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Proposal for a

DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

amending Directive 2012/27/EU on Energy Efficiency

(Text with EEA relevance)

EXPLANATORY MEMORANDUM

1. CONTEXT OF THE PROPOSAL

• Reasons for and objectives of the proposal

In 2014 the European Council agreed on an increase in energy efficiency by 2030 of at least 27%, to be reviewed by 2020 having in mind 30% and in 2015 the European Parliament called for a binding 40% target. However, EU energy system projections indicate that the current national and European energy efficiency framework will lead to a reduction of only approximately 23.9% of primary energy in 2030.

Without a 2030 energy efficiency framework, large amounts of cost-effective investments in energy efficiency in all sectors will not take place. This is in itself damaging for all EU citizens and consumers as benefits linked to security of supply, the protection of the environment, lower energy costs for households and companies, increased employment and cross-sector economic activity and health advancements would not be realised.

The proposed amendments to Directive 2012/27/EU on energy efficiency (the Energy Efficiency Directive, the Directive or the EED) ensure that the objectives of the 2030 framework are met, and simplify parts of the text to facilitate implementation at national level. As the main transposition deadline of the Directive was in June 2014, the Commission considers that it is too early to review the Directive as a whole. Therefore, amendments are only proposed to Articles 1, 3 and 7 which are directly related to the 2030 targets. Amendments to the metering and billing provisions are also needed to ensure coherence with equivalent requirements in the internal energy market legislation and to take account of technological and market developments such as wider availability of remotely readable devices. They also implement the New Deal for energy consumers¹.

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

The Energy Efficiency Directive drives the application of energy efficiency requirements in other EU energy efficiency policies.

Energy efficiency targets are linked to climate targets and in particular the Effort Sharing Decision (ESD)² 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)³ and

¹COM(2015) 339 final

² 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

³ 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.

ESD targets, as Article 7 of the Directive requires Member States to achieve actual energy savings and therefore encourages energy efficiency measures, in accordance with the requirements of the Energy Performance of Buildings Directive, when building renovations take place.

The same logic applies to eco design and energy labelling, where Member States have policies under Article 7 to encourage the purchase of highly efficient boilers or household appliances. Article 7 can therefore be seen as a 'pull' factor, helping to increase the practical application of the other EU energy efficient policies, in particular the Energy Performance of Buildings Directive, and also drives enhanced development of national energy efficiency policies.

The proposed amendments to the provisions on metering and billing will increase coherence with the internal energy market legislation on gas and electricity and contribute to other Energy Union initiatives: the Heating and Cooling Strategy⁴ 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. To date, energy efficiency objectives could not be sufficiently achieved by Member States alone, and action at Union level is 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 amendments to the current legislative framework introduced by these amendments 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

⁴COM(2016) 51 final, 16.2.2016

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**

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 following modelling was used; energy system modelling, PRIMES model and NTUA. For the macro-economic modelling and analysis, NTUA, Cambridge Econometrics and EY were 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. 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;
- Option 2: enhanced implementation and further guidance (non-legislative option);
- Option 3: extend Article 7 to 2030;
- Option 4: extend to 2030, update and simplify (i.e. in relation what savings can be counted).

For Articles 9-11:

- Option 1: enhanced implementation and further guidance (non-legislative option);
- Option 2: clarification and updating, including consolidation of the provisions on electricity and gas ensuring 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. As a result of this analysis, option 4 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. Regarding the level of the energy savings target and its nature, no preferred option was identified by the impact assessment.

Extending Article 7 to 2030 under the preferred option will help reduce energy consumption. It is estimated that it will reduce CO₂ emissions by around 67 Mtoe by 2030. Energy efficiency measures may 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 many of the issues associated with inequality and social exclusion.

- **Regulatory fitness and simplification**

The proposal does not exempt micro-enterprises but contains specific provisions for small and medium-sized enterprises (SMEs), which are not subject to the obligation to have an energy audits 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.

This initiative does not require additional EU budgetary resources.

