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Proposal for a

DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

on energy efficiency (recast)

(Text with EEA relevance)

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EXPLANATORY MEMORANDUM

1. CONTEXT OF THE PROPOSAL

With the adoption of the European Green Deal in December 2019[1], the Commission set out *"a new growth strategy that aims to transform the EU into a fair and prosperous society, with a modern, resource-efficient and competitive economy where there are no net emissions of greenhouse gases in 2050 and where economic growth is decoupled from resource use. It also aims to protect, conserve and enhance the EU's natural capital, and protect the health and well-being of citizens from environment-related risks and impacts"*. To reach these objectives, "*energy efficiency must be prioritised*".

At that occasion, the Commission also announced that it would present an impact-assessed plan to increase the Union's greenhouse gas (GHG) emissions reduction target for 2030 in a responsible way, and committed to "*review and propose to revise, where necessary, the relevant energy legislation by June 2021*"[2].

In March 2020, the Commission tabled a proposal for a European Climate Law to decarbonise Europe by 2050. In its Climate Target Plan (CTP)[3], the Commission proposed to raise the Union's ambition on reducing greenhouse gas emissions to at least 55% below 1990 levels by 2030, which is a substantial increase compared to the existing 40% target. The Climate Target Plan also outlined necessary actions required across all sectors of the economy, including the revisions of the key legislative instruments to achieve this increased ambition and to deliver on the commitment made in the Communication on the European Green Deal[4] to put forward a comprehensive plan to increase the European Union's target for 2030 towards 55% in a responsible way. The Climate Target Plan is also in line with the Paris Agreement' objective to keep the global temperature increase to well below 2°C and pursue efforts to keep it to 1,5°C. In December 2020, the European Council endorsed a binding EU target of a net domestic reduction of at least 55% in greenhouse gas emissions by 2030 compared to 1990.[5] The European Council concluded that climate ambition needed to be raised in a manner that would spur sustainable economic growth, create quality jobs, deliver health and environmental benefits for citizens of the Union, and contribute to the long-term global competitiveness of the Union's economy by promoting innovation in green technologies. On 22 April 2021, the European Parliament and the Council came to a provisional political agreement to achieve at least a 55% reduction in GHG emissions by 2030. This sets the framework for action to reduce GHG emissions over the coming decades, but needs to be implemented through specific legislation to ensure those reductions occur. Projections indicate that, if current policies are fully implemented, greenhouse gas emissions reductions

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1 The European Green Deal, COM(2019) 640 final).

2 Annex to the Green Deal Communication, page 2.

3 COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS Stepping up Europe's 2030 climate ambition Investing in a climate-neutral future for the benefit of our people, COM/2020/562 final.

4 COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE EUROPEAN COUNCIL, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS The European Green Deal, COM/2019/640 final.

5 https://www.consilium.europa.eu/media/47296/1011-12-20-euco-conclusions-en.pdf.

by 2030 would be around 45% compared to 1990 levels, when excluding land use emissions and absorptions, and around 47%, when including land use. The 2030 Climate Target Plan therefore previews a set of actions required across all sectors of the economy and the launch of revisions of the key legislative instruments to achieve this increased ambition.

To implement this, the European Commission 2021 Work Programme[6] announced a 'Fit for 55' package to reduce GHG emissions by at least 55% by 2030, and achieve a climate-neutral Europe by 2050. This package will cover a wide range of policy areas including energy efficiency, renewables, land use, energy taxation, effort sharing and emissions trading.

Energy efficiency is a key area of action, without which the full decarbonisation of the Union economy cannot be achieved[7]. The Energy Efficiency Directive has led to the Union's current energy efficiency policy to capture the cost-effective energy saving opportunities. In December 2018, the Energy Efficiency Directive was amended as part of the 'Clean Energy for All Europeans package', in particular to include a new headline 2030 Union energy efficiency target of at least 32,5% (compared to projected energy use in 2030), and to extend and strengthen the energy savings obligation beyond 2020.

While the 2020 energy efficiency target may have been achieved due to the exceptional circumstances created by the Covid-19 pandemic, the sum of national contributions communicated by Member States in the National Energy Climate Plans (NECP) falls short of the Union's level of ambition of 32,5% in 2030. The contributions collectively would lead to a reduction of 29,4% for final energy consumption (FEC) and 29,7% for primary energy consumption (PEC) compared to the projections from the 2007 reference scenario for 2030. This would translate in a collective ambition gap of 2,8 percentage points for primary energy consumption and 3.1 percentage points for final energy consumption for EU27. This gap also affects the level of efforts needed to reach the higher ambition of energy efficiency targets. The CTP Impact Assessment concludes that it is unlikely that the necessary higher levels of energy efficiency needed would be achieved through market forces, current market organisation and technology development alone, meaning that further efforts are needed. According to the impact assessment[8] accompanying this Directive, energy efficiency improvements will need to be significantly stepped from the current ambition level of 32,5%.

The higher ambition level requires a stronger promotion of energy efficiency, wherever cost-effective, in all areas of the energy system and in all relevant sectors, where activity affects energy demand, such as the transport, water and agriculture sectors. Addressing the water-energy nexus is particularly important, due to increasing water and energy needs, or increasing pressure on water resources due to climate change.

The Energy Efficiency Directive is an important element to progress towards climate neutrality by 2050, under which energy efficiency is to be treated as an energy source in its own right. The key role of energy efficiency is supported by the energy efficiency first principle. It is recognised as a guiding principle of the Union energy policy and should be

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6 COM(2020) 690 final

7 Communication: A Clean Planet for all – A European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy (COM/2018/773 final), where the role of energy efficiency as a condition sine qua non for all decarbonisation scenarios is assessed.

8 SWD(2021) 623.

taken into account across all sectors, going beyond the energy system, at all levels, including in the financial sector. Energy efficiency solutions should be considered as the first option in planning and investment decisions, when setting new rules for the supply side and other policy areas. The principle has been recognised as a key element of the Strategy for Energy Sector Integration[9].

While the energy savings potential remains large in all sectors, there is a particular challenge related to transport, as it is responsible for 30% of final energy consumption, and to buildings, since 75% of the Union building stock has a poor energy performance. Another important sector to which increasing attention is being paid is the information and communications technology (ICT) sector, which is responsible for 5-9% of the world's total electricity use and more than 2% of all emissions. In 2018, the energy consumption of data centres in the Union was 76,8 TWh. This is expected to rise to 98,5 TWh by 2030 a 28% increase. This increase in absolute terms can as well be seen in relative terms: within the EU, data centres accounted for 2,7% of electricity demand in 2018 and will reach 3,21% by 2030, if development continues on the current trajectory[10]. Europe's Digital Strategy[11] already highlighted the need for highly energy-efficient and sustainable data centres and transparency measures for telecoms operators on their environmental footprint.

The public sector is an important economic actor in its own right and is responsible for around 5 to 10% of the total Union final energy consumption.[12] Overall, the Union´s-share of public procurement contracts attributed to central government bodies is estimated to be approximately 16%. At Member States' level this varies between 5% and 86%[13]. Public buildings are estimated to use around 2% of the Union's final energy consumption. Cost effective savings potentials still exist in the entire public sector both in the renovation and energy management of existing buildings as well as the future procurement of energy efficient buildings, products and services.

Industry is one of the sectors that has achieved significant energy efficiency improvements over the last decade. Nevertheless, cost-effective savings potentials still exist[14]. Heating and cooling consumes half of Union FEC, making it the biggest energy end-use sector. There remains much potential for reducing energy use in this sector, while still achieving the temperatures needed[15]. Heating and cooling, therefore, plays a crucial role in the Union's ambition to transition into a clean and carbon-neutral economy by 2050. Much of the effort is needed in the field of better insulating buildings, but there is also potential in terms of more efficiently supplying the heat or cold needed[16]. Energy losses in energy transformation,

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9 COM(2020) 299 final.

10 https://digital-strategy.ec.europa.eu/en/library/energy-efficient-cloud-computing-technologies-and-policies-eco-friendly-cloud-market.

11 Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions – Shaping Europe's digital future (COM(2020) 67 final).

12 SWD(2021) 623, section 2.2.2.

13 Evaluation of Articles 6 and 7 of the Energy Efficiency Directive (2012/27/EU) (SWD(2016)403 final; https://ec.europa.eu/energy/sites/ener/files/documents/3_en_autre_document_travail_service_part1_v3.pdf).

14 SWD(2021) 623, Annex H.

15 SWD(2021) 623 , section 2.2.2.

16 An EU Strategy on Heating and Cooling (COM/2016/051 final).

transmission and distribution can be significant[17]. The absence of common methodologies and reporting makes it difficult to compare networks or operators or benchmark performance. In fact, there is no uniform definition of energy losses within the Union, which results in sub-optimal data quality, which needs to be addressed.

The household sector makes up around a quarter of all final energy consumption in the Union. The behaviour of consumers and citizens has an important impact on this energy consumption and the EED contains several provisions that support the empowerment of citizens and consumers. The lack of strong consumer behaviour and consumer empowerment aspects in promoting energy efficiency, in particular at more local levels, results in insufficient incentives for consumers to realise energy efficiency improvements and to tackle high upfront costs and the split incentives problem.[18]

While the Energy Efficiency Directive already provides incentives for Member States to address energy poverty, the Covid19 crisis has highlighted the urgency of addressing energy poverty, if the Union is to create a social Europe, as agreed by the joint Porto Social Commitment[19], that caters for the needs of all its citizens by enabling them to play an active role in the green transition, while mitigating adverse effects and leaving non one behind. Energy poverty levels across Member States will be in the spotlight as more Europeans may struggle to afford access to essential energy, particularly with rising energy costs and unemployment. Also medium-income households might be at increasing risk of facing energy poverty in the near future, as already today the majority of households affected by energy poverty are (lower) middle-income households. Energy efficiency has been identified as the most effective solution to alleviate energy poverty and to overcome some of the potential negative distributional impacts of pricing measures.[20] As required by the European Green Deal, the Energy Efficiency Directive together with the other initiatives under the `Fit for 55 Package´, most notably the Social Climate Fund, will addresses the twin-challenge and turn both, climate and social needs, into opportunities.

In this context, the amendments will help reinforce the Energy Efficiency Directive to better address remaining market barriers and failures by considering broader objectives of the European Green Deal, which aims to leave no one behind and to deliver a sustainable economy. The proposal thus will strengthen the different provisions of the Energy Efficiency Directive to ensure that it contributes optimally to the higher climate target of at least 55% GHG emissions reduction ambition for 2030, as set out in the Climate Target Plan.

- **Consistency with existing provisions in the policy area**

The Proposal is part of a broader policy framework of energy efficiency policies addressing energy efficiency potentials in specific policy areas, including buildings (Directive 2010/31/EC[21] (Energy Performance of Buildings Directive (EBPD)), products (Directive 2009/125/EC, Regulation (EU) 2017/1369 and Regulation (EU) 2020/740[22]) and Governance

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17 See for example; 2nd CEER Report on Power Losses; Council of European Energy Regulators; 2020.

18 SWD(2021) 623, section 2.2.2.

19 https://www.consilium.europa.eu/en/press/press-releases/2021/05/08/the-porto-declaration/

20 SWD(2021) 623, section 2.2.2 and Annex L.

21 Directive 2010/31/EC of the European Parliament and of the Council of 19 May 2010 on the energy performance of buildings.

22 Directive 2009/125/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for the setting of ecodesign requirements for energy-related products; Regulation (EU)

Regulation (EU) 2018/1999. These policies play a very important role in delivering energy savings when products are replaced or buildings constructed or renovated[23]. The Proposal is consistent with the proposal for revision of the Renewable Energy Directive[24].[25]

This proposal for the Energy Efficiency Directive Recast sets a framework for other energy efficiency policies by laying down the energy efficiency targets and setting the main cross-sectoral measures as well as more specific ones. It targets energy savings in the public sector including via obligations to renovate public buildings annually and taking into account energy efficiency in procurement of goods, services, works and buildings. Its particular aim at public buildings is complementary to the EPBD, which sets the standards and specific technical obligations related to buildings. The public sector serves the population at large, including the vulnerable customers and those in risk of energy poverty, thus ensuring that no one is left behind in line with the objectives of the European Green Deal. The special focus on public sector in the Energy Efficiency Directive is vital to undertake its exemplary role in promoting energy efficiency. The Commission has started the review of the EPBD with a view to come forward with a proposal towards the end of 2021. While at this point in time it is not possible to prejudge the outcome of that review, this proposal respects the specific role of the EPBD in setting cost-optimal energy performance requirements, while strengthening the EED provisions pertaining to the exemplary role of public bodies, notably regarding buildings (Article 5 and Article 6), and public procurement (Article 7), which provides the necessary horizontal framework for action.

The Energy Efficiency Directive sets the framework for heating and cooling planning in terms of identifying the energy efficiency and renewable energy potential by the Members States. It also provides for monitoring policies and measures to exploit this potential. These policies and measures directly support the achievement of the renewable target in the heating and cooling sector target set out in Article 24 of the Renewable Energy Directive. For example, a revised definition of efficient district heating and cooling (Article 2(43) of the Energy Efficiency Directive) would directly promote the deployment of renewable energy in district heating and cooling. Vice versa, these sub-targets would contribute to the achievement of the energy efficiency objectives of the Energy Efficiency Directive.

Furthermore, the planning measures for the heating and cooling sector under the Energy Efficiency Directive will be synchronised with the timeline of the NECPs. This facilitates higher consistency between the NECPs, the Comprehensive Assessments and the assessments of the potential of energy from renewable sources and of the use of waste heat and cold in the heating and cooling sector pursuant to Article 15(7) of the Renewable Energy Directive.

2017/1369 of the European Parliament and of the Council of 4 July 2017 setting a framework for energy labelling and Regulation (EU) 2020/740 of the European Parliament and of the Council of 25 May 2020 on the labelling of tyres with respect to fuel efficiency and other parameters respectively.

[23] Moreover, implementation of the product reviews under the Ecodesign Working Plan 2020-2024 and the "Renovation Wave" Action plan, together with the review of the EPBD, will make an important contribution to reaching the 2030 energy efficiency target.

[24] Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources, PE/48/2018/REV/1, OJ L 328, 21.12.2018, p. 82–209.

[25] SWD(2021) 623, Annex M.

The details for the reporting on various provisions of the Energy Efficiency Directive are set in the Governance Regulation (Regulation (EU) 2018/1999[26]). Under this Regulation, each Member State is required to establish a ten-year integrated national energy and climate plan (NECP) for 2021-2030, outlining how it intends to contribute, *inter alia*, to the 2030 target for energy efficiency. The Governance Regulation also includes specific requirements for setting the energy efficiency targets, reporting obligations, monitoring of progress, and corrective actions to be taken in case of insufficient ambition and progress. The impacts of the changes in this Directive will need to be analysed, which might require subsequent amendment of the Governance Regulation to ensure coherence between the two legal acts. New provisions, notably related to setting national indicative contributions, gap filling mechanisms and reporting obligations, should be transferred and streamlined with the Governance Regulation, once it is revised, to avoid overlapping requirements. Some provisions of the Governance Regulation might also need to be reassessed in view of the changes proposed in this Directive.

The Energy Efficiency Directive interacts with other energy efficiency legislation, *i.e.* the Energy Performance of Buildings Directive, the Union´s Ecodesign Directive, the Union's Energy and Tyre Labelling Regulations.[27] These instruments set minimum performance standards, but do not require any acceleration either of replacement rates or choosing more efficient outcomes above the minimum. The main mechanisms available to Member States to boost their energy savings above natural rates to meet the Energy Efficiency Directive requirements are to stimulate replacement of energy inefficient devices and stimulate more efficient choices. Each instrument is addressing different energy efficiency aspects, while ultimately leading to the same goal *i.e.* improving energy efficiency and achieving the overall Union energy efficiency target. In other areas, the Energy Efficiency Directive complements other legislation to increase the focus on energy efficiency and thus increase the overall amount of energy savings for example the measures on public procurement, energy networks and heating and cooling.

- **Consistency with other Union policies**

Changes to the policy architecture of the Energy Efficiency Directive interact with existing and planned policies and measures, including pricing and non-pricing mechanisms and measures. The Energy Efficiency Directive, which addresses existing market barriers hampering energy efficiency, works hand-in-hand with the introduction of emissions trading for fuels used in buildings, which will shorten payback time of energy efficiency investments and strengthen the business case for energy efficiency measures across the Union. The Climate Target Plan demonstrated that a mix of regulatory intervention and carbon pricing is needed to deliver the most cost effective pathway towards achieving the 55% GHG reduction target. Striking a balance between carbon pricing and the regulatory policies is crucial to achieve the increased climate target in a cost-efficient manner, while mitigating any impacts of carbon costs being passed on in particular on vulnerable customers and final users. At the same time, emissions trading will generate additional revenues from the allowance auctions that can be redistributed among Member States and within Member States in order to support

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26 OJ L 328, 21.12.2018, p. 1–77

27 SWD(2021) 623, Annex M.

vulnerable and energy poor end-users in paying their bills and carrying out building renovation.

The 'Fit for 55' package brings together the relevant policy instruments that can contribute to the 55% GHG reduction target and aims to do so in a coherent and proportional manner among other relevant regulations and directives. This is notably the case for the Energy Efficiency Directive, the Renewable Energy Directive (REDII), the EU Emissions Trading System (ETS), Effort Sharing Regulation (ESR), Land use, Land Use Change and Forestry (LULUCF), energy taxation and CO2 emission standards for vehicles. The coherence between the different initiatives under the Fit for 55 package was recognised as key to ensure that the different policy instruments of the package including the Energy Efficiency Directive contribute to achieving the higher climate target of 55% in a most effective way. Those EU policies contribute to achieving the objectives of the Energy Efficiency Directive, in particular as regards the energy efficiency target. The targets and measures provided in the Energy Efficiency Directive will ensure more effective interlinks and synergies with the other Union policies.[28]

The EED has important interlinkages with the Renewable Energy Directive, notably in relation to heating and cooling as both also contribute to achieving the objectivise of the Strategy for Energy Sector Integration. The EED provides strengthened framework for planning in terms of identifying the energy efficiency and renewable energy potential in heating and cooling, and requires that Members States implement policies and measures to exploit this potential. These policies and measures directly support the achievement of the renewable energy target in heating and cooling laid out in Article 23 of Renewable Energy Directive. Vice versa, these targets contribute to the achievement of the energy efficiency objectives laid out in Article 23 of the EED and the whole EED.

The EU ETS establishes a cap on GHG emissions, which is declining over time. The ESR establishes binding annual GHG emissions targets for Member States targeting GHG emissions from sectors not covered by the EU ETS, including buildings, transport and agriculture. The ESR drives compliance with the Energy Efficiency Directive, in particular with the energy savings obligation. The additionality requirement under the energy savings obligation provides incentives to Member States to implement national policies and measures that exceed the minimum energy performance requirements levels set at Union level (e.g. stricter national building codes and programmes promoting higher classes of appliances). Pricing measures such as the EU ETS[29] and the Energy Taxation Directive[30] make investments in energy efficiency more financially attractive but do not resolve the market barriers that lead to a sub-optimal level of investments. They therefore complement the energy efficiency legislation but do not replace it.

Before all measures and targets proposed under the `Fit for 55' Package will fully take effect and relieve European citizens from dependencies from fossil fuels and increasing energy

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28 SWD(2021) 623, Annex M.

29 Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a system for greenhouse gas emission allowance trading within the Union and amending Council Directive 96/61/EC.

30 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. 51–70.

costs, during the transition period some action can lead to significant distributional effects. The extension of the EU ETS to the buildings and transport sectors is expected to result in increasing energy prices as fuel suppliers are likely to pass on carbon costs to consumers, and may thus affect vulnerable customers and final users relying on fossil fuels, or people at risk of energy poverty. Targeted measures to ease the transition both at European and at national level. The `Fit for 55 Package´ proposes specific measures under the EED, and a new funding instrument based on the revenues from the new ETS to mitigate the impact of higher costs for consumers as a result of the introduction of a carbon price in the road transport and building sectors. It is key to ensure that energy efficiency investments take place amongst the most vulnerable in our societies. Support measures to strengthen the energy savings obligation and to empower and protect vulnerable customers, households affected by or at risk of energy poverty, and, where applicable, people living in social housing, can help to mitigate these effects. A combined effect of the proposed measures under the EED and the new funding tool based on the revenues from emissions trading in the new sectors will help addressing the possible negative social effects in an effective manner and in the spirit of solidarity. Revenues from the EU ETS, including from emissions trading in the new sectors, will also remain available to Member States to finance measures intended to improve energy efficiency, district heating systems and insulation, or to provide financial support to lower- and middle-income households.

To address the social impacts arising from the emissions trading for the two new sectors of buildings and road transport, a Social Climate Fund ('the Fund') is created. In order to ensure that the Union budget can sustain the additional expenditure for the Fund, the Commission puts forward in parallel to this Fund Regulation proposals to amend both the Regulation for the Multiannual Financial Framework for the years 2021 to 2027 and Council Decision (EU, Euratom) 2020/2053 ('the Own Resource Decision'). In particular, a part of the revenues from the emission trading for the road transport and buildings will accrue to the Union budget. The Fund should provide funding to Member States to support their measures and investments intended to increase energy efficiency of buildings, to carry out energy efficiency improvements, building renovation, and to decarbonise heating and cooling of buildings, including the integration of energy production from renewable energy sources and to finance zero- and low- emission mobility. Member States could also consider temporary direct support to vulnerable households alongside investments accelerating further structural change.

Moreover, in line with the Renovation Wave Strategy, the Union funding support to energy efficiency and buildings renovation investments that will help addressing or preventing energy poverty, is present in a number of new and existing programmes of the MFF and the Next Generation EU.

Another key source of funding for energy efficiency investments is provided through the Recovery and Resilience Facility, which will make available to Member States a total of 672,5 euro billion between grants and loans. Within the overall target of 37% of the RRF funds to be dedicated to climate actions, Member States plan to spend significant amounts on buildings renovation investments, in line with the guidance from the European Commission, specifically targeting worst performing buildings and energy poor households.

The Cohesion Policy funds, within the overall climate target of 30% and through the thematic concentration on Policy Objective 2, will continue allocating important share of Union budget to energy efficiency and buildings renovation investments, while InvestEU, through the dedicated financial instruments and technical assistance, especially the ELENA Facility, will mobilise at scale private and public investments in the Member States.

The Just Transition Fund, with the overall budget of 17,5 euro billion, will aim to alleviate the social and economic costs resulting from the transition to a climate-neutral economy, including through investments in energy efficiency and buildings renovation that will have the dual benefit of creating local jobs and addressing energy poverty in a durable manner.

Finally, the centrally managed programmes like LIFE or Horizon Europe will have funding priorities supporting a just and green transition, in line with the specific programmes' objectives and their nature, *i.e.* aiming at technology and market innovation and best practices development in energy efficiency policy implementation. The EU road vehicle CO_2 legislation requires manufacturers to reduce the new vehicle fleet average tail pipe CO_2 emissions from the vehicle mix they sell. Regulations have been put in place for Heavy Duty Vehicles and for passenger cars and light commercial vehicles[31]. These regulations mean that manufacturers must either deploy technology to improve the energy efficiency of the vehicles (for example by reducing their aerodynamic or rolling resistance or powertrain efficiency) or by using an energy source with reduced CO_2 emissions in use. Switching to fully electric powertrains avoids the energy losses from internal combustion engines and leads to a fraction of the final energy use per km. Reduction of energy use in the transport sector as a result of the vehicle CO_2 legislation is reflected in the quantification of the overall EU energy efficiency target. The Energy Efficiency Directive will create synergies with the measures of the Sustainable and Smart Mobility Strategy. While leaving the full flexibility and discretion to the Member States regarding the choice of measures for achieving the reduction in energy use in transport, the Directive will incentives the uptake of energy efficiency measures in the transport sector. The Circular Economy Action Plan is also complementary to the EED. Designing products and infrastructures for longer lifetimes, or re-using and recycling raw materials, leads to lower energy consumption and GHG emissions along the life-cycle of products and infrastructures. The Renovation Wave Strategy puts focus on ensuring that Europe's buildings are more energy-efficient, less carbon-intensive over their full life-cycle and more sustainable. Circular economy principles can help reduce pollution and materials-related greenhouse gas emissions of building renovation.

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. The proposed measures aim at improving energy efficiency across sectors and throughout the full energy chain, and thus pursues one of the objectives listed in Article 194, namely, promoting energy efficiency and energy saving in accordance with Article 194(1)(c). As the Treaty contains a specific energy legal basis, it is appropriate to use it.

• Subsidiarity (for non-exclusive competence)

The subsidiarity principle is addressed in this Proposal as the Union does not have exclusive competences on energy policy. The Proposal builds on the growing importance of energy efficiency as a political and economic challenge and its close interrelation to the policy areas

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[31] Regulation (EU) 2019/631 of 17 April 2019 of the European Parliament and of the Council setting CO_2 emission performance standards for new passenger cars and for new light commercial vehicles

of security of energy supply, climate change, internal market and economic and social development.

The need for EU action

EU action is thus justified on grounds of subsidiarity in line with Article 191 TFEU since coordination at the European level, in fact, enhances energy security and environmental and climate benefits. The underlying problems causing a shortfall in energy savings (compared to the optimal level from the perspective of society) are the same across the EU and are present everywhere.[32]

Union level action is needed to ensure that Member States contribute to the EU level binding energy efficiency target and that it is collectively and cost-effectively met. Member States are required to define their own ambition levels, including trajectories that correspond to their national circumstances and context. The nature of the instrument and the fact that the energy efficiency target is not binding at national level respects the principle of subsidiarity. By taking into account the national context and specificities, Member States will retain the same level of flexibility in terms of selecting their policy mix, sectors and the approach to achieve the required energy savings by 2030.

Given the higher climate target, Union action will supplement and reinforce national and local action towards increasing efforts in energy efficiency. The Governance Regulation already foresees the obligation for the Commission to act in case of a lack of ambition by the Member States to reach the Union targets, thus *de facto* formally recognising the essential role of Union action in this context, and EU action is thus justified on grounds of subsidiarity in line with Article 191 TFEU.

The underlying problems causing a shortfall in energy savings (compared to the optimal level from the perspective of society) are the same across the Union and are present everywhere. In view of the external costs of energy consumption (e.g. greenhouse gas emissions, air pollutant emissions, energy security), actions to increase energy efficiency and reduce energy use are likely to lead to benefits beyond national borders. For trans-boundary problems, Member State action is unlikely to lead to optimal outcomes. In the presence of a higher climate target, which requires a higher energy efficiency target, Union action must supplement and reinforce national and local action.

In addition, the nature of the instrument and of the fact that the energy efficiency target is not binding at national level respects the principle of subsidiarity. Member States retain the same level of flexibility in terms of selecting their policy mix, sectors and the approach to achieve the required energy savings by 2030, by taking into account the national context and specificities. However, energy is a policy field with high investment needs.

A coordinated approach at Union level can create trust, reliability and continuity, increasing the likelihood of different actors investing and getting involved. Policies at Union level can also create a just and fair transition for countries and regions with economies that may be significantly impacted by changes in industrial structure or employment as a result of the energy transition towards decarbonisation.

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32 SWD(2021) 623, section 2.

Coordinated action at the Union level, furthermore, enables better account to be taken of the different capabilities to act among Member States. An external cost occurs when producing or consuming a good or service imposes a cost (negative effect) on a third party.

EU added value

Energy efficiency policies are a crucial mechanism to reduce greenhouse gas emissions and contributes to bringing enviromental, economic and social benefits such as better air quality, reduced energy bills and better health. The Union's energy and climate targets for 2030 are collective targets. In this regard, coordinated Union policies have a better chance of transforming the Union to a climate neutral continent by 2050. A common approach is the most effective way to ensure the fulfillment of international commitments.

Concrete actions to reduce energy consumption need to be carried out at Member States' level. Nevertheless, an effective framework for those actions is needed at Union level. A coordinated and harmonised approach at the Union level will enable and enhance Member States' actions, and ensure the four freedoms. A common Union approach will help, for example, to create larger markets for European suppliers, workers and goods, and ensure that the same obligations and rules apply. This will protect and boost competition. A common approach at Union level will allow consumers to enjoy the same basic rights and to receive comparable and recognisable information across the Union. A common Union approach to energy efficiency will enable addressing specific common challenges such as the need to alleviate energy poverty.

The experience from the implementation of the Energy Efficiency Directive has shown that a common Union framework is socially just, reduces costs, increases benefits from the internal market and allows national policy-makers to learn from each other. The Energy Efficiency Directive effectively complements and catalyses other national and Union measures. Policies adopted at Union level reflect the close interrelation of the policy areas of climate change, security of supply, sustainability, environment, internal market, social and economic development. Effects on the single market concerning growth, investments and jobs creation can thus be considered when policies and measures are being decided and implemented. This was supported by the Task Force of mobilising Member States efforts to reach 2020 energy efficiency targets, which called for a strong, targeted and common energy efficiency policy framework to attract the necessary investments, ensure the energy savings are achieved in a just and fair way.

Moreover, the Union single market acts as a strong driver for cost-efficiency in achieving GHG emission reductions.

A common Union action will ensure that that the objectives of the policy are achieved collectively at the lowest possible cost. Therefore, to reach the overall targets collectively, the coordinated action at Union level can enable and enhance efforts at national level by ensuring a more harmonised approach, helping to create markets of scale for European suppliers, and ensuring that they are under the same obligations and rules.

An Union-level framework will also provide more investor certainty. It will provide a general impetus across the whole single market to invest in more energy efficient products of all types. The definition of Union and national objectives gives a clear indication on how much efforts are expected in energy efficiency, and it helps defining the size of the market for energy efficient products and services. This will send a signal to suppliers and manufacturers to put more effort into product development in this regard.

Delivering on energy efficiency while empowering consumers requires meaningful, accurate and understandable information on energy use, related costs, and easy access to a competitive market of building construction materials (windows, insulation, etc.), heating and cooling solutions, and other products that help improve energy efficiency.

Sector-specific measures, for example aimed at the heating and cooling sector, to ensure appropriate attention to sectors, where the largest reduction of GHG emissions need to be achieved. Harmonised planning ensures compareable quality of the national policies and measures. It also ensures availability of structured information on the sectoral objectives and plans in Member States, thus helping Member States and market participants to plan their activities. In the case of heating and cooling it helps ensuring a sufficient market with common standards for the suppliers of high efficiency equipment for district heating and cogeneration to lower costs and to motivate them to innovate and improve their offer.

By acting at Union -level, several barriers to public and private investments can be tackled, addressing the lack of coordination between various authorising bodies at national level and stimulating the administrative capacity to implement cross-border projects and support schemes.

The Energy Efficiency Directive essentially sets the overall energy efficiency objective, but leaves the majority of actions to be taken to achieve this objective to the Member States. The application of the `Energy Efficiency First´ principle leaves flexibility to the Member States. The Energy Efficiency Directive sets binding energy efficiency targets at Union level, but will not establish binding targets at national level in the 2020 and 2030 perspective. Member States should establish their contribution to the collective achievement of the Union's energy efficiency target taking into account the formula provided in the Energy Efficiency Directive. An obligation to achieve an annual reduction of the energy consumption in the public sector will ensure that the public sector fulfils its exemplary role, whereas Member States retain full flexibility regarding the choice of energy efficiency improvement measures to achieve the required reduction of the final energy consumption. In addition, the Energy Efficiency Directive will continue providing an annual rate of renovation required related to the floor area of buildings. The scope of this obligation is extended to buildings owned by all public bodies on the territory of a Member State. This measure shall ensure that Member States continue leading by example through upgrading the energy performance of buildings in their spheres, while retaining the flexibility regarding the choice of measures. Furthermore, the Energy Efficiency Directive will provide the necessary framework to ensure high energy efficiency performance of products, services, works and buildings purchased by public bodies, and to consider, where appropriate, wider sustainability, social, environmental and circular economy aspects. A harmonised approach, including considering energy efficiency aspects in tendering processes, will preserve competition, ensure long-term and cost-effective energy savings and allow for continuing markets of scale. The Energy Efficiency Directive will extend the energy savings by increasing the savings rate. Member States should continue achieving new annual energy savings from policy measures across all sectors. Since the energy savings obligation is an effective measure to improve energy efficiency in various sectors, it is also an effective tool to support Member States in the alleviation of energy poverty. Thus, the energy savings obligation will require Member States to achieve an individually calculated share of the total amount of energy savings required towards vulnerable customers and final users, people affected by energy poverty and, where applicable, people living in social housing. A harmonised approach can contribute to a just energy transition for all European citizens. The energy savings obligation retains full flexibility for Member States with regard to the types of policy measures, their size, scope and content. The Energy Efficiency Directive will ensure the same level of basic contractual rights

for all European citizens regarding heating, cooling and domestic hot water. Whereas the Energy Efficiency Directive will require the implementation of certain basic contractual rights of customers, the national competences would not be restricted. One level playing field across the EU is also required with regard to consumer information and awareness raising activities. Member States are required to take appropriate measures, whereas the concrete design of such actions remain at their discretion. The Union -wide impacts of economic and health crisis show that a harmonised approach is also required to empower and protect vulnerable customers and final users and those affected by energy poverty.

To ensure the same level of protection and empowerment, the Energy Efficiency Directive requires to implement and finance energy efficiency improvement measures as a priority among those people, which will also support Member States in mitigating distributional effects. Network of experts will facilitate Member States´ actions in this regard and should be established in all Member States. While requiring mandatory energy audits for large enterprises, as energy savings can be significant, Member States will retain flexibility to develop programmes to encourage SMEs to undergo energy audits. Regarding the heating and cooling sector, Member States retain their competences to carry out a comprehensive assessment of the potential for high-efficiency cogeneration and efficient district heating and cooling, and may grant exemptions in the area of waste heat recovery through high-efficiency cogeneration or by supplying a district heating or cooling network. The Energy Efficiency Directive will allow Member States to introduce measures and procedures to promote cogeneration installations. To contribute to the creation of a single market, all Member States, National Regulatory Authorities, transmission and distribution system operators should apply the `Energy Efficiency First´ principle and remove all regulatory, technical and non-regulatory measures for energy efficiency improvements in the operation of energy networks. The development of a market for energy services to ensure the availability of both the demand for and the supply of energy services would remain subject to Member States´ discretion. The Energy Efficiency Directive would retain the flexibility for Member States to take action to identify and address regulatory and non-regulatory barriers for energy efficiency improvements. Member States and regions would be encouraged to make full use of the Structural and Investments Funds and other financing facilities to trigger investments in energy efficiency improvement measures, to alleviate energy poverty, and to mitigate any distributional effects on vulnerable customers and final users, people affected by energy poverty, and those living in social housing.

The proposal therefore complies with the subsidiarity principle.

- **Proportionality**

Based on the accompanying Impact Assessment[33] and in accordance with the principle of proportionality, overall the proposed modifications do not go beyond what is necessary to achieve the objectives to reach the higher energy efficiency ambition in view of the increased climate target for 2030. As regards the energy efficiency targets, the amendments are proportional to the required Union ambition in line with the increased climate target of at least 55% GHG emissions reduction as proposed by the Climate Target Plan. Several amendments set specific targets and obligations for public administrations to achieve energy savings in certain areas – public sector and energy poverty, which will be overall proportionate. Regarding the energy savings obligation for the public sector, public bodies are defined in the

[33] SWD(2021) 623.

Public Procurement Directive 2014/24/EU (contracting authorities). Member States would need to establish a database with public bodies, including their annual energy consumption. The proposed energy consumption reduction obligation leaves significant flexibility to Member States as to where and how energy savings could be achieved. Given the cost-benefits that would accrue from implementing savings measures, this effort is considered effective and not excessive. The Proposal also aims to address distributional impacts from the extension of emission trading to buildings and transport. Setting definitions and obligations notably in relation to heating and cooling would be proportionate to the additional energy savings and synergies with the other instruments that could be achieved in this sector. Proportionality of additional monitoring and reporting requirements depend on the balance between increased cost and savings achieved due to a better understanding of the impacts of relevant measures.

The level of constraint imposed is thus proportionate to the objective.

- **Choice of the instrument**

The instrument chosen is a Directive that has to be implemented by the Member States. A Directive is the appropriate instrument as it clearly defines the Union objectives to be reached, while leaving sufficient flexibility to Member States to implement it in the way that suits their particular national circumstances.

The proposal combines a codification and an amendment of the Energy Efficiency Directive. In the context of a people's Europe, the Commission attaches great importance to simplifying and clarifying the law of the Union so as to make it clearer and more accessible to citizens, thus giving them new opportunities and the chance to make use of the specific rights it gives them. The proposal entails a substantive amendment to the Energy Efficiency Directive, which has been amended several times.

To align the two processes, the revision and the codification processes, the Commission proposes a Recast of the Energy Efficiency Directive. The recasting technique contributes to simplifying Union legislation by allowing the adoption of a single legislative text, which simultaneously makes the desired amendment, codifies that amendment and previous ones the unchanged provisions of the earlier act, and repeals that act and previous amending acts. Therefore, a recast Directive is the appropriate instrument and is in line with the Commission's commitment under paragraph 46 of the Inter-institutional Agreement on better law-making[34]. The new legal act will replace and repeal the earlier act 2012/27/EU.

Where the Articles have been given new numbers, the correlation between the old and the new numbers is shown in a table set out in Annex XVI to the recast Directive.

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

[34] OJ L 123, 12 May 2016, p.1.

- **Ex-post evaluation of existing legislation**[35]

The Energy Efficiency Directive remains relevant in delivering increased energy efficiency in the Union and contributing to an increased climate target of 55%. It also reaps other benefits such as decreasing dependence on energy imports and spur innovation and competitiveness. Evaluation has shown that it is for the Energy Efficiency Directive to ensure that Member States adequately undertake actions in specific energy consuming areas. Various studies carried out by the Commission, as well as evidence from stakeholders[36], show that, even with existing technologies, there is still significant scope for energy efficiency investments and cost-effective savings in Member States' economic sectors and in the society at large.

However, under business-as-usual, and even more so as a result of the adverse socio-economic impacts and income losses due to Covid-19 crisis, a large share of this energy efficiency and energy saving potential would remain unexploited, including due to market and regulatory failures, which prevent cost-effective energy efficiency investments and actions from taking place. Given the significant energy savings potential, further promotion of energy efficiency actions and the removal of continued existence of barriers to energy efficient behaviour, including for investments, are necessary.

The evaluation shows that there seems to be a reluctance in the public sectors to include energy efficiency requirements systematically in procurement, mainly because purchase price. Thus, there is a scope for strengthening and streamlining the Energy Efficiency Directive so that it contributes to achieving the higher climate target and the European Green Deal objectives. Furthermore, there is a potential for the Energy Efficiency Directive to better tackle socio-economic challenges like protecting and empowering vulnerable customers and final users and alleviating energy poverty. Regarding industries, the evaluation shows that a key barrier is likely to be that most businesses do not have the expertise to know what technical energy saving opportunities are available, or what their economic benefits might be for the business.

