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NOTE

From:	General Secretariat of the Council
To:	Permanent Representatives Committee
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Subject:	Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Directive 2012/27/EU on energy efficiency - Analysis of the final compromise text with a view to agreement

1. The sixth and final informal trilogue on the Directive on Energy Efficiency was held on 19 June 2018, and an informal agreement was reached with the European Parliament on the basis of the text as reflected in Annex.

2. The Permanent Representatives Committee is thus invited to:

- endorse the annexed compromise text as agreed in the trilogue, and
 - mandate the Presidency to inform the European Parliament that, should the European Parliament adopt its position at first reading, in accordance with Article 294 paragraph 3 of the Treaty, in the form set out in the compromise package contained in the Annex to this document (subject to revision by the legal linguists of both institutions), the Council would, in accordance with Article 294, paragraph 4 of the Treaty, approve the European Parliament's position and the act shall be adopted in the wording which corresponds to the European Parliament's position.
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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)

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 Committee¹,

Having regard to the opinion of the Committee of the Regions²,

Acting in accordance with the ordinary legislative procedure,

Whereas:

¹ OJ C 246, p. 28.7.2017

² OJ C 342, 12.10.2017

- (1) Moderation of energy demand is one of the five dimensions of the Energy Union Strategy adopted on 25 February 2015. Improving energy efficiency throughout the full energy chain, including energy generation, transmission, distribution and end-use, will benefit the environment, improve air quality and public health, 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 competitiveness, jobs and economy-wide economic activity thus improving citizens' quality of life. This is in line with the Union commitments made in the framework of the Energy Union and global climate agenda established by the Conference of the Parties of the United Nation Framework Convention on Climate Change (COP21) held in Paris in December 2015 ('the Paris Agreement'), committing to keep the increase of the global average temperature to well below 2°C above pre-industrial levels and to pursuing efforts to limit the temperature increase to 1,5°C above pre-industrial levels.

- (2) Directive 2012/27/EU of the European Parliament and of the Council³ 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 decisions relating to planning the energy system or financing decisions are taken. Energy efficiency improvements need to be realised whenever they are more cost-effective than equivalent supply-side solutions. This should help to exploit the multiple benefits of energy efficiency for Europe's society, in particular for citizens and businesses.

(2b) Member State measures should be supported by well-designed and effective Union financial instruments, such as the European Structural and Investment Funds, the European Fund for Strategic Investments and the European Investment Bank, which should support energy efficiency investments at all stages of the energy chain and use a comprehensive cost-benefit analysis with a model of differentiated discount rates. Financial support should focus on cost-effective methods for increasing energy efficiency, which would lead to a reduction in energy consumption. Reaching an ambitious energy efficiency target requires barriers to be removed such as the recent clarification from Eurostat on how to record energy performance contracts in national accounts in order to make it easier to invest in energy efficiency measures.

The EIB and the EBRD should, together with national promotional banks, design, generate and finance programmes and projects tailored for the efficiency sector, including for the energy poor households.

(3) The European Council of October 2014 supported a 27 % energy efficiency target for 2030 at Union level, 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 Directive 2012/27/EU, to adapt it to the 2030 perspective.

- (4) The need for the Union to achieve its energy efficiency targets at EU level, expressed in primary and/or final energy consumption, in ~~2030~~ should be clearly set out in the form of a target of at least 32.5% for 2030. This target, which is of the same nature as the Union's 2020 target, should be assessed by the Commission in order to revise it upwards by 2023 at the latest in case of substantial cost reductions or where needed to meet the Union's international commitments for decarbonisation. There are no binding targets at national level in the 2030 perspective, and Member States' freedom should not be restricted 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 1 273 Mtoe of primary energy and/or no more than 956 Mtoe of final energy. This means that in the Union primary energy consumption should be reduced by 26%, and final energy consumption should be reduced by 20%, 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 [Governance Regulation].
- (4b) The operational efficiency of energy systems at any given moment is influenced by the ability to feed power generated from different sources - with different degrees of inertia and start-up times - into the grid smoothly and flexibly; improving that efficiency will enable better use to be made of renewable energy.
- (4c) Improvement in energy efficiency can contribute to higher economic output. Member States and the Union should aim at decreasing energy consumption regardless of levels of economic growth.

- (5) The obligation on Member States to establish long-term strategies for mobilising investment and facilitating 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 Council⁴ where this obligation 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 established by Directive 2012/27/EU 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 deep renovation of buildings with the long-term objective of facilitating the cost effective transformation of existing buildings into nearly zero-energy buildings (NZEBs). The energy savings obligation has had an important role in leading to the creation of local growth and jobs, and should be continued to ensure that the Union can achieve its energy and climate objectives by creating further opportunities and reduce dependency of energy consumption on growth. Cooperation with the private sector is important to assess on which conditions private investment for energy efficiency projects can be unlocked and to develop new revenue models for innovation in the field of energy efficiency.
- (6a) Energy efficiency improvements also have a positive impact on air quality, as more energy efficient buildings contribute to reducing the demand in heating fuels, especially also solid heating fuels. Energy efficiency measures therefore contribute to improving indoor and outdoor air quality and help achieving, in a cost effective manner, the objectives of Union's air quality policy, as established in particular by Directive (EU) 2016/2284 of the European Parliament and of the Council^{1a}.