5. OTHER ELEMENTS

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

This proposal makes no change to the Member States' current reporting obligations, but the future 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 streamlined progress reports by Member States regularly assessing the implementation of national plans along the five dimensions of the Energy Union, and integrated monitoring by the Commission of collective progress made towards the Energy Union objectives. 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. The Commission intends that indicative national energy efficiency contributions will be part of Member States' Integrated National Energy and Climate Plans.

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 claimed under Article 7 by the Member States.

One of the amendments to the Directive adds a requirement for the Commission to undertake a general review of the Directive by 31 December 2023. The existing Guidance Notes on Article 7⁵ and Articles 9-11⁶ will be updated to reflect the changes made by this proposal.

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

Article 1 of the Directive is amended to add the Union's 2030 energy efficiency target.

Article 3 is also amended to include the Union's 2030 energy efficiency target, to provide for the Commission to assess progress towards that target and to allow the Commission to propose additional measures if the Union is not on track to reach the 2030 target. The Commission intends that the indicative national energy efficiency contributions will be part of Member States' Integrated National Energy and Climate Plans. In this context, the Commission's assessment of collective progress made in implementing Integrated National Energy and Climate Plans will be of key importance. This process will be further detailed in the legislative proposal on Energy Union Governance that the Commission intends will introduce an integrated approach to assess progress towards the objectives and targets under all five dimensions of the Energy Union.

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.

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

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

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 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. The changes proposed also make it clear to what extent Member States may continue to claim for, the 2020 to 2030 obligation period energy savings, which result from policy measures introduced before 2020. The calculation of the amount of savings required for the 2020 to 2030 obligation period will 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 also requires Member States to take energy poverty into account when designing alternative measures.

Article 9 on metering and Article 10 on billing are amended to make them applicable only to electricity and gas while complementing them with new, similar and clear provisions applicable only to district heating, district cooling and domestic hot water. Any changes required as regards metering and billing for electricity and gas will be included in future legislative proposals under the Market Design Initiative. 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. Devices to measure thermal energy must over time be remotely readable to ensure that consumers can be provided cost-effectively with consumption information on a frequent basis, ultimately monthly. 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 will be replaced in due course by the Market Design Initiative. 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 in due course to take account of 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 31 December 2023.

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 Committee⁷,

Having regard to the opinion of the Committee of the Regions⁸,

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 EU, cut energy costs for households and companies, help alleviate energy poverty and lead to increased jobs and economy-wide economic activity.
- (2) Directive 2012/27/EU on energy efficiency (the Directive) creates the appropriate framework to progress towards the Energy Union. This requires a fundamental rethink of energy efficiency and treating it as an energy source in its own right. Policy areas such as the Market Design Initiative will therefore incorporate this 'energy efficiency first' principle and take due account of it when setting new rules for the supply side and the Commission will ensure that energy efficiency and demand side response can compete on equal terms with generation capacity.
- (3) The European Council of October 2014 requested the Commission to review the 27% energy efficiency target for 2030 by 2020 'having in mind an EU 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.

⁷ OJ C [...], [...], p. [...].

⁸ OJ C [...], [...], p. [...].