In terms of effectiveness, the Energy Efficiency Directive has led to energy efficiency improvements across the Union thanks to its targets (notably Article 3 and Article 5) and binding measures (notably Article 7 on energy savings obligations), even though the progress in achieving the Union energy efficiency targets for 2020 was not sufficient. Achieving the necessary level of energy efficiency improvements relies largely on Member States' ambition when setting objectives, and their efforts when developing and implementing energy efficiency measures at national level. Although the Energy Efficiency Directive sets final and primary energy consumption limits for the Union as a whole, and the Governance Regulation provides for further Union measures if the targets are not met, the indicative nature of the target does not support its achievement. Article 7 remains an effective measure responsible for generating energy savings mostly in the buildings sector. Obligations for public sector (Articles 5 and 6) proved key to demonstrate the exemplary role of central governments in promoting energy efficiency via renovations and public procurement. However, the measures were implemented at a limited scale, and a number of limitations prevent reaping energy savings potential in the public sector. The Energy Efficiency Directive was also key to promoting the use of energy audits across the Union (Article 8). However, important

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36 See e.g. https://www.eiif.org/sites/default/files/2020-12/EiiF_White%20paper_2020_REV.15.pdf.

limitations remain such as follow up to audits and challenges related to application of the SMEs definition, lack of requirements and incentives for implementing energy management systems. The requirements of Article 14 on heating and cooling, in particular the requirement to establish comprehensive assessments, helped to increase the overall importance and awareness of heating and cooling in all Member States. However, the analysis showed that the overall impact had rather been low, in particular due to the lack of follow up given to the findings from the comprehensive assessments carried out in line with Article 14, and the wide use of exemptions allowed. The Energy Efficiency Directive largely contributed to the development of energy services markets and energy performance contracting (Article 18). However, important barriers still remain to be tackled.

In terms of efficiency, overall, the Energy Efficiency Directive has contributed to achieving energy savings in the Union in a cost-effective manner. Several provisions subject to `conditionalities´ (e.g. in Articles 5, 6, 9-11, 14) required to act, if it is cost-effective/ economically or technically feasible. It gave significant flexibility to Member States to choose measures. However, Member States have not always demonstrated how the feasibility was established. There are no indications for significant differences in the magnitude of costs amongst the Member States for most of the provisions of the Energy Efficiency Directive, except for Article 7 (the costs depend on the design and scope of the measure).

In terms of coherence, the Energy Efficiency Directive is overall coherent with broader energy and climate policies, however, the increasing interlinkages with renewable energy and the EU ETS require proper streamlining and closer look at reducing administrative burden. In addition, the Energy Efficiency Directive provisions need to be adapted to support the decarbonisation and zero pollution objectives in the context of the initiatives under the European Green Deal.

In terms of Union added value, Union intervention was key to achieve energy efficiency improvements across the Union. It is clear that without the EU level target and binding measures it would not have been achieved to the scale observed. However, there is scope for strengthening and streamlining some provisions to ensure that the Energy Efficiency Directive delivers the required efforts in view the higher Union climate target of at least 55% for 2030.

- **Stakeholder consultations**

The evaluation roadmap/ inception impact assessment was published on 3 August 2020 and was available until 21 September 2020.

The Commission received 189 replies, and 99 stakeholders submitted supplementary statements and information to their replies. The largest number of replies were received from business associations (80 replies), followed by companies (36 replies) and NGOs (26 replies). In addition, nine dedicated stakeholder meetings were organised in the period from September to October 2020 with targeted stakeholder groups on specific topics, and a dedicated Energy Efficiency Directive expert group meeting was held on 10 November 2020. The Commission also launched the internet based public consultation from 17 November 2020 until 9 February 2021, in line with the Commission Better Regulation rules. The survey contained multiple choice and open questions covering a wide range of aspects concerning the ex-post evaluation and options for the revision of the Energy Efficiency Directive. In total 344 replies were received. The largest group of respondents covered was business associations (132 replies), individual businesses and companies (92 replies), followed by NGOs (34 submissions). 21 respondents submitted replies as individual citizen. 24 public authorities replied, including

national authorities from 9 Member States (Cyprus, Czechia, Estonia, Finland, France, Lithuania, Netherlands, Spain, and Sweden).

A clear majority of stakeholders (86% of respondents) expressed views that energy efficiency should play a key role in supporting more ambitious climate targets for 2030 and in view of achieving the Union's carbon neutrality by 2050. Stakeholders largely supported the strengthening of the Energy Efficiency Directive in this regard. A majority of stakeholders (53%) favoured binding energy efficiency targets, including at national level (47%). Stakeholders believed that additional energy efficiency efforts are needed in buildings (76%) and transport (62%), followed by industry (52%) and ICT (40%).

The views of the stakeholders as expressed in the public consultation and during the workshops have been taking into account when elaborating the various policy options on the respective policy areas in the Impact Assessment.

In June, the European Commission and hosted a hearing with European social partners on the `Fit for 55 Package´. European social partners were asked to share their initial reactions on this package and to express their view on which accompanying measures and mechanisms could be put in place to make sure nobody is left behind. The need for stronger interactions between the European Pillar of Social Rights and the European Green Deal were raised and explained that the objectives of both dimensions should be the two faces of the same coin.

- **Collection and use of expertise**

The COWI support study was the only contract explicitly intended to directly support the preparation of the Impact Assessment. Many other reports have provided relevant information. In the case of the energy audit requirements there was a specific assessment of the problems of implementing the definition used in Article 8(4) of the EED.

- **Impact assessments**

The overall energy saving ambition and the level of the energy saving obligations are consequences of a cost-effective approach to achieve the overall 55% GHG saving ambition. The measures explored in the impact assessment[37] are additional elements to support and enable energy saving measures that will facilitate investments in energy efficiency improvements and thus reduce the overall cost of achieving the energy saving and the GHG reduction targets.

Measures were considered in ten different areas that are not mutually exclusive. These vary and cover non-regulatory and regulatory measures. Different regulatory measures of varying stringency were explored. The identification of the preferred option requires a judgement about the optimal impact for each area contrasted with the regulatory effort and administrative burden.

The main impact of the measure will be that the Union uses less energy without affecting the delivering of desired services. This reduction in energy use will be accompanied by co-benefits such as improved energy security and reduced environmental impacts. The lower environmental impacts are primarily due to around 8% lower emissions of air pollutants, but there are also expected to be environmental benefits from the reduced need for fuel supply,

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reduced infrastructure needs and lower emissions to water, for example from flue gas clearing equipment. Appropriately targeted public support for building renovations can also bring substantial social benefits thanks to alleviation of energy poverty and commensurate improvements in human health.

In all areas, the energy savings are mainly expected to be delivered by energy saving investments that return the capital cost in a few years. Information on the expected payback times is provided by sector and type of investment.

- **Regulatory fitness and simplification**

The revision is a Recast of the Directive. The Impact Assessment[38] identified possibilities for simplification of the existing legislation and reduction of regulatory costs while aiming at effectiveness of the proposed modifications. Removal of the alternative approach to renovation of public bodies' buildings will simplify the provisions as it would focus on renovations only. Specific technical aspects in relation to public buildings and certain exemptions are deleted given that they are regulated under the Energy Performance of Buildings Directive. Removing conditionalities of cost-effectiveness, technical or economic feasibility as regards energy efficiency requirements in public procurement will simplify the implementation of the energy efficiency requirements, as they will apply equally to all public authorities. IT development and procurement choices will be subject to pre-approval by the European Commission Information Technology and Cybersecurity Board.

Ensuring that energy audit efforts are focussed on larger energy users will lead to proportionately higher energy savings, which would result in a substantial reduction in burden for businesses with a lower energy use, as well as simplifying the burden on public administrations, since they would have a simpler criterion to assess the need for audits as well as a smaller number of businesses to verify. The increased compliance costs for those businesses remaining under the scope of the provision would be expected to be paid back through increased uptake of cost-effective improvement measures.

Amendments will strengthen the existing monitoring and reporting requirements notably regarding measures targeting energy poverty under energy savings obligation (Article 8) and building renovations for public sector, which would ensure a more effective outcomes, but will also result in a higher administrative burden for public authorities. Requiring additional monitoring and reporting requirements as regards public procurement and energy performance contracting would further improve the effectiveness of these provisions, but may increase administrative burden to some extent on businesses and public authorities.

Providing further guidance and support in view of Member States' actions, e.g. on awareness raising will result in a short-term increase of administrative burden, as the different information campaigns, knowledge exchanges or support schemes would have to be set up by Member States, but this is expected to be cost-effective in the medium term due to increased energy savings.

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The additional reporting and monitoring requirements will not create any new reporting systems but would be subject to the existing monitoring and reporting framework under the Governance Regulation (EU/2018/1999).

- **Fundamental rights**

The Proposal is in line with Article 37 of the Charter of Fundamental Rights of the European Union, which requires that a high level of environmental protection and the improvement of the quality of the environment be integrated into the policies of the Union and ensured in accordance with the principle of sustainable development.

4. BUDGETARY IMPLICATIONS

The Proposal has no implication for the Union budget. The amendments would result in moderate administrative costs for public authorities.

5. OTHER ELEMENTS

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

After the adoption of this Recast Directive by the co-legislators, during the transposition period, the Commission will undertake the following actions to facilitate its transposition:

– Drafting of a correlation table that serves as transposition check-list for both Member States and the Commission.

– Organisation of meetings with Member States' experts in charge of transposing the different parts of the Directive to discuss how to transpose them and solve doubts, either in the context of the Concerted Action for Energy Efficiency Directive (CA-EED) or in a committee format.

– Availability for bilateral meetings and calls with Member States in case of specific question on the transposition of the Directive.

– After the transposition deadline, the Commission will carry out a comprehensive assessment of whether Member States have completely and correctly transposed the Directive.

Regulation (EU) 2018/1999 on the Governance of the Energy Union and Climate Action established an integrated energy and climate planning, monitoring and reporting framework, to monitor progress towards the climate and energy targets in line with the transparency requirements of the Paris Agreement. Member States had to submit to the Commission their integrated national energy and climate plans by the end of 2019, covering the five dimensions of the Energy Union for the period 2021-2030. Member States must report biennially on the progress made in implementing the plans and in addition, by 30 June 2023 they must notify the Commission of their draft updates of the plans, with the final updates due on 30 June 2024. This update would cover any new targets agreed in the revision of EED. This reporting system under the Governance Regulation is considered to have been effective in monitoring Member States' progress towards the Union and national level energy efficiency energy contributions.

New provisions, mainly related to setting national contributions, gap filling mechanisms and reporting obligations, have been provided with this proposal. These proposals should be transferred and streamlined with the Governance Regulation (EU) 2018/1999, once it is

revised to avoid overlapping requirements. Some provisions of the Governance Regulation might also need to be reassessed in view of the changes proposed in this Directive.

An evaluation of the ambition level of Articles 4, 5, 6 and 8 is proposed in Article 33 of this recast Directive.

- **Explanatory documents (for directives)**

The EED introduces a new article (Article 3) on the Energy Efficiency First principle to ensure that the principle is applied where relevant and properly monitored across the board. The Directive does not specify how this should be done given the wide scope of application of the principle. To facilitate the implementation of the Energy Efficiency Directive provisions, the European Commission will issue a recommendation to Member States including a guidance how the principle should be interpreted and applied in various contexts. This guidance document should help make the principle more operational.

Following the ruling of the European Court of Justice in Commission vs Belgium (case C-543/17), Member States must accompany their notifications of national transposition measures with sufficiently clear and precise information, indicating which provisions of national law transpose which provisions of a directive. This must be provided for each obligation, not only at `article level´.

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

The main provisions which substantially change Directive 2012/27/EU or add new elements are the following:

Articles 1 and 4 set an increased Union binding energy efficiency target for final and primary consumption, as well as indicative national energy efficiency contributions and provides a formula to Member States to calculate their contributions. The Union targets are set in terms of the level of final and primary energy consumption to be achieved in 2030 and the level of ambition is expressed by comparing these levels to the 2020 Reference Scenario projections for 2030. The level of ambition expressed in such way reflects additional efforts compared to the efforts that are in place or indicated in the National Energy and Climate Plans. Comparisons to the previous baseline that is the 2007 Reference Scenario projections for 2030 and historical values from 2005 are kept in the recitals.

National contributions remain indicative given strong opposition by the majority of Member States towards binding national targets expressed in the public consultation and in other fora. However, benchmarks and new delivery gap mechanisms are proposed complementing those that were proposed in the Governance Regulation.

Article 3 introduces a new provision on the Energy Efficiency First principle, to provide the legal basis for the application of the principle, while minimising the administrative burden. It includes an obligation to consider energy efficiency solutions in policy and investment decisions in energy systems and non-energy sectors, including social housing.

Article 5 introduces an obligation for the public sector to reduce its energy consumption for public services and installations of public bodies. This can be reached in any subsector of the public sector, including transport, public buildings, spatial planning and water and waste management amongst others.

Article 6 broadens the scope of the renovation obligation. The obligation will now be applied to all public bodies at all administration levels and in all sectors of public bodies' activities,

including healthcare, education and public housing, where the buildings are owned by public bodies. This will bring the benefits of public buildings renovation closer to all people in all Member States and it will multiply the renovations in the public sector. Article 6 aims at renovations meeting the Near Zero Energy Buildings (NZEB) standard, which is an enhanced cost effective standard for renovations. The renovation rate remains at least 3%, which is the lowest common denominator for a minimum renovation rate, while it is recognised that some Member States, regions and cities have already adopted higher renovation requirements and standards in the public sector. Finally, the alternatives that allowed Member States to reach similar energy savings through other measures than renovations are deleted. Such measures can continue counting for the energy savings obligations under Article 8 and contribute to the achievements of the obligation under Article 8. Article 6 aims at renovations in line with the Renovation Wave Strategy.

Article 7 strengthens the public procurement provisions by extending the obligation to take into account the energy efficiency requirements by all public administration levels, and by removing conditionalities with regard to cost-effectiveness, technical and economic feasibility. The amendments will include a provision that Member States may require that public bodies consider where appropriate circular economy aspects and green public procurement criteria in public procurement practices. Member States will be required to support public bodies by providing guidelines and methodologies on the assessment of lifecycle costs, and by putting in place competence support centres and encouraging using aggregated procurement and digital procurement. Member States would be required to publish information on wining tenders (in line with the thresholds set out in the public procurement directives).

As part of the exemplary role of the public sector Article 7 also includes a provision that contracting authorities may require that tenders disclose a Global Warming Potential of new buildings (numeric indicator in kgCO2e/m² (of useful internal floor area) for each life cycle stage averaged for one year of a reference study period of 50 years), in particular for new buildings above 2000 square meters. It is linked to a provision aimed at increasing awareness to circular economy and whole life-cycle of carbon emissions in public procurement practices.

Amendments to Article 8 increase the annual energy savings obligation to 1.5% for all Member States (including Cyprus and Malta), and includes specific requirements for the alleviation of energy poverty. It requires to implement policy measures as a priority among vulnerable customers and final users, people affected by energy poverty and, where applicable, people living in social housing, and to make best possible use of public funding and, where applicable, to consider the use of revenues of ETS allowances. Article 8 requires Member States to ensure that national policy mix has no adverse effects on vulnerable customers and final users, people affected by energy poverty and, where applicable, people living in social housing and that those policies effectively alleviate and reduce energy poverty. Article 8 requires Member States to achieve a share of the total amount of required end-use energy savings among vulnerable customers and final users, people affected by energy poverty and, where applicable, people living in social housing. Article 8 establishes a delivery gap mechanism regarding the required amount of energy savings to be achieved in a given obligation period. The energy savings obligation does not foresee the application of the flexibilities to calculate the required amount of energy savings alternatively as of 1 January 2024 (Article 8(6) to (9)). Article 9 includes transmission system operators as potential obligated parties, and allows Member States to require obligated parties to achieve an amount of energy savings among vulnerable customers and final users, people affected by energy poverty and, where applicable, people living in social housing. Annex V excludes the accountability of energy saving from policy measures regarding the use of direct fossil fuel

combustion technologies, and clarifies that a reduction of the energy use through measures under the ETS Directive cannot count towards the fulfilment of the energy savings obligation, and strengthens the additionality requirement regarding taxation measures.

Article 11 shifts the criterion for energy audits and energy management systems from the type of enterprises to the levels of energy consumption and requires a sign off of the audit recommendations by the management of the company. It also requires energy management systems for the largest energy using companies, which are likely to be more effective at ensuring that more cost saving energy saving investments will be made while probably having a lower overall cost burden on the company. Finally, the Article introduces an obligation for the monitoring of the energy performance of data centres with the aim of later establishing a set of "data centre sustainability indicators".

Article 20 strengthens the protection of consumers introducing basic contractual rights for district heating, cooling and domestic hot water, in line to the rights that the Directive (EU) 2019/944 introduced for electricity.

Article 21 strengthens the obligations towards consumers, in particular the availability and provision of information, the awareness raising measures and the technical and financial advice or assistance offered. Creation of one-stop shops, single points of contact and out-of-court mechanisms for the settlement of disputes are structures that will significantly help to empower customers and final users. Finally, the Article includes obligations to identify and lift barriers relevant to the split incentives between tenants and owners or among owners.

Article 22 refers to the concept of vulnerable customers, which Member States should establish pursuant to Articles 28 and 29 of Directive (EU) 2019/944 and Article 3(3) of Directive 2009/73/EC. Article 22 requires Member States to establish that concept by taking also into account final users, who have no direct or individual contract with energy suppliers.

Article 22 introduces an obligation for Member States to implement energy efficiency improvement measures as a priority among vulnerable customers, people affected by energy poverty and, where applicable, people living in social housing, to alleviate energy poverty. Member States are required to implement energy efficiency improvement measures to mitigate distributional effects from other policies and measures, such as taxation measures implemented according to Article 9 of this Directive, or the application of emissions trading under the EU ETS Directive, and to foster the roll-out of enabling funding and financial tools. Article 22 strengthens the role of expert networks.

Articles 23 and 24 lay down stricter planning and follow up of comprehensive assessments on heating and cooling, including the promotion of local and regional levels. The Articles introduce minimum requirements for efficient district heating and cooling systems, broader cost-benefit requirements and obligations on reuse of waste heat. Minimum requirements for the efficient district heating will be gradually increased with a view to ensure fully decarbonised heat or cooling supply in efficient district heating or cooling systems by 2050. The requirements for the high-efficiency cogeneration will be complemented with a criterion on direct emissions of the CO_2 from cogeneration, when this is not fuelled with renewables or waste.

Article 25 clarifies and enhance the role of National Regulatory Authorities in implementing the 'energy efficiency first' principle in the planning and operation of energy networks. It also makes use of the knowledge of ENTSO-E, ENTSOG and the EU DSO Entity for monitoring progress. Due to the very high number of system operators, an indirect approach is preferable.

Article 26 clarifies and reinforces the provisions on availability on qualification, accreditation and certification schemes for different energy services providers, energy auditors, energy

managers and installers. New provisions will require Member States to assess the schemes every four years starting as of December 2024.

Article 27 introduces additional requirements to increase the uptake of energy performance contracting.

Article 28 introduces a requirement for Member States to report on energy efficiency investments, including on energy performance contracts concluded (as part of Governance Regulation). Member States will be required to set up project development assistance mechanisms at national, regional and local levels to promote energy efficiency investments to help reaching the higher energy efficiency targets.

↓ 2012/27/EU (adapted)

Proposal for a

DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

on energy efficiency~~, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC~~ (recast)

(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

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

Having regard to the proposal from the European Commission,

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

Having regard to the opinion of the European Economic and Social Committee[39],

Having regard to the opinion of the Committee of the Regions[40],

Acting in accordance with the ordinary legislative procedure,

Whereas:

⇩ new

(1) Directive 2012/27/EU of the European Parliament and of the Council[41] has been substantially amended several times[42]. Since further amendments are to be made, that Directive should be recast in the interests of clarity.

↓ 2012/27/EU recital 1 (adapted)

~~The Union is facing unprecedented challenges resulting from increased dependence on energy imports and scarce energy resources, and the need to limit climate change and to overcome the economic crisis. Energy efficiency is a valuable means to address these challenges. It improves the Union's security of supply by reducing primary energy consumption and decreasing energy imports. It helps to reduce greenhouse gas emissions in a cost-effective way and thereby to mitigate climate change. Shifting to a more energy-efficient economy~~

[39] OJ C […], […], p. […].

[40] OJ C […], […], p. […].

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

[42] See Annex XV, Part A.

~~should also accelerate the spread of innovative technological solutions and improve the competitiveness of industry in the Union, boosting economic growth and creating high quality jobs in several sectors related to energy efficiency.~~

↓ 2012/27/EU recital 2 (adapted)

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

↓ 2012/27/EU recital 3 (adapted)

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

↓ 2012/27/EU recital 4 (adapted)

~~The Commission Communication of 10 November 2010 on Energy 2020 places energy efficiency at the core of the Union energy strategy for 2020 and outlines the need for a new energy efficiency strategy that will enable all Member States to decouple energy use from economic growth.~~

↓ 2012/27/EU recital 5 (adapted)

~~In its resolution of 15 December 2010 on the Revision of the Energy Efficiency Action Plan, the European Parliament called on the Commission to include in its revised Energy Efficiency Action Plan measures to close the gap to reach the overall Union energy efficiency objective in 2020.~~

↓ 2012/27/EU recital 6 (adapted)

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

↓ 2012/27/EU recital 7 (adapted)

~~The Conclusions of the European Council of 4 February 2011 acknowledged that the Union energy efficiency target is not on track and that determined action is required to tap the considerable potential for higher energy savings in buildings, transport, products and~~

~~processes. Those conclusions also provide that the implementation of the Union energy efficiency target will be reviewed by 2013 and further measures considered if necessary.~~

↓ 2012/27/EU recital 8 (adapted)

~~On 8 March 2011, the Commission adopted its Communication on an Energy Efficiency Plan 2011. The Communication confirmed that the Union is not on track to achieve its energy efficiency target. This is despite the progress in national energy efficiency policies outlined in the first National Energy Efficiency Action Plans submitted by Member States in fulfilment of the requirements of Directive 2006/32/EC of the European Parliament and of the Council of 5 April 2006 on energy end-use efficiency and energy services[43]. Initial analysis of the second Action Plans confirms that the Union is not on track. To remedy that, the Energy Efficiency Plan 2011 spelled out a series of energy efficiency policies and measures covering the full energy chain, including energy generation, transmission and distribution; the leading role of the public sector in energy efficiency; buildings and appliances; industry; and the need to empower final customers to manage their energy consumption. Energy efficiency in the transport sector was considered in parallel in the White Paper on Transport, adopted on 28 March 2011. In particular, Initiative 26 of the White Paper calls for appropriate standards for CO_2 emissions of vehicles in all modes, where necessary supplemented by requirements on energy efficiency to address all types of propulsion systems.~~

↓ 2012/27/EU recital 9 (adapted)

~~On 8 March 2011, the Commission also adopted a Roadmap for moving to a competitive low carbon economy in 2050, identifying the need from this perspective for more focus on energy efficiency.~~

↓ 2012/27/EU recital 10 (adapted)

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

↓ 2012/27/EU recital 11 (adapted)

~~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[44] requires the Commission to assess and report by 2012 on the progress of the Union and its Member States towards the objective of reducing energy consumption by 20 % by 2020 compared to~~

43 ~~OJ L 114, 27.4.2006, p. 64.~~

44 ~~OJ L 140, 5.6.2009, p. 136.~~

~~projections. It also states that, to help Member States meet the Union's greenhouse gas emission reduction commitments, the Commission should propose, by 31 December 2012, strengthened or new measures to accelerate energy efficiency improvements. This Directive responds to this requirement. It also contributes to meeting the goals set out in the Roadmap for moving to a competitive low carbon economy in 2050, in particular by reducing greenhouse gas emissions from the energy sector, and to achieving zero emission electricity production by 2050.~~

↓ 2012/27/EU recital 12 (adapted)

~~An integrated approach has to be taken to tap all the existing energy saving potential, encompassing savings in the energy supply and the end-use sectors. At the same time, the provisions of Directive 2004/8/EC of the European Parliament and of the Council of 11 February 2004 on promotion of cogeneration based on a useful heat demand in the internal energy market[45] and Directive 2006/32/EC should be strengthened.~~

⇩ new

(2) With the Climate Target Plan[46], the Commission proposed to raise the Union's ambition by increasing the greenhouse gas emissions (′GHG′) target to at least 55% below 1990 levels by 2030. That is a substantial increase compared to the existing 40% target. The proposal delivered on the commitment made in the Communication on the European Green Deal[47] to put forward a comprehensive plan to increase the Union's target for 2030 towards 55% in a responsible way. It is also in accordance with the objectives of the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change (the 'Paris Agreement') to keep the global temperature increase to well below 2°C and pursue efforts to keep it to 1,5°C.

(3) In December 2020, the European Council endorsed a binding Union target of a net domestic reduction of at least 55% in greenhouse gas emissions by 2030 compared to 1990.[48] The European Council concluded that the climate ambition needed to be raised in a manner that would spur sustainable economic growth, create jobs, deliver health and environmental benefits for Union citizens, and contribute to the long-term global competitiveness of the Union′s economy by promoting innovation in green technologies.

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45 ~~OJ L 52, 21.2.2004, p. 50.~~

46 COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS Stepping up Europe's 2030 climate ambition Investing in a climate-neutral future for the benefit of our people, COM/2020/562 final.

47 COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE EUROPEAN COUNCIL, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS The European Green Deal, COM/2019/640 final.

48 https://www.consilium.europa.eu/media/47296/1011-12-20-euco-conclusions-en.pdf.

(4) To implement those objectives, the European Commission 2021 Work Programme[49] announced a 'Fit for 55' package to reduce GHG emissions by at least 55% by 2030, and to achieve a climate-neutral European Union by 2050. This package covers a range of policy areas including energy efficiency, renewable energy, land use, land change and forestry, energy taxation, effort sharing and emissions trading.

(5) Projections indicate that, with the full implementation of current policies, GHG emissions reductions by 2030 would be around 45% compared to 1990 levels, when excluding land use emissions and absorptions, and around 47%, when including these. The 2030 Climate Target Plan therefore foresees a set of actions required across all sectors of the economy and revisions of the key legislative instruments to reach that increased ambition.

(6) Energy efficiency is a key area of action, without which the full decarbonisation of the Union´s economy cannot be achieved[50]. The need to capture the cost-effective energy saving opportunities has led to the Union´s current energy efficiency policy. In December 2018, a new 2030 Union headline energy efficiency target of at least 32,5% (compared to projected energy use in 2030) was included as part of the 'Clean Energy for All Europeans package'.

(7) To achieve the increased climate ambition, the impact assessment accompanying the Climate Target Plan has shown that energy efficiency improvements will need to be significantly raised from the current level of ambition of 32,5%.

(8) The sum of national contributions communicated by Member States in their National Energy and Climate Plans (NECPs) falls short of the Union's level of ambition of 32,5%. The contributions collectively would lead to a reduction of 29,4% for final energy consumption and 29,7% for primary energy consumption compared to the projections from the 2007 reference scenario for 2030. That would translate in a collective gap of 2,8 percentage points for primary energy consumption and 3,1 percentage points for final energy consumption for the EU 27.

(9) While the energy savings potential remains large in all sectors, there is a particular challenge related to transport, as it is responsible for more than 30% of final energy consumption, and to buildings, since 75% of the Union´s building stock has a poor energy performance. Another increasingly important sector is the information and communications technology (ICT) sector, which is responsible for 5-9% of the world's total electricity use and more than 2% of all emissions. In 2018, data centres accounted for 2,7% of the electricity demand in the EU28.[51] In that context, the Union's Digital

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[49] COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS Commission Work Programme 2021 A Union of vitality in a world of fragility COM/2020/690 final.

[50] Communication A Clean Planet for all – A European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy (COM/2018/773 final), where the role of energy efficiency as a condition sine qua non for all decarbonisation scenarios is assessed.

[51] See also European Commission, Final study report, Energy-efficient Cloud Computing Technologies and Policies for an Eco-friendly Cloud Market, https://digital-strategy.ec.europa.eu/en/library/energy-efficient-cloud-computing-technologies-and-policies-eco-friendly-cloud-market.

Strategy[52] highlighted the need for highly energy-efficient and sustainable data centres and transparency measures for telecoms operators as regards their environmental footprint. Furthermore, the possible increase in industry's energy demand that may result from its decarbonisation, particularly for energy intensive processes, should also be taken into account.

(10) The higher level of ambition requires a stronger promotion of cost-effective energy efficiency measures in all areas of the energy system and in all relevant sectors where activity affects energy demand, such as the transport, water and agriculture sectors. 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 GHG emissions, improve energy security, cut energy costs for households and companies, help alleviate energy poverty, and lead to increased competitiveness, more jobs and increased economic activity throughout the economy, thus improving citizens' quality of life. That complies with the Union commitments made in the framework of the Energy Union and global climate agenda established by the 2015 Paris Agreement.

↓ 2018/2002 recital 1

~~Moderation of energy demand is one of the five dimensions of the Energy Union Strategy established by the Commission communication of 25 February 2015 entitled 'A Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy'. 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, more jobs and increased economic activity throughout the economy, 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 2015 Paris Agreement on climate change following the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change[53] (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.~~

↓ 2018/2002 recital 2 (adapted)
⇨ new

(11) ⌦ This ⌫ Directive ~~2012/27/EU of the European Parliament and of the Council[54] is an element to progress~~ ⌦ takes a step forward ⌫ towards ~~the Energy Union~~

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[52] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions – Shaping Europe's digital future (COM(2020) 67 final).

[53] ~~OJ L 282, 19.10.2016, p. 4.~~

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

⇨ climate neutrality by 2050 ⇦, under which energy efficiency is to be treated as an energy source in its own right. The energy efficiency first principle ⇨ is an overarching principle that ⇦ should be taken into account ⇨ across all sectors, going beyond the energy system, at all levels, including in the financial sector. Energy efficiency solutions should be considered as the first option in policy, planning and investment decisions, ⇦ when setting new rules for the supply side and other policy areas. ⇨ While the energy efficiency first principle should be applied without prejudice to other legal obligations, objectives and principles, they should also not hamper its application or exempt from applying the principle. ⇦ 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 to financing are taken.~~ Energy efficiency improvements need to be made whenever they are more cost-effective than equivalent supply-side solutions. ⌦ That should ⌫ ~~This ought~~ ~~to~~ help exploit the multiple benefits of energy efficiency for the Union, in particular for citizens and businesses. ⇨ Implementing energy efficiency improvement measures should also be a priority in alleviating energy poverty. ⇦

🡻 2018/2002 recital 3
⇨ new

(12) Energy efficiency should be recognised as a crucial element and a priority consideration in future investment decisions on the Union's energy infrastructure. ⇨ The energy efficiency first principle should be applied taking primarily the system efficiency approach and societal perspective into consideration. Consequently, it should help increase the efficiency of individual end-use sectors and of the whole energy system. Application of the principle should also support investments in energy-efficient solutions contributing to environmental objectives listed in Regulation (EU) 2020/852 of the European Parliament and of the Council[55]. ⇦

⇩ new

(13) The energy efficiency first principle was defined in the Regulation (EU) 2018/1999 of the European Parliament and of the Council[56] and is at the core of the Energy System Integration Strategy[57]. While the principle is based on cost-effectiveness, its application has wider implications, which can vary depending on the circumstances. The Commission prepared dedicated guidelines for the operation and application of the principle, by proposing specific tools and examples of application in various sectors. The Commission has also issued a recommendation to Member States that

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[55] OJ L 198, 22.6.2020, p. 13–43.

[56] Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action, amending Regulations (EC) No 663/2009 and (EC) No 715/2009 of the European Parliament and of the Council, Directives 94/22/EC, 98/70/EC, 2009/31/EC, 2009/73/EC, 2010/31/EU, 2012/27/EU and 2013/30/EU of the European Parliament and of the Council, Council Directives 2009/119/EC and (EU) 2015/652 and repealing Regulation (EU) No 525/2013 of the European Parliament and of the Council, PE/55/2018/REV/1, OJ L 328, 21.12.2018, p. 1–77.

[57] An EU Strategy for Energy System Integration COM(2020) 299 final.

builds on the requirements of this Directive and calls for specific actions in relation to the application of the principle.

(14) In order to have an impact, the energy efficiency first principle needs to be consistently applied by decision makers in all relevant policy, planning and major investment decisions – that is to say large-scale investments with a value of more than 50 euro million each or 75 euro million for transport infrastructure projects – affecting energy consumption or supply. The proper application of the principle requires using the right cost-benefit analysis methodology, setting enabling conditions for energy efficient solutions and proper monitoring. Demand side flexibility can bring significant benefits to consumers and to society at large, and can increase the efficiency of the energy system and decrease the energy costs, for example by reducing system operation costs resulting in lower tariffs for all consumers. Member States should take into account potential benefits from demand side flexibility in applying the energy efficiency first principle and where relevant consider demand response, energy storage and smart solutions as part of their efforts to increase efficiency of the integrated energy system.

(15) The energy efficiency first principle should always be applied in a proportional way and the requirements of this Directive should not entail overlapping or conflicting obligations on Member States, where the application of the principle is ensured directly by other legislation. This might be the case for the projects of common interest included in the Union list pursuant to [Article 3 of the revised TEN-E regulation], which introduces the requirements to consider the energy efficiency first principle in the development and assessment for those projects.

(16) A fair transition towards a climate-neutral Union by 2050 is central to the European Green Deal. Energy poverty is a key concept consolidated in the legislative package entitled 'Clean Energy for All Europeans' and designed to facilitate a just energy transition. Pursuant to Regulation (EU) 2018/1999 and Directive (EU) 2019/944 of the European Parliament and of the Council[58], the Commission provided indicative guidance on appropriate indicators for measuring energy poverty and defining what a 'significant number of households in energy poverty' is.[59] Directive (EU) 2019/944 and Directive 2009/73/EC of the European Parliament and of the Council[60] requires Member States to take appropriate measures to address energy poverty wherever it is identified, including measures addressing the broader context of poverty.

(17) Low and medium income households, vulnerable customers, including final users, people facing or risking energy poverty and people living in social housing should benefit from the application of the energy efficiency first principle. Energy efficiency measures should be implemented as a priority to improve the situations of those individuals and households or to alleviate energy poverty. A holistic approach in policy making and in implementing policies and measures requires Member States to

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[58] Directive (EU) 2019/944 of the European Parliament and of the Council on common rules for the internal market for electricity and amending Directive 2012/27/EU (OJ L 158, 14.6.2019, p. 125).

[59] Commission Recommendation on energy poverty, C(2020) 9600 final.

[60] Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC (OJ L 211, 14.8.2009, p. 94).

ensure that other policies and measures have no adverse effect on these individuals and households.

(18) This Directive is part of a broader policy framework of energy efficiency policies addressing energy efficiency potentials in specific policy areas, including buildings (Directive 2010/31/EC[61]), products (Directive 2009/125/EC, Regulation (EU) 2017/1369 and Regulation (EU) 2020/740[62]) and governance mechanism (Regulation (EU) 2018/1999). Those policies play a very important role in delivering energy savings when products are replaced or buildings constructed or renovated[63].

↓ 2018/2002 recital 4
⇨ new

~~(19)~~ Reaching an ambitious energy efficiency target requires barriers to be removed in order to facilitate investment in energy efficiency measures. ⇨ The LIFE Clean Energy Transition sub-programme will dedicate funding to support development of the European best practice in energy efficiency policy implementation addressing behavioural, market, and regulatory barriers to energy efficiency. ⇦ ~~One step in that direction is the clarification provided by Eurostat on 19 September 2017 on how to record energy performance contracts in national accounts, which removes uncertainties and facilitates the use of such contracts.~~

↓ 2018/2002 recital 5 (adapted)

(20) The European Council of 23 and 24 October 2014 supported a 27% energy efficiency target for 2030 at Union level, to be reviewed by 2020 having in mind a Union-level target of 30%. In its resolution of 15 December 2015 entitled 'Towards a European Energy Union', the European Parliament called on the Commission to assess, in addition, the viability of a 40% energy efficiency target for the same timeframe. ~~It is therefore appropriate to amend Directive 2012/27/EU, in order to adapt it to the 2030 perspective.~~

⇩ new

(21) It is projected that the 32,5% Union´s energy efficiency target for 2030 and the other policy instruments of the existing framework would lead to a reduction in GHG emission of about 45% by 2030.[64] For an increased climate ambition of a 55%

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[61] Directive 2010/31/EC of the European Parliament and of the Council of 19 May 2010 on the energy performance of buildings.

[62] Directive 2009/125/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for the setting of ecodesign requirements for energy-related products; Regulation (EU) 2017/1369 of the European Parliament and of the Council of 4 July 2017 setting a framework for energy labelling and Regulation (EU) 2020/740 of the European Parliament and of the Council of 25 May 2020 on the labelling of tyres with respect to fuel efficiency and other parameters respectively.

[63] Moreover, implementation of the product reviews under the Ecodesign Working Plan 2020-2024 and the "Renovation Wave" Action plan, together with the review of the EPBD, will make an important contribution to reaching the 2030 energy saving target.

[64] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee, the Committee of the Regions and the European Investment Bank – A

decrease of GHG emissions by 2030, the impact assessment of the 2030 Climate Target Plan assessed what level of efforts would be needed in the different policy areas. It concluded that, in relation to the baseline, achieving the GHG emissions target in a cost-optimal way meant that final and primary energy consumption are to decreased by at least 36-37% and 39-41% respectively.

(22) The Union's energy efficiency target was initially set and calculated using the 2007 Reference Scenario projections for 2030 as a baseline. The change in the Eurostat energy balance calculation methodology and improvements in subsequent modelling projections call for a change of the baseline. Thus, using the same approach to define the target, that is to say comparing it to the future baseline projections, the ambition of the Union's 2030 energy efficiency target is set compared to the 2020 Reference Scenario projections for 2030 reflecting national contributions from the NECPs. With that updated baseline, the Union will need to further increase its energy efficiency ambition by at least 9% in 2030 compared to the level of efforts under the 2020 Reference Scenario. The new way of expressing the level of ambition for the Union's targets does not affect the actual level of efforts needed and corresponds to a reduction of 36% for final and 39% for primary energy consumption respectively when compared to the 2007 Reference Scenario projections for 2030.

(23) The methodology for calculation of final and primary energy consumption is aligned with the new Eurostat methodology, but the indicators used for the purpose of this Directive have different scope - that is they exclude ambient heat and include energy consumption in international aviation for the target in final energy consumption. The use of new indicators also implies that any changes in energy consumption of blast furnaces are now only reflected in primary energy consumption.

↓ 2018/2002 recital 6 (adapted)
⇨ new

(24) The need for the Union to ~~achieve~~ ⇨ improve ⇦ its energy efficiency ~~targets at Union level,~~ ⌦ should be ⌫ expressed in primary and~~/or~~ final energy consumption, ~~should be clearly set out in the form of a target of at least 32,5 % for 2030. Projections made in 2007 showed a primary energy consumption in 2030 of 1887 Mtoe and a final energy consumption of 1416 Mtoe. A 32,5 % reduction results in 1273 Mtoe and 956 Mtoe in 2030 respectively. That target, which is of the same nature as the Union's 2020 target, should be assessed by the Commission for the purpose of revising it upwards by 2023 in the case of substantial cost reductions or, where needed, to meet the Union's international commitments for decarbonisation.~~ ⇨ to be achieved in 2030, indicating additional level of efforts required when compared to the measures in place or planned measures in the national energy and climate plans. The 2020 Reference Scenario projects 864 Mtoe of final energy consumption and 1124 Mtoe of primary energy consumption to be reached in 2030 (excluding ambient heat and including international aviation). An additional reduction of 9% results in 787 Mtoe and 1023 Mtoe in 2030 respectively. Compared to 2005 levels, it means that final energy consumption in the Union should be reduced by some 23% and primary energy

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Clean Planet for all A European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy (COM(2018) 773 final).

consumption should be reduced by some 32%. ⇦ There are no binding targets at Member State level in the 2020 and 2030 perspectives, and ⇨ Member States should establish their contributions to the achievement of the Union's energy efficiency target taking into account the formula provided in this Directive. ⇦ the freedom of Member States ⌦ should be free ⌫ to set their national contributions ⇨ objectives ⇦ based either on primary or final energy consumption or primary or final energy savings, or on energy intensity, should continue not to be restricted. ⇨ This Directive amends the way how Member States should express their national contributions to the Union´s target. Member States' contributions to the Union's target should be expressed in final and primary energy consumption to ensure consistency and monitoring of progress. ⇦ 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 1273 Mtoe of primary energy and/or no more than 956 Mtoe of final energy. This means that primary energy consumption in the Union should be reduced by 26 %, and final energy consumption should be reduced by 20 % compared to the 2005 levels. A regular evaluation of progress towards the achievement of the Union's 2030 targets is necessary and is provided for in Regulation (EU) 2018/1999.