- (7) Member States are required to achieve a cumulative end-use savings requirement for the entire obligation period 2021-2030, equivalent to new savings of at least 0.8 % of final energy consumption. 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. To this end, Member States may make use of an energy efficiency obligation scheme or alternative policy measures or both. In addition, various options, including whether energy used transport is fully or partially included in the baseline, are provided in order to give Member States flexibility in how they calculate their savings, whilst ensuring that the 0.8% required annual savings are still reached.
- (7a) It would however be disproportionate to impose such a requirement on Cyprus and Malta. The energy market of those small island Member States exhibits specific characteristics which substantially limit the range of measures available to meet the energy savings obligation, such as the existence of a single electricity distributor, the absence of natural gas networks and of district heating and cooling networks, as well as the small size of petroleum distribution companies. Those specific characteristics are compounded by the small size of the energy market of those Member States. Therefore, Cyprus and Malta should only be required to achieve a cumulative end-use savings requirement equivalent to 0.24% of final energy consumption for the period 2021-2030.
- (7b) Member States should designate obligated parties among energy distributors, retail energy sales companies and transport fuel distributors or retailers on the basis of objective and non discriminatory criteria. The designation or the exemption as obligated parties of certain categories of suppliers of the abovementioned should not be understood as incompatible with the principle of non-discrimination. Therefore, Member States are able to choose whether the obligation applies to all of the abovementioned categories of suppliers or only to certain categories.

(7c) Energy efficiency improvement measures in transport undertaken by Member States are eligible for achieving the cumulative end-use energy savings requirements. This can be done by dedicated policies that inter alia promote more efficient vehicles, modal shift to cycling, walking and collective transport, or mobility and urban planning that reduces demand for transport. In addition, schemes which accelerate the uptake of new, more efficient vehicles or policies fostering a shift to better performing fuels that reduce energy use per kilometer can also be eligible, subject to compliance with the rules on materiality and additionality in Annex V.

Such measures should, if appropriate, be coherent with their national policy frameworks established under Directive 2014/94/EU on the deployment of alternative fuels infrastructure.

(7d) Measures taken under the Effort Sharing Regulation which result in verifiable and measurable or estimable, energy efficiency improvements can be considered as a cost-effective way for Member States to fulfil their energy saving obligations under this Directive.

In obligation schemes, as an alternative to requiring obligated parties to achieve the amount of savings required under Article 7 (1), it should be possible for Member States to permit or require obligated parties to contribute to an Energy Efficiency National Fund.

(7e) Without prejudice to Article 7 (3) and (3a), Member States and obligated parties should make use of all available means and technologies to achieve the energy savings required under Articles 7, including through promoting sustainable technologies in efficient district heating and cooling systems, efficient heating and cooling infrastructure and energy audits or equivalent management systems, provided the claimed savings comply with the requirements of Article 7 and Annex V. Member States should aim for a high degree of flexibility in the design and implementation of alternative policy measures under Article 7b.

- (8) Long term energy efficiency measures will continue delivering energy savings after 2020 but in order to contribute to the Union 2030 energy efficiency target, those measures should deliver new savings after 2020. On the other hand, energy savings achieved after 31 December 2020 should 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 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 measure in question. The policy measure should be evaluated against this defined baseline. Member States should take into account that other policy measures 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 measure 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.
- (9a) It is important to consider, where relevant, all energy chain steps into the counting of savings in order to increase the energy savings potential in transmission and distribution of electricity.

- (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. Buildings present a substantial potential for further increasing energy efficiency, and renovation of buildings is an essential and long term element with economies of scale in increasing energy savings. It is therefore 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.
- (10a) The effective management of water can make a significant contribution to energy savings. The water and wastewater sector accounts for 3.5% of electricity use in the Union and this share is expected to rise. At the same time water leaks account for 24% of total water consumed in the Union and the energy sector is the largest consumer of water, accounting for 44% of consumption. The potential for energy savings through the use of smart technologies and processes should be fully explored.
- (10b) Energy efficiency should be recognised as a crucial element and a priority consideration in future investment decisions on the Union's energy infrastructure.
- (11) In accordance with the Energy Union Strategy and the principles of better regulation, monitoring and verification rules for the implementation of energy efficiency obligation schemes and alternative policy measures, including the requirement to check a statistically representative sample of measures, should be given greater prominence. References to 'a statistically significant proportion and representative sample' should be understood as requiring the establishment of a subset of a statistical population of the energy saving measures in question in such a way that it accurately reflects the entire population of 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 vulnerable households, including those affected by energy poverty, and, where appropriate, those living in social housing. 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 policy measures and energy efficiency national funds and be transformed into an obligation, while allowing Member States to retain full flexibility with regard to their size, scope and content. If an energy efficiency obligation scheme does not permit measures relating to individual energy consumers, the Member State may take measures to alleviate energy poverty solely in alternative policy measures under Article 7b. In line with Article 9 of the TFEU, the Union's energy efficiency policies should be inclusive and therefore also ensure accessibility of energy efficiency measures for consumers affected by energy poverty.
- (12a) Around 50 million households in the Union are affected by energy poverty. Energy efficiency measures must therefore be central to any cost-effective strategy to address energy poverty and consumer vulnerability and are complementary to social security policies at Member State level. To ensure that energy efficiency measures reduce energy poverty for tenants sustainably, the cost-effectiveness of such measures, as well as affordability to owners and tenants should be taken into account, and adequate financial support for such measures should be guaranteed at Member State level. The Union's building stock will need to become, in the long term, NZEBs, in line with the objectives of the Paris Agreement. Present building renovation rates are insufficient and buildings occupied by low-income citizens affected by energy poverty are the hardest to reach. The measures laid down in this Directive with regard to energy savings obligations, energy efficiency obligation schemes and alternative policy measures are therefore of particular importance.
- (12b) Low energy bills should be achieved by assisting consumers in reducing their energy use via reduction of energy needs of buildings and improvements in the efficiency of appliances, which should be combined with availability of low energy transport modes integrated with public transport and cycling.