- (4) Articles 1 and 3 of the Directive are amended to reflect the 2030 target, and a review clause has been added in case progress towards the achievement of the target is not sufficient by **XXX**.
- (5) Article 3 has been clarified as the EU needs to achieve both its energy efficiency targets, expressed in primary and final energy consumption, in 2020 and 2030. Therefore the 'or' and 'and/or' in paragraph 2 was replaced by 'and'. This clarification at EU level does not bind 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.
- (6) Article 4 of the Directive, which requires Member States to establish long-term strategies for mobilising investment in the renovation of their national building stock and notify them to the Commission, will be removed from this Directive and added to the Directive on the energy performance of buildings where it fits with long term plans for nearly zero energy buildings and the decarbonisation of buildings.
- (7) Article 7 requires each Member State to establish an energy efficiency obligation scheme or alternative measures that would deliver a set amount of end-use energy savings over the 2014-2020 obligation period, equivalent to 1,5% savings of annual energy sales to final customers of all energy distributors or all retail energy sales companies. An energy efficiency obligation scheme is a scheme established nationally requiring energy distributors and energy companies to achieve yearly energy savings of 1,5% of annual sales to final consumers. In order to reach this requirement, energy companies have to carry out measures which help final consumers improve energy efficiency.
- (8) In view of the climate and energy framework for 2030 the energy savings obligation under Article 7 should be extended beyond 2020. Extending the commitment period beyond 2020 will create greater stability for investors and thus encourage long term investments and long term energy efficiency measures, such as the renovation of buildings.
- (9) Article 7 requires Member States to achieve a cumulative end-use savings requirement for the entire commitment 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 commitment 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.
- (10) Long term energy efficiency measures will continue delivering energy savings after 2020 but in order to contribute to the next EU 2030 energy efficiency target, new savings must be achieved. Member States must provide evidence that measures continue to deliver savings over the relevant period, for example, by reference to lifetimes as set out by CEN standards, national building codes or other recognised sources. 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.
- (11) The new savings claimed under Article 7 should be additional to business as usual. In order to calculate the impact of measures introduced for the purposes of Article 7, Member States should establish a baseline scenario of how the situation would have evolved in the absence of the policy in question. The policy intervention must be

evaluated against this defined baseline. In order to minimise possible under- or overestimation of the impacts from the policy measure in question 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 being evaluated can be attributed to that policy measure only.

- (12) Amendments are also made to clarify and streamline certain parts of Article 7 and Annex V to facilitate implementation, such as identifying which savings can be eligible. The new text clarifies that all energy savings related to the renovation of existing buildings can be claimed if they are additional to renovation measures that would have happened in the absence of the policy measure. Full credit may only be counted if a Member State demonstrates causality of the savings - that the obligated, participating or entrusted party has actually contributed to the achievement of the savings claimed.
- (13) In accordance with the Energy Union Strategy and the principles of better regulation, monitoring and verification rules have been given greater prominence, including the requirement to check a statistically representative sample of measures. References to 'a statistically significant proportion and representative sample' are to 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.
- (14) Buildings account for 40% of total energy consumption in the Union, and renovation of buildings is an essential contribution to increasing energy savings. More savings relating to the renovation of existing buildings can now be claimed under Article 7.
- (15) 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 particular in relation to energy poverty, and this possibility is now 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 on the Functioning of the European Union, EU energy efficiency policies should be inclusive and therefore also ensure accessibility of energy efficiency measures for energy poor consumers. The Commission will continue to support this through the exchange of best practice.
- (16) In calculating savings resulting from measures and individual actions related to the renovation of buildings, Member States may use their national methodologies for calculating end-use energy savings in accordance with the common general framework set out in Annex I of Directive 2010/31/EU, provided the principles set out in Annex V related to climatic and local conditions as well as indoor climate environment and cost-effectiveness, are respected.
- (17) 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 a certain amount of renewable energy generated on or in buildings for own use into account under Article 7. Member States may use calculation methodologies established under the Energy Performance of Buildings Directive for this purpose.