↓ 2012/27/EU recital 13
⇨ new

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

↓ 2012/27/EU recital 14 (adapted)

Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources[65] states that Cyprus and Malta, due to

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65 OJ L 140, 5.6.2009, p. 16.

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

↓ 2012/27/EU recital 15 (adapted)
⇨ new

(26) ~~The total volume of public spending is equivalent to 19 % of the Union's gross domestic product.~~ ⇨ The public sector is responsible for around 5 to 10% of total Union's final energy consumption. Public authorities spend approximately 1.8 trillion euro annually. This represents around 14% of the Union's gross domestic product. ⇦ For ~~this~~ ⌦ that ⌫ reason the public sector constitutes an important driver to stimulate market transformation towards more efficient products, buildings and services, as well as to trigger behavioural changes in energy consumption by citizens and enterprises. Furthermore, decreasing energy consumption through energy efficiency improvement measures can free up public resources for other purposes. Public bodies at national, regional and local level should fulfil an exemplary role as regards energy efficiency.

↓ 2012/27/EU recital 16 (adapted)

~~Bearing in mind that the Council conclusions of 10 June 2011 on the Energy Efficiency Plan 2011 stressed that buildings represent 40 % of the Union's final energy consumption, and in order to capture the growth and employment opportunities in the skilled trades and construction sectors, as well as in the production of construction products and in professional activities such as architecture, consultancy and engineering, Member States should establish a long-term strategy beyond 2020 for mobilising investment in the renovation of residential and commercial buildings with a view to improving the energy performance of the building stock. That strategy should address cost-effective deep renovations which lead to a refurbishment that reduces both the delivered and the final energy consumption of a building by a significant percentage compared with the pre-renovation levels leading to a very high energy performance. Such deep renovations could also be carried out in stages.~~

⇩ new

(27) To lead by example, the public sector should set its own decarbonisation and energy efficiency goals. Energy efficiency improvements in the public sector should reflect the efforts required at Union level. To comply with the final energy consumption target, the Union should decrease its final energy consumption by 19% by 2030 as compared to the average energy consumption in years 2017, 2018 and 2019. An obligation to achieve an annual reduction of the energy consumption in the public sector by at least 1,7% should ensure that the public sector fulfils its exemplary role. Member States retain full flexibility regarding the choice of energy efficiency improvement measures to achieve a reduction of the final energy consumption. Requiring an annual reduction of final energy consumption has a lower administrative burden than establishing measurement methods for energy savings.

(28) To fulfil their obligation, Member States should target the final energy consumption of all public services and installations of public bodies. To determine the scope of

addressees, Member States should apply the definition of contracting authorities provided in the Directive 2014/24/EU of the European Parliament and of the Council[66]. The obligation can be fulfilled by the reduction of final energy consumption in any area of the public sector, including transport, public buildings, healthcare, spatial planning, water management and wastewater treatment, sewage and water purification, waste management, district heating and cooling, energy distribution, supply and storage, public lighting, infrastructure planning. To lower the administrative burden for public bodies, Member States should establish digital platforms or tools to collect the aggregated consumption data from public bodies, make them publicly available, and report the data to the Commission.

(29) Member States should exercise an exemplary role by ensuring that all energy performance contracts and energy management systems are carried out in the public sector in line with European or international standards, or that energy audits are used to a large extent in the intense energy consuming parts of the public sector.

(30) Public authorities are encouraged to obtain support from entities such as sustainable energy agencies, where applicable established at regional or local level. The organisation of those agencies usually reflect the individual needs of public authorities in a certain region or operating in a certain area of the public sector. Centralised agencies can serve the needs better and work more effectively in other respects, for example, in smaller or centralised Member States or regarding complex or cross-regional aspects such as district heating and cooling. Sustainable energy agencies can serve as one-stop-shops pursuant to Article 21. Those agencies are often responsible for developing local or regional decarbonisation plans, which may also include other decarbonisation measures, such as the exchange of fossil fuels boilers, and to support public authorities in the implementation of energy related policies. Sustainable energy agencies or other entities to assist regional and local authorities may have clear competences, objectives and resources in the field of sustainable energy. Sustainable energy agencies could be encouraged to consider initiatives taken in the framework of the Covenant of Mayors, which brings together local governments voluntarily committed to implementing the Union´s climate and energy objectives, and other existing initiatives for this purpose. The decarbonisation plans should be linked to territorial development plans and take into account the comprehensive assessment which the Member States should carry out.

(31) (31) Member States should support public bodies in planning and the uptake of energy efficiency improvement measures, including at regional and local levels, by providing guidelines promoting competence building and training opportunities and encouraging cooperation amongst public bodies including amongst agencies. For that purpose, Member States could set up national competence centres on complex issues, such as advising local or regional energy agencies on district heating or cooling.

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66 Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, OJ L 94 28.3.2014, p. 65.

↓ 2012/27/EU recital 17 (adapted)
⇨ new

~~(32) The rate of building renovation needs to be increased, as the existing building stock represents the single biggest potential sector for energy savings.~~ ⇨ Buildings and transport, alongside industry, are the main energy users and main source of emissions.[67] Buildings are responsible for about 40% of the Union's total energy consumption and for 36% of its GHG from energy.[68] The Commission Communication entitled Renovation Wave[69] addresses the twin challenge of energy and resource efficiency and affordability in the building sector and aims at doubling the renovation rate. It focusses on the worst performing buildings, energy poverty and on public buildings. ⇦ Moreover, buildings are crucial to achieving the Union objective of ~~reducing greenhouse gas emissions by 80-95 %~~ ⇨ reaching climate neutrality ⇦ by 2050 ~~compared to 1990~~. Buildings owned by public bodies account for a considerable share of the building stock and have high visibility in public life. It is therefore appropriate to set an annual rate of renovation of buildings owned ~~and occupied~~ by ~~central government~~ ⇨ public bodies ⇦ on the territory of a Member State to upgrade their energy performance. ⇨ Member States are invited to set a higher renovation rate, where that is cost-effective in the framework of the renovation of their buildings stock in conformity with their Long Term Renovation Strategies or national renovation programmes. ⇦ ~~This~~ ⌦ That ⌫ renovation rate should be without prejudice to the obligations with regard to nearly-zero energy buildings ⌦ (NZEBs) ⌫ set in Directive 2010/31/EU of the European Parliament and of the Council ~~of 19 May 2010 on the energy performance of buildings~~[70]. ⇨ During the next review of Directive 2010/31/EU, the Commission should assess the progress Member States achieved regarding the renovation of public bodies' buildings. The Commission should consider submitting a legislative proposal to revise the renovation rate, while taking into account the progress achieved by the Member States, substantial economic or technical developments, or where needed, the Union´s commitments for decarbonisation and zero pollution. ⇦ The obligation to renovate ~~central government~~ ⇨ public bodies' ⇦ buildings in this Directive complements that Directive, which requires Member States to ensure that when existing buildings undergo major renovation their energy performance is upgraded so that they meet ~~minimum energy performance~~ ⌦ the ⌫ requirements ⇨ on NZEBs ⇦. ~~It should be possible for Member States to take alternative cost-effieient measures to achieve an equivalent improvement of the energy performance of the buildings within their central government estate. The obligation to renovate floor area of central government buildings should apply to the administrative departments whose competence extends over the whole territory of a Member State. When in a given Member State and for a~~

67 COM/2020/562 final.

68 See IRP, Resource Efficiency and Climate Change, 2020, and UN Environment Emissions Gap Report, 2019. These figures refer to the use and operation of buildings, including indirect emissions in the power and heat sector, not their full life cycle. The embodied carbon in construction is estimated to account for about 10% of total yearly greenhouse gas emissions worldwide.

69 COM/2020/662 final.

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

~~given competence no such relevant administrative department exists that covers the whole territory, the obligation should apply to those administrative departments whose competences cover collectively the whole territory.~~

⇩ new

(33) To set the rate of renovations, Member States need to have an overview of the buildings that do not reach the NZEB level. Therefore, Member States should publish and keep updated an inventory of public buildings as part of an overall database of energy performance certificates. That inventory should enable also private actors including energy service companies to propose renovation solutions and they can be aggregated by the Union Building Stock Observatory.

🡻 2012/27/EU recital 18
⇨ new

(34) ⇨ In 2020, more than half of the world's population lives in urban areas. That figure is expected to reach 68% by 2050[71]. In addition, half of the urban infrastructures by 2050 are still to be built[72]. Cities and metropolitan areas are centres of economic activity, knowledge generation, innovation and new technologies. Cities influence the quality of life of the citizens who live or work in them. Member States should support municipalities technically and financially. ⇦ A number of municipalities and other public bodies in the Member States have already put into place integrated approaches to energy saving and energy supply, for example via sustainable energy action plans, such as those developed under the Covenant of Mayors initiative, and integrated urban approaches which go beyond individual interventions in buildings or transport modes.

🡻 2012/27/EU recital 19
⇨ new

(35) With regard to the purchase of certain products and services and the purchase and rent of buildings, ~~central governments~~ ⇨ contracting authorities and contracting entities ⇦ which conclude public works, supply or service contracts should lead by example and make energy-efficient purchasing decisions ⇨ and apply the energy efficiency first principle, including for those public contracts and concessions for which no specific requirements are provided for in Annex IV ⇦. This should apply to the administrative departments whose competence extends over the whole territory of a Member State. When in a given Member State and for a given competence no such relevant administrative department exists that covers the whole territory, the obligation should apply to those administrative departments whose competences cover collectively the whole territory. The provisions of the Union's public procurement directives should not however be affected. ⇨ Member States should remove barriers to joint procurement within a Member State or across borders if this can reduce the costs,

[71] https://www.unfpa.org/world-population-trends
[72] https://www.un.org/en/ecosoc/integration/pdf/fact_sheet.pdf

enhance the benefits of the internal market by creating business opportunities for suppliers and energy service providers. ⇦

⇩ new

(36) All public entities investing public resources through procurement should lead by example when awarding contracts and concessions by choosing products, services works and buildings with the highest energy efficiency performance, also in relation to those procurements that are not subject to specific requirements under Directive 2009/30/EC. In that context, all award procedures for public contracts and concessions with the value above the thresholds set out in Articles 6 and 7 of Directive 2014/23/EU of the European Parliament and of the Council[73], Article 2(1) of Directive 2014/24/EU of the European Parliament and of the Council[74], and Articles 3 and 4 of Directive 2014/25/EU of the European Parliament and of the Council, need to take into account the energy efficiency performance of the products, buildings and services set by Union or national law, by considering as priority the energy efficiency first principle in their procurement procedures,

(37) It is also important that Member States monitor how the energy efficiency requirements are taken into account by contracting authorities and contracting entities in the procurement of products, buildings, works and services by ensuring that information about the impact on energy efficiency of those winning tenders above the thresholds referred to in the procurement directives are made publically available. That allows stakeholders and citizens to assess the role of public sector towards ensuring energy efficiency first in public procurement in a transparent manner.

(38) The European Green Deal recognises the role of circular economy in contributing to overall Union decarbonisation objectives. The public sector can contribute to those objectives by using their purchasing power to, where appropriate, choose environmentally friendly products, buildings, services and works via available tools for green public procurement, and thus making an important contribution to reduce energy consumption and environmental impacts.

(39) It is important that Member States provide the necessary support to public bodies in the uptake of energy efficiency requirements in public procurement and, where appropriate, use of green public procurement, by providing necessary guidelines and methodologies on carrying out the assessment of life-cycle costs, and environment impacts and costs. Well-designed tools, in particular digital tools, are expected to facilitate the procurement procedures and reduce the administrative costs especially in smaller Member States that may not have sufficient capacity to prepare tenders. In this regard, Member States should actively promote the use of digital tools and cooperation amongst contracting authorities including across borders for the purpose of exchanging best practice.

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[73] Directive 2014/23/EU of the European Parliament and of the Council of 26 February 2014 on the award of concession contracts, OJ L 94, 28.3.2014, p. 1.

[74] Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC (OJ L 94, 28.3.2014, p. 65).

(40) Given that buildings are responsible for greenhouse gas emissions before and after their operational lifetime, Member States should also consider the whole life-cycle of carbon emissions of buildings. That takes place in the context of efforts to increase attention to whole life cycle performance, circular economy aspects and environmental impacts, as part of the exemplary role of the public sector. Public procurement can thus serve as an opportunity to address the embodied carbon in buildings over their life-cycle. In this regard, contracting authorities are important actors that can take action as part of procurement procedures by purchasing new buildings that address global warming potential over the full life-cycle.

(41) The global warming potential over the full life-cycle measures the greenhouse gas emissions associated with the building at different stages along its life cycle. It therefore measures the building's overall contribution to emissions that lead to climate change. That is sometimes referred to as a carbon footprint assessment or the whole life carbon measurement. It brings together carbon emissions embodied in building materials with direct and indirect carbon emissions from use stage. Buildings are a significant material bank, being repositories for carbon intensive resources over many decades, and so it is important to explore designs that facilitate future reuse and recycling at the end of the operational life.

(42) The global warming potential is expressed as a numeric indicator in kgCO2e/m² (of useful internal floor area) for each life-cycle stage averaged for one year of a reference study period of 50 years. The data selection, scenario definition and calculations are carried out in accordance with standard EN 15978. The scope of building elements and technical equipment are set out in indicator 1,2 of the Level(s) common Union framework. Where a national calculation tool exists, or is required for making disclosures or for obtaining building permits, it should be possible to use that national tool to provide the required information. It should be possible to use other calculation tools, if they fulfil the minimum criteria laid down by the Level(s) common Union framework.

↓ 2012/27/EU recital 20 (adapted)

~~An assessment of the possibility of establishing a 'white certificate' scheme at Union level has shown that, in the current situation, such a system would create excessive administrative costs and that there is a risk that energy savings would be concentrated in a number of Member States and not introduced across the Union. The objective of such a Union-level scheme could be better achieved, at least at this stage, by means of national energy efficiency obligation schemes for energy utilities or other alternative policy measures that achieve the same amount of energy savings. It is appropriate for the level of ambition of such schemes to be established in a common framework at Union level while providing significant flexibility to Member States to take fully into account the national organisation of market actors, the specific context of the energy sector and final customers' habits. The common framework should give energy utilities the option of offering energy services to all final customers, not only to those to whom they sell energy. This increases competition in the energy market because energy utilities can differentiate their product by providing complementary energy services. The common framework should allow Member States to include requirements in their national scheme that pursue a social aim, in particular in order to ensure that vulnerable customers have access to the benefits of higher energy efficiency. Member States should determine, on the basis of objective and non-discriminatory criteria, which energy distributors~~

~~or retail energy sales companies should be obliged to achieve the end-use energy savings target laid down in this Directive.~~

~~Member States should in particular be allowed not to impose this obligation on small energy distributors, small retail energy sales companies and small energy sectors to avoid disproportionate administrative burdens. The Commission Communication of 25 June 2008 sets out principles that should be taken into account by Member States that decide to abstain from applying this possibility. As a means of supporting national energy efficiency initiatives, obligated parties under national energy efficiency obligation schemes could fulfil their obligations by contributing annually to an Energy Efficiency National Fund an amount that is equal to the investments required under the scheme.~~

↓ 2012/27/EU recital 21 (adapted)

~~Given the over-arching imperative of restoring sustainability to public finances and of fiscal consolidation, in the implementation of particular measures falling within the scope of this Directive, due regard should be accorded to the cost-effectiveness at Member State level of implementing energy efficiency measures on the basis of an appropriate level of analysis and evaluation.~~

↓ 2012/27/EU recital 22 (adapted)

~~The requirement to achieve savings of the annual energy sales to final customers relative to what energy sales would have been does not constitute a cap on sales or energy consumption. Member States should be able to exclude all or part of the sales of energy, by volume, used in industrial activities listed in Annex I to Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community[75] for the calculation of the energy sales to final customers, as it is recognised that certain sectors or subsectors within these activities may be exposed to a significant risk of carbon leakage. It is appropriate that Member States are aware of the costs of schemes in order to be able to accurately assess the costs of measures.~~

↓ 2012/27/EU recital 23 (adapted)

~~Without prejudice to the requirements in Article 7 and with a view to limiting the administrative burden, each Member State may group all individual policy measures to implement Article 7 into a comprehensive national energy efficiency programme.~~

↓ 2018/2002 recital 7 (adapted)
⇨ new

(43) ⇨ Directive 2010/75/EU of the European Parliament and of the Council[76] governs installations that contribute to energy production or use energy for production purposes, and information on the energy used in or generated by the installation must

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75 ~~OJ L 275, 25.10.2003, p. 32.~~

76 Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control), OJ L 334, 17.12.2010, p. 17.

be included in applications for integrated permits (Article 12(1)(b)). Moreover, that Directive specifies in Article 11 of that Directive that efficient use of energy is one of the general principles governing the basic obligations of the operator and one of the criteria for determining best available techniques pursuant to Annex III of the Directive 2010/75/EU. ⇦ 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.

🡻 2018/2002 recital 8

(44) Improvement in energy efficiency can contribute to higher economic output. Member States and the Union should aim to decrease energy consumption regardless of levels of economic growth.

🡻 2018/2002 recital 10 (adapted)
⇨ new

(45) ~~In view of the climate and energy framework for 2030,~~ Tthe energy savings obligation established by ⌦ this ⌫ Directive ~~2012/27/EU~~ should ⇨ be increased and ⇦ ~~be extended beyond~~ ⌦ should also apply after ⌫ ~~2020~~ ⇨ 2030 ⇦. That ~~extension would create greater~~ ⌦ ensures ⌫ 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 NZEBs. The energy savings obligation has an important role in the creation of local growth, ~~and~~ jobs, ⇨ competitiveness and alleviating energy poverty. ⇦ ~~and~~ ⌦ It ⌫ should ~~be maintained to~~ ensure that the Union can achieve its energy and climate objectives by creating further opportunities and to break the link between energy consumption and growth. Cooperation with the private sector is important to assess the conditions on which private investment for energy efficiency projects can be unlocked and to develop new revenue models for innovation in the field of energy efficiency.

🡻 2018/2002 recital 11

(46) Energy efficiency improvement measures also have a positive impact on air quality, as more energy efficient buildings contribute to reducing the demand for heating fuels, including solid heating fuels. Energy efficiency measures therefore contribute to improving indoor and outdoor air quality and help achieve, in a cost effective manner, the objectives of the Union's air quality policy, as established in particular by Directive (EU) 2016/2284 of the European Parliament and of the Council[77].

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[77] Directive (EU) 2016/2284 of the European Parliament and of the Council of 14 December 2016 on the reduction of national emissions of certain atmospheric pollutants, amending Directive 2003/35/EC and repealing Directive 2001/81/EC (OJ L 344, 17.12.2016, p. 1).

↓ 2018/2002 recital 12 (adapted)
⇨ new

~~(47)~~ Member States are required to achieve cumulative end-use energy savings for the entire obligation period ~~2021~~ ⌦ up ⌫ to 2030, equivalent to new annual savings of at least 0,8% of final energy consumption ⇨ up to 31 December 2023 and of at least 1,5% as of 1 January 2024 ⇦. That 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, provided that the individual actions that trigger energy savings are introduced during the ⌦ following ⌫ ~~new~~ period. To that end, Member States should be able to make use of an energy efficiency obligation scheme, alternative policy measures, or both. ~~In addition, various options, including whether energy used in transport is included, in whole or in part, in the calculation baseline, should be provided in order to give Member States flexibility in how they calculate the amount of their energy savings, whilst ensuring that the required cumulative end-use energy savings equivalent to new annual savings of at least 0,8 % are reached.~~

↓ 2018/2002 recital 13 (adapted)
⇨ new

(48) ~~It would, however, be disproportionate to impose such a requirement on Cyprus and on 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 district cooling systems, as well as the small size of petroleum distribution companies. Those specific characteristics are compounded by the small size of the energy markets of those Member States. Therefore,~~ ⇨ For the period 2021 to 31 December 2023, ⇦ Cyprus and Malta should be required ~~only~~ to achieve cumulative end-use energy savings equivalent to new savings of 0,24 % of final energy consumption ⌦ only ⌫ for the period 2021 to 2030. ⇨ That individual savings rate should cease to apply from 1 January 2024. ⇦

↓ 2018/2002 recital 14 (adapted)
⇨ new

(49) Where ~~they use~~ ⌦ using ⌫ an obligation scheme, Member States should designate obligated parties among ⇨ transmission system operators, ⇦ energy distributors, retail energy sales companies and transport fuel distributors or retailers on the basis of objective and non-discriminatory criteria. The designation or exemption from designation of certain categories of such distributors or retailers should not be understood to be incompatible with the principle of non-discrimination. Member States are therefore able to choose whether such ⇨ transmission system operators, ⇦ distributors or retailers or only certain categories thereof are designated as obligated parties. ⇨ To empower and protect vulnerable customers, people affected by energy poverty and people living in social housing, and to implement policy measures as a priority among those people, Member States can require obligated parties to achieve energy savings among vulnerable customers, people affected by energy poverty and

people living in social housing. For that purpose, Member States can also establish energy cost reduction targets. Obligated parties could achieve these targets by promoting the installation of measures that lead to energy savings and financial savings on energy bills, such as the installation of insulation and heating measures. ⇦

⇩ new

(50) When designing policy measures to fulfil the energy savings obligation, Member States should respect the climate and environmental standards and priorities of the Union and comply with the principle of 'do no significant harm' within the meaning of Regulation (EU) 2020/852[78]. Member States should not promote activities that are not environmentally sustainable such as use of solid fossil fuels. The energy savings obligation aims at strengthening the response to climate change by promoting incentives to Member States to implement a sustainable and clean policy mix, which is resilient, and mitigates climate change. Therefore, energy savings from policy measures regarding the use of direct fossil fuel combustion will not be eligible energy savings under energy savings obligation as of transposition of this Directive. It will allow aligning the energy savings obligation with the objectives of the European Green Deal, the Climate Target Plan, the Renovation Wave Strategy, and mirror the need for action identified by the IEA in its net zero report[79]. The restriction aims at encouraging Member States to spend public money into future-proof, sustainable technologies only. It is important that Member States provide a clear policy framework and investment certainty to market actors. The implementation of the calculation methodology under energy savings obligation should allow all market actors to adapt their technologies in a reasonable timeframe. Where Member States support the uptake of efficient fossil fuel technologies or early replacement of such technology, for example through subsidy schemes or energy efficiency obligation schemes, energy savings may not be eligible anymore under the energy savings obligation. While energy savings resulting, for example, from the promotion of natural gas-based cogeneration would not be eligible, the restriction would not apply for indirect fossil fuel usage, for example where the electricity production includes fossil fuel generation. Policy measures targeting behavioural changes to reduce the consumption of fossil fuel, for example through information campaigns, eco-driving, should remain eligible. The energy savings from policy measures targeting building renovations may contain measures such as a replacement of fossil fuel heating systems together with building fabric improvements, which should be limited to those technologies that allow achieving the required energy savings according to the national building codes established in a Member State. Nevertheless, Member States should promote upgrading heating systems as part of deep renovations in line with the long-term objective of carbon neutrality, i.e. reducing the heating demand and covering the remaining heating demand with a carbon-free energy source.

[78] Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088, OJ L 198, 22.6.2020, p. 13–43.

[79] IEA (International Energy Agency) (2021), Net Zero by 2050 A Roadmap for the Global Energy Sector, https://www.iea.org/reports/net-zero-by-2050.

↓ 2018/2002 recital 15 (adapted)
⇨ new

(51) Member States' energy efficiency improvement measures in transport are eligible to be taken into account for achieving their end-use energy savings obligation. Such measures include policies that are, inter alia, dedicated to promoting more efficient vehicles, a 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 ⇨ with reduced levels of emissions, except policy measures regarding the use of direct fossil fuel combustion, ⇦ that reduce energy use per kilometre are also capable of being eligible, subject to compliance with the rules on materiality and additionality set out in Annex V to ~~Directive 2012/27/EU as amended by~~ this Directive. ⇨ Policy measures promoting the uptake of new fossil fuel vehicles should not qualify as eligible measures under the energy savings obligation. ⇦ ~~Such measures should, if appropriate, be consistent with Member States' national policy frameworks established pursuant to Directive 2014/94/EU of the European Parliament and of the Council[80].~~

↓ 2018/2002 recital 16 (adapted)

(52) Measures taken by Member States pursuant to Regulation (EU) 2018/842 of the European Parliament and of the Council[81] and which result in verifiable, and measurable or estimable, energy efficiency improvements can be considered to be a cost-effective way for Member States to fulfil their energy-saving obligation under ~~Directive 2012/27/EU as amended by~~ this Directive.

↓ 2018/2002 recital 17 (adapted)
⇨ new

(53) As an alternative to requiring obligated parties to achieve the amount of cumulative end-use energy savings required under Article ~~8~~7(1) of ~~Directive 2012/27/EU as amended by~~ this Directive, it should be possible for Member States, in their obligation schemes, to permit or require obligated parties to contribute to an Energy Efficiency National Fund ⇨ , which could be used to implement policy measures as a priority among vulnerable customers, people affected by energy poverty and people living in social housing ⇦.

~~80 Directive 2014/94/EU of the European Parliament and of the Council of 22 October 2014 on the deployment of alternative fuels infrastructure (OJ L 307, 28.10.2014, p. 1).~~

81 Regulation (EU) 2018/842 of the European Parliament and of the Council of 30 May 2018 on binding annual greenhouse gas emission reductions by Member States from 2021 to 2030 contributing to climate action to meet commitments under the Paris Agreement and amending Regulation (EU) No 525/2013 (OJ L 156, 19.6.2018, p. 26).

↓ 2018/2002 recital 18 (adapted)
⇨ new

(54) ~~Without prejudice to Article 7(4) and (5) as introduced by this Directive,~~ Member States and obligated parties should make use of all available means and technologies ⇨ , except regarding the use of direct fossil fuel combustion technologies, ⇦ to achieve the cumulative end-use energy savings required, including by promoting sustainable technologies in efficient district heating and cooling systems, efficient heating and cooling infrastructure and energy audits or equivalent management systems, provided that the energy savings claimed comply with the requirements laid down in Article ~~8~~7 and Annex V to ~~Directive 2012/27/EU as amended by~~ this Directive. Member States should aim for a high degree of flexibility in the design and implementation of alternative policy measures. ⇨ Member States should encourage actions resulting in energy savings over the long lifetimes. ⇦

↓ 2018/2002 recital 19

(55) Long-term energy efficiency measures will continue to deliver energy savings after 2020 but, in order to contribute to the Union's 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 end-use energy savings required for the period from 1 January 2014 to 31 December 2020.

↓ 2018/2002 recital 20
⇨ new

(56) New savings should be additional to 'business as usual', so that savings that would have occurred in any event should not count towards the achievement of the energy savings requirements. In order to calculate the impact of the measures introduced, only net savings, measured as the change of energy consumption that is directly attributable to the energy efficiency measure in question ⇨ implemented for the purpose of Article 8 of this Directive ⇦, should 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 in question should be evaluated against that baseline. Member States ⇨ should take into account minimum requirements provided by the relevant legislative framework at Union level, and ⇦ should take into account the fact that other policy measures may be carried out in the same time frame which may also have an impact on the amount of energy savings, so that not all changes observed since the introduction of a particular policy measure being evaluated can be attributed to that policy measure alone. The actions of the obligated, participating or entrusted party should in fact contribute to the achievement of the energy savings claimed in order to ensure the fulfilment of the materiality requirement.

↓ 2018/2002 recital 21
⇨ new

(57) It is important to consider, where relevant, all steps in the energy chain in the calculation of energy savings in order to increase the energy savings potential in the

transmission and distribution of electricity. ⇨ Studies carried out and consultation of stakeholders have revealed a significant potential. However, the physical and economic conditions are quite different among Member States, and often within several Member States, and there is a large number system operators. Those circumstances point to a decentralized approach, pursuant to the subsidiarity principle. National Regulatory Authorities have the required knowledge, legal competences and the administrative capacity to promote the development of an energy efficient electricity grid. Entities such as the European Network of Transmission System Operators for Electricity (ENTSO-E) and the European Entity for Distribution System Operators (the EU DSO Entity) can also provide useful contributions and should support their members in the uptake of energy efficiency measures. ⇦

⇩ new

(58) Similar considerations apply for the very large number of natural gas system operators. The role of natural gas and the rate of supply and coverage of the territory is highly variable among Member States. In those cases National Regulatory Authorities are best placed to monitor and steer the system evolution towards an increased efficiency, and entities such as European Network of Transmission System Operators for Gas (ENTSOG) can provide useful contributions and should support their members in the uptake of energy efficiency measures.

🡻 2018/2002 recital 22
⇨ new

(59) The effective management of water can make a significant contribution to energy savings. The water and wastewater sectors account for 3,5% of electricity use in the Union and that 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 ⇨ and applied whenever cost-effective and the energy efficiency first principle should be considered. In addition, advanced irrigation technologies could substantially reduce water consumption in agriculture and the energy used for treating and transporting it ⇦.

🡻 2018/2002 recital 23 (adapted)
⇨ new

(60) In accordance with Article 9 of the Treaty ~~on the Functioning of the European Union~~, the Union's energy efficiency policies should be inclusive and should therefore ensure ⇨ equal access ⇦ ~~accessibility~~ to energy efficiency measures for ⌦ all ⌫ consumers affected by energy poverty. Improvements ~~to the~~ ⌦ in ⌫ energy efficiency ~~of buildings~~ should, ~~in particular, benefit~~ ⇨ be implemented as a priority among ⇦ vulnerable ~~households~~ ⇨ customers and final users ⇦, ~~including those~~ ⇨ people ⇦ affected by energy poverty, and, where appropriate, ⇨ among medium-income households and ⇦ ~~those~~ ⌦ people ⌫ living in social housing ⇨ , elderly people and those living in rural and remote areas ⇦. ⇨ In this context, specific attention should be paid to particular groups which are more at risk of being affected by energy poverty or more susceptible to the adverse impacts of energy poverty, such

as women, persons with disabilities, elderly people, children, and persons with a minority racial or ethnic background. ⇦ Member States can ~~already~~ require obligated parties to include social aims in energy-saving measures in relation to energy poverty and this possibility ~~should be~~ ⌦ had already been ⌫ extended to alternative policy measures and Energy Efficiency National Funds. ~~and~~ ⌦ That ⌫ should be transformed into an obligation ⇨ to protect and empower vulnerable customers and final users and to alleviate energy poverty ⇦, while allowing Member States to retain full flexibility with regard to ⇨ the type of policy measure, ⇦ 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 by means of alternative policy measures alone. ⇨ Within its policy mix, Member States should ensure that other policy measures do not have an adverse effect on vulnerable customers, final users, people affected by energy poverty and, where applicable, people living in social housing. Member States should make best possible use of public funding investments into energy efficiency improvement measures, including funding and financial facilities established at Union level. ⇦

⇩ new

(61) This Directive refers to the concept of vulnerable customers, which Member States are to establish pursuant to Directive (EU) 2019/944. In addition, pursuant to Directive 2012/27/EU, the notion of 'final users' alongside the notion of 'final customer' clarifies that the rights to billing and consumption information also apply to consumers without individual or direct contracts with the supplier of energy used for collective heating, cooling or domestic hot water production systems in multi-occupant buildings. The concept of vulnerable customers does not necessarily ensure the targeting of final users. Therefore, in order to ensure that the measures set out in this Directive reach all individuals and households in a situation of vulnerability, Member States should include not only customers, in its strict sense, but also final users, in establishing their definition of vulnerable customers.

⇩ 2018/2002 recital 24
⇨ new

(62) Around ~~50~~ ⇨ 34 ⇦ million households in the Union ~~are affected by energy poverty~~ ⇨ were unable to keep their home adequately warm in 2019[82] ⇦. ⇨ The European Green Deal prioritises the social dimension of the transition by committing to the principle that `no one is left behind´. The green transition, including the clean transition, affects women and men differently and may have a particular impact on some disadvantaged groups including people with disabilities. ⇦ 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 their affordability to property owners and tenants, should be taken into account, and

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[82] COMMISSION RECOMMENDATION of 14.10.2020 on energy poverty, C(2020) 9600 final.

adequate financial ⇨ and technical ⇦ support for such measures should be guaranteed at Member State level. ⇨ Member States should support the local and regional level in identifying and alleviating energy poverty. ⇦ The Union's building stock needs, in the long term, to be converted to NZEBs in accordance with the objectives of the Paris Agreement. Current building renovation rates are insufficient and buildings occupied by citizens on low incomes who are 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.

↓ 2012/27/EU recital 24
⇨ new

(63) To tap the energy savings potential in certain market segments where energy audits are generally not offered commercially (such as small and medium-sized enterprises (SMEs)), Member States should develop programmes to encourage SMEs to undergo energy audits. Energy audits should be mandatory and regular for large enterprises, as energy savings can be significant. Energy audits should take into account relevant European or International Standards, such as EN ISO 50001 (Energy Management Systems), or EN 16247-1 (Energy Audits), or, if including an energy audit, EN ISO 14000 (Environmental Management Systems) and thus be also in line with the provisions of Annex VI to this Directive as such provisions do not go beyond the requirements of these relevant standards. ⇨ A specific European standard on energy audits is currently under development. Energy audits may be carried out on a stand-alone basis or be part of a broader environmental management system or an energy performance contract. In all such cases those systems should comply with the minimum requirements of Annex VI. In addition, specific mechanisms and schemes established to monitor emissions and fuel consumption by certain transport operators, for example under EU law the EU ETS, may be considered compatible with energy audits, including in energy management systems, if they comply with the minimum requirements set out in Annex VI. ⇦

⇩ new

(64) The enterprise’s average consumption should be the criterion to define the application of energy management systems and of energy audits in order to increase the sensitivity of those mechanisms in identifying relevant opportunities for cost-effective energy savings. Enterprises that are below the consumption thresholds defined for energy management systems and energy audits should be encouraged to undergo energy audits and to implement the recommendations resulting from those audits.

↓ 2012/27/EU recital 25

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

⇩ new

(66) The information and communications technology (ICT) sector another important sector which receives increasing attention. In 2018 the energy consumption of data

centres in the EU was 76,8 TWh. This is expected to rise to 98.5 TWh by 2030, a 28% increase. This increase in absolute terms can as well be seen in relative terms: within the EU, data centres accounted for 2,7% of electricity demand in 2018 and will reach 3,21% by 2030 if development continues on the current trajectory[83]. Europe's Digital Strategy already highlighted the need for highly energy-efficient and sustainable data centres and calls for transparency measures for telecommunication operators on their environmental footprint. To promote sustainable development in the ICT sector, particularly of data centres, Member States should collect and publish data, which is relevant for the energy performance and water footprint of data centres. Member States should collect and publish data only about data centres with a significant footprint, for which appropriate design or efficiency interventions, for new or existing installations respectively, can result in a considerable reduction of the energy and water consumption or in the reuse of waste heat in nearby facilities and heat networks. A data centre sustainability indicator can be established on the basis of that data collected

(67) The data centre sustainability indicators can be used to measure four basic dimensions of a sustainable data centre, namely how efficiently it uses energy, how much of that energy comes from renewable energy sources, the reuse of any waste heat that it produces and the usage of freshwater. The data centre sustainability indicators should raise awareness amongst data centre owners and operators, manufactures of equipment, developers of software and services, users of data centre services at all levels as well as entities and organisations that deploy, use or procure cloud and data centre services. It should also give confidence about the actual improvements following efforts and measures to increase the sustainability in new or existing data centres. Finally, it should be used as a basis for transparent and evidence-based planning and decision-making. Use of the data centre sustainability indicators should be optional for Member States. Use of the data centre sustainability indicator should be optional for Member States.

🡻 2018/2002 recital 25
⇨ new

(68) Lower consumer spending on energy should be achieved by assisting consumers in reducing their energy use by reducing the energy needs of buildings and improvements in the efficiency of appliances, which should be combined with the availability of low-energy transport modes integrated with public transport and cycling. ⇨ Member States should also consider improving connectivity in rural and remote areas. ⇦

🡻 2018/2002 recital 26
⇨ new

(69) It is crucial to raise the awareness of all Union citizens about the benefits of increased energy efficiency and to provide them with accurate information on the ways in which it can be achieved. ⇨ Citizens of all ages should also be involved in the energy

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[83] https://digital-strategy.ec.europa.eu/en/library/energy-efficient-cloud-computing-technologies-and-policies-eco-friendly-cloud-market

transition via the European Climate Pact and the Conference on the Future of Europe. ⇦ Increased energy efficiency is also highly important for the security of energy supply of the Union through lowering its dependence on import of fuels from third countries.

↓ 2018/2002 recital 27

(70) The costs and benefits of all energy efficiency measures taken, including pay-back periods, should be made fully transparent to consumers.

↓ 2018/2002 recital 28 (adapted)

(71) When implementing ~~Directive 2012/27/EU as amended by~~ 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.

↓ 2018/2002 recital 29

(72) 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.

↓ 2018/2002 recital 30 (adapted)

(73) ~~As part of the measures set out in the Commission's Communication of 15 July 2015 entitled 'Delivering a 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 of, and Annex VII to, Directive 2012/27/EU should be amended~~ ⌦ It is necessary ⌫ to provide for frequent and enhanced feedback on energy consumption where technically feasible and cost-efficient in view of the measurement devices in place. This Directive clarifies that whether sub-metering is cost-efficient or not depends on whether the related costs are proportionate to the potential energy savings. The assessment of whether sub-metering is cost-efficient may take into account the effect of other concrete, planned measures in a given building, such as any forthcoming renovation.

↓ 2018/2002 recital 31 (adapted)

(74) This Directive also clarifies that rights relating to billing, and information about billing or consumption should apply to consumers of heating, cooling or domestic 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' is capable of being understood as referring only to natural or legal persons purchasing energy based on a direct, individual contract with an energy supplier. For the purposes of the relevant provisions, the term 'final user' should therefore be introduced to refer to a broader group of consumers and should, in addition to final customers purchasing heating, cooling or domestic hot water for their own end-use, also cover 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.~~

↓ 2018/2002 recital 32

(75) In order to achieve the 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 domestic hot water consumption in multi-apartment and multi-purpose buildings. In addition to transparency, Member States could consider taking measures to strengthen competition in the provision of sub-metering services and thereby help ensure that any costs borne by the final users are reasonable.

↓ 2018/2002 recital 33 (adapted)

(76) ~~By 25 October 2020,~~ N~~n~~ewly installed heat meters and heat cost allocators should be remotely readable to ensure cost-effective, frequent provision of consumption information. The ⌦ provisions of ⌫ ~~amendments to Directive 2012/27/EU introduced by~~ this Directive relating to metering for heating, cooling and domestic hot water; sub-metering and cost allocation for heating, cooling and domestic hot water; remote reading requirement; billing and consumption information for heating and cooling and domestic hot water; cost of access to metering and billing and consumption information for heating, cooling and domestic hot water; and the minimum requirements for billing and consumption information for heating, cooling and domestic hot water are intended to apply only to heating, cooling and domestic hot water supplied from a central source. Member States are free to decide whether walk-by or drive-by technologies are to be considered remotely readable or not. Remotely readable devices do not require access to individual apartments or units to be read.