- (12c) It is crucial to raise awareness and provide accurate information about the benefits of increased energy efficiency and its possible implementation to all Union citizens. Increased energy efficiency is also highly important-for security of supply of the Union through lowering its dependency on import of fuels from third countries.
- (12e) The costs and benefits of all energy efficiency measures taken, including pay-back periods, should be made fully transparent to consumers.
- (13) Energy generated on or in buildings from renewable energy technologies reduces the amount of energy supplied from fossil fuels. 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. For the purposes of the energy savings obligation in Article 7 Member States may take into account, where applicable, energy savings from renewable energy generated on or in buildings for own use to meet their energy savings requirements.
- (13a) When implementing this Directive and taking other measures in the field of energy efficiency, Member States should pay particular attention to synergies between energy efficiency measures and the efficient use of natural resources in line with the principles of the circular economy.
- (13b) Taking advantage of new business models and technologies, Member States should endeavour to promote and facilitate the uptake of energy efficiency measures, including through innovative energy services for large and small customers.

- (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 accurate, reliable, 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, when this is technically feasible and cost-efficient in view of the measurement devices in place. It should be clarified that whether sub-metering is cost-efficient or not depends on whether the related costs are proportionate in relation to the potential energy savings. The assessment thereof may take into account the effect of other concrete, planned measures in a given building, such as a forthcoming renovation.
- (14a) It should also be clarified that rights relating to billing, and billing or consumption 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. The definition of the term 'final customer' may be understood to include only natural or legal persons purchasing energy based on a direct, individual contract with an energy supplier. Therefore, for the purposes of these provisions, the term 'final user' should be introduced to refer to a broader group of consumers. The term 'final user' should, in addition to final customers purchasing heating, cooling or hot water for their own end use, cover also occupants of individual buildings or of individual units of multi-apartment or multi-purpose buildings where such units are supplied from a central source and where the occupants have no direct or individual contract with the energy supplier. The term 'sub-metering' should refer to measuring consumption in individual units of such buildings.
- (14b) To ensure transparency of accounting for individual consumption of thermal energy and thereby facilitate the implementation of sub-metering, Member States should ensure they have in place transparent, publicly available national rules on the allocation of the cost of heating, cooling and hot water consumption in multi-apartment and multi-purpose buildings. In addition to transparency, Member States may wish to consider taking measures to strengthen competition in the provision of sub-metering services and thereby help ensure that any costs borne by final users are reasonable.

(14c) By 1 January 2020 [, or by the transposition date if that date is later,] newly installed heat meters and heat cost allocators should be remotely readable to ensure cost-effective, frequent provision of consumption information. The new Articles 9a, 9b, 9c, 10a, 11a and Annex VIIa are intended to apply only to heating, cooling and hot water supplied from a central source. Member States are free to decide whether walk-by/drive-by technologies shall be considered remotely readable or not. Remotely readable devices do not require access to individual apartments or units to be read.

(14ca) Member States should take into account that the successful implementation of new technologies for measuring energy consumption require enhanced investment in education and skills for both users and energy suppliers.

(14d) Billing information and annual statements are an important means by which customers are informed. Data on consumption and costs can also convey other information that helps consumers to compare their current deal with other offers and resort to complaint management and dispute resolutions. However, considering that bill-related disputes are a very common source of consumer complaints, a factor which contributes to persistently low levels of consumer satisfaction and engagement in the energy sector, it is necessary to make bills simpler, clearer and easier to understand, while ensuring that separate instruments, such as billing information, information tools and annual statements, provide all the necessary information to enable consumers to regulate their energy consumption, compare offers and switch suppliers.

- (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 reflecting the energy mix 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 data from Eurostat for the year 2016 and on the most recent version of the PRIMES Reference Scenario for the years 2017-2018. 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~~ that Directive and to submit a report to the European Parliament and the Council by 28 February 2024 should be introduced. This date will be after the UNFCCC global stocktake in 2023 in order to allow necessary alignments to that process to be introduced, also taking into account economic and innovation developments.

- (19) In accordance with the Joint Political Declaration of 28 September 2011 of Member States and the Commission on explanatory documents³, 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.
- (19b) Local and regional authorities should be given a leading role in the development and design, execution and assessment of the measures laid down in the Directive, so that they are able properly to address the specific features of their own climate, culture and society.
- (20) Directive 2012/27/EU should therefore be amended accordingly,

³ OJ C 369, 17.12.2011, p. 14.

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 headline targets on energy efficiency of at least 32.5% 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.’
- 1a. The Commission shall assess the Union's 2030 headline targets set out in paragraph 1, with a view to submitting a legislative proposal by 2023 at the latest to revise it upwards in case of substantial cost reductions resulting from economic or technological developments, or where needed to meet the Union’s international commitments for decarbonisation.
- 1b. This Directive contributes to the implementation of the ‘energy efficiency first’ principle.

(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 or 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:

- (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/or 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/or no more than 1 086 Mtoe of final energy in 2020.

- 3a. By 31 October 2022, the Commission shall assess whether the Union has achieved its 2020 headline targets.
4. Each Member State shall set indicative national energy efficiency contributions towards the Union's 2030 target referred to in Article 1(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 1 273 Mtoe of primary energy and/or no more than 956 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. The sales of energy, by volume, used in transport may be partially or fully excluded from this calculation;
 - (b) new savings each year from 1 January 2021 to 31 December 2030 of 0.8% of annual final energy consumption, averaged over the most recent three-year period prior to 1 January 2019. By way of derogation, Cyprus and Malta shall achieve new savings each year from 1 January 2021 to 31 December 2030 equivalent to 0.24% of annual final energy consumption, averaged over the most recent three-year period prior to 1 January 2019.

