article 15(1) to (6) and (9), to be counted towards the amount of energy savings required under paragraph 1;
- (d) count energy savings resulting from individual actions newly implemented since 31 December 2008 that continue to have an impact in 2020 and beyond and which can be measured and verified, towards the amount of energy savings referred to in paragraph 1; and
- (e) exclude from the calculation of the energy savings requirement referred to in paragraph 1 the verifiable amount of energy generated on or in buildings for own use as a result of policy measures promoting new installation of renewable energy technologies.

3. All the options chosen under paragraph 2 taken together must amount to no more than 25 % of the amount of energy savings referred to in paragraph 1. Member States shall apply and calculate the effect of the options chosen for the periods referred to in points (a) and (b) of paragraph 1 separately:



- (a) for the calculation of the amount of energy savings required for the period referred to in point (a) of paragraph 1 Member States may make use of points (a), (b), (c), and (d) of paragraph 2;
  - (b) for the calculation of the amount of energy savings required for the period referred to in point (b) of paragraph 1 Member States may make use of points (b), (c), (d) and (e) of paragraph 2, provided individual actions in the meaning of point (d) continue to have a verifiable and measurable impact after 31 December 2020.
4. Energy savings achieved after 31 December 2020 may not count towards the cumulative savings amount required for the period from 1 January 2014 to 31 December 2020.
5. Member States shall ensure that savings resulting from policy measures referred to in Articles 7a and 7b and Article 20(6) are calculated in accordance with Annex V.
6. Member States shall achieve the required amount of savings under paragraph 1 either by establishing an energy efficiency obligation scheme referred to in Article 7a or by adopting alternative measures referred to in Article 7b. Member States may combine an energy efficiency obligation scheme with alternative policy measures.
7. Member States shall demonstrate that where there is an overlap in the impact of policy measures or individual actions, there is no double counting of energy savings.’;
- (4) The following Articles 7a and 7b are inserted:

‘Article 7a

**Energy efficiency obligation schemes**

1. Where Member States decide to fulfil their obligations to achieve the amount of savings required under Article 7 (1) by way of an energy efficiency obligation scheme they shall ensure that obligated parties referred to in paragraph 2 operating in each Member State’s territory achieve, without prejudice to Article 7(2), the cumulative end-use energy savings requirement set out in Article 7(1).
2. Member States shall designate, on the basis of objective and non-discriminatory criteria, obligated parties among 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 needed to fulfil the obligation shall be achieved by the obligated parties among final customers, designated by the Member State, independently of the calculation made pursuant to Article 7(1), or, if Member States so decide, through certified savings stemming from other parties as described in point (b) of paragraph 5.
3. Member States shall express the amount of energy savings required of each obligated party in terms of either final or primary energy consumption. The method chosen to express the amount of energy savings required shall also be used to calculate the savings claimed by obligated parties. The conversion factors set out in Annex IV shall apply.
4. Member States shall put in place measurement, control and verification system under which documented audits are carried out on a statistically significant proportion and representative sample of the energy efficiency improvement measures

put in place by the obligated parties. This measurement, control and verification shall be conducted independently of the obligated parties.

5. Within the energy efficiency obligation scheme, Member States:
  - (a) shall 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 and in social housing;
  - (b) may permit obligated parties to count towards their obligation certified energy savings achieved by energy service providers or other third parties including when 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. Where Member States so permit, they shall ensure that an approval process is in place which is clear, transparent and open to all market actors, and which aims at minimising the costs of certification;
  - (c) may 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 as long as this is not beyond the end of the obligation periods set out in Article 7(1).
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.

#### Article 7b

#### **Alternative policy measures**

1. Where Member States decide to fulfil their obligations to achieve the savings required under Article 7(1) by way of alternative policy measures they shall ensure that the energy savings required under Article 7(1) are achieved among final customers.
  2. In designing alternative policy measures to achieve energy savings, Member States shall take into account the effect on households affected by energy poverty.
  3. For all measures other than those relating to taxation measures, Member States shall put in place measurement, control and verification systems under which documented audits are carried out on a statistically significant proportion and representative sample of the energy efficiency improvement measures put in place by the participating or entrusted parties. This measurement, control and verification shall be conducted independently of the participating and entrusted parties.’;
- (5) Article 9 is amended as follows:
- (a) the title is replaced by the following:  
‘Metering for gas’;
  - (b) in paragraph 1, the first subparagraph is replaced by the following:  
‘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 natural gas 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.';

(c) paragraph 2 is amended as follows;

(i) the introductory phrase is replaced by the following:

'Where, and to the extent that, Member States implement intelligent metering systems and roll out smart meters for natural gas in accordance with Directive 2009/73/EC.';

(ii) points(c) and (d) are deleted;

(d) paragraph 3 is deleted;

(6) the following Article 9a is inserted:

*Article 9a*

**Metering, sub-metering and cost allocation for heating and cooling and domestic hot water**

1. Member States shall ensure that final customers for district heating, district cooling and domestic hot water are provided with competitively priced meters that accurately reflect the final customer's actual energy consumption.