↓ 2018/2002 recital 34

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

↓ 2018/2002 recital 35

(78) Billing information and annual statements are an important means by which customers are informed of their energy consumption. Data on consumption and costs can also convey other information that helps consumers to compare their current deal with other offers and to make use of complaint management and alternative dispute resolution mechanisms. However, considering that bill-related disputes are a common source of consumer complaints and a factor which contributes to persistently low levels of consumer satisfaction and engagement with their energy providers, 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.

↓ 2012/27/EU recital 26

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

↓ 2012/27/EU recital 27 (adapted)

In relation to electricity, and in accordance with Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity[84], where the roll-out of smart meters is assessed positively, at least 80 % of consumers should be equipped with intelligent metering systems by 2020. In relation to gas, and in accordance with Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas[85], where the roll-out of intelligent metering systems is assessed positively, Member States or any competent authority they designate, should prepare a timetable for the implementation of intelligent metering systems.

↓ 2012/27/EU recital 28 (adapted)

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

↓ 2012/27/EU recital 29 (adapted)

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

↓ 2012/27/EU recital 30 (adapted)

Directive 2006/32/EC requires Member States to ensure that final customers are provided with competitively priced individual meters that accurately reflect their actual energy consumption and provide information on actual time of use. In most cases, this requirement is

84 OJ L 211, 14.8.2009, p. 55.
85 OJ L 211, 14.8.2009, p. 94.

~~subject to the conditions that it should be technically possible, financially reasonable, and proportionate in relation to the potential energy savings. When a connection is made in a new building or a building undergoes major renovations, as defined in Directive 2010/31/EU, such individual meters should, however, always be provided. Directive 2006/32/EC also requires that clear billing based on actual consumption should be provided frequently enough to enable consumers to regulate their own energy use.~~

↓ 2012/27/EU recital 31 (adapted)

~~Directives 2009/72/EC and 2009/73/EC require Member States to ensure the implementation of intelligent metering systems to assist the active participation of consumers in the electricity and gas supply markets. As regards electricity, where the roll-out of smart meters is found to be cost-effective, at least 80 % of consumers must be equipped with intelligent metering systems by 2020. As regards natural gas, no deadline is given but the preparation of a timetable is required. Those Directives also state that final customers must be properly informed of actual electricity/gas consumption and costs frequently enough to enable them to regulate their own consumption.~~

↓ 2012/27/EU recital 32 (adapted)

~~The impact of the provisions on metering and billing in Directives 2006/32/EC, 2009/72/EC and 2009/73/EC on energy saving has been limited. In many parts of the Union, these provisions have not led to customers receiving up-to-date information about their energy consumption, or billing based on actual consumption at a frequency which studies show is needed to enable customers to regulate their energy use. In the sectors of space heating and hot water in multi-apartment buildings the insufficient clarity of these provisions has also led to numerous complaints from citizens.~~

↓ 2012/27/EU recital 33 (adapted)

~~In order to strengthen the empowerment of final customers as regards access to information from the metering and billing of their individual energy consumption, bearing in mind the opportunities associated with the process of the implementation of intelligent metering systems and the roll out of smart meters in the Member States, it is important that the requirements of Union law in this area be made clearer. This should help reduce the costs of the implementation of intelligent metering systems equipped with functions enhancing energy saving and support the development of markets for energy services and demand management. Implementation of intelligent metering systems enables frequent billing based on actual consumption. However, there is also a need to clarify the requirements for access to information and fair and accurate billing based on actual consumption in cases where smart meters will not be available by 2020, including in relation to metering and billing of individual consumption of heating, cooling and hot water in multi-unit buildings supplied by district heating/cooling or own common heating system installed in such buildings.~~

↓ 2012/27/EU recital 34 (adapted)

(79) When designing energy efficiency improvement measures, Member States should take due account of the need to ensure the correct functioning of the internal market and the coherent implementation of the acquis, in accordance with the ⌦ TFEU ⌫ ~~Treaty on the Functioning of the European Union~~.

↓ 2012/27/EU recital 35 (adapted)
⇨ new

(80) High-efficiency cogeneration and ⇨ efficient ⇦ district heating and cooling ~~has~~ ⌦ have ⌫ significant potential for saving primary energy~~,~~ ~~which is largely untapped~~ in the Union. Member States should carry out a comprehensive assessment of the potential for high-efficiency cogeneration and ⇨ efficient ⇦ district heating and cooling. Those assessments should be ~~updated, at the request of the Commission, to provide investors with information concerning national development plans and contribute to a stable and supportive investment environment~~ ⇨ coherent with the integrated national energy and climate plans and long term renovation strategies ⇦. New electricity generation installations and existing installations which are substantially refurbished or whose permit or licence is updated should, subject to a cost-benefit analysis showing a cost-benefit surplus, be equipped with high-efficiency cogeneration units to recover waste heat stemming from the production of electricity. ⇨ Similarly, other facilities with substantial annual average energy input should be equipped with technical solutions to deploy waste heat from the facility where the cost-benefit analysis shows a cost-benefit surplus. ⇦ This waste heat could ~~then~~ be transported where it is needed through district heating networks. The events that trigger a requirement for authorisation criteria to be applied will generally be events that also trigger requirements for permits under Directive 2010/75/EU of the European Parliament and of the Council ~~of 24 November 2010 on industrial emissions~~[86] and for authorisation under ~~Directive 2009/72/EC~~ Directive (EU) 2019/944.

↓ 2012/27/EU recital 36

(81) It may be appropriate for ~~nuclear power installations, or~~ electricity generation installations that are intended to make use of geological storage permitted under Directive 2009/31/EC of the European Parliament and of the Council ~~of 23 April 2009 on the geological storage of carbon dioxide~~[87], to be located in places where the recovery of waste heat through high-efficiency cogeneration or by supplying a district heating or cooling network is not cost-effective. Member States should therefore be able to exempt those installations from the obligation to carry out a cost-benefit analysis for providing the installation with equipment allowing the recovery of waste heat by means of a high-efficiency cogeneration unit. It should also be possible to exempt peak-load and back-up electricity generation installations which are planned to operate under 1500 operating hours per year as a rolling average over a period of five years from the requirement to also provide heat.

86 Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (OJ L 334, 17.12.2010, p. 17).

87 Directive 2009/31/EC of the European Parliament and of the Council of 23 April 2009 on the geological storage of carbon dioxide (OJ L 140, 5.6.2009, p. 114).

↓ 2012/27/EU recital 37
⇨ new

(82) It is appropriate for Member States to encourage the introduction of measures and procedures to promote cogeneration installations with a total rated thermal input of less than ~~20~~ ⇨ 5 ⇦ MW in order to encourage distributed energy generation.

⇩ new

(83) To implement national comprehensive assessments, Member States should encourage the assessments of the potential for high-efficiency cogeneration and efficient district heating and cooling in regional and local level. Member States should take steps to promote and facilitate deployment of identified cost-efficient potential of the high-efficiency cogeneration and efficient district heating and cooling.

(84) Requirements for efficient district heating and cooling should be consistent with long-term climate policy goals, the climate and environmental standards and priorities of the Union, and should comply with the principle of 'do no significant harm' within the meaning of Regulation (EU) 2020/85. All the district heating and cooling systems should aim for improved ability to interact with other parts of the energy system in order to optimise the use of energy and prevent energy waste by using the full potential of buildings to store heat or cold, including the excess heat from service facilities and nearby data centres. For that reason, efficient district heating and cooling system should ensure the increase of primary energy efficiency and a progressive integration of renewable energy and waste heat or cold. Therefore, this Directive introduces progressively stricter requirements for heating and cooling supply which should be applicable during specific established time periods and should be permanently applicable from 1 January 2050 onwards.

↓ 2012/27/EU recital 38 (adapted)
⇨ new

(85) High-efficiency cogeneration ~~should be~~ ⌦ has been ⌫ defined by the energy savings obtained by combined production instead of separate production of heat and electricity. ⇨ Requirements for high-efficiency cogeneration should be consistent with long-term climate policy goals. ⇦ The definitions of cogeneration and high-efficiency cogeneration used in Union legislation should be without prejudice to the use of different definitions in national legislation for purposes other than those of the Union legislation in question. To maximise energy savings and avoid energy saving opportunities being missed, the greatest attention should be paid to the operating conditions of cogeneration units.

↓ 2012/27/EU recital 39 (adapted)

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

be covered by guarantees of origin. Guarantees of origin should be distinguished from exchangeable certificates.

↓ 2012/27/EU recital 40

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

↓ 2012/27/EU recital 41

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

↓ 2012/27/EU recital 42 (adapted)

~~Directive 2010/75/EU includes energy efficiency among the criteria for determining the Best Available Techniques that should serve as a reference for setting the permit conditions for installations within its scope, including combustion installations with a total rated thermal input of 50 MW or more. However, that Directive gives Member States the option not to impose requirements relating to energy efficiency on combustion units or other units emitting carbon dioxide on the site, for the activities listed in Annex I to Directive 2003/87/EC. Member States could include information on energy efficiency levels in their reporting under Directive 2010/75/EU.~~

↓ 2012/27/EU recital 43

(89) Member States should establish, on the basis of objective, transparent and non-discriminatory criteria, rules governing the bearing and sharing of costs of grid connections and grid reinforcements and for technical adaptations needed to integrate new producers of electricity produced from high-efficiency cogeneration, taking into account guidelines and codes developed in accordance with Regulation ~~(EC) No 714/2009~~ (EU) 2019/943 of the European Parliament and of the Council[88] ~~of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity~~[89] and Regulation (EC) No 715/2009 of the European Parliament and of the Council ~~of 13 July 2009 on conditions for access to the natural gas transmission networks~~[90]. Producers of electricity generated from high-efficiency cogeneration should be allowed to issue a call for tender for the connection work. Access to the grid

88 Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity (OJ L 158, 14.6.2019, p. 54).

89 ~~OJ L 211, 14.8.2009, p. 15.~~

90 Regulation (EC) No 715/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission networks (OJ L 211, 14.8.2009, p. 36).

system for electricity produced from high-efficiency cogeneration, especially for small scale and micro-cogeneration units, should be facilitated. In accordance with Article ~~93~~9(2) of Directive (EU) 2019/944~~2009/72/EC~~ and Article 3(2) of Directive 2009/73/EC, Member States may impose public service obligations, including in relation to energy efficiency, on undertakings operating in the electricity and gas sectors.

⇩ new

(90) It is necessary to set out provisions related to billing, single point of contact, out-of-court dispute settlement, energy poverty and basic contractual rights, with the aim of aligning them, where appropriate, with the relevant provisions regarding electricity pursuant to Directive (EU) 2019/944, in order to strengthen consumer protection and enable final customers to receive more frequent, clear and up-to-date information about their heating, cooling or domestic hot water consumption and to regulate their energy use.

(91) Greater consumer protection should be guaranteed by the availability of effective, independent out-of-court dispute settlement mechanisms for all consumers, such as an energy ombudsperson, a consumer body or a regulatory authority. Member States should, therefore, introduce speedy and effective complaint-handling procedures.

(92) The contribution of renewable energy communities, pursuant to Directive (EU) 2018/2001 of the European Parliament and of the Council[91], and citizen energy communities, according to Directive (EU) 2019/944 towards the objectives of the European Green Deal and the 2030 Climate Target Plan, should be recognised. Member States should, therefore, consider and promote the role of renewable energy communities and citizen energy communities. Those communities can help Member States to achieve the objectives of this Directive by advancing energy efficiency at local or household level. They can empower and engage consumers and enable certain groups of household customers, including in rural and remote areas to participate in energy efficiency projects and interventions. Energy communities can help fighting energy poverty through facilitation of energy efficiency projects, reduced energy consumption and lower supply tariffs.

(93) The contribution of one-stop shops or similar structures as mechanisms that can enable multiple target groups, including citizens, SMEs and public authorities, to design and implement projects and measures related to the clean energy transition, should be recognised. That contribution can include the provision of technical, administrative and financial advice and assistance, facilitation of the necessary administrative procedures or of access to financial markets, or guidance with the national and European legal framework, including public procurement rules and criteria, and the EU Taxonomy.

(94) The Commission should review the impact of its measures to support the development of platforms or fora, involving, inter alia, the European social dialogue bodies in fostering training programmes for energy efficiency, and shall bring forward further

[91] Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources (OJ L 328, 21.12.2018, p. 82).

measures where appropriate. The Commission should also encourage European social partners in their discussions on energy efficiency, especially for vulnerable customers and final users, including those in energy poverty.

(95) A fair transition towards a climate-neutral Union by 2050 is central to the European Green Deal. The European Pillar of Social Rights, jointly proclaimed by the European Parliament, the Council and the Commission on 17 November 2017, includes energy among the essential services which everyone is entitled to access. Support for access to such services must be available for those in need[92].

(96) It is necessary to ensure that people affected by energy poverty, vulnerable customers and, where applicable, people living in social housing are protected and, to this end, empowered to actively participate in the energy efficiency improvement interventions, measures and related consumer protection or information measures that Member States implement.

(97) Public funding available at national and Union level should be strategically invested into energy efficiency improvement measures, in particular for the benefit of vulnerable customers, people affected by energy poverty and those living in social housing. Member States should take advantage of any financial contribution they might receive from the Social Climate Fund[93], and of revenues from allowances from the EU Emissions Trading System. These revenues will support Member States in fulfilling their obligation to implement energy efficiency measures and policy measures under the energy savings obligation as a priority among vulnerable customers and people affected by energy poverty, which may include those living in rural and remote regions.

(98) National funding schemes should be complemented by suitable schemes of better information, technical and administrative assistance, easier access to finance that will enable the best use of the available funds especially by people affected by energy poverty, vulnerable customers and, where applicable, people living in social housing.

(99) Member States should empower and protect all people equally, irrespective of their sex, gender, age, disability, race or ethnic origin, sexual orientation, religion or belief, and ensure that those most affected or put at greater risk of being affected by energy poverty, or most exposed to the adverse impacts of energy poverty, are adequately protected. In addition, Member States should ensure that energy efficiency measures do not exacerbate any existing inequalities, notably with respect to energy poverty.

↓ 2012/27/EU recital 44 (adapted)

~~Demand response is an important instrument for improving energy efficiency, since it significantly increases the opportunities for consumers or third parties nominated by them to take action on consumption and billing information and thus provides a mechanism to reduce or shift consumption, resulting in energy savings in both final consumption and, through the~~

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92 EPSR, Principle 20 "Access to essential services": https://ec.europa.eu/commission/priorities/deeper-and-fairer-economic-and-monetary-union/european-pillar-social-rights/european-pillar-social-rights-20-principles_en

93 Proposal for a Regulation of the European Parliament and of the Council establishing a Social Climate Fund, COM 2021 568 final.

~~more optimal use of networks and generation assets, in energy generation, transmission and distribution.~~

↓ 2012/27/EU recital 45
⇨ new

(100) ~~Demand response can be based on final customers' responses to price signals or on building automation. Conditions for, and access to, demand response should be improved, including for small final consumers. Taking into account the continuing deployment of smart grids, Member States should therefore ensure that national energy regulatory authorities are able to ensure that network tariffs and regulations incentivise improvements in energy efficiency and support dynamic pricing for demand response measures by final customers. Market integration and equal market entry opportunities for demand-side resources (supply and consumer loads) alongside generation should be pursued. In addition,~~ Member States should ensure that national energy regulatory authorities take an integrated approach encompassing potential savings in the energy supply and the end-use sectors. ⇨ Without prejudice to security of supply, market integration and anticipatory investments in offshore grids necessary for the deployment of offshore renewable energy, national energy regulatory authorities should ensure that the energy efficiency first principle is applied in the planning and decision making processes and that network tariffs and regulations incentivise improvements in energy efficiency. Member States should also ensure that transmission and distribution system operators consider the energy efficiency first principle. That would help transmission and distribution system operators to consider better energy efficiency solutions and incremental costs incurred for the procurement of demand side resources, as well as the environmental and socio-economic impacts of different network investments and operation plans. Such an approach requires a shift from the narrow economic efficiency perspective to maximised social welfare. The energy efficiency first principle should in particular be applied in the context of scenario building for energy infrastructure expansion where demand side solutions could be considered as viable alternatives and need to be properly assessed, and it should become an intrinsic part of the assessment of network planning projects. Its application should be scrutinised by national regulatory authorities. ⇦

↓ 2012/27/EU recital 46
⇨ new

(101) A sufficient number of reliable professionals competent in the field of energy efficiency should be available to ensure the effective and timely implementation of this Directive, for instance as regards compliance with the requirements on energy audits and implementation of energy efficiency obligation schemes. Member States should therefore put in place certification ⇨ and /or equivalent qualification and suitable training ⇦ schemes for the providers of energy services, energy audits and other energy efficiency improvement measures ⇨ in close cooperation with social partners, training providers and other relevant stakeholders. The schemes should be assessed every four years starting as of December 2024 and if needed be updated to ensure the necessary level of competences for energy services providers, energy auditors, energy managers and installers of building elements ⇦.

↓ 2012/27/EU recital 47 (adapted)
⇨ new

(102) It is necessary to continue developing the market for energy services to ensure the availability of both the demand for and the supply of energy services. Transparency, for example by means of lists of ⇨ certified ⇦ energy services providers, ~~can contribute to this.~~ ⇨ and available ⇦ mModel contracts, exchange of best practice and guidelines, ~~in particular for~~ ⇨ greatly contribute to the uptake of energy services and ⇦ energy performance contracting, ⌦ and ⌫ can also help stimulate demand ⇨ and increase the trust in energy services providers ⇦. ~~As in other forms of third-party financing arrangements,~~ In an energy performance contract the beneficiary of the energy service avoids investment costs by using part of the financial value of energy savings to repay the investment fully or partially carried out by a third party. ⇨ That can help attracting private capital which is key for increasing building renovation rates in the Union, bring expertise into the market and create innovative business models. Therefore, non-residential buildings with the useful floor area above 1000 m2 should be required to assess the feasibility of using energy performance contracting for renovation. That is a step ahead to increase the trust in energy services companies and pave the way for increasing such projects in the future. ⇦

⇩ new

(103) Given the ambitious renovation objectives over the next decade in the context of the Commission's Communication entitled Renovation Wave it is necessary to increase the role of independent market intermediaries including one stop shops or similar support mechanisms in order to stimulate market development on the demand and supply sides and to promote energy performance contracting for renovation of both private and public buildings. Local energy agencies could play a key role in this regard, and identify and support setting up potential facilitators or one-stop-shops.

(104) Energy performance contracting still faces important barriers in several Member States due to remaining regulatory and non-regulatory barriers. It is therefore necessary to address the ambiguities of the national legislative frameworks, lack of expertise, especially as regards to tendering procedures, and competing loans and grants.

(105) Member States should continue supporting the public sector in the uptake of energy performance contracting by providing model contracts that take into account the available European or international standards, tendering guidelines and the Guide to the Statistical Treatment of Energy Performance Contracts[94] published in May 2018 by Eurostat and the European Investment Bank on the treatment of energy performance contracting in government accounts, which have provided opportunities for addressing remaining regulatory barriers to these contracts in Member States.

[94] https://ec.europa.eu/eurostat/documents/1015035/8885635/guide_to_statistical_treatment_of_epcs_en.pdf/f74b474b-8778-41a9-9978-8f4fe8548ab1

↓ 2012/27/EU recital 48 (adapted)
⇨ new

~~(106)~~ ⇨ Member States have taken measures to identify and address the regulatory and non-regulatory barriers. However, ⇦ t~~T~~here is a need to ~~identify and~~ ⇨ increase the effort to ⇦ remove regulatory and non-regulatory barriers to the use of energy performance contracting and ~~other~~ third-party financing arrangements ~~for~~ ⇨ which help achieving ⇦ energy savings. These barriers include accounting rules and practices that prevent capital investments and annual financial savings resulting from energy efficiency improvement measures from being adequately reflected in the accounts for the whole life of the investment. ~~Obstacles to the renovating of the existing building stock based on a split of incentives between the different actors concerned should also be tackled at national level.~~

⇩ new

(107) Member States used the 2014 and 2017 National Energy Efficiency Action Plans (NEEAPs) to report progress in removing regulatory and non-regulatory barriers to energy efficiency, as regards the split of incentives between the owners and tenants or among owners of a building or building units. However, Member States should continue working in that direction and tap the potential for energy efficiency in the context of the 2016 Eurostat statistics, represented by the fact that more than four out of ten Europeans live in flats and more than three out of ten Europeans are tenants.

↓ 2012/27/EU recital 49 (adapted)
⇨ new

(108) Member States and regions should be encouraged to make full use of the ⇨ European funds available in the MFF and Next Generation EU including the Recovery and Resilience Facility, ⇦ ~~Structural Funds and~~ the Cohesion ⌦ Policy ⌫ Fund ⌦ s ⌫ ⇨ , the Rural Development Fund and the Just Transition Fund, as well as the financial instruments and technical assistance available under InvestEU, ⇦ to trigger ⇨ private and public ⇦ investments in energy efficiency improvement measures. Investment in energy efficiency has the potential to contribute to economic growth, employment, innovation and a reduction in ~~fuel~~ ⇨ energy ⇦ poverty in households, and therefore makes a positive contribution to economic, social and territorial cohesion ⇨ and green recovery ⇦. Potential areas for funding include energy efficiency measures in public buildings and housing, and providing new skills to promote employment in the energy efficiency sector. ⇨ The Commission will ensure synergies between the different funding instruments, in particular the funds in the shared management and in the direct management (like the centrally-managed programmes: Horizon Europe or LIFE), as well as between grants, loans and technical assistance to maximise their leverage effect on private financing and their impact on the achievement of energy efficiency policy objectives. ⇦

↓ 2012/27/EU recital 50 (adapted)

(109) Member States should encourage the use of financing facilities to further the objectives of this Directive. Such financing facilities could include financial

contributions and fines from non-fulfilment of certain provisions of this Directive; resources allocated to energy efficiency under Article 10(3) of Directive 2003/87/EC of the European Parliament and of the Council[95]; resources allocated to energy efficiency in the ⌦ European funds and programmes, ⌫ ~~multiannual financial framework, in particular cohesion, structural and rural development funds,~~ and dedicated European financial instruments, such as the European Energy Efficiency Fund.

↓ 2012/27/EU recital 51

(110) Financing facilities could be based, where applicable, on resources allocated to energy efficiency from Union project bonds; resources allocated to energy efficiency from the European Investment Bank and other European financial institutions, in particular the European Bank for Reconstruction and Development and the Council of Europe Development Bank; resources leveraged in financial institutions; national resources, including through the creation of regulatory and fiscal frameworks encouraging the implementation of energy efficiency initiatives and programmes; revenues from annual emission allocations under Decision No 406/2009/EC of the European Parliament and of the Council[96].

↓ 2012/27/EU recital 52

(111) The financing facilities could in particular use those contributions, resources and revenues to enable and encourage private capital investment, in particular drawing on institutional investors, while using criteria ensuring the achievement of both environmental and social objectives for the granting of funds; make use of innovative financing mechanisms (e.g. loan guarantees for private capital, loan guarantees to foster energy performance contracting, grants, subsidised loans and dedicated credit lines, third party financing systems) that reduce the risks of energy efficiency projects and allow for cost-effective renovations even among low and medium revenue households; be linked to programmes or agencies which will aggregate and assess the quality of energy saving projects, provide technical assistance, promote the energy services market and help to generate consumer demand for energy services.

↓ 2012/27/EU recital 53

(112) The financing facilities could also provide appropriate resources to support training and certification programmes which improve and accredit skills for energy efficiency; provide resources for research on and demonstration and acceleration of uptake of small-scale and micro- technologies to generate energy and the optimisation of the connections of those generators to the grid; be linked to programmes undertaking

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95 Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC (OJ L 275, 25.10.2003, p. 32).

96 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 (OJ L 140, 5.6.2009, p. 136).

action to promote energy efficiency in all dwellings to prevent energy poverty and stimulate landlords letting dwellings to render their property as energy-efficient as possible; provide appropriate resources to support social dialogue and standard-setting aiming at improving energy efficiency and ensuring good working conditions and health and safety at work.

↓ 2012/27/EU recital 54
⇨ new

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

↓ 2012/27/EU recital 55 (adapted)

(114) In the implementation of the ~~20 %~~ energy efficiency target, the Commission ~~will have to~~ ⌦ should ⌫ monitor the impact of ~~new~~ ⌦ the relevant ⌫ measures on Directive 2003/87/EC establishing the Union's emissions trading scheme (ETS) in order to maintain the incentives in the emissions trading system rewarding low carbon investments and preparing the ETS sectors for the innovations needed in the future. It will need to monitor the impact on those industry sectors which are exposed to a significant risk of carbon leakage as determined in Commission Decision 2014/746/EU[97] ~~Commission Decision 2010/2/EU of 24 December 2009 determining, pursuant to Directive 2003/87/EC of the European Parliament and of the Council, a list of sectors and subsectors which are deemed to be exposed to a significant risk of carbon leakage~~[98], in order to ensure that this Directive promotes and does not impede the development of these sectors.

↓ 2012/27/EU recital 56 (adapted)

~~Directive 2006/32/EC requires Member States to adopt, and aim to achieve, an overall national indicative energy savings target of 9 % by 2016, to be reached by deploying energy services and other energy efficiency improvement measures. That Directive states that the second Energy Efficiency Plan adopted by the Member States shall be followed, as appropriate and where necessary, by Commission proposals for additional measures, including extending the period of application of targets. If a report concludes that insufficient progress has been made towards achieving the indicative national targets laid down by that Directive, these proposals are to address the level and nature of the targets. The impact assessment accompanying this Directive finds that the Member States are on track to achieve~~

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97 Commission Decision 2014/746/EU of 27 October 2014 determining, pursuant to Directive 2003/87/EC of the European Parliament and of the Council, a list of sectors and subsectors which are deemed to be exposed to a significant risk of carbon leakage, for the period 2015 to 2019 (OJ L 308, 29.10.2014, p. 114).

98 ~~OJ L 1, 5.1.2010, p. 10.~~

~~the 9 % target, which is substantially less ambitious than the subsequently adopted 20 % energy saving target for 2020, and therefore there is no need to address the level of the targets.~~

↓ 2012/27/EU recital 57 (adapted)

~~The Intelligent Energy Europe Programme established by Decision No 1639/2006/EC of the European Parliament and of the Council of 24 October 2006 establishing a Competitiveness and Innovation Framework Programme (2007 to 2013)[99] has been instrumental in creating an enabling environment for the proper implementation of the Union's sustainable energy policies, by removing market barriers such as insufficient awareness and capacity of market actors and institutions, national technical or administrative barriers to the proper functioning of the internal energy market or underdeveloped labour markets to match the low-carbon economy challenge. Many of those barriers are still relevant.~~

↓ 2012/27/EU recital 58 (adapted)

~~In order to tap the considerable energy-saving potential of energy-related products, the implementation of Directive 2009/125/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for the setting of ecodesign requirements for energy-related products[100] and Directive 2010/30/EU of the European Parliament and of the Council of 19 May 2010 on the indication by labelling and standard product information of the consumption of energy and other resources by energy-related products[101] should be accelerated and widened. Priority should be given to products offering the highest energy-saving potential as identified by the Ecodesign Working Plan and the revision, where appropriate, of existing measures.~~

↓ 2012/27/EU recital 59 (adapted)

~~In order to clarify the conditions under which Member States can set energy performance requirements under Directive 2010/31/EU whilst respecting Directive 2009/125/EC and its implementing measures, Directive 2009/125/EC should be amended accordingly.~~

↓ 2018/2002 recital 36 (adapted)
⇨ new

(115) Member State measures should be supported by well-designed and effective Union financial instruments ⇨ under ⇦ ~~, such as~~ the ~~European Structural and Investment Funds, the European Fund for Strategic Investments~~ ⌦ InvestEU programme ⌫ , and by financing from the European Investment Bank (EIB) and the European Bank for Reconstruction and Development (EBRD), which should support investments in energy efficiency 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

99 ~~OJ L 310, 9.11.2006, p. 15.~~
100 ~~OJ L 285, 31.10.2009, p. 10.~~
101 ~~OJ L 153, 18.6.2010, p. 1.~~

a reduction in energy consumption. 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 energy-poor households.

⇩ new

(116) Cross–sectorial law provides a strong basis for consumer protection for a wide range of current energy services, and is likely to evolve. Nevertheless, certain basic contractual rights of customers should be clearly established. Plain and unambiguous information should be made available to consumers concerning their rights in relation to the energy sector.

(117) (117) Greater consumer protection is guaranteed by the availability of effective, independent out-of-court dispute settlement mechanisms for all consumers, such as an energy ombudsman, a consumer body or a regulatory authority. Member States should therefore introduce speedy and effective complaint-handling procedures.

🡻 2018/2002 recital 38 (adapted)
⇨ new

(118) In order to be able to evaluate the effectiveness of ~~Directive 2012/27/EU as amended by~~ this Directive, a requirement to conduct a general review of ~~that~~ ⌦ this ⌫ Directive and to submit a report to the European Parliament and to the Council by 28 February ⇨ 2027 ⇦ ~~2024~~ should be ⌦ laid down ⌫ ~~introduced~~. That review should ~~take place after the global stocktake by the United Nations Framework Convention on Climate Change in 2023, in order to~~ allow necessary alignments ~~to that process to be introduced~~, also taking into account economic and innovation developments.

🡻 2018/2002 recital 39 (adapted)

(119) Local and regional authorities should be given a leading role in the development and design, execution and assessment of the measures laid down in ⌦ this ⌫ Directive ~~2012/27/EU~~, so that they are able properly to address the specific features of their own climate, culture and society.

🡻 2018/2002 recital 40 (adapted)
⇨ new

(120) 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 ⇨ and other energy carriers ⇦ . 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 cogeneration, the method set out in Annex II to ⌦ this ⌫ Directive ~~2012/27/EU~~ is applied. An average rather than a

marginal market position is used. Conversion efficiencies are assumed to be 100 % for non-combustible renewables, 10 % for geothermal power stations and 33 % for nuclear power stations. The calculation of total efficiency for cogeneration is based on the most recent data from Eurostat. As for system boundaries, the PEF is 1 for all energy sources. The PEF value refers to 2018 and is based on data interpolated from the most recent version of the PRIMES Reference Scenario for 2015 and 2020 and adjusted with Eurostat data until 2016. The analysis covers the Member States and Norway. The dataset for Norway is based on the ~~European Network of Transmission System Operators for Electricity~~ ⌦ ENTSO-E ⌫ data.

↓ 2018/2002 recital 41

(121) Energy savings which result from the implementation of Union law should not be claimed unless they result from a measure that goes beyond the minimum required by the Union legal act in question, whether by setting more ambitious energy efficiency requirements at Member State level or by increasing the take-up of the measure. Buildings present a substantial potential for further increasing energy efficiency, and the 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 it is possible to claim all energy savings stemming from measures promoting the renovation of existing buildings, provided that they exceed the savings that would have occurred in the absence of the policy measure and provided that the Member State demonstrates that the obligated, participating or entrusted party has in fact contributed to the achievement of the energy savings claimed.

↓ 2018/2002 recital 42 (adapted)

(122) 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. In ~~Directive 2012/27/EU, as amended by~~ this Directive, a statistically significant proportion and representative sample of the energy efficiency improvement measures should be understood to require 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 for reasonably reliable conclusions regarding confidence in the totality of the measures.

↓ 2018/2002 recital 43
⇨ new

(123) 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 dependence 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 context of the Paris Agreement. For the purposes of their cumulative energy savings obligation Member States may take into account, ~~where applicable,~~ energy savings from ⇨ policy measures promoting ⇦ renewable ~~energy generated on or in buildings for own use~~ ⇨ technologies ⇦ to meet their

energy savings requirements ⇨ in accordance with the calculation methodology provided in this Directive ⇦. ⇨ Energy savings from policy measures regarding the use of direct fossil fuel combustion should not be counted. ⇦

⇩ new

(124) Some of the changes introduced by this Directive might require a subsequent amendment to Regulation (EU) 2018/1999 in order to ensure coherence between the two legal acts. New provisions, mainly related to setting national contributions, gap filling mechanisms and reporting obligations, should be streamlined and transferred to that Regulation, once it is amended. Some provisions of Regulation (EU) 2018/1999 might also need to be reassessed in view of the changes proposed in this Directive. The additional reporting and monitoring requirements should not create any new parallel reporting systems but would be subject to the existing monitoring and reporting framework under Regulation (EU) 2018/1999.

(125) To foster the practical implementation of this Directive at national, regional and local levels, the Commission should continue to support the exchange of experiences on practices, benchmarking, networking activities, as well as innovative practices by an online platform.

🡻 2012/27/EU recital 60 (adapted)

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

🡻 2018/2002 recital 45 (adapted)
⇨ new

(126) Since the objectives of this Directive, namely to achieve the Union's energy efficiency target~~s of 20 % by 2020 and of at least 32,5 % by 2030,~~ and to pave the way towards further energy efficiency improvements ~~beyond those dates,~~ ⇨ and towards climate neutrality, ⇦ cannot be sufficiently achieved by the Member States but can rather, by reason of the scale and effects of the action, be better achieved at Union level, the Union may adopt measures, in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty on European Union. In accordance with the principle of proportionality as set out in that Article, this Directive does not go beyond what is necessary in order to achieve those objectives.

🡻 2012/27/EU recital 61 (adapted)

(127) In order to permit adaptation to technical progress and changes in the distribution of energy sources, the power to adopt acts in accordance with Article 290 ⌦ TFEU ⌫ ~~of the Treaty on the Functioning of the European Union~~ should be delegated to the Commission in respect of the review of the harmonised efficiency reference values

laid down on the basis of ⌦ this ⌫ Directive ~~2004/8/EC~~ and in respect of the values, calculation methods, default primary energy coefficient and requirements in the Annexes to this Directive. ~~It is of particular importance that the Commission carry out appropriate consultations during its preparatory work, including at expert level. The Commission, when preparing and drawing up delegated acts, should ensure a simultaneous, timely and appropriate transmission of relevant documents to the European Parliament and the Council.~~

↓ 2018/2002 recital 37 (adapted)

(128) ~~In order to make it possible for the Annexes to Directive 2012/27/EU and the harmonised efficiency reference values to be updated, it is necessary to extend the delegation of powers granted to the Commission.~~ It is of particular importance that the Commission carry out appropriate consultations during its preparatory work, including at expert level, and that those consultations be conducted in accordance with the principles laid down in the Interinstitutional Agreement of 13 April 2016 on Better Law-Making[102]. In particular, to ensure equal participation in the preparation of delegated acts, the European Parliament and the Council receive all documents at the same time as Member States' experts, and their experts systematically have access to meetings of Commission expert groups dealing with the preparation of delegated acts.

↓ 2012/27/EU recital 62

(129) In order to ensure uniform conditions for the implementation of this Directive, implementing powers should be conferred on the Commission. Those powers should be exercised in accordance with Regulation (EU) No 182/2011 of the European Parliament and of the Council ~~of 16 February 2011 laying down the rules and general principles concerning mechanisms for control by Member States of the Commission's exercise of implementing powers~~[103].

↓ 2012/27/EU recital 63 (adapted)

~~All substantive provisions of Directives 2004/8/EC and 2006/32/EC should be repealed, except Article 4(1) to (4) of, and Annexes I, III and IV to Directive 2006/32/EC. Those latter provisions should continue to apply until the deadline for the achievement of the 9 % target. Article 9(1) and (2) of Directive 2010/30/EU, which provides for an obligation for Member States only to endeavour to procure products having the highest energy efficiency class, should be deleted.~~

↓ 2012/27/EU recital 64 (adapted)

~~The obligation to transpose this Directive into national law should be limited to those provisions that represent a substantive change as compared with Directives 2004/8/EC and~~

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102 OJ L 123, 12.5.2016, p. 1.

103 Regulation (EU) No 182/2011 of the European Parliament and of the Council of 16 February 2011 laying down the rules and general principles concerning mechanisms for control by Member States of the Commission's exercise of implementing powers (OJ L 55, 28.2.2011, p. 13).

~~2006/32/EC. The obligation to transpose the provisions which are unchanged arises under those Directives.~~

⇩ new

(130) The obligation to transpose this Directive into national law should be confined to those provisions which represent a substantive amendment as compared to the earlier Directive. The obligation to transpose the provisions which are unchanged arises under that earlier Directive.

🡻 2012/27/EU recital 65 (adapted)
⇨ new

(131) This Directive should be without prejudice to the obligations of the Member States relating to the time-limits for ⌦ the ⌫ transposition into national law ~~and application~~ of ⌦ the ⌫ Directives ⌦ set out in Annex XV, Part B ⌫ ~~2004/8/EC and 2006/32/EC~~,

🡻 2012/27/EU recital 66 (adapted)

~~In accordance with the Joint Political Declaration of Member States and the Commission on explanatory documents of 28 September 2011, Member States have undertaken to accompany, in justified cases, the notification of their transposition measures with one or more documents explaining the relationship between the components of a directive and the corresponding parts of national transposition instruments. With regard to this Directive, the legislator considers the transmission of such documents to be justified,~~

🡻 2012/27/EU

HAVE ADOPTED THIS DIRECTIVE:

CHAPTER I

SUBJECT MATTER, SCOPE, DEFINITIONS AND ENERGY EFFICIENCY TARGETS

Article 1

Subject matter and scope

🡻 2018/2002 Art. 1.1 (adapted)
⇨ new

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 headline~~ target~~s~~ on energy efficiency ~~of 20 % and its 2030 headline targets on energy efficiency of at least 32,5 %~~ ⌦ is ⌫ ~~are~~ met and ~~paves the way for~~ ⌦ enables ⌫ further energy efficiency improvements ~~beyond those dates~~.

This Directive lays down rules designed to ⇨ implement energy efficiency as a priority across all sectors, ⇦ remove barriers in the energy market and overcome market failures that impede efficiency in the supply and use of energy,~~;~~ ~~and~~ ⌦ It also ⌫ provides for the establishment of indicative national energy efficiency ~~targets and~~ contributions for ~~2020 and~~ 2030.

This Directive contributes to the implementation of the energy efficiency first principle, ⇨ thus contributing to the Union as an inclusive, fair and prosperous society with a modern, resource-efficient and competitive economy ⇦.

🡻 2012/27/EU

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

Article 2

Definitions

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

(1) ‘energy’ means all forms of energy products, combustible fuels, heat, renewable energy, electricity, or any other form of energy, as defined in Article 2(d) of Regulation (EC) No 1099/2008 of the European Parliament and of the Council ~~of 22 October 2008 on energy statistics~~[104];

⇩ new

(2) ‘energy efficiency first’ means ‘energy efficiency first’ as defined in point (18) of Article 2 of Regulation (EU) 2018/1999.

(3) `energy system´ means a system primarily designed to supply energy-services to satisfy the demand of end-use sectors for energy in the forms of heat, fuels, and electricity.