Member States may count energy savings that stem from policy measures, whether introduced after 31 December 2020 or before, provided that those measures result in new individual actions that are undertaken after 31 December 2020.

Member States shall continue to achieve new annual savings, in accordance with point (b) 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.

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), provided that the required total cumulative savings have been achieved by the end of each period.

2. Provided that Member States achieve at least their cumulative end-use energy savings obligation referred to in point (b) of paragraph (1), they may calculate the required amount of energy savings by:

- (a) excluding, partially or fully, energy used in transport from the calculation baseline;
- (b) subject to paragraph 3a (new), making use of any of the options in paragraph 3.

Where Member States make use of the possibilities provided for in points (a) or (b) of the first subparagraph, they shall establish:

- i) their own annual savings rate that will be applied in the calculation of their cumulative end-use energy savings, which shall ensure that the final amount of their net energy savings is no lower than those required under point (b) of paragraph 1; and
- ii) their own calculation baseline which may exclude, partially or fully, energy used in transport.

3. Subject to paragraph 3a (new), 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, with respect to the period referred to in point (a) of paragraph 1, or final energy consumption, with respect to the period referred to in point (b) of paragraph 1, 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. Member States shall inform the Commission about their intended policy measures under this point as part of their integrated national energy and climate plans. The impact of these measures shall be calculated in accordance with Annex V and included in those plans;
- (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 required;
- (e) count energy savings that stem from policy measures provided it can be demonstrated that those measures result in individual actions undertaken after 1 January 2018 and before 31 December 2020 which deliver savings after 31 December 2020, towards the amount of energy savings required;

- (f) exclude from the calculation of the energy savings requirement, 30% of 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;
- (g) count towards the required cumulative energy savings amount those energy savings that exceed the cumulative energy savings required from 1 January 2014 to 31 December 2020, provided that those savings result from individual actions undertaken under policy measures notified by Member States in their National Energy Efficiency Action Plans and reported in their progress reports [according to Article 23bis Governance Regulation].

3a (new) Member States shall apply and calculate the effect of the options chosen in accordance with paragraph 3 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 3. All the options chosen under paragraph 3 taken together shall amount to no more than 25 % of the amount of energy savings referred to point (a) of paragraph 1;
- (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), (e), (f) and (g) of paragraph 3, provided individual actions in the meaning of point (d) continue to have a verifiable and measurable impact after 31 December 2020. All the options chosen under paragraph 3 taken together may not lead to a reduction of more than 35 % of the amount of energy savings calculated in accordance with paragraph 2.

Regardless of whether Member States partially or fully exclude energy used in transport in their calculation baseline or make use of any of the options listed in paragraph 3, they shall ensure that the calculated net amount of new savings to be achieved in final energy consumption between 1 January 2021 and 31 December 2030 is not lower than the amount resulting from applying the annual savings rate referred to in point (b) of paragraph 1.

3aa(new) Member States shall describe in their integrated national energy and climate plans in accordance with Annex II of Regulation (EU) XX/20XX [Governance of the Energy Union] the calculation of the amount of energy savings to be achieved over the whole period from 1 January 2021 to 31 December 2030 referred to in point (b) of the first paragraph and shall, if relevant, explain how the annual savings rate and calculation baseline were established and what options contained in paragraph 3 were applied and to what extent.

4. Energy savings achieved after 31 December 2020 shall not count towards the cumulative savings amount required for the period from 1 January 2014 to 31 December 2020.

4b. By way of derogation, Member States that allow obligated parties to use the possibility in Article 7a(5)c) to may, for the purposed of point (a) of paragraph 1, count energy savings obtained in any given year after 2010 and before the obligation period in point (a) of para 1 as if they had instead been obtained after 31 December 2013 and before 31 December 2020, provided all the following circumstances apply:

- i. the energy efficiency obligation scheme was in force at any point between 31 December 2009 and 31 December 2014;
- ii. the savings were generated under the obligation scheme;
- iii. the saving are calculated in accordance with Annex V;
- iv. the years for which the savings are counted as having been obtained were reported in the national energy efficiency action plans or annual reports in accordance with Article 24(2).

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 policy measures referred to in Article 7b. Member States may combine an energy efficiency obligation scheme with alternative policy measures.
- 6a. In designing policy measures to fulfil their obligation to achieve energy savings, Member States shall take into account the need to alleviate energy poverty, in accordance with criteria established by the Member States and taking into consideration their available practices in the field, by requiring, to the extent appropriate, a share of energy efficiency measures under their national energy efficiency obligation schemes, alternative policy measures, or programmes or measures financed under an energy efficiency national fund, to be implemented as a priority among vulnerable households including those affected by energy poverty and, where appropriate, in social housing.

Member States shall include information about the outcome of measures to alleviate energy poverty in the context of this Directive in their integrated national energy and climate progress reports in accordance with Regulation (EU) XX/20XX [Governance of the Energy Union].

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 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(3) and 3a(new), their cumulative end-use energy savings requirement set out in Article 7(1).
Where applicable, Member States may decide that obligated parties fulfill all or part of savings as a contribution to the Energy Efficiency National Fund in accordance with Article 20(6).
2. Member States shall designate, on the basis of objective and non-discriminatory criteria, obligated parties among energy distributors, retail energy sales companies and transport fuel distributors or transport fuel retailers operating in ~~its~~ their 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 of this Article.
- 2a.⁴ Where retail energy sales companies are designated as obligated parties according to paragraph 2, Member States shall ensure that in fulfilling their obligation, retail energy sales companies do not create any barriers for consumers to switch from one supplier to another.

⁴ For lawyer-linguists: please check alignment with Article 12 of the Electricity Directive - technical adaptation.