- (18) As part of the New Deal for Energy Consumers, in the context of the Energy Union, consumers' minimum rights to clear and timely information about their energy consumption need to be strengthened. This needs to be better reflected in the Directive, and Articles 9-11 and Annex VII therefore need to be amended. For the purposes of those provisions the term 'final consumer', is understood to cover final customers purchasing heating/cooling/hot water for their own use as well as end users within individual units of multi-apartment or multi-purpose buildings where such units are supplied from a central source. The term 'sub-metering' refers to measuring consumption in individual units of such buildings. By 1 January 2020 newly installed heatmeters and heat cost allocators should be remotely readable to ensure cost-effective, frequent provision of consumption information. For electricity and gas changes will be undertaken as part of future legislative proposals on the electricity and gas market legislation, and the new Article 9a is therefore intended to apply only to district heating, district cooling and hot water.
- (19) Certain provisions of Article 15 of the Directive, on energy transformation, transmission and distribution, will be replaced in due course by the Market Design Initiative. 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 will not affect Member States' obligation to comply with the substantive requirements of the Energy Efficiency Directive which may be reintroduced, completely or partially, in other acts.
- (20) Reflecting technological progress and the growing share of renewable energy sources in the electricity generation sector, the default coefficient for savings in kWh electricity in Annex IV of the Directive should be reviewed in order to reflect changes in the primary energy factor (PEF) for electricity. Given the timing of the ongoing review of the Directive, the amendment for the PEF should be introduced in this amending Directive rather than through a delegated act.
- (21) 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 in Annex II of the Directive is applied ('Finish method' or 'Alternative production method'). 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 CHP 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 to 2020. The analysis covers the 28 EU Member States and Norway. The dataset for Norway is based on ENTSO-E data.
- (22) Article 23(2) grants the Commission delegated powers to amend the annexes to the Directive until 4 December 2017. 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 in the future Article 23(2) is amended in line with the standard clauses set out in the common understanding of the European Parliament and the Council on delegated acts so that the delegation power lasts for five years and is renewed unless either the European Parliament or Council objects.

- (23) Article 24(1), (2), (3), (4) and (11) of the Directive and Annex XIV fall within the scope of the future legislative proposal on Energy Union governance and therefore will be amended by the legislative proposal resulting from that initiative. This will ensure that a transparent and reliable planning, reporting and monitoring system is put in place, based on Integrated National Energy and Climate Plans streamlined progress reports by Member States regularly assessing the implementation of national plans along the five dimensions of the Energy Union and integrated monitoring by the Commission of progress made towards the Energy Union objectives in the context of the annual Report on the State of the Energy Union.
- (24) This amending Directive only affects those provisions of the Directive that need to be amended because of the political mandate from the European Council with regard to the 2030 framework or because of obligations in the Directive or other Energy Union initiatives. A requirement for a general review of the Directive and a report to the European Parliament and the Council by 31 December 2023 is introduced. That report shall be accompanied, if appropriate, by proposals for further measures, providing an opportunity to amend other aspects if that is shown to be necessary.
- (25) In accordance with the Joint Political Declaration of 28 September 2011 of Member States and the Commission on explanatory documents⁹, 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.
- (26) 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 in line with the ambitious EU commitments made under the Energy Union and global climate agenda secured with the Paris Agreement of December 2015.

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

⁹ OJ C 369, 17.12.2011, p. 14.

for the establishment of indicative national energy efficiency targets for 2020 and 2030.';

2. Article 3 is replaced by the following:

'1. Each Member State shall set an indicative national energy efficiency contribution, based on either primary or final energy consumption, primary or final energy savings, or energy intensity. Member States shall notify those contributions to the Commission. When doing so, they shall also express those contributions in terms of an absolute level of primary energy consumption and final energy consumption in 2020 and 2030 and shall explain how, and on the basis of which data, this has been calculated.

When setting those contributions, 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, and that the Union's 2030 energy consumption has to be no more than XXX Mtoe of primary energy and no more than XXX 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 contributions, Member States may also take into account national circumstances affecting primary energy consumption, such as:

- (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. The Commission shall sum up all the 2030 indicative national contributions submitted by Member States. If the sum does not add up to an energy consumption of no more than XXXX Mtoe of primary energy consumption and no more than XXXX Mtoe of final energy consumption in 2030, Member States shall negotiate, with the involvement of the Commission, and agree which Member States should set more ambitious indicative contributions to ensure that the Union's 2030 energy efficiency targets are met.

3. By 31 December 2023, the Commission shall assess progress achieved and whether the Union is likely to achieve energy consumption of no more than XXXX Mtoe of primary energy consumption and no more than XXXX Mtoe of final energy consumption in 2030 and report to the European Parliament and the Council and, if necessary, propose appropriate measures.