🡻 2012/27/EU (adapted)
⇨ new

(~~4~~2) ‘primary energy consumption’ means gross ⇨ available energy ⇦ ~~inland consumption~~, excluding ⇨ international maritime bunkers, final ⇦ non-energy ⇨ consumption ⇦ ~~uses~~ ⇨ and ambient heat ⇦;

(~~5~~3) ‘final energy consumption’ means all energy supplied to industry, transport ⇨ (including energy consumption in international aviation) ⇦, households, ⇨ public and private ⇦ services, ~~and~~ agriculture ⇨ , forestry and fishing and other end-users (final consumers of energy) ⇦. It excludes ⇨ energy consumption in international

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104 Regulation (EC) No 1099/2008 of the European Parliament and of the Council of 22 October 2008 on energy statistics (OJ L 304, 14.11.2008, p. 1).

maritime bunkers, ambient heat and ⇦ deliveries to the ~~energy~~ transformation sector, and the energy ~~industries themselves~~ ⇨ sector and losses due to transmission and distribution (definitions in Annex A of Regulation (EC) No 1099/2008 apply) ⇦ ;

(6~~4~~) 'energy efficiency' means the ratio of output of performance, service, goods or energy, to input of energy;

(7~~5~~) 'energy savings' means an amount of saved energy determined by measuring and/or estimating consumption before and after implementation of an energy efficiency improvement measure, whilst ensuring normalisation for external conditions that affect energy consumption;

(8~~6~~) 'energy efficiency improvement' means an increase in energy efficiency as a result of technological, behavioural and/or economic changes;

(9~~7~~) 'energy service' means the physical benefit, utility or good derived from a combination of energy with energy-efficient technology or with action, which may include the operations, maintenance and control necessary to deliver the service, which is delivered on the basis of a contract and in normal circumstances has proven to result in verifiable and measurable or estimable energy efficiency improvement or primary energy savings;

(10~~8~~) 'public bodies' means 'contracting authorities' as defined in Directive 2014/24/EU~~2004/18/EC~~ of the European Parliament and of the Council[105] ~~of 31 March 2004 on the coordination of procedures for the award of public works contracts, public supply contracts and public service contracts~~[106];

~~(9) 'central government' means all administrative departments whose competence extends over the whole territory of a Member State;~~

(11~~10~~) 'total useful floor area' means the floor area of a building or part of a building, where energy is used to condition the indoor climate;

⇩ new

(12) 'contracting authorities' means contracting authorities as defined in Article Articles 6(1), 2(1) and 3(1) of Directives 2014/23/EU, Directive 2014/24/EU and Directive 2014/25/EU respectively;

(13) 'contracting entities' means contracting entities as defined in Directives 2014/23/EU and 2014/25/EU respectively;

🡻 2012/27/EU (adapted)
⇨ new

(14~~11~~) 'energy management system' means a set of interrelated or interacting elements of a plan which sets an energy efficiency objective and a strategy to achieve that

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105 Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC (OJ L 94, 28.3.2014, p. 65).

106 ~~OJ L 134, 30.4.2004, p. 114.~~

objective ⇨ , including monitoring of actual energy consumption, actions taken to increase energy efficiency and measurement of progress ⇦;

(15~~12~~) ‘European standard’ means a standard adopted by the European Committee for Standardisation, the European Committee for Electrotechnical Standardisation or the European Telecommunications Standards Institute and made available for public use;

(16~~13~~) ‘international standard’ means a standard adopted by the International Standardisation Organisation and made available to the public;

(17~~14~~) ‘obligated party’ means an energy distributor or retail energy sales company ⇨ or transmission system operator ⇦ that is bound by the national energy efficiency obligation schemes referred to in Article 9~~7~~;

(18~~15~~) ‘entrusted party’ means a legal entity with delegated power from a government or other public body to develop, manage or operate a financing scheme on behalf of the government or other public body;

(19~~16~~) ‘participating party’ means an enterprise or public body that has committed itself to reaching certain objectives under a voluntary agreement, or is covered by a national regulatory policy instrument;

(20~~17~~) ‘implementing public authority’ means a body governed by public law which is responsible for the carrying out or monitoring of energy or carbon taxation, financial schemes and instruments, fiscal incentives, standards and norms, energy labelling schemes, training or education;

(21~~18~~) ‘policy measure’ means a regulatory, financial, fiscal, voluntary or information provision instrument formally established and implemented in a Member State to create a supportive framework, requirement or incentive for market actors to provide and purchase energy services and to undertake other energy efficiency improvement measures;

(22~~19~~) ‘individual action’ means an action that leads to verifiable, and measurable or estimable, energy efficiency improvements and is undertaken as a result of a policy measure;

(23~~20~~) ‘energy distributor’ means a natural or legal person, including a distribution system operator, responsible for transporting energy with a view to its delivery to final customers or to distribution stations that sell energy to final customers;

(24~~21~~) ‘distribution system operator’ means ‘distribution system operator’ as defined in ⌦ Article 2(29) of ⌫ Directive (EU) 2019/944~~2009/72/EC~~ ⌦ , as regards electricity, ⌫ and ⌦ Article 2(6) of ⌫ Directive 2009/73/EC ⌦ , as regards gas, ⌫ respectively;

(25~~22~~) ‘retail energy sales company’ means a natural or legal person who sells energy to final customers;

(26~~23~~) ‘final customer’ means a natural or legal person who purchases energy for own end use;

(27~~24~~) ‘energy service provider’ means a natural or legal person who delivers energy services or ~~other~~ energy efficiency improvement measures in a final customer’s facility or premises;

(28~~25~~) ‘energy audit’ means a systematic procedure with the purpose of obtaining adequate knowledge of the ~~existing~~ energy consumption profile of a building or group of

buildings, an industrial or commercial operation or installation or a private or public service, identifying and quantifying ⌦ opportunities for ⌫ cost-effective energy savings ~~opportunities,~~ ⇨ identifying the potential for cost-effective use or production of renewable energy ⇦ and reporting the findings;

~~(26) 'small and medium-sized enterprises' or 'SMEs' means enterprises as defined in Title I of the Annex to Commission Recommendation 2003/361/EC of 6 May 2003 concerning the definition of micro, small and medium-sized enterprises [107]; the category of micro, small and medium-sized enterprises is made up of enterprises which employ fewer than 250 persons and which have an annual turnover not exceeding EUR 50 million, and/or an annual balance sheet total not exceeding EUR 43 million;~~

(29~~27~~) 'energy performance contracting' means a contractual arrangement between the beneficiary and the provider of an energy efficiency improvement measure, verified and monitored during the whole term of the contract, where ~~investments~~ ~~(~~work, supply or service~~)~~ in that measure are paid for in relation to a contractually agreed level of energy efficiency improvement or other agreed energy performance criterion, such as financial savings;

(30~~28~~) 'smart metering system' or 'intelligent metering system' means ~~an electronic system that can measure energy consumption, providing more information than a conventional meter, and can transmit and receive data using a form of electronic communication~~ ⇨ 'smart metering system' as defined in Directive (EU) 2019/944 ⇦;

(31~~29~~) 'transmission system operator' means 'transmission system operator' as defined in ⌦ in Article 2(35) of ⌫ Directive (EU) 2019/944~~2009/72/EC~~ and Directive 2009/73/EC⌦ , for electricity and gas, ⌫ respectively;

(32~~30~~) 'cogeneration' means the simultaneous generation in one process of thermal energy and electrical or mechanical energy;

(33~~31~~) 'economically justifiable demand' means demand that does not exceed the needs for heating or cooling and which would otherwise be satisfied at market conditions by energy generation processes other than cogeneration;

(34~~32~~) 'useful heat' means heat produced in a cogeneration process to satisfy economically justifiable demand for heating or cooling;

(35~~33~~) 'electricity from cogeneration' means electricity generated in a process linked to the production of useful heat and calculated in accordance with the methodology laid down in Annex II~~I~~;

(36~~34~~) 'high-efficiency cogeneration' means cogeneration meeting the criteria laid down in Annex III~~II~~;

(37~~35~~) 'overall efficiency' means the annual sum of electricity and mechanical energy production and useful heat output divided by the fuel input used for heat produced in a cogeneration process and gross electricity and mechanical energy production;

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[107] ~~OJ L 124, 20.5.2003, p. 36~~

(38~~36~~) ‘power-to-heat ratio’ means the ratio of electricity from cogeneration to useful heat when operating in full cogeneration mode using operational data of the specific unit;

(39~~37~~) ‘cogeneration unit’ means a unit that is able to operate in cogeneration mode;

(40~~38~~) ‘small-scale cogeneration unit’ means a cogeneration unit with installed capacity below 1 MW_e;

(41~~39~~) ‘micro-cogeneration unit’ means a cogeneration unit with a maximum capacity below 50 kW_e;

~~(40) ‘plot ratio’ means the ratio of the building floor area to the land area in a given territory;~~

(42~~41~~) ‘efficient district heating and cooling’ means a district heating or cooling system ~~using at least 50 % renewable energy, 50 % waste heat, 75 % cogenerated heat or 50 % of a combination of such energy and heat~~ ⇨ meeting the criteria laid down in Article 24 ⇦;

(43~~42~~) ‘efficient heating and cooling’ means a heating and cooling option that, compared to a baseline scenario reflecting a business-as-usual situation, measurably reduces the input of primary energy needed to supply one unit of delivered energy within a relevant system boundary in a cost-effective way, as assessed in the cost-benefit analysis referred to in this Directive, taking into account the energy required for extraction, conversion, transport and distribution;

(44~~43~~) ‘efficient individual heating and cooling’ means an individual heating and cooling supply option that, compared to efficient district heating and cooling, measurably reduces the input of non-renewable primary energy needed to supply one unit of delivered energy within a relevant system boundary or requires the same input of non-renewable primary energy but at a lower cost, taking into account the energy required for extraction, conversion, transport and distribution;

⇩ new

(45) ‘data centre’ means a structure, or group of structures, with the purpose of centralized accommodation, interconnection and operation of information technology and network telecommunications equipment providing data storage, processing and transport services together with all the facilities and infrastructures for power distribution and environmental control and the necessary levels of resilience and security required to provide the desired service availability;

🡻 2012/27/EU
⇨ new

(46~~44~~) ‘substantial refurbishment’ means a refurbishment whose cost exceeds 50 % of the investment cost for a new comparable unit;

(47~~45~~) ‘aggregator’ ~~means a demand service provider that combines multiple short-duration consumer loads for sale or auction in organised energy markets~~ ⇨ has the meaning attributed to ‘independent aggregator’ as defined by Article 2(19) of Directive (EU) 2019/944 ⇦;

⇩ new

(48) ‘energy poverty’ means a household’s lack of access to essential energy services that underpin a decent standard of living and health, including adequate warmth, cooling, lighting, and energy to power appliances, in the relevant national context, existing social policy and other relevant policies;

(49) ´final user´ means natural or legal person purchasing heating, cooling or domestic hot water for their own end-use, or natural or legal person occupying an individual building or a unit in a multi-apartment or multi-purpose building supplied with heating, cooling or domestic hot water from a central source who has no direct or individual contract with the energy supplier;

(50) ‘split incentives’ means the lack of fair and reasonable distribution of financial obligations and rewards related to energy efficiency investments among the actors concerned, for example the owners and tenants or the different owners of building units, or owners and tenants or different owners of multi-apartment or multi-purpose buildings.

Article 3

Energy efficiency first principle

1. In conformity with the energy efficiency first principle, Member States shall ensure that energy efficiency solutions are taken into account in the planning, policy and major investment decisions related to the following sectors:

(a) energy systems, and

(b) non-energy sectors, where those sectors have an impact on energy consumption and energy efficiency.

2. Member States shall ensure that the application of the energy efficiency first principle is verified by the relevant entities where policy, planning and investment decisions are subject to approval and monitoring requirements.

3. In applying the energy efficiency first principle, Member States shall:

(a) promote and, where cost-benefit assessments are required, ensure the application of cost-benefit methodologies that allow proper assessment of wider benefits of energy efficiency solutions from the societal perspective;

(b) identify an entity responsible for monitoring the application of the energy efficiency first principle and the impacts of planning, policy and investment decisions on energy consumption and energy efficiency;

(c) report to the Commission, as part of the integrated national energy and climate progress reports in accordance with Article 17 of Regulation (EU) 2018/1999 on how the principle was taken into account in the national and regional planning, policy and major investment decisions related to the national and regional energy systems.

🡻 2012/27/EU

Article ~~4~~3

Energy efficiency targets

⇩ new

1. Member States shall collectively ensure a reduction of energy consumption of at least 9 % in 2030 compared to the projections of the 2020 Reference Scenario so that the Union's final energy consumption amounts to no more than 787 Mtoe and the Union's primary energy consumption amounts to no more than 1023 Mtoe in 2030.[108]

🡻 2012/27/EU (adapted)
⇨ new

2~~1~~. Each Member State shall set ~~an indicative~~ national energy efficiency ~~target, based on either primary or~~ ⇨ contributions for ⇦ final ~~energy consumption,~~ ⌦ and ⌫ primary ~~or final~~ energy ~~savings, or energy intensity~~ ⇨ consumption to meet, collectively, the binding Union target set in paragraph 1 ⇦. Member States shall notify those ~~targets~~ ⇨ contributions together with an indicative trajectory for those contributions ⇦ to the Commission ~~in accordance with Article 24(1) and Annex XIV Part 1~~ ⇨ as part of the updates of their integrated national energy and climate plans in accordance with Article 14 of Regulation (EU) 2018/1999, and as part of their integrated national energy and climate plans as referred to in, and in accordance with, the procedure set out in Article 3 and Articles 7 to 12 of Regulation (EU) 2018/1999 ⇦. When doing so, ~~they~~ ⌦ Member States ⌫ shall ~~also express those targets in terms of an absolute level of primary energy consumption and final energy consumption in 2020 and shall~~ ⇨ use the formula defined in Annex I of this Directive and ⇦ explain how, and on the basis of which data, ~~this has~~ ⇨ the contributions have ⇦ been calculated.

⇩ new

Member States shall also provide the shares of energy consumption of energy end-use sectors, as defined in Regulation (EC) No 1099/2008 on energy statistics, including industry, residential, services and transport, in their national energy efficiency contributions. Projections for energy consumption in information and communications technology (ICT) shall also be indicated.

🡻 2012/27/EU (adapted)
⇨ new

⌦ In ⌫ ~~When~~ setting those ~~targets~~ ⇨ contributions ⇦, Member States shall take into account:

[108] The Union's energy efficiency target was initially set and calculated using the 2007 Reference Scenario projections for 2030 as a baseline. The change in the Eurostat energy balance calculation methodology and improvements in subsequent modelling projections call for a change of the baseline. Thus, using the same approach to define the target, that is to say comparing it to the future baseline projections, the ambition of the Union's 2030 energy efficiency target is set compared to the 2020 Reference Scenario projections for 2030 reflecting national contributions from the NECPs. With that updated baseline, the Union will need to further increase its energy efficiency ambition by at least 9 % in 2030 compared to the level of efforts under the 2020 Reference Scenario. The new way of expressing the level of ambition for the Union's targets does not affect the actual level of efforts needed.

↓ 2013/12/EU Art. 1 and Annex .a
⇨ new

(a) that the Union's ⇨ 2030 ⇦ ~~2020~~ energy consumption has to be no more than ~~1483~~ ⇨ 787 Mtoe of final energy or no more than 1023 ⇦ Mtoe of primary energy ~~or no more than 1086 Mtoe of final energy~~ ⇨ consumption ⇦;

↓ 2012/27/EU (adapted)

(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~~

(c~~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:~~

⇩ new

(d) any relevant factors affecting efficiency efforts, such as:

i. the collective level of ambition necessary to reach climate objectives;

ii. the equitable distribution of efforts across the Union;

iii. the energy intensity of the economy;

↓ 2012/27/EU

(iv~~a~~) the remaining cost-effective energy-saving potential;

⇩ new

(e) other national circumstances affecting energy consumption, in particular:

↓ 2012/27/EU
⇨ new

(i~~b~~) GDP evolution and forecast;

(ii~~c~~) changes of energy imports and exports ⇨ , developments in energy mix and deployment of new sustainable fuels ⇦;

(iii~~d~~) development of all sources of renewable energies, nuclear energy, carbon capture and storage;

⇩ new

(iv) decarbonisation of energy intensive industries.

↓ 2012/27/EU

~~(c) early action.~~

↓ 2013/12/EU Art. 1 and Annex .b (adapted)

~~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 1483 Mtoe of primary energy and/or no more than 1086 Mtoe of final energy in 2020.~~

↓ 2012/27/EU (adapted)

~~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;~~

↓ 2013/12/EU Art. 1 and Annex .c (adapted)

~~(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 1483 Mtoe of primary energy and/or no more than 1086 Mtoe of final energy in 2020.~~

↓ 2019/504 Art. 1

~~5. Each Member State shall set indicative national energy efficiency contributions towards the Union's 2030 targets as referred to in Article 1(1) of this Directive in accordance with Articles 4 and 6 of Regulation (EU) 2018/1999 of the European Parliament and of the~~

~~Council[109]. When setting those contributions, Member States shall take into account that the Union's 2030 energy consumption has to be no more than 1 128 Mtoe of primary energy and/or no more than 846 Mtoe of final energy. Member States shall notify those contributions to the Commission as part of their integrated national energy and climate plans as referred to in, and in accordance with, the procedure pursuant to Articles 3 and 7 to 12 of Regulation (EU) 2018/1999.~~

⇩ new

3. Where the Commission concludes, on the basis of its assessment pursuant to Article 29(1) and (3) of Regulation (EU) 2018/1999, that insufficient progress has been made towards meeting the energy efficiency contributions, Member States that are above their indicative trajectories referred to in paragraph 2 of this Article shall ensure that additional measures are implemented within one year following the date of reception of the Commission's assessment in order to ensure getting back on track to reach their energy efficiency contributions. Those additional measures shall include, but shall not be limited to, the following measures:

a. national measures delivering additional energy savings, including stronger project development assistance for the implementation of energy efficiency investment measures;

b. increasing the energy savings obligation set out in Article 8;

c. adjusting the obligation for public sector;

d. making a voluntary financial contribution to the National Energy Efficiency Fund referred to in Article 28 or another financing instrument dedicated to energy efficiency, where the annual financial contributions shall be equal to the investments required to reach the indicative trajectory.

Where a Member State is above its indicative trajectory referred to in paragraph 2 of this Article, it shall include in its integrated national energy and climate progress report pursuant to Article 17 of Regulation (EU) 2018/1999, an explanation of how it will cover the gap to ensure reaching its national energy efficiency contributions.

The Commission shall assess whether the national measures referred to in this paragraph are sufficient to achieve the Union's energy efficiency targets. Where national measures are deemed to be insufficient, the Commission shall, as appropriate, propose measures and exercise its power at Union level in order to ensure, in particular, the achievement of the Union's 2030 targets for energy efficiency.

4. The Commission shall assess by 31 December 2026 any methodological changes in the data reported pursuant to Regulation (EC) No 1099/2008 on energy statistics, in the methodology for calculating energy balance and in energy models for European energy use

~~[109] Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action, amending Regulations (EC) No 663/2009 and (EC) No 715/2009 of the European Parliament and of the Council, Directives 94/22/EC, 98/70/EC, 2009/31/EC, 2009/73/EC, 2010/31/EU, 2012/27/EU and 2013/30/EU of the European Parliament and of the Council, Council Directives 2009/119/EC and (EU) 2015/652 and repealing Regulation (EU) No 525/2013 of the European Parliament and of the Council (OJ L 328, 21.12.2018, p. 1).~~

and, if necessary, propose technical calculation adjustments to the Union's 2030 targets with a view to maintaining the level of ambition set out in paragraph 1 of this Article.

↓ 2018/2002 Art. 1.2

~~6. The Commission shall assess the Union's 2030 headline targets on energy efficiency set in Article 1(1) with a view to submitting a legislative proposal by 2023 to revise those targets upwards in the event of substantial cost reductions resulting from economic or technological developments, or where needed to meet the Union's international commitments for decarbonisation.~~

↓ 2012/27/EU (adapted)

CHAPTER II

~~*EFFICIENCY IN ENERGY USE*~~ ⌦ *EXEMPLARY ROLE OF PUBLIC SECTOR* ⌫

⇩ new

Article 5

Public sector leading on energy efficiency

1. Member States shall ensure that the total final energy consumption of all public bodies combined is reduced by at least 1,7% each year, when compared to the year X-2 (with X as the year when this Directive enters into force).

Member States may take into account climatic variations within the Member State when calculating their public bodies' final energy consumption.

2. Member States shall include, in their national energy and climate plans and updates thereof pursuant to Regulation (EU) 2018/1999, a list of public bodies which shall contribute to the fulfilment of the obligation set out in paragraph 1 of this Article, the amount of energy consumption reduction to be achieved by each of them and the measures they plan to achieve it. As part of their integrated national energy and climate reports pursuant to Article 17 of Regulation (EU) 2018/1999, Member States shall report to the Commission the final energy consumption reduction achieved annually.

3. Member States shall ensure that regional and local authorities, establish specific energy efficiency measures in their decarbonisation plans after consulting stakeholders and the public, including the particular groups at risk of energy poverty or more susceptible to its effects, such as women, persons with disabilities, older persons, children, and persons with a minority racial or ethnic background.

4. Member States shall support public bodies in the uptake of energy efficiency improvement measures, including at regional and local levels, by providing guidelines, promoting competence building and training opportunities and encouraging cooperation amongst public bodies.

5. Member States shall encourage public bodies to consider life cycle carbon emissions of their public bodies' investment and policy activities.

↓ 2012/27/EU (adapted)
⇨ new

Article ~~6~~5

Exemplary role of public bodies' buildings

1. Without prejudice to Article 7 of Directive 2010/31/EU of the European Parliament and of the Council[110], each Member State shall ensure that~~,~~ ~~as from 1 January 2014,~~ ⇨ at least ⇦ 3 % of the total floor area of heated and/or cooled buildings owned ~~and occupied~~ by ~~its central government~~ ⇨ public bodies ⇦ is renovated each year to⌦ at least ⌫ ~~meet at least the minimum energy performance requirements that it has set~~ ⇨ be transformed into nearly zero-energy buildings ⇦ in ~~application of~~ ⌦ accordance with ⌫ Article ~~4~~ ⇨ 9 ⇦ of Directive 2010/31/EU.

⇩ new

Where public bodies occupy a building that they do not own, they shall exercise their contractual rights to the extent possible and encourage the building owner to renovate the building to a nearly zero-energy building in accordance with Article 9 of Directive 2010/31/EU. When concluding a new contract for occupying a building they do not own, public bodies shall aim for that building to fall into the top two energy efficiency classes on the energy performance certificate.

↓ 2012/27/EU (adapted)
⇨ new

~~The 3 % rate shall be calculated on the total floor area of buildings with a total useful floor area over 500 m^2 owned and occupied by the central government of the Member State concerned that, on 1 January of each year, do not meet the national minimum energy performance requirements set in application of Article 4 of Directive 2010/31/EU. That threshold shall be lowered to 250 m^2 as of 9 July 2015.~~

~~Where a Member State requires that the obligation to renovate each year 3 % of the total floor area extends to floor area owned and occupied by administrative departments at a level below central government, the 3 % rate~~ ⇨ The rate of at least 3% ⇦ shall be calculated on the total floor area of buildings ⌦ having ⌫ ~~with~~ a total useful floor area ~~over 500 m^2 and, as of 9 July 2015,~~ over 250 m^2 owned ~~and occupied~~ by ~~central government and by these administrative departments~~ ⇨ public bodies ⇦ of the Member State concerned ⌦ and which ⌫ ~~that~~, on 1 January ~~of each year, do not meet the national minimum energy performance requirements set in application of Article 4 of Directive 2010/31/EU~~ ⇨ 2024, are not nearly zero-energy buildings ⇦.

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

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

~~Member States shall require that central government buildings with the poorest energy performance be a priority for energy efficiency measures, where cost-effective and technically feasible.~~

~~2. Member States may decide not to set or apply the requirements referred to in paragraph 1 to the following categories of buildings:~~

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

~~(b) buildings owned by the armed forces or central government and serving national defence purposes, apart from single living quarters or office buildings for the armed forces and other staff employed by national defence authorities;~~

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

~~3. If a Member State renovates more than 3 % of the total floor area of central government buildings in a given year, it may count the excess towards the annual renovation rate of any of the three previous or following years.~~

2~~4~~. ⇨ In exceptional cases, ⇦ Member States may count towards the annual renovation rate of ~~central government~~ buildings new buildings ~~occupied and~~ owned as replacements for specific ~~central government~~ ⇨ public bodies' ⇦ buildings demolished in any of the two previous years~~, or buildings that have been sold, demolished or taken out of use in any of the two previous years due to more intensive use of other buildings~~. ⇨ Such exceptions shall only apply where they would be more cost effective and sustainable in terms of the energy and lifecycle CO_2 emissions achieved compared to the renovations of such buildings. The general criteria, methodologies and procedures to identify such exceptional cases shall be clearly set out and published by each Member State. ⇦

3~~5~~. For the purposes of ⇨ this Article ⇦ ~~paragraph 1~~, ~~by 31 December 2013,~~ Member States shall ~~establish and~~ make publicly available an inventory of heated and/or cooled ~~central government~~ ⇨ public bodies' ⇦ buildings with a total useful floor area ~~over 500 m² and, as of 9 July 2015,~~ ⌦ of more than ⌫ ~~over~~ 250 m^2~~, excluding buildings exempted on the basis of paragraph 2~~. ⇨ This inventory shall be updated at least once a year. ⇦ The inventory shall contain ⇨ at least ⇦ the following data:

(a) the floor area in m^2; ~~and~~

(b) the energy performance ⇨ certificate ⇦ of each building ~~or relevant energy data~~ ⇨ issued in accordance with Article 12 of Directive 2010/31/EU ⇦.

~~6. Without prejudice to Article 7 of Directive 2010/31/EU, Member States may opt for an alternative approach to paragraphs 1 to 5 of this Article, whereby they take other cost-effective measures, including deep renovations and measures for behavioural change of occupants, to achieve, by 2020, an amount of energy savings in eligible buildings owned and occupied by their central government that is at least equivalent to that required in paragraph 1, reported on an annual basis.~~

~~For the purpose of the alternative approach, Member States may estimate the energy savings that paragraphs 1 to 4 would generate by using appropriate standard values for the energy consumption of reference central government buildings before and after renovation and according to estimates of the surface of their stock. The categories of reference central government buildings shall be representative of the stock of such buildings.~~

~~Member States opting for the alternative approach shall notify to the Commission, by 31 December 2013, the alternative measures that they plan to adopt, showing how they would achieve an equivalent improvement in the energy performance of the buildings within the central government estate.~~

~~7. Member States shall encourage public bodies, including at regional and local level, and social housing bodies governed by public law, with due regard for their respective competences and administrative set-up, to:~~

~~(a) adopt an energy efficiency plan, freestanding or as part of a broader climate or environmental plan, containing specific energy saving and efficiency objectives and actions, with a view to following the exemplary role of central government buildings laid down in paragraphs 1, 5 and 6;~~

~~(b) put in place an energy management system, including energy audits, as part of the implementation of their plan;~~

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

Article ~~7~~6

⌦ Public procurement ⌫ ~~Purchasing by public bodies~~

1. Member States shall ensure that ~~central governments~~ ⇨ contracting authorities and contracting entities, when concluding public contracts and concessions with a value equal to or greater than the thresholds laid down in Article 8 of Directive 2014/23/EU, Article 4 of Directive 2014/24/EU and Article 15 of Directive 2014/25/EU, ⇦ purchase only products, services, ~~and~~ buildings ⌦ and ⌫ ⇨ works ⇦ with high energy-efficiency performance~~,~~ ~~insofar as that is consistent with cost-effectiveness, economical feasibility, wider sustainability, technical suitability, as well as sufficient competition, as~~ ⌦ in accordance with the requirements ⌫ referred to in Annex ~~III~~IV ⌦ to this Directive ⌫.

~~The obligation set out in the first subparagraph shall apply to contracts for the purchase of products, services and buildings by public bodies in so far as such contracts have a value equal to or greater than the thresholds laid down in Article 7 of Directive 2004/18/EC.~~

⇩ new

Member States shall also ensure that in concluding the public contracts and concessions with a value equal to or greater than the thresholds referred to in the first subparagraph, contracting authorities and contracting entities, apply the energy efficiency first principle referred to in Article 3 of this Directive, including for those public contracts and concessions for which no specific requirements are provided in Annex IV.

↓ 2012/27/EU (adapted)
⇨ new

2. The obligation referred to in paragraph 1 shall apply to the contracts of the armed forces only to the extent that its application does not cause any conflict with the nature and primary aim of the activities of the armed forces. The obligation shall not apply to contracts for the supply of military equipment as defined by Directive 2009/81/EC of the European Parliament and of the Council ~~of 13 July 2009 on the coordination of procedures for the award of certain works contracts, supply contracts and service contracts by contracting authorities or entities in the fields of defence and security~~[111].

3. ~~Member States shall encourage public bodies, including at regional and local levels, with due regard to their respective competences and administrative set-up, to follow the exemplary role of their central governments to purchase only products, services and buildings with high energy-efficiency performance.~~ ⇨ Notwithstanding paragraph 4 of Article 26 of this Directive, ⇦ Member States shall ~~encourage public bodies~~ ⇨ ensure that contracting authorities and contracting entities ⇦ ~~, when tendering service contracts with significant energy content, to~~ assess the ~~possibility~~ ⇨ feasibility ⇦ of concluding long-term energy performance contracts that provide long-term energy savings ⇨ when procuring service contracts with significant energy content ⇦.

4. Without prejudice to paragraph 1, when purchasing a product package ⌦ fully ⌫ covered ~~as a whole~~ by a delegated act adopted under Regulation (EU) 2017/1369 of the European Parliament and of the Council[112] ~~Directive 2010/30/EU~~, Member States may require that the aggregate energy efficiency ~~shall~~ take priority over the energy efficiency of individual products within that package, by purchasing the product package that complies with the criterion of belonging to the highest energy efficiency class.

⇩ new

5. Member States may require that contracting authorities and contracting entities take into account, where appropriate, wider sustainability, social, environmental and circular economy aspects in procurement practices with a view to achieving the Union's decarbonisation and zero pollution objectives. Where appropriate, and in accordance with the requirements laid down in Annex IV, Member States shall require contracting authorities and contracting entities to take into account Union green public procurement criteria.

To ensure transparency in the application of energy efficiency requirements in the procurement process, Member States shall make publicly available information on the energy efficiency impact of contracts with a value equal to or greater than the thresholds referred to in paragraph 1. Contracting authorities may decide to require that tenderers disclose information on the life cycle global warming potential of a new building and may make that

111 Directive 2009/81/EC of the European Parliament and of the Council of 13 July 2009 on the coordination of procedures for the award of certain works contracts, supply contracts and service contracts by contracting authorities or entities in the fields of defence and security (OJ L 216, 20.8.2009, p. 7).

112 Regulation (EU) 2017/1369 of the European Parliament and of the Council of 4 July 2017 setting a framework for energy labelling and repealing Directive 2010/30/EU (OJ L 198, 28.7.2017, p. 1).

information publically available for the contracts, in particular for new buildings having a floor area larger than 2000 square meters.

Member States shall support contracting authorities and contracting entities in the uptake of energy efficiency requirements, including at regional and local level, by providing clear rules and guidelines including methodologies on the assessment of lifecycle costs and environment impacts and costs, setting up competence support centres, encouraging cooperation amongst contracting authorities including across borders and using aggregated procurement and digital procurement where possible.

6. Member States shall establish legal and regulatory provisions, and administrative practices, regarding public purchasing and annual budgeting and accounting, necessary to ensure that individual contracting authorities are not deterred from making investments in improving energy efficiency and from using energy performance contracting and third-party financing mechanisms on a long-term contractual basis.

↓ 2012/27/EU (adapted)
⇨ new

7.~~(b)~~ ⇨ Member States shall remove any regulatory or non-regulatory barriers to energy efficiency, in particular as regards ⇦ legal and regulatory provisions, and administrative practices, regarding public purchasing and annual budgeting and accounting, with a view to ensuring that individual public bodies are not deterred from making investments in improving energy efficiency ~~and minimising expected life-cycle costs~~ and from using energy performance contracting and ~~other~~ third-party financing mechanisms on a long-term contractual basis.

⇩ new

Member States shall report to the Commission on the measures taken to address the barriers to uptake of energy efficiency improvements as part of the integrated national energy and climate progress reports pursuant to Article 17 of Regulation (EU) 2018/1999.

↓ 2018/2002 Art. 1.3 (adapted)
⇨ new

CHAPTER III

⌦ *EFFICIENCY IN ENERGY USE* ⌫

Article ~~8~~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. Sales of energy, by volume, used in transport may be excluded, in whole or in part, from that calculation;

(b) new savings each year from 1 January 2021 to 31 December ~~2030~~ ⇨ 2023 ⇦ 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 from that requirement, Cyprus and Malta shall achieve new savings each year from 1 January 2021 to 31 December ~~2030~~ ⇨ 2023 ⇦ equivalent to 0,24 % of annual final energy consumption, averaged over the most recent three-year period prior to 1 January 2019;~~.~~

⇩ new

(c) new savings each year from 1 January 2024 to 31 December 2030 of 1,5 % of annual final energy consumption, averaged over the three-year period prior to 1 January 2020.

🡻 2018/2002 Art. 1.3
⇨ new

Member States shall decide how to phase the calculated quantity of new savings over each period referred to in points (a)~~,~~ ~~and~~ (b) ⇨ and (c) ⇦ of the first subparagraph, provided that the required total cumulative end-use energy savings have been achieved by the end of each obligation period.

Member States shall continue to achieve new annual savings in accordance with ~~point (b)~~ ⇨ the savings rate provided in point (c) ⇦ of the first subparagraph for ten-year periods after 2030 ~~unless reviews by the Commission by 2028 and every 10 years thereafter conclude that this is not necessary to achieve the Union's long-term energy and climate targets for 2050~~.

~~10~~2. Member States shall achieve the amount of energy savings required under paragraph 1 of this Article either by establishing an energy efficiency obligation scheme referred to in Article ~~9~~7~~a~~ or by adopting alternative policy measures referred to in Article ~~10~~7~~b~~. Member States may combine an energy efficiency obligation scheme with alternative policy measures. ~~9.~~ Member States shall ensure that ⇨ energy ⇦ savings resulting from policy measures referred to in Articles ~~9~~7~~a~~ and ~~10~~7~~b~~ and Article 28(11)~~20(6)~~ are calculated in accordance with Annex V.

⇩ new

3. Member States shall implement energy efficiency obligation schemes, alternative policy measures, or a combination of both, or programmes or measures financed under an Energy Efficiency National Fund, as a priority among people affected by energy poverty, vulnerable customers and, where applicable, people living in social housing. Member States shall ensure that policy measures implemented pursuant to this Article have no adverse effect on those persons. Where applicable, Member States shall make the best possible use of funding, including public funding, funding facilities established at Union level, and revenues from allowances pursuant to Article 22(3)(b) with the aim of removing adverse effects and ensuring a just and inclusive energy transition.

In designing such policy measures, Member States shall consider and promote the role of renewable energy communities and citizen energy communities in the contribution to the implementation towards these policy measures.

Member States shall achieve a share of the required amount of cumulative end-use energy savings among people affected by energy poverty vulnerable customers and, where applicable, people living in social housing. This share shall at least equal the proportion of households in energy poverty as assessed in their National Energy and Climate Plan established in accordance with Article 3(3)(d) of the Governance Regulation 2018/1999. If a Member State had not notified the share of households in energy poverty as assessed in their National Energy and Climate Plan, the share of the required amount of cumulative end-use energy savings among people affected by energy poverty vulnerable customers and, where applicable, people living in social housing, shall at least equal the arithmetic average share of the following indicators for the year 2019 or, if not available for 2019, for the linear extrapolation of their values for the last three years that are available:

a) Inability to keep home adequately warm (Eurostat, SILC [ilc_mdes01]);

b) Arrears on utility bills (Eurostat, SILC, [ilc_mdes07]); and

c) Structure of consumption expenditure by income quintile and COICOP consumption purpose (Eurostat, HBS, [hbs_str_t223], data for [CP045] Electricity, gas and other fuels).

4. Member States shall include information about the indicators applied, the arithmetic average share and the outcome of policy measures established in accordance with paragraph 3 of this Article in the updates of their integrated national energy and climate plans in accordance with Article 14 of Regulation (EU) 2018/1999, in their subsequent integrated national energy and climate plans pursuant to Articles 3 and 7 to 12 of Regulation (EU) 2018/1999, and respective progress reports in accordance with Article 17 of that Regulation.

↓ 2018/2002 Art. 1.3 (adapted)
⇨ new

5. Member States may count energy savings that stem from policy measures, whether introduced by 31 December 2020 or after that date, provided that those measures result in new individual actions that are carried out after 31 December 2020. ⇨ Energy savings achieved in any obligation period shall not count towards the amount of required energy savings for the previous obligation periods set out in paragraph 1. ⇦

6~~2~~. Provided that Member States achieve at least their cumulative end-use energy savings obligation referred to in point (b) of the first subparagraph of paragraph 1, they may calculate the required amount of energy savings ⇨ referred to in point (b) of the first subparagraph of paragraph 1 ⇦ by one or more of the following means:

(a) applying an annual savings rate on energy sales to final customers or on final energy consumption, averaged over the most recent three-year period prior to 1 January 2019;

(b) excluding, in whole or in part, energy used in transport from the calculation baseline;

(c) making use of any of the options set out in paragraph 8~~4~~.

7~~3~~. Where Member States make use ⌦ of any ⌫ of the possibilities provided for in ~~point (a), (b) or (c) of~~ paragraph ~~2~~ 6 ⇨ regarding the required energy savings referred to in point (b) of the first subparagraph of paragraph 1 ⇦, they shall establish:

(a) 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 the first subparagraph of paragraph 1; ~~and~~

(b) their own calculation baseline, which may exclude, in whole or in part, energy used in transport.

8~~4~~. Subject to paragraph ~~5~~9, each Member State may:

(a) carry out the calculation required under point (a) of the first subparagraph of paragraph 1 using values of 1 % in 2014 and 2015; 1,25 % in 2016 and 2017; and 1,5 % in 2018, 2019 and 2020;

(b) exclude from the calculation all or part of the sales of energy used, by volume, with respect to the obligation period referred to in point (a) of the first subparagraph of paragraph 1, or final energy consumed, with respect to the obligation period referred to in point (b) of that subparagraph, by industrial activities listed in Annex I to Directive 2003/87/EC;

(c) count towards the amount of required energy savings ⇨ in point (a) and (b) of the first subparagraph of paragraph 1 ⇦, 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 in Article 23~~14~~(4), point (a~~b~~) of Article 24~~14~~(4~~5~~), and Article 25~~15~~(1), (5) to (9~~6~~) and (11~~9~~). Member States shall inform the Commission about their intended policy measures under this point for the period from 1 January 2021 to 31 December 2030 as part of their integrated national energy and climate plans. The impact of those measures shall be calculated in accordance with Annex V and included in those plans;

(d) count towards the amount of required energy savings, energy savings resulting from individual actions newly implemented since 31 December 2008 that continue to have an impact in 2020 with respect to the obligation period referred to in point (a) of the first subparagraph of paragraph 1 and beyond 2020 with respect to the period referred to in point (b) of the first subparagraph of paragraph 1, and which can be measured and verified;

(e) count towards the amount of required energy savings, energy savings that stem from policy measures, provided that it can be demonstrated that those measures result in individual actions carried out from 1 January 2018 to 31 December 2020 which deliver savings after 31 December 2020;

(f) exclude from the calculation of the amount of required energy savings ⇨ pursuant to point (a) and (b) of the first subparagraph of paragraph 1 ⇦, 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 amount of required energy savings ⇨ pursuant to point (a) and (b) of the first subparagraph of paragraph 1 ⇦, energy savings that exceed the energy savings required for the obligation period from 1 January 2014 to 31 December 2020, provided that those savings result from individual actions carried out under policy measures referred to in Articles 9~~7a~~ and 10~~7b~~, notified by Member States in their National Energy Efficiency Action Plans and reported in their progress reports in accordance with Article 24.