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 systems under which documented verification is carried out on at least 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) 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 the certification of energy savings follows an approval process that is put in place in the Member States and which is clear, transparent, and open to all market actors, and which aims at minimising the costs of certification.
 - (b) 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).
 - (c) shall assess and, if appropriate, take measures to minimise the impact of the direct and indirect costs of such schemes on the competitiveness of energy-intensive industries exposed to international competition.
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, without prejudice to Article 7 (3) and 3a new, that the energy savings required under Article 7(1) are achieved among final customers.
 2. For all measures other than those relating to taxation measures, Member States shall put in place measurement, control and verification systems under which documented verification is carried out on at least 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 or entrusted parties.’;
- (5) Article 9 is amended as follows:
- (a) the title is replaced by the following:
‘Metering for gas and electricity’;
 - (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 electricity and 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.’;
 - (d) paragraph 3 is deleted;

(6) the following Articles are inserted:

‘Article 9a

Metering for heating, cooling and domestic hot water

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

Article 9b

Sub-metering and cost allocation for heating, cooling and domestic hot water

1. In multi-apartment and multi-purpose buildings with a central heating or cooling source or supplied from district heating or cooling systems, individual meters shall be installed to measure the consumption of heat or cooling or hot water for each building unit, where technically feasible and cost effective in terms of being proportionate in relation to the potential energy savings.

Where the use of individual meters is not technically feasible or where it is not cost-efficient to measure heating 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 general criteria, methodologies and/or procedures to determine technical non-feasibility and non-cost effectiveness shall be clearly set out and published by each Member State.

2. In new multi-apartment buildings and in the residential part of new multi-purpose buildings, equipped with a central heating source for hot water or are supplied from district heating systems, individual meters shall, notwithstanding the first sub-paragraph of paragraph 1, be provided for hot water.

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 ensure they have in place transparent, publicly available national 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. Where appropriate, such rules shall include guidelines on the way to allocate cost for energy that is used as follows:
 - (a) hot water for domestic needs;
 - (b) heat radiated from the building installation and for the purpose of heating the common areas (where staircases and corridors are equipped with radiators);
 - (c) for the purpose of heating or cooling apartments.

Article 9c

Remote reading requirement

For the purposes of Articles 9a and 9b, meters and heat cost allocators installed on or after 1 January 2020 [or the transposition date if that date is later] shall be remotely readable devices. The conditions of technical feasibility and cost effectiveness set out in the first and second subparagraphs of Article 9b(1) shall continue to apply.

Meters and heat 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 and electricity’;

(b) the first subparagraph of paragraph 1 is replaced by the following:

1. Where final customers do not have smart meters as referred to in Directives 2009/72/EC and 2009/73/EC, Member States shall ensure, by 31 December 2014, that billing information is reliable, accurate and based on actual consumption, in accordance with point 1.1 of Annex VII, for electricity and gas, where this is technically possible and economically justified.

(8) the following Article is inserted:

‘Article 10a

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

1. Member States shall ensure that, where meters or heat cost allocators are installed, billing and consumption information is reliable, accurate and based on actual consumption or heat cost allocator readings, in accordance with points 1 and 2 of Annex VIIa for all final users, namely for natural or legal persons purchasing heating, cooling or hot water for their own end use, or natural or legal persons occupying an individual building or a unit in a multi-apartment or multi-purpose building supplied with heating, cooling or hot water from a central source who has no direct or individual contract with the energy supplier.

This obligation may, where a Member State so provides, and except in the case of sub-metered consumption based on heat cost allocators under Article 9b, be fulfilled by a system of regular self-reading by the final customer or final user whereby they communicate readings from their meter. Only in cases where the final customer or final user 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 or heat cost allocator readings of final users is available, it be made available upon request by the final user, 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;
- (c) shall ensure that clear and understandable information is provided with the bill to all final users in accordance with point 3 of Annex VIIa;
- (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;
- (da) shall promote cybersecurity and ensure the privacy and data protection of final users in compliance with applicable Union law.

2a. Member States shall decide who is to be responsible for providing the information referred to in paragraphs 1 and 2 to final users that have no direct or individual contract with an energy supplier.

(9) Article 11 is amended as follows:

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

‘Cost of access to metering and billing information for electricity and gas’;

- (b) paragraph 2 is deleted;

(10) the following is inserted:

Article 11a

Cost of access to metering and billing and consumption information for heating, cooling and domestic hot water

1. Member States shall ensure that final users receive all their bills and billing information for energy consumption free of charge and that final users 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 and multi-purpose buildings pursuant to Article 9b 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.
3. In order to ensure reasonable costs for sub-metering services as referred to in paragraph 2, Member States may stimulate competition in this service sector by taking appropriate measures, such as recommending or otherwise promoting the use of tendering and/or the use of interoperable devices and systems facilitating switching between service providers.';

(11) Article 15 is amended as follows:

(-a) in paragraph 2, the following subparagraph is added:

"A common methodology shall be prepared by the Commission, by 31 December 2020, after consulting relevant stakeholders, in order to encourage network operators to reduce losses, implement a cost and energy-efficient infrastructure investment programme and properly account for the energy efficiency and flexibility of the grid".

(11a) In Article 20, the following paragraph 3a shall be added:

3a. In order to mobilise private financing for energy efficiency measures and energy renovations, in line with the approach taken in the Energy Performance of Buildings Directive, the Commission shall conduct a dialogue with both public and private financial institutions to map out potential actions it can take.

Such actions shall include:

- a) Mobilising capital investment into energy efficiency by considering the wider impacts of energy savings for financial risk management.
- b) Ensuring better energy and finance performance data by:
 - i. examining further how energy efficiency investments improve underlying asset values;
 - ii. supporting studies to assess the monetisation of the non-energy benefits of energy efficiency investments.