Where heating and cooling or hot water are supplied to a building from a central source servicing multiple buildings or from district heating and cooling network, a heat or hot water meter shall always be installed at the heat exchanger or point of delivery.

2. In multi-apartment and multi-purpose buildings with a central heating or cooling source or supplied from district heating and cooling systems, individual meters shall be installed to measure the consumption of heat or cooling or hot water for each building unit.

Where the use of individual meters is not technically feasible or where it is not cost-efficient to measure heating or cooling in each building unit, individual heat cost allocators shall be used to measure 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. The conditions of technical non-feasibility and non-cost effectiveness shall be clearly set out and published by each Member State.

In new buildings of the kind referred to in the first sub-paragraph or when such a building undergoes major renovation, as set out in Directive 2010/31/EU, individual meters shall always be provided.

3. Where multi-apartment and multi-purpose buildings are supplied from district heating or cooling, or where own common heating or cooling systems for such buildings are prevalent, Member States shall introduce transparent rules on the allocation of the cost of heating, cooling and hot water consumption in such buildings to ensure transparency and accuracy of accounting for individual consumption including:

(a) hot water for domestic needs;

- (b) heat radiated from the building installation and for the purpose of heating the common areas (where staircases and corridors are equipped with radiators);
- (c) for the purpose of heating or cooling apartments.

4. For the purposes of this Article, as of 1 January 2020 meters and cost allocators installed shall be remotely readable devices.

Meters and cost allocators that have already been installed but which are not remotely readable shall be provided with this capability or be replaced with remotely readable devices by 1 January 2027, except where the Member State in question shows that this is not cost-efficient.’;

(7) Article 10 is amended as follows:

- (a) the title is replaced by the following:

‘Billing information for gas’;

- (b) paragraph 1 is replaced by the following:

‘1. Where final customers do not have smart meters as referred to in Directive 2009/73/EC, Member States shall ensure, by 31 December 2014, that billing information is accurate and based on actual consumption, in accordance with point 1.1 of Annex VII, for gas, where this is technically possible and economically justified.’;

- (c) in paragraph 2 the first subparagraph is replaced by the following: ’

‘Meters installed in accordance with Directive 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.’;

(8) the following Article 10a is inserted:

*Article 10a*

**Billing and consumption information for heating and cooling and domestic hot water**

1. Member States shall ensure that billing and consumption information is accurate and based on actual consumption, in accordance with points 1 and 2 of Annex VIIa for all final users where meters or cost allocators are installed.

This obligation may, except in the case of sub-metered consumption under Article 9a(2), be fulfilled by a system of regular self-reading by the final customer whereby they communicate readings from their meter to the energy supplier. Only in cases where 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. Member States:

- (a) shall require that, if information on the energy billing and historical consumption of final users is available, it be made available, to an energy service provider designated by the final user;

- (b) shall ensure that final customers are offered the option of electronic billing information and bills and that they receive, on request, a clear and understandable explanation of how their bill was drawn up, especially where bills are not based on actual consumption;
  - (c) shall ensure that appropriate information is provided with the bill based on actual consumption to all final users in accordance with point 3 of Annex VII;
  - (d) may provide that, at the request of the final customer, the provision of billing information shall not be considered to constitute a request for payment. In such cases, Member States shall ensure flexible arrangements for actual payment are offered.’;
- (9) Article 11 is amended as follows:
- (a) the title is replaced by the following:  
‘Cost of access to metering and billing information for gas’;
  - (b) paragraph 2 is deleted;
- (10) the following Article 11a is inserted:

*‘Article 11a*

**Cost of access to metering and billing information for heating and cooling**

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, cooling and hot water in multi-apartment buildings pursuant to Article 9a(2) 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 users to the extent that such costs are reasonable.’;
- (11) Article 15 is amended as follows:
- (a) paragraph (5) is amended as follows:
    - (i) the first and the second subparagraphs are deleted;
    - (ii) the third subparagraph is replaced by the following:  
‘Transmission system operators and distribution system operators shall comply with the requirements set out in point 1 of Annex XII.’;
  - (b) paragraph 8 is deleted;
- (12) in Article 23 paragraph 2 is replaced by the following:
- ‘2. The power to adopt delegated acts referred to in Article 22 shall be conferred on the Commission for a period of five years from 4 December 2017. The Commission shall draw up a report in respect of the delegation of power not later than nine months before the end of the five year period. The delegation of power shall be tacitly extended for periods of identical duration, unless the European Parliament or

the Council opposes such extension not later than three months before the end of each period.’;

(13) in Article 24 the following paragraph 12 is added:

‘12. The Commission shall evaluate this Directive by 28 February 2024 at the latest, and every five years thereafter, and shall submit a report to the European Parliament and the Council. That report shall be accompanied, if appropriate, by proposals for further measures.’;

(14) the annexes are amended in accordance with the Annex to this Directive.

#### *Article 2*

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive by **XXXX** [*Please insert the date 12 months following the date of entry into force*] at the latest. They shall immediately 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 3*

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

#### *Article 4*

This Directive is addressed to the Member States.

Done at Brussels,

*For the European Parliament*  
*The President*

*For the Council*  
*The President*