9~~5~~. Member States shall apply and calculate the effect of the options chosen under paragraph 8~~4~~ for the period~~s~~ referred to in points (a) and (b) of the first subparagraph of paragraph 1 separately:

(a) for the calculation of the amount of energy savings required for the obligation period referred to in point (a) of the first subparagraph of paragraph 1, Member States may make use of points (a) to (d) of paragraph 8~~4~~. All the options chosen under paragraph 8~~4~~ taken together shall amount to no more than 25 % of the amount of energy savings referred to in point (a) of the first subparagraph of paragraph 1;

(b) for the calculation of the amount of energy savings required for the obligation period referred to in point (b) ~~of~~ the first subparagraph of paragraph 1, Member States may make use of points (b) to (g) of paragraph 8~~4~~, provided individual actions referred to in point (d) of paragraph 8~~4~~ continue to have a verifiable and measurable impact after 31 December 2020. All the options chosen under paragraph 8~~4~~ taken together shall not lead to a reduction of more than 35 % of the amount of energy savings calculated in accordance with paragraphs 6~~2~~ and 7~~3~~.

Regardless of whether Member States exclude, in whole or in part, energy used in transport from their calculation baseline or make use of any of the options listed in paragraph 8~~4~~, they shall ensure that the calculated net amount of new savings to be achieved in final energy consumption during the obligation period ⇨ referred to in point (b) of the first subparagraph of paragraph 1 ⇦ from 1 January 2021 to 31 December ~~2030~~ ⇨ 2023 ⇦ is not lower than the amount resulting from applying the annual savings rate referred to in point (b) of the first subparagraph of paragraph 1.

10~~6~~. Member States shall describe in ⇨ the updates of ⇦ their integrated national energy and climate plans ⇨ in accordance with Article 14 of Regulation (EU) 2018/1999, in their subsequent integrated national energy and climate plans pursuant to Articles 3 and 7 to 12 of Regulation (EU) 2018/1999 and ⇦ in accordance with Annex III to Regulation (EU) 2018/1999, ⇨ and respective progress reports ⇦ the calculation of the amount of energy savings to be achieved over the period from 1 January 2021 to 31 December 2030 ~~referred to in point (b) of the first subparagraph of paragraph 1 of this Article~~ and shall, if relevant, explain how the annual savings rate and the calculation baseline were established, and how and to what extent the options referred to in paragraph 8~~4~~ of this Article were applied.

⇩ new

11. Member States shall notify the Commission with the amount of the required energy savings referred to in point (c) of the first subparagraph of paragraph 1 and paragraph 3 of this Article, a description of the policy measures to be implemented to achieve the required total amount of the cumulative end-use energy savings and their calculation methodologies pursuant to Annex V of this Directive, as part of the updates of their integrated national energy and climate plans in accordance with Article 14 of Regulation (EU) 2018/1999, and as part of their integrated national energy and climate plans as referred to in, and in accordance with, the procedure pursuant to Articles 3 and 7 to 12 of Regulation (EU) 2018/1999. Member States shall use the reporting template provided to the Member States by the Commission.

12. Where on the basis of the assessment of the integrated national energy and climate progress reports pursuant to Article 29 of Regulation (EU) 2018/1999, or of the draft or final update of the latest notified integrated national energy and climate plan pursuant to Article 14 of Regulation (EU) 2018/1999, or the assessment of the subsequent draft and final integrated national energy and climate plans pursuant to Article 3 and 7 to 12 of Regulation (EU)

2018/1999, the Commission concludes that policy measures do not ensure the achievement of the required amount of cumulative end-use energy savings by the end of the obligation period, the Commission may issue recommendations in accordance with Article 34 of Regulation (EU) 2018/1999 to the Member States whose policy measures it deems insufficient to ensure the fulfilment of their energy savings obligations.

↓ 2018/2002 Art. 1.3

~~7. Energy savings achieved after 31 December 2020 shall not count towards the amount of required energy savings for the period from 1 January 2014 to 31 December 2020.~~

⇩ new

13. Where a Member State has not achieved the required cumulative end-use energy savings by the end of each obligation period set out in paragraph 1 of this Article, it shall achieve the outstanding energy savings in addition to the cumulative end-use energy savings required by the end of the following obligation period.

↓ 2018/2002 Art. 1.3
⇨ new

~~8. By way of derogation from paragraph 1 of this Article, Member States that allow obligated parties to use the option referred to in point (b) of Article 7a(6) may, for the purpose of point (a) of the first subparagraph of paragraph 1 of this Article, count energy savings obtained in any given year after 2010 and before the obligation period referred to in point (a) of the first subparagraph of paragraph 1 of this Article as if those energy savings had instead been obtained after 31 December 2013 and before 1 January 2021, provided that all of the following circumstances apply:~~

~~(a) the energy efficiency obligation scheme was in force at any point between 31 December 2009 and 31 December 2014 and was included in the Member State's first National Energy Efficiency Action Plan submitted under Article 24(2);~~

~~(b) the savings were generated under the obligation scheme;~~

~~(c) the savings are calculated in accordance with Annex V;~~

~~(d) the years for which the savings are counted as having been obtained have been reported in the National Energy Efficiency Action Plans in accordance with Article 24(2).~~

~~11. In designing policy measures to fulfil their obligations to achieve energy savings, Member States shall take into account the need to alleviate energy poverty in accordance with criteria established by them, 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 the integrated national energy and climate progress reports in accordance with Regulation (EU) 2018/1999.~~

1412. ⇨ As part of their updates of national energy and climate plans and respective progress reports, and their subsequent integrated national energy and climate plans and notified pursuant to Regulation (EU) 2018/1999 ⇦ Member States shall demonstrate ⇨ including, where appropriate, evidence and calculations: ⇦

(a) that where there is an overlap in the impact of policy measures or individual actions, there is no double counting of energy savings;

⇩ new

(b) how energy savings achieved pursuant to points (b) and (c) of the first subparagraph of paragraph 1 contribute to the achievement of their national contribution pursuant to Article 4;

(c) that policy measures are established for fulfilling their energy savings obligation, designed in compliance with the requirements of this Article and that those policy measures are eligible and appropriate to ensure the achievement of the required amount of cumulative end-use energy savings by the end of each obligation period.

🡻 2018/2002 Art. 1.4
⇨ new

Article 97a

Energy efficiency obligation schemes

1. Where Member States decide to fulfil their obligations to achieve the amount of savings required under Article 87(1) by way of an energy efficiency obligation scheme, they shall ensure that obligated parties as referred to in paragraph 2 of this Article operating in each Member State's territory achieve, without prejudice to Article 87(84) and (95), their cumulative end-use energy savings requirement as set out in Article 87(1).

Where applicable, Member States may decide that obligated parties fulfil those savings, in whole or in part, as a contribution to the Energy Efficiency National Fund in accordance with Article 28(11)20(6).

2. Member States shall designate, on the basis of objective and non-discriminatory criteria, obligated parties among ⇨ transmission system operators, ⇦ energy distributors, retail energy sales companies and transport fuel distributors or transport fuel retailers operating in 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 87(1) or, if Member States so decide, through certified savings stemming from other parties as described in point (a) of paragraph 106 of this Article.

3. Where retail energy sales companies are designated as obligated parties under paragraph 2, Member States shall ensure that, in fulfilling their obligation, retail energy sales companies do not create any barriers that impede consumers from switching from one supplier to another.

⇩ new

4. Member States may require obligated parties to achieve a share of their energy savings obligation among people affected by energy poverty, vulnerable customers and, where applicable, people living in social housing. Member States may also require obligated parties

to achieve energy cost reduction targets and to achieve energy savings by promoting energy efficiency improvement measures, including financial support measures mitigating carbon price effects on SMEs and micro-SMEs.

5. Member States may require obligated parties to work with local authorities or municipalities to promote energy efficiency improvement measures among people affected by energy poverty, vulnerable customers and, where applicable, people living in social housing. This includes identifying and addressing the specific needs of particular groups at risk of energy poverty or more susceptible to its effects. To protect people affected by energy poverty vulnerable customers and, where applicable, people living in social housing, Member States shall encourage obligated parties to carry out actions such as renovation of buildings, including social housing, replacement of appliances, financial support and incentives for energy efficiency improvement measures in conformity with national financing and support schemes, or energy audits.

6. Member States shall require obligated parties to report on an annual basis on the energy savings achieved by the obligated parties from actions promoted among people affected by energy poverty, vulnerable customers and, where applicable, people living in social housing, and shall require aggregated statistical information on their final customers (identifying changes in energy savings to previously submitted information) and regarding technical and financial support provided.

↓ 2018/2002 Art. 1.4 (adapted)
⇨ new

74. 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. ⇨ When converting the amount of energy savings, ⇦ Tthe ⇨ net calorific values ⇦ ~~conversion factors~~ set out ⇨ in Annex VI of Commission Implementing Regulation (EU) 2018/2066[113] and the primary energy factor pursuant to Article 29 ⇦ ~~in Annex IV~~ shall apply ⇨ unless the use of other conversion factors can be justified ⇦.

85. Member States shall ⌦ establish ⌫ ~~put in place~~ measurement, control and verification systems ⌦ for carrying out ⌫ ~~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. The measurement, control and verification shall be carried out independently of the obligated parties. ⇨ Where an entity is an obligated party under a national energy efficiency obligation scheme under Article 9 and under the EU Emissions Trading System to buildings and road transport [COM(2021) 551 final, 2021/0211 (COD)[114]], the monitoring and verification system shall ensure that the

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[113] Commission Implementing Regulation (EU) 2018/2066 of 19 December 2018 on the monitoring and reporting of greenhouse gas emissions pursuant to Directive 2003/87/EC of the European Parliament and of the Council and amending Commission Regulation (EU) No 601/2012, OJ L 334, 31.12.2018, p. 1–93.

[114] Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Directive 2003/87/EC establishing a system for greenhouse gas emission allowance trading within the Union, Decision (EU) 2015/1814 concerning the establishment and operation of a market stability reserve for the Union greenhouse gas emission trading scheme and Regulation (EU) 2015/757,

carbon price passed through when releasing fuel for consumption [according to Article 1(21) of COM(2021) 551 final, 2021/0211 (COD)] shall be taken into account in the calculation and reporting of energy savings of the entity´s energy saving measures. ⇦

⇩ new

9. Member States shall inform the Commission, as part of the integrated national energy and climate progress reports pursuant to Article 17 of Regulation (EU) 2018/1999, on the measurement, control and verification systems put in place, including but not limited to methods used, issues identified and how they were addressed.

🡻 2018/2002 Art. 1.4 (adapted)

10~~6~~. Within the energy efficiency obligation scheme, Member States may ⌦ authorise obligated parties to carry out ⌫ ~~do one or both of~~ the following:

(a) ~~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 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, that is clear, transparent, and open to all market participants, and that aims to minimise the costs of certification;

(b) ~~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 8~~7~~(1).

Member States shall assess and, if appropriate, take measures to minimise the impact of the direct and indirect costs of energy efficiency obligation schemes on the competitiveness of energy-intensive industries exposed to international competition.

11~~7~~. Member States shall, on an annual basis, publish the energy savings achieved by each obligated party, or each sub-category of obligated party, and in total under the scheme.

Article 10~~7b~~

Alternative policy measures

1. Where Member States decide to fulfil their obligations to achieve the savings required under Article 8~~7~~(1) by way of alternative policy measures, they shall ensure, without prejudice to Article 8~~7~~(8~~4~~) and (9~~5~~), that the energy savings required under Article 8~~7~~(1) are achieved among final customers.

2. For all measures other than those relating to taxation, 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

(Text with EEA relevance){SEC(2021) 551 final} - {SWD(2021) 557 final} - {SWD(2021) 601 final} - {SWD(2021) 602 final.

energy efficiency improvement measures put in place by the participating or entrusted parties. The measurement, control and verification shall be carried out independently of the participating or entrusted parties.

⇩ new

3. Member States shall inform the Commission, as part of the integrated national energy and climate progress reports pursuant to Article 17 of Regulation (EU) 2018/1999, on the measurement, control and verification systems put in place, including but not limited to methods used, issues identified and how they were addressed.

4. When reporting a taxation measure, Member States shall demonstrate how the effectiveness of the price signal, such as tax rate and visibility over time, has been ensured in the design of the taxation measure. Where there is a decrease in the tax rate, Member States shall justify how the taxation measures still result in new energy savings.

🡻 2012/27/EU (adapted)

Article 11~~8~~

Energy ~~audits and energy~~ management systems ⌦ and energy audits ⌫

⇩ new

1. Member States shall ensure that enterprises with an average annual consumption higher than 100TJ of energy over the previous three years and taking all energy carriers together, implement an energy management system. The energy management system shall be certified by an independent body according to the relevant European or International Standards.

2. Member States shall ensure that enterprises with an average annual consumption higher than 10TJ of energy over the previous three years and taking all energy carriers together that do not implement an energy management system are subject to an energy audit. Energy audits shall be carried out in an independent and cost-effective manner by qualified or accredited experts in accordance with requirements provided in Article 26 or implemented and supervised by independent authorities under national legislation. Energy audits shall be carried out at least every four years from the date of the previous energy audit.

The results of the energy audits including the recommendations from these audits shall be transmitted to the management of the enterprise. Member States shall ensure that the results and the implemented recommendations are published in the enterprise's annual report, where applicable.

🡻 2012/27/EU
⇨ new

3~~1~~. Member States shall promote the availability to all final customers of high quality energy audits which are cost-effective and:

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

(b) implemented and supervised by independent authorities under national legislation.

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

For the purpose of guaranteeing the high quality of the energy audits and energy management systems, Member States shall establish transparent and non-discriminatory minimum criteria for energy audits based on Annex VI. ⇨ Member States shall ensure that quality checks are carried out to ensure the validity and accuracy of energy audits. ⇦

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

42. Member States shall develop programmes to encourage SMEs ⇨ that are not subject to paragraph 1 or 2 ⇦ to undergo energy audits and the subsequent implementation of the recommendations from these audits.

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

Member States shall bring to the attention of SMEs, including through their respective representative intermediary organisations, concrete examples of how energy management systems could help their businesses. The Commission shall assist Member States by supporting the exchange of best practices in this domain.

~~3. Member States shall also develop programmes to raise awareness among households about the benefits of such audits through appropriate advice services.~~

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

~~4. Member States shall ensure that enterprises that are not SMEs are subject to an energy audit carried out in an independent and cost-effective manner by qualified and/or accredited experts or implemented and supervised by independent authorities under national legislation by 5 December 2015 and at least every four years from the date of the previous energy audit.~~

⇩ new

5. Member States shall develop programmes to encourage non-SMEs that are not subject to paragraph 1 or 2 to undergo energy audits and the subsequent implementation of the recommendations from these audits.

🡻 2012/27/EU
⇨ new

65. Energy audits shall be considered as fulfilling the requirements of paragraph ~~4~~ ⇨ 2 ⇦ when they are carried out in an independent manner, on the basis of minimum criteria based on Annex VI, and implemented under voluntary agreements concluded between organisations of stakeholders and an appointed body and supervised by the Member State concerned, or other bodies to which the competent authorities have delegated the responsibility concerned, or by the Commission.

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

⇩ new

7. Enterprises that implement an energy performance contract shall be exempted from the requirements of paragraphs 1 and 2 provided that the energy performance contract complies with the requirements set out in Annex XIV.

🡻 2012/27/EU (adapted)
⇨ new

8~~6~~. Enterprises ~~that are not SMEs and~~ that ~~are~~ implement~~ing~~ an ~~energy or~~ environmental management system - certified by an independent body according to the relevant European or i~~I~~nternational s~~S~~tandards - shall be exempted from the requirements of ~~paragraph 4~~ ⇨ paragraphs 1 and 2 ⇦, provided ~~that Member States ensure~~ that the ⌦ environmental ⌫ management system concerned includes an energy audit on the basis of the minimum criteria based on Annex VI.

9~~7~~. Energy audits may stand alone or be part of a broader environmental audit. Member States may require that an assessment of the technical and economic feasibility of connection to an existing or planned district heating or cooling network shall be part of the energy audit.

Without prejudice to Union State aid law, Member States may implement incentive and support schemes for the implementation of recommendations from energy audits and similar measures.

⇩ new

10. Without prejudice to paragraphs 1 to 9, Member States shall require, by 15 March 2024 and every year thereafter, owners and operators of every data centre in their territory with a significant energy consumption to make publicly available the information set out in Annex VI (`Minimum requirements for monitoring and publishing the energy performance of data centres´), which Member States shall subsequently report to the Commission.

🡻 2012/27/EU

Article 12~~9~~

🡻 2019/944 Art. 70.1(a)

Metering for natural gas

🡻 2019/944 Art. 70.1(b)

1. Member States shall ensure that, in so far as it is technically possible, financially reasonable, and proportionate to the potential energy savings, for natural gas final customers 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.

↓ 2012/27/EU

Such a competitively priced individual meter shall always be provided when:

(a) an existing meter is replaced, unless this is technically impossible or not cost-effective in relation to the estimated potential savings in the long term;

(b) a new connection is made in a new building or a building undergoes major renovations, as set out in Directive 2010/31/EU.

↓ 2019/944 Art. 70.1(c)

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

↓ 2012/27/EU

(a) they shall ensure that the metering systems provide to final customers information on actual time of use and that the objectives of energy efficiency and benefits for final customers are fully taken into account when establishing the minimum functionalities of the meters and the obligations imposed on market participants;

(b) they shall ensure the security of the smart meters and data communication, and the privacy of final customers, in compliance with relevant Union data protection and privacy legislation;

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

↓ 2018/2002 Art. 1.6 (adapted)

Article 13~~9a~~

Metering for heating, cooling and domestic hot water

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

2. Where heating, cooling or domestic hot water is supplied to a building from a central source that services multiple buildings or from a district heating or district cooling system, a meter shall be installed at the heat exchanger or point of delivery.

Article 14~~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 central cooling source or supplied from a district heating or district cooling system, individual meters shall be installed to measure the consumption of heating, cooling or domestic 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 heat consumption 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 residential parts of new multi-purpose buildings that are equipped with a central heating source for domestic hot water or are supplied from district heating systems, individual meters shall, notwithstanding the first subparagraph of paragraph 1, be provided for domestic hot water.

3. Where multi-apartment or multi-purpose buildings are supplied from district heating or district 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 domestic 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 manner in which to allocate cost for energy that is used as follows:

(a) domestic hot water;

(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 15~~9c~~

Remote reading requirement

1. For the purposes of Articles 13~~9a~~ and 14~~9b~~, ⌦ newly installed ⌫ meters and heat cost allocators ~~installed after 25 October 2020~~ shall be remotely readable devices. The conditions of technical feasibility and cost effectiveness set out in Article 14~~9b~~(1) shall ~~continue to~~ apply.

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

↓ 2012/27/EU

Article 16~~10~~

↓ 2019/944 Art. 70.2(a)

Billing information for natural gas

↓ 2019/944 Art. 70.2(b) (adapted)

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

↓ 2012/27/EU

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

↓ 2019/944 Art. 70.2(c)

2. Meters installed in accordance with Directive 2009/73/EC shall enable the provision of accurate billing information based on actual consumption. Member States shall ensure that final customers have the possibility of easy access to complementary information on historical consumption allowing detailed self-checks.

↓ 2012/27/EU (adapted)

Complementary information on historical consumption shall include:

(a) cumulative data for at least the three previous years or the period since the start of the supply contract if this is shorter. The data shall correspond to the intervals for which frequent billing information has been produced; ~~and~~

(b) detailed data according to the time of use for any day, week, month and year. These data shall be made available to the final customer via the internet or the meter interface for the period of at least the previous 24 months or the period since the start of the supply contract if this is shorter.

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

(a) shall require that, to the extent that information on the energy billing and historical consumption of final customers is available, it be made available, at the request of the final customer, to an energy service provider designated by the final customer;

(b) shall ensure that final customers are offered the option of electronic billing information and bills and that they receive, on request, a clear and understandable explanation of how their bill was derived, especially where bills are not based on actual consumption;

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

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

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

↓ 2018/2002 Art. 1.8 (adapted)

Article 17~~10a~~

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

1. Where meters or heat cost allocators are installed, Member States shall ensure that 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 VIII~~VIIa~~ for all final users~~, namely for natural or legal persons purchasing heating, cooling or domestic 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 domestic 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, save in the case of sub-metered consumption based on heat cost allocators under Article 14~~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 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 shall:

(a) 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) ensure that final customers are offered the option of electronic billing information and bills;

(c) ensure that clear and comprehensible information is provided with the bill to all final users in accordance with point 3 of Annex VIII~~VIIa~~; ~~and~~

(d) promote cybersecurity and ensure the privacy and data protection of final users in accordance with applicable Union law.

Member States 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 that flexible arrangements for actual payment are offered.

3. Member States shall decide who is to be responsible for providing the information referred to in paragraphs 1 and 2 to final users without a direct or individual contract with an energy supplier.

↓ 2018/2002 Art. 1.9

Article 18~~11~~

↓ 2019/944 Art. 70.3

Cost of access to metering and billing information for natural gas

↓ 2018/2002 Art. 1.9

Member States shall ensure that final customers receive all their bills and billing information for energy consumption free of charge and that final customers have access to their consumption data in an appropriate way and free of charge.

↓ 2018/2002 Art. 1.10

Article 19~~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 have access to their consumption data in an appropriate way and free of charge.

2. Notwithstanding paragraph 1 of this Article, the distribution of costs of billing information for the individual consumption of heating, cooling and domestic hot water in multi-apartment and multi-purpose buildings pursuant to Article 14~~9b~~ shall be carried out on a non-profit basis. Costs resulting from the assignment of that 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 that 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.

⇩ new

CHAPTER IV

CONSUMER INFORMATION AND EMPOWERMENT

Article 20

Basic contractual rights for heating, cooling and domestic hot water

1. Without prejudice to Union rules on consumer protection, in particular Directive 2011/83/EU of the European Parliament and of the Council[115] and Council Directive 93/13/EEC[116], Member States shall ensure that final customers and, where explicitly referred to, final users are granted the rights provided for in paragraphs 2 to 8 of this Article.

2. Final customers shall have the right to a contract with their supplier that specifies:

(a) the identity and address of the supplier;

(b) the services provided and the service quality levels offered;

(c) the types of maintenance service offered;

(d) the means by which up-to-date information on all applicable tariffs, maintenance charges and bundled products or services may be obtained;

(e) the duration of the contract, the conditions for renewal and termination of the contract and services, including products or services that are bundled with those services, and whether terminating the contract without charge is permitted;

(f) any compensation and the refund arrangements which apply if contracted service quality levels are not met, including inaccurate or delayed billing;

(g) the method of initiating an out-of-court dispute settlement procedure in accordance with Article 21;

(h) information relating to consumer rights, including information on complaint handling and all of the information referred to in this paragraph, which is clearly communicated on the bill or the undertaking's web site.

Conditions shall be fair and known in advance. In any case, this information shall be provided prior to the conclusion or confirmation of the contract. Where contracts are concluded through intermediaries, the information relating to the matters set out in this paragraph shall also be provided prior to the conclusion of the contract.

Final customers and final users shall be provided with a summary of the key contractual conditions in a comprehensible manner and in concise and simple language.

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[115] Directive 2011/83/EU of the European Parliament and of the Council of 25 October 2011 on consumer rights, amending Council Directive 93/13/EEC and Directive 1999/44/EC of the European Parliament and of the Council and repealing Council Directive 85/577/EEC and Directive 97/7/EC of the European Parliament and of the Council (OJ L 304, 22.11.2011, p. 64).

[116] Council Directive 93/13/EEC of 5 April 1993 on unfair terms in consumer contracts (OJ L 95, 21.4.1993, p. 29).

3. Final customers shall be given adequate notice of any intention to modify contractual conditions. Suppliers shall notify their final customers, in a transparent and comprehensible manner, directly of any adjustment in the supply price and of the reasons and preconditions for the adjustment and its scope, at an appropriate time no later than two weeks, or no later than one month in the case of household customers, before the adjustment comes into effect.

4. Suppliers shall offer final customers a wide choice of payment methods. Such payment methods shall not unduly discriminate between customers. Any difference in charges related to payment methods or prepayment systems shall be objective, non-discriminatory and proportionate and shall not exceed the direct costs borne by the payee for the use of a specific payment method or a prepayment system, in line with Article 62 of Directive (EU) 2015/2366 of the European Parliament and of the Council[117].

5. Pursuant to paragraph 6, household customers who have access to prepayment systems shall not be placed at a disadvantage by the prepayment systems.

6. Suppliers shall offer final customers and final users fair and transparent general terms and conditions, which shall be provided in plain and unambiguous language and shall not include non-contractual barriers to the exercise of customers' rights, such as excessive contractual documentation. Final users shall be provided access to these general terms and conditions upon request. Final customers and final users shall be protected against unfair or misleading selling methods. Final customers with disabilities shall be provided all relevant information on their contract with their supplier in accessible formats.

7. Final customers and final users shall have the right to a good standard of service and complaint handling by their suppliers. Suppliers shall handle complaints in a simple, fair and prompt manner.

↓ 2012/27/EU (adapted)

Article 21~~12~~

~~Consumer~~ Iinformation and ~~empowering programme~~ ⌦ awareness raising ⌫

⇩ new

1. Member States shall ensure that information on available energy efficiency improvement measures, individual actions and financial and legal frameworks is transparent and widely disseminated to all relevant market actors, such as final customers, final users,, consumer organisations, civil society representatives, renewable energy communities, citizen energy communities, local and regional authorities, energy agencies, social service providers, builders, architects, engineers, environmental and energy auditors, and installers of building elements as defined in by Article 2(9) of Directive 2010/31/EU.

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[117] Directive (EU) 2015/2366 of the European Parliament and of the Council of 25 November 2015 on payment services in the internal market, amending Directives 2002/65/EC, 2009/110/EC and 2013/36/EU and Regulation (EU) No 1093/2010, and repealing Directive 2007/64/EC, OJ L 337, 23.12.2015, p. 35–127.

↓ 2012/27/EU (adapted)
⇨ new

2~~1~~. Member States shall take appropriate measures to promote and facilitate an efficient use of energy by ~~small energy customers~~ final customers~~,~~ ~~including domestic customers~~ ⇨ and final users ⇦. These measures ~~may~~ ⇨ shall ⇦ be part of a national strategy ⇨ such as the integrated national energy and climate plan in accordance with Regulation (EU) 2018/1999, or the long term renovation strategy as defined in Directive 2010/31/EU ⇦.

2~~.~~ For the purposes of ~~paragraph 1~~ ⇨ this Article ⇦, these measures shall include ~~one or more of the elements listed under point (a) or (b):~~

~~(a)~~ a range of instruments and policies to promote behavioural change ~~which may include~~ ⌦ such as ⌫:

(i) fiscal incentives;

(ii) access to finance, ⇨ vouchers, ⇦ grants or subsidies;

(iii) information provision ⇨ in accessible form to people with disabilities ⇦;

(iv) exemplary projects;

(v) workplace activities;

⇩ new

(vi) training activities;

(vii) digital tools.

↓ 2012/27/EU
⇨ new

⇨ For the purposes of this article, these measures shall also include but not be limited to the following ⇦ ways and means to engage ~~consumers and consumer organisations during the possible roll-out of smart meters through~~ ⇨ market actors such as those referred in paragraph 1 ⇦:

⇩ new

(i) creation of one-stop shops or similar mechanisms for the provision of technical, administrative and financial advice and assistance on energy efficiency, including energy renovations of buildings and the take-up of renewable energy for buildings to final customers and final users, especially household and small non-household ones.

↓ 2012/27/EU
⇨ new

(ii) communication of~~:~~

~~(i)~~ cost-effective and easy-to-achieve changes in energy use;

(iii~~ii~~) ⇨ dissemination of ⇦ information on energy efficiency measures ⇨ and financing instruments ⇦;~~;~~

⇩ new

(iv) provision of single points of contact, to provide final customers and final users with all necessary information concerning their rights, the applicable law and dispute settlement mechanisms available to them in the event of a dispute. Such single points of contact may be part of general consumer information points.

🡻 2012/27/EU (adapted)
⇨ new

3~~2~~. Member States shall establish appropriate conditions for market ~~operators~~ ⌦ actors ⌫ to provide adequate and targeted information and advice to ⌦ final ⌫ ~~energy~~ consumers ⇨ , including vulnerable customers, people affected by energy poverty and, where applicable, people living in social housing ⇦ on energy efficiency.

⇩ new

4. Member States shall ensure that final customers, final users, vulnerable customers, people affected by energy poverty and, where applicable, people living in social housing, have access to simple, fair, transparent, independent, effective and efficient out-of-court mechanisms for the settlement of disputes concerning rights and obligations established under this Directive, through an independent mechanism such as an energy ombudsperson or a consumer body, or through a regulatory authority. Where the final customer is a consumer as defined in Article 4(1)(a) of Directive 2013/11/EU of the European Parliament and of the Council[118], such out-of-court dispute settlement mechanisms shall comply with the requirements set out therein.

Where necessary, Member States shall ensure that alternative dispute resolution entities cooperate to provide simple, fair, transparent, independent, effective and efficient out-of-court dispute settlement mechanisms for any dispute that arises from products or services that are tied to, or bundled with, any product or service falling under the scope of this Directive.

The participation of undertakings in out-of-court dispute settlement mechanisms for household customers shall be mandatory unless the Member State demonstrates to the Commission that other mechanisms are equally effective.

[118] Directive 2013/11/EU of the European Parliament and of the Council of 21 May 2013 on alternative dispute resolution for consumer disputes and amending Regulation (EC) No 2006/2004 and Directive 2009/22/EC (Directive on consumer ADR) (OJ L 165, 18.6.2013, p. 63).

↓ 2012/27/EU (adapted)
⇨ new

~~*Article 19*~~

~~Other measures to promote energy efficiency~~

5~~1~~. ⇨ Without prejudice to the basic principles of their property and tenancy law, ⇦ Member States shall ~~evaluate and if necessary~~ take ~~appropriate~~ ⇨ necessary ⇦ measures to remove regulatory and non-regulatory barriers to energy efficiency, ~~without prejudice to the basic principles of the property and tenancy law of the Member States, in particular~~ as regards~~:~~

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

~~Such~~ M~~m~~easures to remove ⌦ such ⌫ barriers may include providing incentives, repealing or amending legal or regulatory provisions, or adopting guidelines and interpretative communications, or simplifying administrative procedures ⇨ , including national rules and measures regulating decision-making processes in multi-owner properties ⇦. The measures may be combined with the provision of education, training and specific information and technical assistance on energy efficiency ⇨ to market actors such as those referred in paragraph 1 ⇦ .

~~2. The evaluation of barriers and measures referred to in paragraph 1 shall be notified to the Commission in the first National Energy Efficiency Action Plan referred to in Article 24(2). The Commission shall encourage the sharing of national best practices in this regard.~~

⇩ new

Member States shall take appropriate measures to support a multilateral dialogue with the participation of relevant public and social partners such as owners and tenants organisations, consumer organisations, renewable energy communities, citizen energy communities local and regional authorities, relevant public authorities and agencies and the aim to set out proposals on jointly accepted measures, incentives and guidelines pertinent to the split of incentives between the owners and tenants or among owners of a building or building unit.

Each Member State shall report such barriers and the measures taken in its long-term renovation strategy pursuant to Article 2a of Directive 2010/31/EU and Regulation (EU) 2018/1999.

↓ 2012/27/EU
⇨ new

6~~5~~. The Commission shall encourage the exchange and wide dissemination of information on ~~best~~ ⇨ good ⇦ energy efficiency practices ⇨ and methodologies to mitigate the split of incentives ⇦ in Member States.

⇩ new

Article 22

Empowering and protecting vulnerable customers and alleviating energy poverty

1. Member States shall take appropriate measures to empower and protect people affected by energy poverty, vulnerable customers and, where applicable, people living in social housing.

In defining the concept of vulnerable customers pursuant to Articles 28(1) and 29 of Directive (EU) 2019/944 and Article 3(3) of Directive 2009/73/EC, Member States shall take into account final users.

2. Member States shall implement energy efficiency improvement measures and related consumer protection or information measures, in particular those set out in Article 21 and Article 8(3), as a priority among people affected by energy poverty, vulnerable customers and, where applicable, people living in social housing to alleviate energy poverty.

3. To support vulnerable customers, people affected by energy poverty and, where applicable, people living in social housing, Member States shall:

a) implement energy efficiency improvement measures to mitigate distributional effects from other policies and measures, such as taxation measures implemented according to Article 10 of this Directive, or the application of emission trading in the buildings and transport sector according to the ETS Directive [COM(2021) 551 final, 2021/0211 (COD)];

b) make the best possible use of public funding available at national and Union level, including, where applicable, the financial contribution Member State received from the Social Climate Fund pursuant to [Article 9 and Article 14 of the Social Climate Fund Regulation, COM 2021 568 final], and revenues from allowance auctions from emission trading pursuant to the EU ETS [COM(2021) 551 final, 2021/0211 (COD)], for investments into energy efficiency improvement measures as priority actions;

c) where applicable, carry out early, forward-looking investments into energy efficiency improvement measures before distributional impacts from other policies and measures show effect;

d) foster technical assistance and the roll-out of enabling funding and financial tools, such as on-bill schemes, local loan-loss reserve, guarantee funds, funds targeting deep renovations and renovations with minimum energy gains;

e) foster technical assistance for social actors to promote vulnerable customer´s active engagement in the energy market, and positive changes in their energy consumption behaviour;

f) ensure access to finance, grants or subsidies bound to minimum energy gains.

4. Member States shall establish a network of experts from various sectors such as health sector, building sector and social sectors to develop strategies to support local and national decision makers in implementing energy efficiency improvement measures alleviating energy poverty, measures to generate robust long term solutions to mitigate energy poverty and to develop appropriate technical assistance and financial tools. Member States shall strive to ensure a network of experts' composition that ensures gender balance and reflects the perspectives of people in all their diversity.

Member States may entrust the same network of experts:

a) to establish national definitions, indicators and criteria of energy poverty, energy poor and concepts of vulnerable customers, including final users;

b) to develop or improve relevant indicators and data sets, pertinent to the issue of energy poverty, that should be used and reported upon;

c) to set up methods and measures to ensure affordability, the promotion of housing cost neutrality, or ways to ensure that public funding invested in energy efficiency improvement measures benefit both, owners and tenants, of buildings and building units, in particular regarding vulnerable customers, people affected by energy poverty, and, where applicable, people living in social housing;

d) to assess, and where applicable, propose measures to prevent or remedy situations in which particular groups are more affected or more at risk of being affected by energy poverty or more susceptible to the adverse impacts of energy poverty, such as women, persons with disabilities, older persons, children, and persons with a minority racial or ethnic background.

↓ 2012/27/EU (adapted)

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

CHAPTER V~~III~~

EFFICIENCY IN ENERGY SUPPLY

Article 23~~14~~

~~Promotion of efficiency in~~ H~~h~~eating and cooling ⌦ assessment and planning ⌫

⇩ new

1. As part of its integrated national energy and climate plan, its subsequent integrated national energy and climate plan and respective progress reports notified in accordance with Regulation (EU) 2018/1999, each Member State shall notify to the Commission a comprehensive heating and cooling assessment. That comprehensive assessment shall contain the information set out in Annex IX and shall be accompanied with the assessment carried out pursuant to Article 15(7) of Directive (EU) 2018/2001.

2. Member States shall ensure that the public is given the opportunity to participate in the preparation of heating and cooling plans, the comprehensive assessment and the policies and measures.

↓ 2012/27/EU (adapted)

~~1. By 31 December 2015, Member States shall carry out and notify to the Commission a comprehensive assessment of the potential for the application of high-efficiency cogeneration~~

~~and efficient district heating and cooling, containing the information set out in Annex VIII. If they have already carried out an equivalent assessment, they shall notify it to the Commission.~~

~~The comprehensive assessment shall take full account of the analysis of the national potentials for high-efficiency cogeneration carried out under Directive 2004/8/EC.~~

~~At the request of the Commission, the assessment shall be updated and notified to the Commission every five years. The Commission shall make any such request at least one year before the due date.~~

~~2. Member States shall adopt policies which encourage the due taking into account at local and regional levels of the potential of using efficient heating and cooling systems, in particular those using high-efficiency cogeneration. Account shall be taken of the potential for developing local and regional heat markets.~~

3. For the purpose of the assessment referred to in paragraph 1, Member States shall carry out a cost-benefit analysis covering their territory ⌦ and ⌫ based on climate conditions, economic feasibility and technical suitability ~~in accordance with Part 1 of Annex IX~~. The cost-benefit analysis shall be capable of facilitating the identification of the most resource- and cost-efficient solutions to meeting heating and cooling needs. That cost-benefit analysis may be part of an environmental assessment under Directive 2001/42/EC of the European Parliament and of the Council ~~of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment~~[119].

⇩ new

Member States shall designate the competent authorities responsible for carrying out the cost-benefit analyses, provide the detailed methodologies and assumptions in accordance with Annex X and establish and make public the procedures for the economic analysis.

🡻 2012/27/EU

4. Where the assessment referred to in paragraph 1 and the analysis referred to in paragraph 3 identify a potential for the application of high-efficiency cogeneration and/or efficient district heating and cooling whose benefits exceed the costs, Member States shall take adequate measures for efficient district heating and cooling infrastructure to be developed and/or to accommodate the development of high-efficiency cogeneration and the use of heating and cooling from waste heat and renewable energy sources in accordance with paragraph~~s~~ 1, ~~5,~~ and Article 24(4) and (6)~~7~~.

Where the assessment referred to in paragraph 1 and the analysis referred to in paragraph 3 do not identify a potential whose benefits exceed the costs, including the administrative costs of carrying out the cost-benefit analysis referred to in Article 24(4) ~~paragraph 5~~, the Member State concerned may exempt installations from the requirements laid down in that paragraph.

[119] Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment (OJ L 197, 21.7.2001, p. 30).

⇩ new

5. Member States shall adopt policies and measures which ensure that the potential identified in the comprehensive assessments carried out pursuant to paragraph 1 is realised. These policies and measures shall include at least the elements set out in Annex IX. Each Member State shall notify those policies and measures as part of the update of its integrated national energy and climate plans, its subsequent integrated national energy and climate plan, and respective progress reports notified in accordance with Regulation (EU) 2018/1999.

6. Member States shall encourage regional and local authorities to prepare local heating and cooling plans at least in municipalities having a total population higher than 50.000. Those plans should at least:

(a) be based on the information and data provided in the comprehensive assessments carried out pursuant to paragraph 1 and provide an estimate and mapping of the potential for increasing energy efficiency, including via waste heat recovery, and renewable energy in heating and cooling in that particular area;

(b) include a strategy for the use of the identified potential pursuant to paragraph 6(a);

(c) be prepared with the involvement of all relevant regional or local stakeholders and ensure participation of general public;

(d) consider the common needs of local communities and multiple local or regional administrative units or regions;

(e) include the monitoring of the progress of implementation of policies and measures identified.

Member States shall ensure that the public is given the opportunity to participate the preparation of heating and cooling plans, the comprehensive assessment and the policies and measures.

For this purpose, Member States shall develop recommendations supporting the regional and local authorities to implement policies and measures in energy efficient and renewable energy based heating and cooling at regional and local level utilising the potential identified. Member States shall support regional and local authorities to the utmost extent possible by any means including financial support and technical support schemes.

Article 24

Heating and cooling supply

1. In order to increase primary energy efficiency and the share of renewable energy in heating and cooling supply, an efficient district heating and cooling system is a system which meets the following criteria:

a. until 31 December 2025, a system using at least 50% renewable energy, 50% waste heat, 75% cogenerated heat or 50% of a combination of such energy and heat;

b. from 1 January 2026, a system using at least 50% renewable energy, 50% waste heat, 80% of high-efficiency cogenerated heat or at least a combination of such thermal energy going into the network where the share of renewable energy is at least 5% and the total share of renewable energy, waste heat or high-efficiency cogenerated heat is at least 50%;

c, from 1 January 2035, a system using at least 50% renewable energy and waste heat, where the share of renewable energy is at least 20%;

d. from 1 January 2045, a system using at least 75 % renewable energy and waste heat, where the share of renewable energy is at least 40%;

e. from 1 January 2050, a system using only renewable energy and waste heat, where the share of renewable energy is at least 60%.