In this respect, Member States when implementing this Directive shall:

- a) Consider ways to make better use of energy audits under Article 8 to influence decision-making;
- b) Make optimal use of the possibilities and tools proposed in the smart finance for smart buildings initiative.

The Commission shall provide guidance for Member States on how to unlock private investment by 1 January 2020. ’

(11aa) in Article 22 paragraph 2 is replaced by the following:

2. The Commission shall be empowered to adopt delegated acts in accordance with Article 23 to adapt to technical progress the values, calculation methods, default primary energy coefficient and requirements in Annexes I, II, III, IV, V, VII, VIIa, VIII, IX, X and XII.

(12) Article 23 is amended as follows:

- ‘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 an identical duration, unless the European Parliament or the Council opposes such extension not later than three months before the end of each period.’;
- (b) the following paragraph 4 is inserted:
 4. Before adopting a delegated act, the Commission shall consult experts designated by each Member State in accordance with the principles laid down in the Interinstitutional Agreement on Better Law-Making of 13 April 2016.’
- (c) paragraphs 4 and 5 are respectively renumbered as paragraphs 5 and 6;

(12b) In Article 24, the following paragraph is inserted:

- “4a. In the context of the State of the Energy Union report, the Commission shall report on the functioning of the carbon market in accordance with [Article 29(1) and (2)(c)] of Regulation (EU) XX/20XX [Governance of the Energy Union], taking into consideration the effects of the implementation of this Directive.”

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

12. The Commission shall evaluate this Directive and submit a report to the European Parliament and the Council, by 28 February 2024 at the latest, and every five years thereafter.

That evaluation shall include:

- an examination of whether to adapt the requirements and the alternative approach laid down in Article 5 after 2030
- an assessment of the general effectiveness of the Directive and the need to adjust further the Union's energy efficiency policy in accordance with the objectives of the Paris Agreement and in the light of economic and innovation developments.

That report shall be accompanied, if appropriate, by proposals for further measures.

12a. By 1 January 2021, the Commission shall carry out an assessment of the potential for energy efficiency in conversion, transformation, transmission, transportation and storage of energy, and shall submit a report to the European Parliament and to the Council. That report shall be accompanied, if appropriate, by legislative proposals.

12b. By 31 December 2021, the Commission, shall, unless changes to the retail market provisions of Directive (EU) 2009/73/EC on common rules for the internal market in gas have meanwhile been proposed, carry out an assessment, and submit a report to the European Parliament and to the Council, on the provisions related to metering, billing and consumer information for natural gas, with the aim of aligning them, where appropriate, with the relevant provisions for electricity in the recast of Directive (EU) 2009/72/EC on common rules for the internal market in electricity, in order to strengthen consumer protection and enable final customers for natural gas to receive more frequent, clear and up-to-date information about their consumption and regulate their energy use. As soon as possible after the publication of that assessment, the Commission shall, if appropriate, adopt legislative proposals.

12c. By 31 December 2019, the Commission shall assess the effectiveness of the implementation of the definition in Article 2(26) for the purposes of Article 8(4), and shall submit a report to the European Parliament and to the Council. As soon as possible after the publication of that assessment, the Commission shall, if appropriate, adopt legislative proposals.

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

Article 2⁵

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 [] 18 months following the date of entry into force] at the latest.

Notwithstanding the first subparagraph, Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with Articles 9, 9a, 10, 10a, 11, 11a and Annexes VII and VIIa by XX [Please insert the date [] 22 months following the date of entry into force] at the latest.

They shall immediately communicate the text of those measures to the Commission.

When Member States adopt those measures, 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.

⁵ Adaptations to this Article reflect the standard wording agreed between the legal services of the Commission, European Parliament and the Council.

Article 4

This Directive is addressed to the Member States.

Done at Brussels,

For the European Parliament

For the Council

The President

The President

Annexes to Directive 2012/27/EU are amended as follows:

(1) Annexes IV and V are amended as follows:

(a) in Annex IV, footnote 3 is replaced by the following: ‘(3) Applicable when energy savings are calculated in primary energy terms using a bottom-up approach based on final energy consumption. For savings in kWh electricity Member States shall apply a coefficient established through a transparent methodology on the basis of national circumstances affecting primary energy consumption, in order to ensure a precise calculation of real savings. Those circumstances shall be substantiated, verifiable and based on objective and non-discriminatory criteria. For savings in kWh electricity Member States may apply a default coefficient of 2.1 or use the discretion to define a different coefficient provided they can justify it. When doing so, Member States shall take into account their energy mix included in their integrated national energy and climate plans to be notified to the Commission in accordance with Article [3] of Regulation (EU) XX/20XX [Governance of the Energy Union]. The default coefficient shall be revised every 4 years based upon actual observed data. That revision shall consider the effects on other Union legislation such as Directive 2009/125/EC and Regulation 2017/1369/EU.

(b) Annex V is replaced by the following:

Common methods and principles for calculating the impact of energy efficiency obligation schemes or other policy measures under Articles 7(1) and (2), Articles 7a and 7b and Article 20(6):

1. Methods for calculating energy savings other than those arising from taxation measures for the purposes of Articles 7(1) and (2), Articles 7a and 7b and Article 20(6).