4. In carrying out the assessment referred to in paragraph 3, the Commission shall:

- (a) take into consideration whether the Union's milestone of no more than 1 483 Mtoe of primary energy and no more than 1 086 Mtoe of final energy in 2020 is achieved;
- (b) sum the national indicative energy efficiency contributions reported by Member States for 2030 and assess whether the sum of those contributions can be considered a reliable guide to whether the Union as a whole is on track, taking into account the evaluation of information provided by Member States under their reporting and planning obligations.
- (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 and national level as well as other complementary analysis.
- (d) Following the assessment under (a) to (c), the Commission, taking due account of the principle of loyal cooperation between Member States, may request further information and additional energy efficiency measures from Member States that do not sufficiently contribute to the Union's 2030 target to achieve a primary energy consumption of no more than XXXX Mtoe and of no more than XXXX Mtoe of final energy consumption. In that case, the Member States concerned shall submit the requested information and propose additional energy efficiency measures..';

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 paragraph 1(b), and without prejudice to paragraphs 2 and 3, Member States may count as new energy savings those stemming from measures introduced during the period from 1 January 2014 to 31 December 2020 provided it can be demonstrated that those measures continue to deliver verifiable savings after 31 December 2020.

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 in paragraphs 1(a) and (b) as long as the required total cumulative savings have been made by the end of each period.

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

- (a) carry out the calculation required by paragraph 1(a) 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 which can be measured and verified, towards the amount of energy savings referred to in paragraph 1; and
- (e) allow the reduction of energy sales resulting from energy generated on or in buildings for own use as a result of the new installation of renewable energy technologies by obligated, entrusted or participating parties to be counted towards the amount of energy savings required under paragraph 1.

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 paragraph 1(a) and (b) separately:

- (a) For the calculation of the amount of energy savings required for the period referred to in sub-paragraph (a) of paragraph 1 (from 1 January 2014 to 31 December 2020) Member States may make use of sub-paragraphs (a), (b), (c), and (d) of paragraph 2. Member States making use of sub-paragraph (a) shall notify that fact to the Commission by 5 June 2014, including the elements listed under sub-paragraph (a) to be applied and a calculation showing their impact on the amount of energy savings referred to in paragraph 1.
- (b) For the calculation of the amount of energy savings required for the period referred to in sub-paragraph (b) of paragraph 1 (from 1 January 2021 to 31 December 2030) Member States may make use of sub-

paragraphs (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 Articles 7a,7b and 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.

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 paragraph 1 by way of an energy efficiency obligation scheme they shall ensure that obligated parties referred to under paragraph 2 operating in each Member State's territory shall achieve, without prejudice to Article 7(2), the cumulative end-use energy savings target 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 and entrusted 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 or 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 paragraph 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.'
4. Article 9 is amended as follows:
 - (a) the title is amended to 'Metering for electricity and gas';
 - (b) in Article 9(1) the words 'district heating, district cooling and domestic hot water' are deleted;
 - (c) Article 9(3) is deleted;
 - (d) the following article 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 and that provide information on actual time of use.

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 heating 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 energy consumption at each radiator or cooling unit 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 feasibility and cost effectiveness shall be clearly set out and published by each Member State.

Where a new connection to a district heating and cooling network is made in new buildings or when a building or building unit 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. As of 1 January 2020 meters and cost allocators installed shall be remotely readable devices.

Individual 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 2022, except where the Member State in question shows that this is not cost-efficient.;

5. After Article 10 the following article is inserted:

'Article 10a

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

1. By 31 December 2014 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 VII for all final consumers 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 consumers is available, it be made available, to an energy service provider designated by the final consumer;
- (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 consumers 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.';

6. Article 11(2) is deleted.

7. After Article 11 the following article 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 consumers to the extent that such costs are reasonable.';

8. Article 23(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.';

9. In Article 24 the following paragraph is added:

'12. The Commission shall evaluate this Directive by 31December2023 at the latest and shall submit a report to the European Parliament and the Council. That report shall be accompanied, if appropriate, by proposals for further measures.';

10. In footnote 3 to Annex IV the default coefficient of 2.5 is changed to 2.0.
11. The annexes to the Directive 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 31 December 2018at 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