2. Member States shall ensure that where a district heating and cooling system is built or substantially refurbished it meets the criteria set out in paragraph 1 applicable at such time when it starts or continues its operation after the refurbishment. In addition, Member States shall ensure that when a district heating and cooling system is built or substantially refurbished, there is no increase in the use of fossil fuels other than natural gas in existing heat sources compared to the annual consumption averaged over the previous three calendar years of full operation before refurbishment, and that any new heat sources in that system do not use fossil fuels other than natural gas.

3. Member States shall ensure that as from 1 January 2025, and every five years thereafter, operators of all existing district heating and cooling systems with a total energy output exceeding 5 MW and which do not meet the criteria set out in paragraph 1(b) to (e), prepare a plan to increase primary energy efficiency and renewable energy. The plan shall include measures to meet the criteria set out in paragraph 1(b) to (e) and shall be approved by the competent authority.

↓ 2012/27/EU (adapted)
⇨ new

4~~5~~. ⇨ In order to assess the economic feasibility of increasing energy efficiency of heat and cooling supply, ⇦ Member States shall ensure that ~~a~~ ⇨ an installation level ⇦ cost-benefit analysis in accordance with ~~Part 2 of~~ Annex X~~I~~IX is carried out ~~when, after 5 June 2014~~ ⇨ where the following installations are newly planned or substantially refurbished ⇦:

(a) a ~~new~~ thermal electricity generation installation with ~~a~~ ⇨ an average annual ⇦ total ~~thermal~~ ⇨ energy ⇦ input exceeding ~~20~~ ⇨ 5 ⇦ MW ~~is planned~~, in order to assess the cost and benefits of providing for the operation of the installation as a high-efficiency cogeneration installation;

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

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

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

⇩ new

(b) an industrial installation with an average annual total energy input exceeding 5 MW in order to assess utilisation of the waste heat on-site and off-site;

(c) service facility with an annual average total energy input exceeding 5 MW, such as wastewater treatment facilities and LNG facilities in order to assess utilisation of waste heat on-site and off-site;

(d) a data centre with a total rated energy input exceeding 1 MW level, to assess the cost and benefits of utilising the waste heat to satisfy economically justified demand, and of the connection of that installation to a district heating network or an efficient/RES-based district cooling system. The analysis shall consider cooling system solutions that allow removing or capturing the waste heat at useful temperature level with minimal ancillary energy inputs.

For the purposes of assessing on-site waste heat for the purpose of points (b) to (d), energy audits in line with Annex VI may be carried out instead of the cost benefit analysis set out in this paragraph.

🡻 2012/27/EU
⇨ new

The fitting of equipment to capture carbon dioxide produced by a combustion installation with a view to its being geologically stored as provided for in Directive 2009/31/EC shall not be considered as refurbishment for the purpose of points ~~(b), (c) and (d)~~ ⇨ (b) and (c) ⇦ of this paragraph.

Member States ~~may~~ ⇨ shall ⇦ require the cost-benefit analysis ~~referred to in points (c) and (d)~~ to be carried out in cooperation with the companies responsible for the operation of the ~~district heating and cooling networks~~ ⇨ facility ⇦.

5~~6~~. Member States may exempt from paragraph 4~~5~~:

(a) those peak load and back-up electricity generating installations which are planned to operate under 1500 operating hours per year as a rolling average over a period of five years, based on a verification procedure established by the Member States ensuring that this exemption criterion is met;

~~(b) nuclear power installations;~~

(b~~c~~) installations that need to be located close to a geological storage site approved under Directive 2009/31/EC;~~.~~

⇩ new

(c) data centres whose waste heat is or will be used in a district heating network or directly for space heating, domestic hot water preparation or other uses in the building or group of buildings where it is located.

↓ 2012/27/EU (adapted)
⇨ new

Member States may also lay down thresholds, expressed in terms of the amount of available useful waste heat, the demand for heat or the distances between industrial installations and district heating networks, for exempting individual installations from the provisions of points ~~(c) and (d)~~ ⇨ (c) and (d) ⇦ of paragraph 4~~5~~.

Member States shall notify exemptions adopted under this paragraph to the Commission ~~by 31 December 2013 and any subsequent changes to them thereafter~~.

6~~7~~. Member States shall adopt authorisation criteria as referred to in Article 8~~7~~ of Directive (EU) 2019/944~~2009/72/EC~~, or equivalent permit criteria, to:

(a) take into account the outcome of the comprehensive assessment referred to in ~~paragraph 1~~ Article 23(1);

(b) ensure that the requirements of paragraph 4~~5~~ are fulfilled; ~~and~~

(c) take into account the outcome of cost-benefit analysis referred to in paragraph 4~~5~~.

7~~8~~. Member States may exempt individual installations from being required, by the authorisation and permit criteria referred to in paragraph 6~~7~~, to implement options whose benefits exceed their costs, if there are imperative reasons of law, ownership or finance for ~~so~~ doing ⌦ so ⌫. In these cases the Member State concerned shall submit a reasoned notification of its decision to the Commission within three months of the date of taking it. ⇨ The Commission may issue an opinion on the notification within three months of its receipt. ⇦

8~~9~~. Paragraphs 4~~5~~, 5~~6~~, 6~~7~~ and 7~~8~~ of this Article shall apply to installations covered by Directive 2010/75/EU without prejudice to the requirements of that Directive.

⇩ new

9. Member States shall collect information on cost-benefit analyses carried out in accordance with paragraph 4 points (a), (b), (c) and (d) of this Article. That information should contain at least the data on available heat supply amounts and heat parameters, number of planned operating hours annually and geographical location of the sites. That data shall be published with the due respect of its potential sensitivity.

↓ 2012/27/EU (adapted)
⇨ new

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

guarantee of origin, the Commission may adopt a decision to compel the refusing party to recognise it, in particular with regard to objective, transparent and non-discriminatory criteria on which such recognition is based.

The Commission shall be empowered to review, by means of delegated acts in accordance with Article 31~~23~~ of this Directive, the harmonised efficiency reference values laid down in ~~Commission Implementing Decision 2011/877/EU~~[120] Commission Delegated Regulation (EU) 2015/2402[121] ~~on the basis of Directive 2004/8/EC by 31 December 2014~~.

11. Member States shall ensure that any available support for cogeneration is subject to the electricity produced originating from high-efficiency cogeneration and the waste heat being effectively used to achieve primary energy savings. Public support to cogeneration and district heating generation and networks shall be subject to State aid rules, where applicable.

Article 25~~15~~

Energy transformation, transmission and distribution

1. ~~Member States shall ensure that~~ N~~n~~ational energy regulatory authorities ~~pay due regard to~~ ⇨ shall apply the ⇦ energy efficiency ⇨ first principle in accordance with Article 3 of this Directive ⇦ in carrying out the regulatory tasks specified in Directives (EU) 2019/944~~2009/72/EC~~ and 2009/73/EC regarding their decisions on the operation of the gas and electricity infrastructure ⇨ , including their decisions on network tariffs ⇦.

~~Member States shall in particular ensure that national energy regulatory authorities, through the development of network tariffs and regulations, within the framework of Directive (EU) 2019/944~~2009/72/~~EC and taking into account the costs and benefits of each measure, provide incentives for grid operators to make available system services to network users permitting them to implement energy efficiency improvement measures in the context of the continuing deployment of smart grids.~~

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

⇩ new

2. Member States shall ensure that gas and electricity transmission and distribution system operators apply the energy efficiency first principle in accordance with Article 3 of this Directive in their network planning, network development and investment decisions. While taking security of supply and market integration into account, Member States shall ensure that transmission system operators and distribution system operators do not invest in stranded assets to contribute to climate change mitigation. National regulatory authorities shall provide methodologies and guidance on how to assess alternatives in the cost-benefit analysis, taking into account wider benefits, and verify the implementation of the energy efficiency first principle by the transmission system operators or distribution system operators when

120 ~~OJ L 343, 23.12.2011, p. 91.~~

121 Commission Delegated Regulation (EU) 2015/2402 of 12 October 2015 reviewing harmonised efficiency reference values for separate production of electricity and heat in application of Directive 2012/27/EU of the European Parliament and of the Council and repealing Commission Implementing Decision 2011/877/EU (OJ L 333, 19.12.2015, p. 54).

approving, verifying or monitoring the projects submitted by the transmission system operators or distribution system operators.

3. Member States shall ensure that transmission and distribution system operators map network losses and take cost-effective measures to reduce network losses. Transmission and distribution system operators shall report those measures and expected energy savings through the reduction of network losses to the national energy regulatory authority. National energy regulatory authorities shall limit the possibility for transmission and distribution system operators to recover avoidable network losses from tariffs paid by consumers. Member States shall ensure that transmission and distribution system operators assess energy efficiency improvement measures with regard to their existing gas or electricity transmission or distribution systems and improve energy efficiency in infrastructure design and operation. Member States shall encourage transmission and distribution system operators to develop innovative solutions to improve the energy efficiency of existing systems through incentive based regulations.

4. National energy regulatory authorities shall include a specific section on the progress achieved in energy efficiency improvements regarding the operation of the gas and electricity infrastructure in the annual report drawn up pursuant to Article 59(1)(i) of Directive (EU) 2019/944 and pursuant to Article 41 of Directive (EU) 2009/73/EC. In these reports, national energy regulatory authorities shall provide an assessment of network losses in the operation of the gas and electricity infrastructure, the measures carried out by transmission and distribution system operators, and, where applicable, provide recommendations for energy efficiency improvements.

↓ 2012/27/EU (adapted)

5. For electricity, Member States shall ensure that network regulation and network tariffs fulfil the criteria in Annex XII~~XI~~, taking into account guidelines and codes developed pursuant to Regulation (EU) 2019/943~~(EC) No 714/2009~~.

~~2. Member States shall ensure, by 30 June 2015, that:~~

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

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

↓ 2018/2002 Art. 1.11

~~2a. By 31 December 2020, the Commission shall, after consulting relevant stakeholders, prepare a common methodology in order to encourage network operators to reduce losses, implement a cost-efficient and energy-efficient infrastructure investment programme and properly account for the energy efficiency and flexibility of the grid.~~

↓ 2012/27/EU
⇨ new

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

74. ~~Member States~~ ⇨ National regulatory authorities ⇦ shall ensure the removal of those incentives in transmission and distribution tariffs that are detrimental to the ~~overall efficiency (including~~ energy efficiency~~)~~ of the generation, transmission, distribution and supply of electricity ⇨ and gas ⇦ ~~or those that might hamper participation of demand response, in balancing markets and ancillary services procurement. Member States shall ensure that network operators are incentivised to improve efficiency in infrastructure design and operation, and, within the framework of Directive (EU) 2019/9442009/72/EC, that tariffs allow suppliers to improve consumer participation in system efficiency, including demand response, depending on national circumstances~~.

↓ 2019/944 Art. 70.5(a)

85. Transmission system operators and distribution system operators shall comply with the requirements set out in Annex XII.

↓ 2012/27/EU
⇨ new

~~Member States may particularly facilitate the connection to the grid system of electricity produced from high-efficiency cogeneration from small-scale and micro-cogeneration units. Member States shall, where appropriate, take steps to encourage network operators to adopt a simple notification 'install and inform' process for the installation of micro-cogeneration units to simplify and shorten authorisation procedures for individual citizens and installers.~~

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

9. Where appropriate, ~~Member States~~ ⇨ national regulatory authorities ⇦ may require transmission system operators and distribution system operators to encourage high-efficiency cogeneration to be sited close to areas of ⇨ heat ⇦ demand by reducing the connection and use-of-system charges.

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

119. When reporting under Directive 2010/75/EU, and without prejudice to Article 9(2) of that Directive, Member States shall consider including information on energy efficiency levels of installations undertaking the combustion of fuels with total rated thermal input of

50 MW or more in the light of the relevant best available techniques developed in accordance with Directive 2010/75/EU ~~and Directive 2008/1/EC of the European Parliament and of the Council of 15 January 2008 concerning integrated pollution prevention and control~~[122].

~~Member States may encourage operators of installations referred to in the first subparagraph to improve their annual average net operational rates.~~

CHAPTER VI~~I~~V

HORIZONTAL PROVISIONS

Article 26~~16~~

Availability of qualification, accreditation and certification schemes

~~1. Where a Member State considers that the national level of technical competence, objectivity and reliability is insufficient, it shall ensure that, by 31 December 2014, certification and/or accreditation schemes and/or equivalent qualification schemes, including, where necessary, suitable training programmes, become or are available for providers of energy services, energy audits, energy managers and installers of energy-related building elements as defined in Article 2(9) of Directive 2010/31/EU.~~

~~2. Member States shall ensure that the schemes referred to in paragraph 1 provide transparency to consumers, are reliable and contribute to national energy efficiency objectives.~~

⇩ new

1. Member States shall ensure the appropriate level of competences for energy efficiency professions that corresponds to the market needs. Member States in close cooperation with the social partners shall ensure that certification and/or equivalent qualification schemes, including, where necessary, suitable training programmes, are available for energy efficiency professions including providers of energy services, providers of energy audits, energy managers, independent experts and installers of building elements pursuant to Directive 2010/31/EU, and are reliable and contribute to national energy efficiency objectives and the overall EU decarbonisation objectives.

Providers of certification, and/or equivalent qualification schemes, including, where necessary, suitable training programmes shall be accredited according to Regulation (EC) No 765/2008[123].

2. Member States shall ensure that national certification, or equivalent qualification schemes, including, where necessary, training programmes, take into account existing European or international standards.

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122 ~~(OJ L 24, 29.1.2008, p. 8).~~

123 Regulation (EC) No 765/2008 of the European Parliament and of the Council of 9 July 2008 setting out the requirements for accreditation and market surveillance relating to the marketing of products and repealing Regulation (EEC) No 339/93 , (OJ L 218, 13.8.2008, p. 30–47).

↓ 2012/27/EU (adapted)
⇨ new

3. Member States shall make publicly available the certification, ~~and/or accreditation schemes~~ or equivalent qualification schemes ⇨ , or suitable training programmes ⇦ referred to in paragraph 1 and shall cooperate among themselves and with the Commission on comparisons between, and recognition of, the schemes.

Member States shall take appropriate measures to make consumers aware of the availability of ~~qualification and/or certification~~ ⌦ the ⌫ schemes in accordance with Article 27~~18~~(1).

⇩ new

4. Member States shall assess by 31 December 2024 and every four years thereafter whether the schemes ensure the necessary level of competences for energy services providers, energy auditors, energy managers, independent experts and installers of building elements pursuant to Directive 2010/31/EU, and shall make the assessment and recommendations thereof publically available.

↓ 2012/27/EU (adapted)
⇨ new

~~*Article 17*~~

~~**Information and training**~~

~~1. Member States shall ensure that information on available energy efficiency mechanisms and financial and legal frameworks is transparent and widely disseminated to all relevant market actors, such as consumers, builders, architects, engineers, environmental and energy auditors, and installers of building elements as defined in Directive 2010/31/EU.~~

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

Article 27~~18~~

Energy services

1. Member States shall promote the energy services market and access ⌦ to it ⌫ for SMEs ~~to this market~~ by:

~~(a)~~ disseminating clear and easily accessible information on:

(a~~i~~) available energy service contracts and clauses that should be included in such contracts to guarantee energy savings and final customers' rights;

(b~~ii~~) financial instruments, incentives, grants ⇨ , revolving funds, guarantees, insurance schemes, ⇦ and loans to support energy efficiency service projects;

⇩ new

(c) available energy services providers that are qualified and/or certified and their qualifications and/or certifications in accordance with Article 26.

(d) available monitoring and verification methodologies and quality control schemes.

🡻 2012/27/EU (adapted)
⇨ new

2.~~(b) encouraging~~ ⌦ Member States shall encourage ⌫ the development of quality labels, inter alia, by trade associations ⇨ , based on European or international standards where relevant ⇦;

3.~~(c) making~~ ⌦ Member States shall make ⌫ publicly available and regularly ~~updating~~ ⌦ update ⌫ a list of available energy service providers who are qualified and/or certified and their qualifications and/or certifications in accordance with Article 26~~16~~, or ~~providing~~ ⌦ provide ⌫ an interface where energy service providers can provide information.

⇩ new

4. Member States shall encourage public bodies to use energy performance contracting for renovations of large buildings. For renovations of large non-residential buildings with a useful floor area above 1000 m^2, Member States shall ensure that public bodies assess the feasibility of using energy performance contracting.

Member States may encourage public bodies to combine energy performance contracting with expanded energy services including demand response and storage.

🡻 2012/27/EU (adapted)
⇨ new

5.~~(d) supporting~~ ⌦ Member States shall support ⌫ the public sector in taking up energy service offers, in particular for building refurbishment, by:

(a~~i~~) providing model contracts for energy performance contracting which include at least the items listed in Annex XIII ⇨ and take into account the existing European or international standards, available tendering guidelines and Eurostat guide to the statistical treatment of energy performance contracts in government accounts ⇦;

(b~~ii~~) providing information on best practices for energy performance contracting, including, if available, cost-benefit analysis using a life-cycle approach;

⇩ new

(c) making publicly available a database of implemented and ongoing energy performance contracting projects that includes the projected and achieved energy savings.

↓ 2012/27/EU (adapted)
⇨ new

62. Member States shall support the proper functioning of the energy services market, ~~where appropriate,~~ by ⌦ taking the following measures ⌫:

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

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

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

⇩ new

(c) setting up and promoting the role of advisory bodies and independent market intermediaries including one stop shops or similar support mechanisms to stimulate market development on the demand and supply sides, and making information about those support mechanisms publically available and accessible to market actors.

7. For the purpose of supporting the proper functioning of the energy services market, Member States may establish an individual mechanism or designate an ombudsperson to ensure the efficient handling of complaints and out-of-court settlement of disputes arising from energy service and energy performance contracts.

↓ 2012/27/EU (adapted)
⇨ new

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

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

Article 2820

Energy Efficiency National Fund, Financing and Technical Support

1. Without prejudice to Articles 107 and 108 ⌦ TFEU ⌫ ~~of the Treaty on the Functioning of the European Union~~, Member States shall facilitate the establishment of financing facilities, or use of existing ones, for energy efficiency improvement measures to maximise the benefits of multiple streams of financing ⇨ and the combination of grants, financial instruments and technical assistance ⇦.

2. The Commission shall, where appropriate, directly or via the European financial institutions, assist Member States in setting up financing facilities and ~~technical support~~

~~schemes~~ ⇨ project development assistance facilities at national, regional or local level ⇦ with the aim of increasing ⇨ investments in ⇦ energy efficiency in different sectors ⇨ , and protecting and empowering vulnerable customers, people affected by energy poverty and, where applicable, people living in social housing including by integrating an equality perspective so that no one is left behind ⇦.

⇨ 3. Member States shall adopt measures that ensure that energy efficiency lending products, such as green mortgages and green loans, secured and unsecured, are offered widely and in a non-discriminatory manner by financial institutions and, are visible and accessible to consumers. Member States shall adopt measures to facilitate the implementation of on-bill and on-tax financing schemes. ⇦ Member States shall ~~encourage~~ ⇨ ensure that ⇦ t~~he provision of information to~~ banks and other financial institutions ⌦ receive information on opportunities to participate in the financing of energy efficiency improvement measures ⌫ ~~on possibilities of participating~~, including through the creation of public/private partnerships~~, in the financing of energy efficiency improvement measures~~.

4~~3~~. The Commission shall facilitate the exchange of best practice between the competent national or regional authorities or bodies, e.g. through annual meetings of the regulatory bodies, public databases with information on the implementation of measures by Member States, and country comparison.

🡻 2018/2002 Art. 1.12 (adapted)
⇨ new

5~~3a~~. In order to mobilise private financing for energy efficiency measures and energy renovation, in accordance with Directive 2010/31/EU, the Commission shall conduct a dialogue with both public and private financial institutions in order to map out possible actions it can take.

6~~3b~~. The actions referred to in paragraph 5~~3a~~ shall include the following ⌦ elements ⌫:

(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.

7~~3c~~. For the purpose of mobilising private financing of energy efficiency measures and energy renovation, Member States shall, when implementing this Directive:

(a) consider ways to make better use of energy audits under Article 11~~8~~ to influence decision-making;

(b) make optimal use of the possibilities and tools ⇨ available from the Union budget, and ⇦ proposed in the smart finance for smart buildings initiative ⇨ and in Commission Communication entitled ‘Renovation Wave´ ⇦.

8~~3d~~. By ~~1 January 2020,~~ ⇨ 31 December 2024 ⇦ the Commission shall provide guidance for Member States ⇨ and market actors ⇦ on how to unlock private investment.

⇩ new

The guidance shall have the purpose of helping Member States and market actors to develop and implement their energy efficiency investments in the various Union programmes, and will propose adequate financial mechanisms and solutions, with a combination of grants, financial instruments and project development assistance, to scale up existing initiatives and use the Union funding as a catalyst to leverage and trigger private financing.

🡻 2012/27/EU (adapted)
⇨ new

9~~4~~. Member States may set up an Energy Efficiency National Fund. The purpose of this fund shall be ⇨ to implement energy efficiency measures, including measures pursuant to Article 8(3) and Article 22 as a priority among vulnerable customers, people affected by energy poverty and, where applicable, people living in social housing, and ⇦ to ~~support~~ ⇨ implement ⇦ national energy efficiency ~~initiatives~~ ⇨ measures to support Member States in meeting their national energy efficiency contributions and their indicative trajectories referred to in Article 4(2). The Energy Efficiency National Fund may be financed with revenues from the allowance auctions pursuant to the EU Emission Trading System on buildings and transport sectors ⇦.

10~~5~~. Member States may allow ⇨ public bodies to fulfil ⇦ ~~for~~ the obligations set out in Article 6~~5~~(1) ~~to be fulfilled~~ by ⌦ means of ⌫ annual contributions to the Energy Efficiency National Fund ~~of an amount~~ ⌦ equivalent ⌫ ~~equal~~ to the ⌦ amount of the ⌫ investments required to achieve those obligations.

11~~6~~. Member States may provide that obligated parties can fulfil their obligations set out in Article 8~~7~~(1) ⇨ and (4) ⇦ by contributing annually to the Energy Efficiency National Fund an amount equal to the investments required to achieve those obligations.

12~~7~~. Member States may use their revenues from annual emission allocations under Decision No 406/2009/EC for the development of innovative financing ~~mechanisms to give practical effect to the objective in Article 5 of improving the energy performance of buildings~~ ⇨ for energy efficiency improvements ⇦.

Article 29~~21~~

Conversion factors ⌦ and primary energy factors ⌫

1. For the purpose of comparison of energy savings and conversion to a comparable unit, the ⇨ net calorific values in Annex VI of Commission Implementing Regulation (EU) 2018/2066[124] and the primary energy factors ⇦ ~~conversion factors~~ set out in ⇨ paragraph 2 ⇦ ~~Annex IV~~ shall apply unless the use of other ~~conversion~~ ⇨ values or ⇦ factors can be justified.

[124] Commission Implementing Regulation (EU) 2018/2066 of 19 December 2018 on the monitoring and reporting of greenhouse gas emissions pursuant to Directive 2003/87/EC of the European Parliament and of the Council and amending Commission Regulation (EU) No 601/2012, OJ L 334, 31.12.2018, p. 1–93.

⇩ new

2. A primary energy factor shall be applicable when energy savings are calculated in primary energy terms using a bottom-up approach based on final energy consumption.3. For savings in kWh electricity, Member States shall apply a coefficient in order to accurately calculate the resulting primary energy consumption savings. Member States shall apply a default coefficient of 2,1 unless they use their discretion to define a different coefficient based upon justified national circumstances.

4. For savings in kWh of other energy carriers, Member States shall apply a coefficient in order to accurately calculate the resulting primary energy consumption savings. 5. Where Member States establish their own coefficient to a default value provided pursuant to this Directive, Member States shall establish this through a transparent methodology on the basis of national circumstances affecting primary energy consumption. The circumstances shall be substantiated, verifiable and based on objective and non-discriminatory criteria.

5. Where establishing an own coefficient, Member States shall take into account the energy mix included in the update of their integrated national energy and climate plans and subsequent integrated National Energy and Climate Plan to be notified to the Commission in accordance with Regulation (EU) 2018/1999. If they deviate from the default value Member States shall notify the coefficient that they use to the Commission along with the calculation methodology and underlying data in the update of their integrated National Energy and Climate Plans and subsequent integrated National Energy and Climate Plans in accordance with Regulation (EU) 2018/1999.

6. By 25 December 2022 and every four years thereafter, the Commission shall revise the default coefficient on the basis of observed data. That revision shall be carried out taking into account its effects on other Union law such as Directive 2009/125/EC and Regulation (EU) 2017/1369.

🡻 2012/27/EU (adapted)
⇨ new

CHAPTER VII~~V~~

FINAL PROVISIONS

Article 30~~13~~

Penalties

Member States shall lay down the rules on penalties applicable in case of non-compliance with the national provisions adopted pursuant to ~~Articles 7 to 11a and Article 18(3)~~ ⇨ this Directive ⇦ and shall take the necessary measures to ensure that they are implemented. The penalties provided for shall be effective, proportionate and dissuasive. Member States shall notify those provisions to the Commission ⇨ by [transposition date] ⇦ ~~by 5 June 2014~~ and shall notify it without delay of any subsequent amendment affecting them.

Article 31~~22~~

Delegated acts

1. The Commission ~~shall be~~ ⌦ is ⌫ empowered to adopt delegated acts in accordance with Article 32~~23~~ ~~to~~ ⌦ concerning the ⌫ review ⌦ of ⌫ the harmonised efficiency reference values referred to in the second subparagraph of Article 24~~14~~(10).

⬇ 2018/2002 Art. 1.13 (adapted)
⇨ new

2. The Commission is empowered to adopt delegated acts in accordance with Article 32~~23~~ to amend ⇨ or supplement ⇦ this Directive by adapting to technical progress the values, calculation methods, default primary energy coefficient ⌦ s ⌫ and requirements ⌦ referred to ⌫ in ⇨ Article 29, ⇦ Annexes ⌦ II, III, V, VII to XI, and XIII ⌫ ~~I to V, VII to X, and XII~~.

⇩ new

3. The Commission is empowered to adopt delegated acts in accordance with Article 32 to amend or supplement this Directive by establishing, after having consulted the relevant stakeholders, a common Union scheme for rating the sustainability of data centres located in its territory. The scheme shall establish the definition of data centre sustainability indicators, and, pursuant to paragraph 10 of Article 11 of this Directive, define the minimum thresholds for significant energy consumption and set out the key indicators and the methodology to measure them.

⬇ 2012/27/EU

Article 32~~23~~

Exercise of the delegation

1. The power to adopt delegated acts is conferred on the Commission subject to the conditions laid down in this Article.

⬇ 2018/2002 Art. 1.14(a)
⇨ new

2. The power to adopt delegated acts referred to in Article 31~~22~~ shall be conferred on the Commission for a period of five years from ~~24 December 2018~~ ⇨ [*date of publication in OJ*] ⇦. 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.

⬇ 2012/27/EU

3. The delegation of power referred to in Article 31~~22~~ may be revoked at any time by the European Parliament or by the Council. A decision to revoke shall put an end to the delegation of the power specified in that decision. It shall take effect the day following the publication of the decision in the *Official Journal of the European Union* or at a later date specified therein. It shall not affect the validity of any delegated acts already in force.

↓ 2018/2002 Art. 1.14(b)

43a. 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 of 13 April 2016 on Better Law-Making[125].

↓ 2012/27/EU

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

65. A delegated act adopted pursuant to Article 3122 shall enter into force only if no objection has been expressed either by the European Parliament or the Council within a period of two months of notification of that act to the European Parliament and the Council or if, before the expiry of that period, the European Parliament and the Council have both informed the Commission that they will not object. That period shall be extended by two months at the initiative of the European Parliament or of the Council.

Article 3324

Review and monitoring of implementation

↓ 2018/2002 Art. 1.15(a)

14a. 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 35(1) and point (c) of Article 35(2) of Regulation (EU) 2018/1999, taking into consideration the effects of the implementation of this Directive.

↓ 2012/27/EU (adapted)

~~5. The Commission shall review the continued need for the possibility of exemptions set out in Article 24(5)14(6) for the first time in the assessment of the first National Energy Efficiency Action Plan and every three years thereafter. Where the review shows that any of the criteria for these exemptions can no longer be justified taking into account the availability of heat load and the real operating conditions of the exempted installations, the Commission shall propose appropriate measures.~~

⇩ new

2. By 31 October 2025 and every four years thereafter, the Commission shall evaluate the existing measures to achieve energy efficiency increase and decarbonisation in heating and cooling. The evaluation shall take into account:

(a) Energy efficiency and greenhouse gases emissions trends in heating and cooling, including in district heating and cooling;

125 ~~OJ L 123, 12.5.2016, p. 1.~~

(b) Interlinkages between measures taken;

(c) Changes in energy efficiency and greenhouse gas emissions in the heating and cooling;

(d) Existing and planned energy efficiency policies and measures and greenhouse gas reduction policies and measures at national and EU level, and

(e) Measures Member States provided in their comprehensive assessments pursuant to Article 23(1) of this Directive and notified in accordance with Article 17 (1) of Regulation (EU) 2018/1999.

The Commission may propose, if appropriate, measures to ensure the achievement of the Union's climate energy targets.

↓ 2012/27/EU

3~~6~~. Member States shall submit to the Commission before 30 April each year statistics on national electricity and heat production from high and low efficiency cogeneration, in accordance with the methodology shown in Annex II~~I~~, in relation to total heat and electricity production. They shall also submit annual statistics on cogeneration heat and electricity capacities and fuels for cogeneration, and on district heating and cooling production and capacities, in relation to total heat and electricity production and capacities. Member States shall submit statistics on primary energy savings achieved by application of cogeneration in accordance with the methodology shown in Annex III~~II~~.

↓ 2012/27/EU (adapted)

~~7. By 30 June 2014 the Commission shall submit the assessment referred to in Article 3(2) to the European Parliament and to the Council, accompanied, if necessary, by proposals for further measures.~~

~~8. The Commission shall review the effectiveness of the implementation of Article 6 by 5 December 2015, taking into account the requirements laid down in Directive 2004/18/EC and shall submit a report to the European Parliament and the Council. That report shall be accompanied, if appropriate, by proposals for further measures.~~

~~9. By 30 June 2016, the Commission shall submit a report to the European Parliament and the Council on the implementation of Article 7. That report shall be accompanied, if appropriate, by a legislative proposal for one or more of the following purposes:~~

~~(a) to change the final date laid down in Article 67(1);~~

~~(b) to review the requirements laid down in Article 67(1), (2) and (3);~~

~~(c) to establish additional common requirements, in particular as regards the matters referred to in Article 67(7).~~

~~10. By 30 June 2018, the Commission shall assess the progress made by Member States in removing the regulatory and non-regulatory barriers referred to in Article 19(1). This assessment shall be followed, if appropriate, by proposals for further measures.~~

↓ 2018/2002 Art. 1.15(b) (adapted)

~~12. By 31 December 2019, the Commission shall assess the effectiveness of the implementation of the definition of small and medium-sized enterprises 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 submission of that report, the Commission shall, if appropriate, adopt legislative proposals.~~

413. 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, if appropriate, be accompanied by legislative proposals.

514. ⌦ Subject to any changes to the retail market provisions of Directive 2009/73/EC, ⌫ ~~B~~by 31 December 2021, the Commission~~,~~ shall~~, unless changes to the retail market provisions of Directive 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 Directive (EU) 2019/944~~2009/72/EC~~, in order to strengthen consumer protection and enable final customers to receive more frequent, clear and up-to-date information about their natural gas consumption and to regulate their energy use. As soon as possible after submission of that report, the Commission shall, ⌦ where ⌫ ~~if~~ appropriate, adopt legislative proposals.

↓ 2018/2002 Art. 1.2 (adapted)

64. By 31 October 2022, the Commission shall assess whether the Union has achieved its 2020 headline target~~s~~ on energy efficiency.

↓ 2018/2002 Art. 1.15(b)
⇨ new

715. By 28 February ~~2024~~ ⇨ 2027 ⇦, and every five years thereafter, the Commission shall evaluate this Directive and submit a report to the European Parliament and to the Council.

That evaluation shall include:

~~(a) an examination of whether to adapt, after 2030, the requirements and the alternative approach laid down in Article 5;~~

(a~~b~~) an assessment of the general effectiveness of this Directive and the need to adjust further the Union's energy efficiency policy in accordance with the objectives of the 2015 Paris Agreement ~~on climate change following the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change~~[126] and in the light of economic and innovation developments;

126 ~~OJ L 282, 19.10.2016, p. 4.~~

⇩ new

(b) the Union's 2030 headline targets on energy efficiency set out in Article 4(1) with a view to revising those that targets upwards in the event of substantial cost reductions resulting from economic or technological developments, or where needed to meet the Union's decarbonisation targets for 2040 or 2050, or its international commitments for decarbonisation;

(c) if Member States shall continue to achieve new annual savings in accordance with point (c) of the first subparagraph of Article 8 for the ten-year periods after 2030;

(d) if Member States shall continue to ensure that at least 3% of the total floor area of heated and/or cooled buildings owned by public bodies is renovated each year in accordance with paragraph 1 of Article 6 with a view to revising the renovation rate in that Article;

(e) if Member States shall continue to achieve a share of energy savings among vulnerable customers, people affected by energy poverty, and, where applicable, people living in social housing, in accordance with paragraph 3 of Article 8 for the ten-year periods after 2030;

(f) if Member States shall continue to achieve a reduction of final energy consumption in accordance with Article 5(1).

🡻 2018/2002 Art. 1.15(b)

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

🡻 2012/27/EU (adapted)
⇨ new

~~*Article 25*~~

~~**Online platform**~~

~~The Commission shall establish an online platform in order to foster the practical implementation of this Directive at national, regional and local levels. That platform shall support the exchange of experiences on practices, benchmarking, networking activities, as well as innovative practices.~~

Article 34~~26~~

Committee procedure

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

2. Where reference is made to this paragraph, Article 4 of Regulation (EU) No 182/2011 shall apply.

Article 35~~28~~

Transposition

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with ~~this Directive~~ ⌦ Articles […] and Annexes […] ⌫ [articles and annexes which have been amended in substance by comparison with the repealed Directive] by ⇨ […] ⇦ ~~5 June 2014~~.

~~Notwithstanding the first subparagraph, Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with Article 4, the first subparagraph of Article 5(1), Article 5(5), Article 5(6), the last subparagraph of Article 7(9), Article 14(6), Article 19(2), Article 24(1) and Article 24(2) and point (4) of Annex V by the dates specified therein.~~

They shall ~~forthwith~~ ⌦ immediately ⌫ communicate ~~to the Commission~~ the text of those ~~provisions~~ ⌦ measures to the Commission ⌫.

When Member States adopt those ⌦ measures ⌫ ~~provisions~~, they shall contain a reference to this Directive or be accompanied by such a reference on the occasion of their official publication. ⌦ They shall also include a statement that references in existing laws, regulations and administrative provisions to the Directive repealed by this Directive shall be construed as references to this Directive. ⌫ Member States shall determine how such reference is to be made ⌦ and how that statement is to be formulated ⌫.

2. Member States shall communicate to the Commission the text of the main provisions of national law which they adopt in the field covered by this Directive.

Article 36~~27~~

~~Amendments and~~ R~~r~~epeal~~s~~

~~1.~~Directive ~~2006/32/EC~~ ⌦ 2012/27/EU, as amended by the acts listed in Annex XV, Part A, ⌫ is repealed ⌦ with effect ⌫ from ⇨ […] ⇦ [the day after the date in the first subparagraph of Article 35(1)] ~~5 June 2014, except for Article 4(1) to (4) thereof and Annexes I, III and IV thereto~~, without prejudice to the obligations of the Member States relating to the ~~time-limit~~ ⌦ time-limits ⌫ for ~~its~~ ⌦ the ⌫ transposition into national law ⌦ of the Directives set out in Annex XV, Part B ⌫ . ~~Article 4(1) to (4) of, and Annexes I, III and IV to Directive 2006/32/EC shall be repealed with effect from 1 January 2017.~~

~~Directive 2004/8/EC is repealed from 5 June 2014, without prejudice to the obligations of the Member States relating to the time-limit for its transposition into national law.~~

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

~~2. Article 9(1) and (2) of Directive 2010/30/EU is deleted from 5 June 2014.~~

~~3. Directive 2009/125/EC is amended as follows:~~

~~(1) the following recital is inserted:~~

~~'(35a)Directive 2010/31/EU of the European Parliament and of the Council of 19 May 2010 on the energy performance of buildings[127] requires Member States to set energy performance requirements for building elements that form part of the building~~

[127] ~~OJ L 153, 18.6.2010, p. 13.;~~

~~envelope and system requirements in respect of the overall energy performance, the proper installation, and the appropriate dimensioning, adjustment and control of the technical building systems which are installed in existing buildings. It is consistent with the objectives of this Directive that these requirements may in certain circumstances limit the installation of energy-related products which comply with this Directive and its implementing measures, provided that such requirements do not constitute an unjustifiable market barrier.'~~

~~(2) the following sentence is added to the end of Article 6(1):~~

~~'This shall be without prejudice to the energy performance requirements and system requirements set by Member States in accordance with Article 4(1) and Article 8 of Directive 2010/31/EU.'.~~

Article 37~~29~~

Entry into force

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

⌦ Articles […] and Annexes […] [articles and annexes which are unchanged by comparison with the repealed Directive] shall apply from […] [the day after the date in the first subparagraph of Article 35(1)]. ⌫

Article 38~~30~~

Addressees

This Directive is addressed to the Member States.

Done at Brussels,

For the European Parliament	*For the Council*
The President	*The President*

EUROPEAN
COMMISSION

Brussels, 14.7.2021
COM(2021) 558 final/2

ANNEXES 1 to 16

This document corrects COM(2021)558 final
Concerns all the language versions
Formatting errors in the text and other minor errors in the text and annexes

ANNEXES

to the

Proposal for a

DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

on energy efficiency~~, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC~~ (recast)

{SWD(2021) 623-627} - {SEC(2021) 558}

⇩ new

ANNEX I

NATIONAL CONTRIBUTIONS TO THE UNION'S ENERGY EFFCIENCY TARGETS IN 2030 IN FINAL AND/OR PRIMARY ENERGY CONSUMPTION

1. The level of national contributions is calculated based on the indicative formula:

$$FEC_{C_{2030}} = C_{EU}(1 - Target)\, FEC_{B_{2030}}$$

$$PEC_{C_{2030}} = C_{EU}(1 - Target)\, PEC_{B_{2030}}$$

Where C_{EU} is a correction factor, *Target* is the level of national-specific ambition and FEC_{B2030} PEC_{B2030} is the 2020 Reference Scenario used as a baseline for 2030.

2. The following indicative formula represents the objective criteria reflecting the factors listed in points (d) (i) to (iv) of Article 4(2), each used for defining the level of national-specific ambition in % (*Target*) and having the same weight in the formula (0,25):

a) a flat rate contribution ("F_{flat}");

b) GDP-per-capita dependent contribution ("F_{wealth}");

c) energy intensity dependent contribution ("$F_{intensity}$");

d) cost-effective energy savings potential contribution ("$F_{potential}$").

3. F_{flat} represents the 2030 Union target that includes the additional efforts needed to reach the Union's energy efficiency targets in FEC and PEC compared to the 2020 Reference Scenario projections for 2030.