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

- (a) deemed savings, by reference to the results of previous independently monitored energy improvements in similar installations. The generic approach is termed ‘ex-ante’;
- (b) metered savings, whereby the savings from the installation of a measure, or package of measures, [] are determined by recording the actual reduction in energy use, taking due account of factors such as additionality, occupancy, production levels and the weather which may affect consumption. The generic approach is termed ‘ex-post’;
- (c) scaled savings, whereby engineering estimates of savings are used. This approach may only be used where establishing robust measured data for a specific installation is difficult or disproportionately expensive, e.g. replacing a compressor or electric motor with a different kWh rating than that for which independent information on savings has been measured, or where those estimates are carried out on the basis of nationally established methodologies and benchmarks by qualified or accredited experts that are independent of the obligated, participating or entrusted parties involved;
- (d) surveyed savings, where consumers’ response to advice, information campaigns, labelling or certification schemes or smart metering is determined. This approach may only be used for savings resulting from changes in consumer behaviour. It may not be used for savings resulting from the installation of physical measures.

2. In determining the energy savings for an energy efficiency measure for the purposes of Articles 7(1), Articles 7a and 7b and Article 20(6) the following principles apply:

- (a) the savings must be shown to be additional to those that would have occurred in any event without the activity of the obligated, participating or entrusted parties and/or implementing authorities. To determine what savings can be claimed as additional Member States shall have regard to how energy use and demand would evolve in the absence of the policy measure in question by taking into account at least the following factors: energy consumption trends, changes in consumer behaviour, technological progress and changes caused by other measures implemented at national and Union level;
- (b) Savings resulting from the implementation of mandatory Union legislation are considered as savings that would have occurred in any event, and thus may not be claimed under paragraph 1 of Article 7. By way of exception, savings related to the renovation of existing buildings can be claimed under paragraph 1 of Article 7, provided the materiality criterion referred to in part 3(h) is ensured. Savings resulting from the implementation of national minimum requirements established for new buildings prior to the transposition of Directive 2010/31/EU can be claimed under Article 7(1)(a), provided the materiality criterion referred to in part 3(h) is ensured and those savings have been notified by Member States in their National Energy Efficiency Action Plans, in accordance with Article 24(2).
- (c) credit may only be given for savings exceeding the following levels:
 - (i) Union emission performance standards for new passenger cars and new light commercial vehicles following the implementation of Regulation (EC) No 443/2009 of the European Parliament and of the Council⁶ and Regulation (EU) No 510/2011 of the European Parliament and of the Council⁷ ;

⁶ Regulation (EC) No 443/2009 of the European Parliament and of the Council of 23 April 2009 setting emission performance standards for new passenger cars as part of the Community's integrated approach to reduce CO₂ emissions from light-duty vehicles (OJ L 140, 5.6.2009, p.1).

⁷ Regulation (EU) No 510/2011 of the European Parliament and of the Council of 11 May 2011 setting emission performance standards for new light commercial vehicles as part of the Union's integrated approach to reduce CO₂ emissions from light-duty vehicles OJ L 145, 31.5.2011, p.1).

- (ii) Union requirements relating to the removal from the market of certain energy related products following the implementation of implementing measures under Directive 2009/125/EC.
- (d) policies which aim at encouraging higher levels of energy efficiency of products, equipment, transport systems, vehicles and fuels, buildings and building elements, processes or markets are permitted;
- (dd) Measures promoting the installation of small-scale renewable energy technologies on or in buildings may be-eligible towards the fulfilment of energy savings requirements under Article 7(1), provided they result in verifiable, and measurable or estimable, end-use energy savings. The calculation of energy savings shall comply with the requirements of this Annex.
- (e) for policies that accelerate the uptake of more efficient products and vehicles, full credit may be claimed provided it is shown that the uptake takes place before the expiry of the average expected product or vehicle lifetime, or before the product or vehicle would usually be replaced, and savings are only claimed for the period until the expiry of the average expected lifetime of the product or vehicle to be replaced;
- (f) in promoting the uptake of energy efficiency measures, Member States shall where relevant, ensure that quality standards for products, services and installation of measures are maintained or introduced where such standards do not exist;
- (g) to account for climatic variations between regions, Member States may choose to adjust the savings to a standard value or to accord different energy savings in accordance with temperature variations between regions;

- (h) the calculation of energy savings shall take into account the lifetime of measures. ~~This may~~ and the rate at which the savings decline over time. This calculation shall be done by counting the savings each individual action will achieve between its implementation date and 31 December 2020 or 31 December 2030 as appropriate. Alternatively, Member States may adopt another method that is estimated to achieve at least the same total quantity of savings. When using other methods, Member States shall ensure that the total amount of energy savings calculated using these other methods does not exceed the amount of energy savings that would have been the result of their calculation when counting the savings each individual action will achieve between its implementation date and 31 December 2020 or 31 December 2030 as appropriate. Member States shall describe in detail in their Integrated National Energy and Climate plans under the Energy Union Governance Regulation the other methods they have used and which provisions have been made to ensure they meet this binding calculation requirement.
3. Member States shall ensure that the following requirements for policy measures taken pursuant to Article 7b and Article 20(6) are met:
- (a) policy measures and individual actions produce verifiable end use energy savings;
 - (b) the responsibility of each participating party, entrusted party or implementing public authority, as relevant, [] is clearly defined;
 - (c) the energy savings that are achieved or are to be achieved are determined in a transparent manner;
 - (d) the amount of energy savings required or to be achieved by the policy measure is expressed in either final or primary energy consumption, using the conversion factors set out in Annex IV;

- (e) an annual report on the energy savings achieved by entrusted, participating parties and implementing authorities be provided and made publicly available as well as data on the annual trend of energy savings;
- (f) monitoring of the results and taking appropriate measures if progress is not satisfactory;
- (g) the savings from an individual action may not be claimed by more than one party;
- (h) the activities of the participating party, entrusted party or implementing public authority are shown to be material to the achievement of the claimed savings.

4. In determining the energy saving from taxation related policy measures introduced under Article 7b, the following principles shall apply:

- (a) credit shall only be given for energy savings from taxation measures exceeding the minimum levels of taxation applicable to fuels as required in Council Directive 2003/96/EC⁸ or in Council Directive 2006/112/EC⁹ ;
- (b) price elasticities for the calculation of the impact of the (energy) taxation measures must represent the responsiveness of energy demand to price changes, and shall be estimated on the basis of recent and representative official data sources;
- (c) the energy savings from accompanying taxation policy instruments, including fiscal incentives or payment to a fund, shall be accounted separately.

⁸ Council Directive 2003/96/EC of 27 October 2003 restructuring the Community framework for the taxation of energy products and electricity (OJ L 283, 31.10.2003, p. 51).

⁹ Council Directive 2006/112/EC of 28 November 2006 on the common system of value added tax (OJ L 347, 11.12.2006, p. 1).

5. Notification of methodology

Member States shall in accordance with the future legislative proposal on Energy Union Governance notify to the Commission their proposed detailed methodology for the operation of the energy efficiency obligation schemes and alternative measures referred to in Articles 7a and 7b and Article 20(6). Except in the case of taxes, such notification shall include details of:

- (a) the level of the energy savings requirement or expected savings to be achieved over the whole period from 1 January 2021 to 31 December 2030;
- (b) the obligated, participating or entrusted parties, or implementing public authorities;
- (c) target sectors;
- (d) policy measures and individual actions foreseen by the policy measure, including the expected total cumulative amount of savings per each measure;
- (e) the duration of the obligation period for the energy efficiency obligation scheme;
- (f) the actions foreseen by the policy measure;
- (g) the calculation methodology, including how additionality and []materiality have been determined and which methodologies and benchmarks are used for deemed and scaled savings;
- (h) the lifetimes of measures and how they are calculated or what they are based upon;
- (i) the approach taken to address climatic variations within the Member State;
- (j) the monitoring and verification systems for measures under Articles 7a and 7b and how the independence of these from the obligated, participating or entrusted parties is ensured;

- (k) in the case of taxes, the notification shall include details of:
 - (i) target sectors and segment of taxpayers;
 - (ii) implementing public authority;
 - (iii) expected savings to be achieved;
 - (iv) duration of the taxation measure; and
 - (v) calculation methodology, including which price elasticities are used and how they have been established.’;

(2) Annex VII is amended as follows:

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

‘Minimum requirements for billing and billing information based on actual consumption of electricity and gas’;

- (b) the following Annex VIIa is inserted:

Annex VIIa

Minimum requirements for billing and consumption information for heating, cooling and hot water

1. Billing based on actual consumption or heat cost allocator readings

In order to enable final users to regulate their own energy consumption, billing shall take place on the basis of actual consumption or heat cost allocator readings at least once per year.

"2. Minimum frequency of billing or consumption information

As of [Please insert herethe date of transposition] where remotely readable meters or heat cost allocators have been installed, billing or consumption information based on actual consumption or heat cost allocator readings shall be provided to final users at least quarterly upon request or where final customers have opted to receive electronic billing, or else twice yearly.

As of 1 January 2022, where remotely readable meters or heat cost allocators have been installed, billing or consumption information based on actual consumption or heat cost allocator readings shall be provided to final users at least monthly. It may also be made available via the internet and be updated as frequently as allowed by the measurement devices and systems used. Heating and cooling may be exempted from this outside the heating/cooling seasons."

3. Minimum information contained in the bill

Member States shall ensure that the following information is made available to final users in clear and understandable terms in or with their bills where these are based on actual consumption or heat cost allocator readings:

- (a) current actual prices and actual consumption of energy or total heat cost and heat cost allocator readings;
- (b) information on the fuel mix used and the related annual greenhouse gas emissions, including for final users supplied by district heating or district cooling, and a description of the different taxes, levies and tariffs applied. Member States may limit the scope of the requirement to provide information on greenhouse gas emissions to include only supplies from district heating systems with a total rated thermal input exceeding 20 MW.
- (c) comparisons of the final users current energy consumption with consumption for the same period in the previous year, in graphic form, climate corrected for heating and cooling;

- (d) contact information for final customers' organisations, energy agencies or similar bodies, including website addresses, from which information may be obtained on available energy efficiency improvement measures, comparative end-user profiles and objective technical specifications for energy-using equipment.
- (da) information on pertinent complaints procedures, ombudsman services or alternative dispute resolution mechanisms, as applicable in the Member States;
- (db) comparisons with an average normalised or benchmarked final user in the same user category. In the case of electronic bills, this comparison may alternatively be made available online and signposted to within the bills.

Bills that are not based on actual consumption or heat cost allocator readings shall contain a clear and understandable explanation of how the amount set out in the bill was calculated, and at least the information referred to in points (d) and (da).

(2a) In the fourth paragraph of Part 1 of Annex IX, point g is replaced by the following:

(g) Economic analysis: Inventory of effects

The economic analyses shall take into account all relevant economic effects. Member States may assess and take into account in decision making costs and energy savings from the increased flexibility in energy supply and from a more optimal operation of the electricity networks, including avoided costs and savings from reduced infrastructure investment, in the analysed scenarios.

(i) Benefits

- Value of output to the consumer (heat and electricity)
- External benefits such as environmental, greenhouse gas emissions and health and safety benefits, to the extent possible
- Labour market effects, energy security and competitiveness, to the extent possible

(ii) Costs

- Capital costs of plants and equipment
- Capital costs of the associated energy networks
- Variable and fixed operating costs
- Energy costs
- Environmental, health and safety costs, to the extent possible
- Labour market costs, energy security and competitiveness, to the extent possible

(2b) In the first paragraph of Annex XII, point (a) is replaced by the following:

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