4. F_{wealth} shall be calculated for each Member State based on its three-year average Eurostat's real GDP per capita index to the Union's three-year average over the 2017-2019 period, expressed in Purchasing power parities (PPPs).

5. $F_{intensity}$ shall be calculated for each Member State based on its three-year average final energy intensity (FEC or PEC per real GDP in PPPs) index to the Union's three-year average over 2017-2019 period.

6. $F_{potential}$ shall be calculated for each Member State based on the final or primary energy savings under the PRIMES MIX 55% scenario for 2030. The savings are expressed in relation to 2020 Reference Scenario projections for 2030.

7. For each criteria provided in point 2(a) to (d), a lower and upper limit shall be applied. The level of ambition for each factor shall be capped at 50% and 150% of the Union average level of ambition under a given factor.

8. The source of the input data used to calculate the factors is Eurostat unless stated otherwise.

9. F_{total} shall be calculated as the weighted sum of all four factors (F_{flat}. F_{wealth} $F_{intensity}$ and $F_{potential}$). The target shall be then calculated as the product of the total factor F_{total} and the EU target.

10. A primary and final energy correction factor C_{EU} shall be applied to all Member States to calibrate the sum of all national contributions to the Union primary and

final energy consumption targets in 2030. The factor C_{EU} is identical for all Member States.

ANNEX III

GENERAL PRINCIPLES FOR THE CALCULATION OF ELECTRICITY FROM COGENERATION

Part I

General principles

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

(a) Electricity production from cogeneration shall be considered equal to total annual electricity production of the unit measured at the outlet of the main generators ⌦ if following conditions are met ⌫ :

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

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

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

$E_{CHP}=H_{CHP}*C$

where:

E_{CHP} is the amount of electricity from cogeneration;

C is the power-to-heat ratio;

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

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

Type of the unit	Default power to heat ratio, C
Combined cycle gas turbine with heat recovery	0,95
Steam back pressure turbine	0,45

Steam condensing extraction turbine	0,45
Gas turbine with heat recovery	0,55
Internal combustion engine	0,75

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

(c) If a share of the energy content of the fuel input to the cogeneration process is recovered in chemicals and recycled this share can be subtracted from the fuel input before calculating the overall efficiency used in points (a) and (b).

(d) Member States may determine the power-to-heat ratio as the ratio of electricity to useful heat when operating in cogeneration mode at a lower capacity using operational data of the specific unit.

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

Part II

Cogeneration technologies covered by this Directive

(a) Combined cycle gas turbine with heat recovery

(b) Steam back pressure turbine

(c) Steam condensing extraction turbine

(d) Gas turbine with heat recovery

(e) Internal combustion engine

(f) Microturbines

(g) Stirling engines

(h) Fuel cells

(i) Steam engines

(j) Organic Rankine cycles

(k) Any other type of technology or combination thereof falling under the definition laid down in ⌦ point (32) of ⌫ Article 2~~(30)~~.

When implementing and applying the general principles for the calculation of electricity from cogeneration, Member States shall use the detailed Guidelines established by Commission Decision 2008/952/EC ~~of 19 November 2008 establishing detailed guidelines for the implementation and application of Annex II to Directive 2004/8/EC of the European Parliament and of the Council~~[1].

_____

[1] Commission Decision 2008/952/EC of 19 November 2008 establishing detailed guidelines for the implementation and application of Annex II to Directive 2004/8/EC of the European Parliament and of the Council (OJ L 338, 17.12.2008, p. 55).

↓ 2012/27/EU

ANNEX III~~II~~

METHODOLOGY FOR DETERMINING THE EFFICIENCY OF THE COGENERATION PROCESS

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

(a) High-efficiency cogeneration

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

– cogeneration production from cogeneration units shall provide primary energy savings calculated according to point (b) of at least 10 % compared with the references for separate production of heat and electricity;~~;~~

– production from small-scale and micro-cogeneration units providing primary energy savings may qualify as high-efficiency cogeneration;~~;~~

⇩ new

– direct emissions of the carbon dioxide from cogeneration production that is fuelled with fossil fuels, are less than 270 gCO_2 per 1 kWh of energy output from the combined generation (including heating/cooling, power and mechanical energy).

– When a cogeneration unit is built or substantially refurbished, Member States shall ensure that there is no increase in the use of fossil fuels other than natural gas in existing heat sources compared to the annual consumption averaged over the previous three calendar years of full operation before refurbishment, and that any new heat sources in that system do not use fossil fuels other than natural gas.

↓ 2012/27/EU

(b) Calculation of primary energy savings

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

$$PES = \left(1 - \frac{1}{\frac{CHPH\eta}{RefH\eta} + \frac{CHPE\eta}{RefE\eta}}\right) \times 100\,\%$$

Where:

PES is primary energy savings.

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

Ref Hη is the efficiency reference value for separate heat production.

CHP Eη is the electrical efficiency of the cogeneration production defined as annual electricity from cogeneration divided by the fuel input used to produce the sum of useful heat output and electricity from cogeneration. Where a cogeneration unit generates mechanical energy, the annual electricity from cogeneration may be increased by an additional element representing the amount of electricity which is equivalent to that of mechanical energy. This additional element does not create a right to issue guarantees of origin in accordance with Article 24~~14~~(10).

Ref Eη is the efficiency reference value for separate electricity production.

(c) Calculations of energy savings using alternative calculation

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

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

Hη shall mean the heat efficiency of the process, defined as the annual heat output divided by the fuel input used to produce the sum of heat output and electricity output.

Eη shall mean the electricity efficiency of the process, defined as the annual electricity output divided by the fuel input used to produce the sum of heat output and electricity output. Where a cogeneration unit generates mechanical energy, the annual electricity from cogeneration may be increased by an additional element representing the amount of electricity which is equivalent to that of mechanical energy. This additional element will not create a right to issue guarantees of origin in accordance with Article 24~~14~~(10).

(d) Member States may use other reporting periods than one year for the purpose of the calculations according to points (b) and (c) of this Annex.

(e) For micro-cogeneration units the calculation of primary energy savings may be based on certified data.

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

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

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

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

(i)~~1.~~ f~~F~~or cogeneration units the comparison with separate electricity production shall be based on the principle that the same fuel categories are compared;~~.~~

(ii) ~~2.~~ ~~e~~Each cogeneration unit shall be compared with the best available and economically justifiable technology for separate production of heat and electricity on the market in the year of construction of the cogeneration unit;~~,~~

(iii) ~~3.~~ ~~t~~The efficiency reference values for cogeneration units older than 10 years of age shall be fixed on the reference values of units of 10 years of age;~~,~~

(iv) ~~4.~~ ~~t~~The efficiency reference values for separate electricity production and heat production shall reflect the climatic differences between Member States.

↓ 2012/27/EU (adapted)
⇨ new

ANNEX IV~~III~~

ENERGY EFFICIENCY REQUIREMENTS FOR ~~PURCHASING PRODUCTS~~ ⌦ PUBLIC PROCUREMENT ⌫ ~~SERVICES AND BUILDINGS BY CENTRAL GOVERNMENT~~

~~Central governments~~ ⇨ In award procedures for public contracts and concessions, contracting authorities and contracting entities ⇦ that purchase products, services, ~~or~~ buildings ⇨ and works ⇦, ~~insofar as this is consistent with cost-effectiveness, economical feasibility, wider sustainability, technical suitability, as well as sufficient competition,~~ shall:

(a) where a product is covered by a delegated act adopted under Regulation (EU) 2017/1369~~Directive 2010/30/EU~~ or by a related Commission implementing directive, purchase only the products that comply with the criterion ~~of belonging to the highest energy efficiency class possible in the light of the need to ensure sufficient competition~~ ⇨ laid down in Article 7(2) of that Regulation ⇦;

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

~~(c) purchase office equipment products covered by Council Decision 2006/1005/EC of 18 December 2006 concerning conclusion of the Agreement between the Government of the United States of America and the European Community on the coordination of energy-efficiency labelling programmes for office equipment[2] that comply with energy efficiency requirements not less demanding than those listed in Annex C to the Agreement attached to that Decision;~~

⇩ new

(c) where a product or a service is covered by the Union green public procurement criteria, with relevance to energy efficiency of the product or service, make best efforts to purchase only products and services that respect at least the technical specifications set at 'core' level in the relevant Union green public procurement criteria including among others for data centres, server rooms and cloud services, Union green public procurement criteria for road lighting and traffic signals, Union green public procurement criteria for computers, monitors tablets and smartphones;

↓ 2012/27/EU (adapted)
⇨ new

(d) purchase only tyres that comply with the criterion of having the highest fuel energy efficiency class, as defined by ~~Regulation (EC) No 1222/2009 of the European Parliament and of the Council of 25 November 2009 on the labelling of tyres with respect to fuel efficiency and other essential parameters[3]~~Regulation (EU) 2020/740

[2] ~~OJ L 381, 28.12.2006, p. 24.~~

[3] ~~OJ L 342, 22.12.2009, p. 46.~~

of the European Parliament and of the Council[4]. This requirement shall not prevent public bodies from purchasing tyres with the highest wet grip class or external rolling noise class where justified by safety or public health reasons;

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

(f) purchase, or make new rental agreements for, only buildings that comply at least with the minimum energy performance requirements referred to in Article ~~5(1)~~ ⇨ 4(1) of Directive 2010/31/EU ⇦ unless the purpose of the purchase is:

(i) to undertake deep renovation or demolition;

(ii) in the case of public bodies, to re-sell the building without using it for public body's own purposes; or

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

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

[4] Regulation (EU) 2020/740 of the European Parliament and of the Council of 25 May 2020 on the labelling of tyres with respect to fuel efficiency and other parameters, amending Regulation (EU) 2017/1369 and repealing Regulation (EC) No 1222/2009 (OJ L 177, 5.6.2020, p. 1).

↓ 2012/27/EU

ANNEX IV

ENERGY CONTENT OF SELECTED FUELS FOR END USE – CONVERSION TABLE (1)

Energy commodity	kJ (NCV)	kgoe (NCV)	kWh (NCV)
1 kg coke	28 500	0,676	7,917
1 kg hard coal	17 200 — 30 700	0,411 — 0,733	4,778 — 8,528
1 kg brown coal briquettes	20 000	0,478	5,556
1 kg black lignite	10 500 — 21 000	0,251 — 0,502	2,917 — 5,833
1 kg brown coal	5 600 — 10 500	0,134 — 0,251	1,556 — 2,917
1 kg oil shale	8 000 — 9 000	0,191 — 0,215	2,222 — 2,500
1 kg peat	7 800 — 13 800	0,186 — 0,330	2,167 — 3,833
1 kg peat briquettes	16 000 — 16 800	0,382 — 0,401	4,444 — 4,667
1 kg residual fuel oil (heavy oil)	40 000	0,955	11,111
1 kg light fuel oil	42 300	1,010	11,750
1 kg motor spirit (petrol)	44 000	1,051	12,222
1 kg paraffin	40 000	0,955	11,111
1 kg liquefied petroleum gas	46 000	1,099	12,778

1 kg natural gas (2)	47 200	1,126	13,10
1 kg liquefied natural gas	45 190	1,079	12,553
1 kg wood (25 % humidity) (2)	13 800	0,330	3,833
1 kg pellets/wood bricks	16 800	0,401	4,667
1 kg waste	7 400 — 10 700	0,177 — 0,256	2,056 — 2,972
1 MJ derived heat	1 000	0,024	0,278
1 kWh electrical energy	3 600	0,086	1 (2)
1. *Source:* Eurostat.			

(1) Member States may apply different conversion factors if these can be justified.

(2) 93 % methane.

(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 that they can justify it. When doing so, Member States shall take into account the energy mix included in their integrated national energy and climate plans to be notified to the Commission in accordance with Regulation (EU) 2018/1999. By 25 December 2022 and every four years thereafter, the Commission shall revise the default coefficient on the basis of observed data. That revision shall be carried out taking into account its effects on other Union law such as Directive 2009/125/EC and Regulation (EU) 2017/1369 of the European Parliament and of the Council of 4 July 2017 setting a framework for energy labelling and repealing Directive 2010/30/EU (OJ L 198, 28.7.2017, p. 1).

(4) Applicable when energy savings are calculated in primary energy terms using a bottom-up approach based on final energy consumption. For savings in kWh electricity Member States may apply a default coefficient of 2,5. Member States may apply a different coefficient provided they can justify it.

↓ 2018/2002 Art. 1.16 and Annex .2

ANNEX V

COMMON METHODS AND PRINCIPLES FOR CALCULATING THE IMPACT OF ENERGY EFFICIENCY OBLIGATION SCHEMES OR OTHER POLICY MEASURES UNDER ARTICLES 8~~7~~, 9~~7A~~ AND 10~~7B~~ AND ARTICLE 28(11)~~20(6)~~

1. Methods for calculating energy savings other than those arising from taxation measures for the purposes of Articles 8~~7~~, 9~~7a~~ and 10~~7b~~ and Article 28(11)~~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 be used only 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 from that for which independent information about 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 be used only for savings resulting from changes in consumer behaviour. It shall 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 8~~7~~, 9~~7a~~ and 10~~7b~~ and Article 28(11)~~20(6)~~, the following principles apply:

⇩ new

   (a) Member States shall demonstrate that the policy measure has been implemented for the purpose of fulfilling the energy savings obligation and achieving end-use energy savings pursuant to Article 8(1). Member States shall provide evidence and their documentation that the energy savings are caused by a policy measure, including voluntary agreements;

↓ 2018/2002 Art. 1.16 and Annex .2
⇨ new

(b~~a~~) t~~T~~he savings shall be shown to be additional to those that would have occurred in any event without the activity of the obligated, participating or entrusted parties, or implementing public authorities. To determine the savings that 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 Union and national level;~~.~~

(c~~b~~) s~~S~~avings resulting from the implementation of mandatory Union law shall be considered to be savings that would have occurred in any event, and thus shall not be claimed as energy savings for the purpose of Article 8~~7~~(1). By way of derogation from that requirement, savings related to the renovation of existing buildings may be claimed as energy savings for the purpose of Article 8~~7~~(1), provided that the materiality criterion referred to in point 3(h) of this Annex 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 as energy savings for the purpose of point (a) of Article 7(1), provided that the materiality criterion referred to in point 3(h) of this Annex is ensured and those savings have been notified by Member States in their National Energy Efficiency Action Plans in accordance with Article 24(2).~~ ⇨ Measures promoting energy efficiency improvements in the public sector pursuant to Article 5 and Article 6 may be eligible to be taken into account for the fulfilment of energy savings required under Article 8(1), provided that 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; ⇦

⇩ new

(d) measures taken pursuant to Regulation (EU) 2018/842 on binding annual greenhouse gas emission reductions can be considered material, but Member States have to show that 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) Member States cannot count reduced energy use in sectors, including the transport and building sector, that would have occurred in any event as a result of emission trading pursuant to the EU ETS Directive towards the fulfilment of the energy savings obligation pursuant to Article 8(1). If an entity is an obligated party under a national energy efficiency obligation scheme under Article 9 of this Directive and under the EU Emissions Trading System for buildings and road transport [COM(2021) 551 final,2021/0211 (COD)], the monitoring and verification system shall ensure that the carbon price passed through when releasing fuel for consumption [according Article 1(21) of COM(2021) 551 final,2021/0211 (COD)] is taken into account when calculating and reporting the energy savings of its energy saving measures;

↓ 2018/2002 Art. 1.16 and Annex .2 ⇨ new

(fe) cCredit may be given only for savings exceeding the following levels:

(i) Union emission performance standards for new passenger cars and new light commercial vehicles following the implementation of ~~Regulations (EC) No 443/2009[5] and (EU) No 510/2011 of the European Parliament and of the Council[6]~~ Regulation (EU) 2019/631 of the European Parliament and of the Council[7]; ⇨ Member States must provide evidence, their assumptions and their calculation methodology to show additionality to the Union´s new vehicle CO2 requirements; ⇦

(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;. ⇨ Member States shall provide evidence, their assumptions and their calculation methodology to show additionality; ⇦

(gd) pPolicies with the purpose of encouraging higher levels of energy efficiency of products, equipment, transport systems, vehicles and fuels, buildings and building elements, processes or markets shall be permitted ⇨ , except those policy measures regarding the use of direct combustion of fossil fuel technologies that are implemented as from 1 January 2024 ⇦;

⇩ new

(h) Energy savings as a result of policy measures regarding the use of direct fossil fuel combustion in products, equipment, transport systems, vehicles, buildings or works shall not count towards the fulfilment of energy savings obligation as from 1 January 2024;

↓ 2018/2002 Art. 1.16 and Annex .2 ⇨ new

(ie) mMeasures promoting the installation of small-scale renewable energy technologies on or in buildings may be eligible to be taken into account for the fulfilment of energy savings required under Article 87(1), provided that 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;.

5 ~~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 CO_2 emissions from light-duty vehicles (OJ L 140, 5.6.2009, p. 1).~~

6 ~~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 CO_2 emissions from light-duty vehicles (OJ L 145, 31.5.2011, p. 1).~~

7 Regulation (EU) 2019/631 of the European Parliament and of the Council of 17 April 2019 setting CO2 emission performance standards for new passenger cars and for new light commercial vehicles, and repealing Regulations (EC) No 443/2009 and (EU) No 510/2011 (OJ L 111, 25.4.2019, p. 13).

⇩ new

(j) measures promoting the installation of solar thermal technologies may be eligible to be taken into account for the fulfilment of energy savings required under Article 8(1) provided that they result in verifiable, and measurable or estimable, end-use energy savings. The ambient heat captured by solar thermal technologies can be excluded from their end-use energy consumption;

🡻 2018/2002 Art. 1.16 and Annex .2 (adapted)
⇨ new

(k~~f~~) ~~f~~For policies that accelerate the uptake of more efficient products and vehicles, ⇨ except those regarding the use of direct fossil fuel combustion, ⇦ full credit may be claimed, provided that it is shown that such uptake takes place before expiry of the average expected lifetime of the product or vehicle, or before the product or vehicle would usually be replaced, and the savings are claimed only for the period until end of the average expected lifetime of the product or vehicle to be replaced;~~.~~

(l~~g~~) i~~I~~n 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;~~.~~

(m~~h~~) t~~T~~o 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;~~.~~

(n~~i~~) t~~T~~he calculation of energy savings shall take into account the lifetime of the measures and the rate at which the savings decline over time. That calculation shall count the savings each individual action will achieve during the period from its date of implementation to ⇨ the end of each obligation period ⇦ ~~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 another method, Member States shall ensure that the total amount of energy savings calculated using that method 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 during the period from its date of implementation to ~~31 December 2020 or 31 December~~ 2030 ~~as appropriate~~. Member States shall describe in detail in their integrated national energy and climate plans under Regulation (EU) 2018/1999 the other method and the provisions made to ensure that the binding calculation requirement is met.

3. Member States shall ensure that the following requirements for policy measures taken pursuant to Article 10~~87b~~ and Article 28(11)~~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 ⇨ net calorific values or primary energy ⇦ ~~conversion~~ factors ⇨ referred to in Article 29 ⇦ ~~set out in Annex IV~~;

(e) an annual report on the energy savings achieved by entrusted parties, participating parties and implementing public 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 energy savings from an individual action are not 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 energy savings claimed;

⇩ new

(i) the activities of the participating party, entrusted party or implementing public authority have no adverse effects on vulnerable customers, people affected by energy poverty and, where applicable, people living in social housing.

🡻 2018/2002 Art. 1.16 and Annex .2
⇨ new

4. In determining the energy saving from taxation related policy measures introduced under Article 10~~7b~~, the following principles shall apply:

(a) credit shall be given only for energy savings from taxation measures exceeding the minimum levels of taxation applicable to fuels as required in Council Directive 2003/96/EC[8] or 2006/112/EC[9];

(b) ⇨ short-run ⇦ price elasticities for the calculation of the impact of the (energy) taxation measures shall represent the responsiveness of energy demand to price changes, and shall be estimated on the basis of recent and representative official data sources ⇨ which are applicable for the Member State, and, where applicable, based on accompanying studies from an independent institute. If a different price elasticity than short-run elasticities is used, Member States shall explain how energy efficiency improvements due to the implementation of other Union legislation have been included in the baseline used to estimate the energy savings, or how a double-counting of energy savings from other Union legislation has been avoided; ⇦

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[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).

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

⇩ new

(d) short-run elasticity estimates should be used to assess the energy savings from taxation measures to avoid overlap with Union law and other policy measures;

(e) Member States shall determine distributional effects of taxation and equivalent measures on vulnerable customers, people affected by energy poverty and, where applicable, people living in social housing, and show the effects of mitigation measures implemented in accordance with Article 22(1) to (3);

(f) Member States shall provide evidence, including calculation methodologies, that where there is an overlap in the impact of energy or carbon taxation measures or emission trading according the EU ETS Directive [COM(2021) 551 final,2021/0211 (COD)], there is no double counting of energy savings.

🡻 2018/2002 Art. 1.16 and Annex .2 (adapted)

5. Notification of methodology

Member States shall in accordance with Regulation (EU) 2018/1999 notify to the Commission their proposed detailed methodology for the operation of the energy efficiency obligation schemes and alternative measures referred to in Articles 9~~7~~a and 10~~7~~b, and Article 28(11)~~20(6)~~. Except in the case of taxation, such notification shall include details of:

(a) the level of the energy savings required under ~~point (b) of~~ the first subparagraph of Article 8~~7~~(1) or savings expected to be achieved over the whole period from 1 January 2021 to 31 December 2030;

⇩ new

(b) how the calculated quantity of new energy savings required under the first subparagraph of Article 8(1) or energy savings expected to be achieved will be phased over the obligation period;

🡻 2018/2002 Art. 1.16 and Annex .2

(c~~b~~) the obligated, participating or entrusted parties, or implementing public authorities;

(d~~c~~) target sectors;

(e~~d~~) policy measures and individual actions, including the expected total amount of cumulative energy savings for each measure;

⇩ new

(f) information on policy measures or programmes or measures financed under an Energy Efficiency National Fund implemented as a priority among people affected by energy poverty, vulnerable customers, and, where applicable, people living in social housing;

(g) the share and the amount of energy savings to be achieved among people affected by energy poverty, vulnerable customers, and, where applicable, people living in social housing;

(h) where applicable, information about the indicators applied, the arithmetic average share and the outcome of policy measures established according to Article 8(3);

(i) where applicable, information about impacts and adverse effects of policy measures implemented pursuant to Article 8(3) on people affected by energy poverty, vulnerable customers, and, where applicable, people living in social housing;

🡻 2018/2002 Art. 1.16 and Annex .2

(j~~e~~) the duration of the obligation period for the energy efficiency obligation scheme;

⇩ new

(k) where applicable, the amount of energy savings or cost reduction targets to be achieved by obligated parties among people affected by energy poverty, vulnerable customers, and, where applicable, people living in social housing;

🡻 2018/2002 Art. 1.16 and Annex. 2 (adapted)
⇨ new

(l~~f~~) the actions provided for by the policy measure;

(m~~g~~) the calculation methodology, including how additionality and materiality have been determined and which methodologies and benchmarks are used for deemed and scaled savings, ⇨ and, where applicable, the net calorific values and conversion factors used ⇦ ;

(n~~h~~) the lifetimes of measures, and how they are calculated or what they are based upon;

(o~~i~~) the approach taken to address climatic variations within the Member State;

(p~~j~~) the monitoring and verification systems for measures under Articles 9~~7a~~ and 10~~7b~~ and how their independence from the obligated, participating or entrusted parties is ensured;

(q~~k~~) in the case of taxation:

(i) the target sectors and segment of taxpayers;

(ii) the implementing public authority;

(iii) the savings expected to be achieved;

(iv) the duration of the taxation measure; ~~and~~

(v) the calculation methodology, including the price elasticities used and how they have been established;~~.~~ ⌦ and ⌫

⇩ new

(vi) how overlaps with emission trading in accordance with the EU ETS Directive [COM(2021) 551 final,2021/0211 (COD)] have been avoided and the risk of double counting has been abolished.

↓ 2012/27/EU (adapted)
⇨ new

ANNEX VI

MINIMUM CRITERIA FOR ENERGY AUDITS INCLUDING THOSE CARRIED OUT AS PART OF ENERGY MANAGEMENT SYSTEMS

The energy audits referred to in Article 11~~8~~ shall be based on the following ~~guidelines~~⌦ criteria ⌫:

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

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

⇩ new

(c) identify energy efficiency measures to decrease energy consumption;

(d) identify the potential for cost-effective use or production of renewable energy;

↓ 2012/27/EU

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

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

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

The data used in energy audits shall be storable for historical analysis and tracking performance.

⇩ new

MINIMUM REQUIREMENTS FOR MONITORING AND PUBLISHING THE ENERGY PERFORMANCE OF DATA CENTRES

The following minimum information shall be monitored and published as regards the energy performance of data centres referred to in Article 11(10):

(a) the name of the data centre, the name of the owner and operators of the data centre, the municipality where the data centre is based;

(b) the floor area of the data centre; the installed power; the annual incoming and outgoing data traffic; and the amount of data stored and processed within the data centre;

(c) the performance, during the last full calendar year, of the data centre in accordance with key performance indicators about, inter alia, energy consumption, power utilisation, temperature set points, waste heat utilisation, water usage and use of renewable energy.

↓ 2012/27/EU

ANNEX VII

↓ 2019/944 Art. 70.6

MINIMUM REQUIREMENTS FOR BILLING AND BILLING INFORMATION BASED ON ACTUAL CONSUMPTION OF NATURAL GAS

↓ 2012/27/EU

1. Minimum requirements for billing

1.1. Billing based on actual consumption

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

1.2. Minimum information contained in the bill

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

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

(b) comparisons of the final customer's current energy consumption with consumption for the same period in the previous year, preferably in graphic form;

(c) contact information for final customers' organisations, energy agencies or similar bodies, including website addresses, from which information may be obtained on available energy efficiency improvement measures, comparative end-user profiles and objective technical specifications for energy-using equipment.

In addition, wherever possible and useful, Member States shall ensure that comparisons with an average normalised or benchmarked final customer in the same user category are made available to final customers in clear and understandable terms, in, with or signposted to within, their bills, contracts, transactions, and receipts at distribution stations.

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

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

↓ 2018/2002 Art. 1.16 and Annex .4 (adapted)

ANNEX VIII~~VIIa~~

MINIMUM REQUIREMENTS FOR BILLING AND CONSUMPTION INFORMATION FOR HEATING, COOLING AND DOMESTIC 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

⌦ Until 31 December 2021 ⌫ ~~From 25 October 2020~~, 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 a year.

From 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 that requirement 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 comprehensible terms in or with their bills where those 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 about 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 about 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 on available energy efficiency improvement measures, comparative end-user profiles and objective technical specifications for energy-using equipment may be obtained;

(e) information about related complaints procedures, ombudsman services or alternative dispute resolution mechanisms, as applicable in the Member States;

(f) comparisons with an average normalised or benchmarked final user in the same user category. In the case of electronic bills, such comparisons may instead 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 comprehensible explanation of how the amount set out in the bill was calculated, and at least the information referred to in points (d) and (e).

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↓ 2019/826 Art. 1(1) and Annex I (adapted)

ANNEX IX~~VIII~~

POTENTIAL FOR EFFICIENCY IN HEATING AND COOLING

The comprehensive assessment of national heating and cooling potentials referred to in Article 23~~14~~(1) shall include and be based on the following:

Part I

OVERVIEW OF HEATING AND COOLING

1. heating and cooling demand in terms of assessed useful energy[10] and quantified final energy consumption in GWh per year[11] by sectors:
   (a) residential;
   (b) services;
   (c) industry;
   (d) any other sector that individually consumes more than 5 % of total national useful heating and cooling demand;
2. identification, or in the case of point 2(a)(i), identification or estimation, of current heating and cooling supply:
   (a) by technology, in GWh per year[12], within sectors mentioned under point 1 where possible, distinguishing between energy derived from fossil and renewable sources:
      (i) provided on-site in residential and service sites by:
         – heat only boilers;
         – high-efficiency heat and power cogeneration;
         – heat pumps;
         – other on-site technologies and sources;
      (ii) provided on-site in non-service and non-residential sites by:
         – heat only boilers;
         – high-efficiency heat and power cogeneration;
         – heat pumps;
         – other on-site technologies and sources;
      (iii) provided off-site by:
         – high-efficiency heat and power cogeneration;
         – waste heat;

10 The amount of thermal energy needed to satisfy the heating and cooling demand of end-users.
11 The most recent data available should be used.
12 The most recent data available should be used.

– other off-site technologies and sources;

(b) identification of installations that generate waste heat or cold and their potential heating or cooling supply, in GWh per year:

(i) thermal power generation installations that can supply or can be retrofitted to supply waste heat with a total thermal input exceeding 50 MW;

(ii) heat and power cogeneration installations using technologies referred to in Part II of Annex III with a total thermal input exceeding 20 MW;

(iii) waste incineration plants;

(iv) renewable energy installations with a total thermal input exceeding 20 MW other than the installations specified under point 2(b)(i) and (ii) generating heating or cooling using the energy from renewable sources;

(v) industrial installations with a total thermal input exceeding 20 MW which can provide waste heat;

(c) reported share of energy from renewable sources and from waste heat or cold in the final energy consumption of the district heating and cooling[13] sector over the past 5 years, in line with Directive (EU) 2018/2001;

3. a map covering the entire national territory identifying (while preserving commercially sensitive information):

(a) heating and cooling demand areas following from the analysis of point 1, while using consistent criteria for focusing on energy dense areas in municipalities and conurbations;

(b) existing heating and cooling supply points identified under point 2(b) and district heating transmission installations;

(c) planned heating and cooling supply points of the type described under point 2(b) and district heating transmission installations;

4. a forecast of trends in the demand for heating and cooling to maintain a perspective of the next 30 years in GWh and taking into account in particular projections for the next 10 years, the change in demand in buildings and different sectors of the industry, and the impact of policies and strategies related to the demand management, such as long-term building renovation strategies under Directive (EU) 2018/844;

Part II

OBJECTIVES, STRATEGIES AND POLICY MEASURES

5. planned contribution of the Member State to its national objectives, targets and contributions for the five dimensions of the Energy Union, as laid out in Article 3(2)(b) of Regulation (EU) 2018/1999, delivered through efficiency in heating and cooling, in particular related to points 1 to 4 of Article 4(b) and to paragraph (4)(b) of Article 15, identifying which of these elements is additional compared to integrated national energy and climate plans;

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[13] The identification of 'renewable cooling' shall, after the methodology for calculating the quantity of renewable energy used for cooling and district cooling is established in accordance with Article 35 of Directive (EU) 2018/2001, be carried out in accordance with that Directive. Until then it shall be carried out according to an appropriate national methodology.

6. general overview of the existing policies and measures as described in the most recent report submitted in accordance with Articles 3, 20, 21 and 27(a) of Regulation (EU) 2018/1999;

Part III

ANALYSIS OF THE ECONOMIC POTENTIAL FOR EFFICIENCY IN HEATING AND COOLING

7. an analysis of the economic potential[14] of different technologies for heating and cooling shall be carried out for the entire national territory by using the cost-benefit analysis referred to in Article 23~~14~~(3) and shall identify alternative scenarios for more efficient and renewable heating and cooling technologies, distinguishing between energy derived from fossil and renewable sources where applicable.

   The following technologies should be considered:

   (a) industrial waste heat and cold;

   (b) waste incineration;

   (c) high efficiency cogeneration;

   (d) renewable energy sources (such as geothermal, solar thermal and biomass) other than those used for high efficiency cogeneration;

   (e) heat pumps;

   (f) reducing heat and cold losses from existing district networks;

8. this analysis of economic potential shall include the following steps and considerations:

   (a) Considerations:

      (i) the cost-benefit analysis for the purposes of Article 23~~14~~(3) shall include an economic analysis that takes into consideration socioeconomic and environmental factors[15], and a financial analysis performed to assess projects from the investors' point of view. Both economic and financial analyses shall use the net present value as criterion for the assessment;

      (ii) the baseline scenario should serve as a reference point and take into account existing policies at the time of compiling this comprehensive assessment[16], and be linked to data collected under Part I and point 6 of Part II of this Annex;

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14 The analysis of the economic potential should present the volume of energy (in GWh) that can be generated per year by each technology analysed. The limitations and interrelations within the energy system should also be taken into account. The analysis may make use of models based on assumptions representing the operation of common types of technologies or systems.

15 Including the assessment referred to in Article 15, paragraph 7 of Directive (EU) 2018/2001.

16 The cut-off date for taking into account policies for the baseline scenario is the end of the year preceding to the year by the end of which the comprehensive assessment is due. That is to say, policies enacted within a year prior to the deadline for submission of the comprehensive assessment do not need to be taken into account.

(iii) alternative scenarios to the baseline shall take into account energy efficiency and renewable energy objectives of Regulation (EU) 2018/1999. Each scenario shall present the following elements compared to the baseline scenario:

– economic potential of technologies examined using the net present value as criterion;

– greenhouse gas emission reductions;

– primary energy savings in GWh per year;

– impact on the share of renewables in the national energy mix.

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

The assessment and decision-making should take into account 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.

(b) Costs and benefits

The costs and benefits referred to under point 8(a) shall include at least the following benefits and costs:

(i) Benefits:

– value of output to the consumer (heating, cooling 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.

(c) Relevant scenarios to the baseline:

All relevant scenarios to the baseline shall be considered, including the role of efficient individual heating and cooling.

(i) the cost-benefit analysis may either cover a project assessment or a group of projects for a broader local, regional or national assessment in order to establish the most cost-effective and beneficial heating or cooling

solution against a baseline for a given geographical area for the purpose of planning;

~~(ii) Member States shall designate the competent authorities responsible for carrying out the cost-benefit analyses pursuant to Article 14. They shall provide the detailed methodologies and assumptions in accordance with this Annex and establish and make public the procedures for the economic analysis.~~

(d) Boundaries and integrated approach:

(i) the geographical boundary shall cover a suitable well-defined geographical area;

(ii) the cost-benefit analyses shall take into account all relevant centralised or decentralised supply resources available within the system and geographical boundary, including technologies considered under point 7 of Part III of this Annex, and heating and cooling demand trends and characteristics.

(e) Assumptions:

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

(ii) the discount rate used in the economic analysis to calculate net present value shall be chosen according to European or national guidelines;

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

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

(f) Sensitivity analysis:

(i) a sensitivity analysis shall be included to assess the costs and benefits of a project or group of projects and be based on variable factors having a significant impact on the outcome of the calculations, such as different energy prices, levels of demand, discount rates and other.

Part IV

POTENTIAL NEW STRATEGIES AND POLICY MEASURES

9. overview of new legislative and non-legislative policy measures[17] to realise the economic potential identified in accordance with points 7 and 8, along with their foreseen:

(a) greenhouse gas emission reductions;

(b) primary energy savings in GWh per year;

[17] This overview shall include financing measures and programmes that may be adopted over the period of the comprehensive assessment, not prejudging a separate notification of the public support schemes for a State aid assessment.

(c) impact on the share of high-efficiency cogeneration;

(d) impact on the share of renewables in the national energy mix and in the heating and cooling sector;

(e) links to national financial programming and cost savings for the public budget and market participants;

(f) estimated public support measures, if any, with their annual budget and identification of the potential aid element.

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↓ 2012/27/EU (adapted)
⇨ new

ANNEX X~~IX~~

COST-BENEFIT ANALYSIS

~~Part 2~~

Principles for the purpose of Article 24~~14~~(~~45~~) and (6~~7~~)

The cost-benefit analyses shall provide information for the purpose of the measures in Article 24~~14~~(4~~5~~) and (6~~7~~):

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

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

The system boundary shall be set to include the planned installation and the heat ⇨ and cooling ⇦ loads, such as building(s) and industrial process. Within this system boundary the total cost of providing heat and power shall be determined for both cases and compared.

Heat ⇨ or cooling ⇦ loads shall include existing heat ⇨ or cooling ⇦ loads, such as an industrial installation or an existing district heating ⇨ or cooling ⇦ system, and also, in urban areas, the heat ⇨ or cooling ⇦ load and costs that would exist if a group of buildings or part of a city were provided with and/or connected into a new district heating ⇨ or cooling ⇦ network.

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

⇩ new

Assessment of waste heat utilization shall take into consideration current technologies. The assessment shall take into consideration the direct use of waste heat or its upgrading to higher temperature levels, or both. In case of waste heat recovery on-site, at least the use of heat exchangers, heat pumps, and heat to power technologies shall be assessed. In case of waste heat recovery off-site, at least industrial installations, agriculture sites and district heating networks shall be assessed as potential demand points.

↓ 2012/27/EU
⇨ new

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

Cost-benefit analyses for the purposes of Article 24(4)~~14(5)~~ shall include an economic analysis covering a financial analysis reflecting actual cash flow transactions from investing in and operating individual installations.

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

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

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

ANNEX XI~~X~~

GUARANTEE OF ORIGIN FOR ELECTRICITY PRODUCED FROM HIGH-EFFICIENCY COGENERATION

(a) Member States shall take measures to ensure that:

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

– enable producers to demonstrate that the electricity they sell is produced from high-efficiency cogeneration and is issued to this effect in response to a request from the producer;~~,~~

– is accurate, reliable and fraud-resistant;~~,~~

– is issued, transferred and cancelled electronically;

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

(b) The guarantee of origin referred to in Article 24~~14~~(10) shall contain at least the following information:

(i) the identity, location, type and capacity (thermal and electrical) of the installation where the energy was produced;

(ii) the dates and places of production;

(iii) the lower calorific value of the fuel source from which the electricity was produced;

(iv) the quantity and the use of the heat generated together with the electricity;

(v) the quantity of electricity from high-efficiency cogeneration in accordance with Annex III~~II~~ that the guarantee represents;

(vi) the primary energy savings calculated in accordance with Annex III~~II~~ based on the harmonised efficiency reference values indicated in point (f) of Annex III~~II~~;

(vii) the nominal electric and thermal efficiency of the plant;

(viii) whether and to what extent the installation has benefited from investment support;

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

(x) the date on which the installation became operational; and

(xi) the date and country of issue and a unique identification number.

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

↓ 2012/27/EU

ANNEX XII~~XI~~

ENERGY EFFICIENCY CRITERIA FOR ENERGY NETWORK REGULATION AND FOR ELECTRICITY NETWORK TARIFFS

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

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

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

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

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

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

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

   (f) the storage of energy.

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

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

   (a) time-of-use tariffs;

   (b) critical peak pricing;

   (c) real time pricing; and

   (d) peak time rebates.

↓ 2012/27/EU

ANNEX XIII~~XII~~

ENERGY EFFICIENCY REQUIREMENTS FOR TRANSMISSION SYSTEM OPERATORS AND DISTRIBUTION SYSTEM OPERATORS

Transmission system operators and distribution system operators shall:

↓ 2018/2002 Art. 1.16 and Annex .6

(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;

↓ 2012/27/EU

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

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

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

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

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

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

↓ 2012/27/EU (adapted)

ANNEX XIV~~XIII~~

MINIMUM ITEMS TO BE INCLUDED IN ENERGY PERFORMANCE CONTRACTS ~~WITH THE PUBLIC SECTOR~~ OR IN THE ASSOCIATED TENDER SPECIFICATIONS

⇩ new

– Findings /recommendations of an analysis/ audit carried out before the contract has been concluded that covers energy use of the building with a view to implement energy efficiency improvement measures.

↓ 2012/27/EU

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

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

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

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

– Reference date(s) to establish achieved savings.

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

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

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

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

– Clear and transparent provisions on measurement and verification of the guaranteed savings achieved, quality checks and guarantees.

– Provisions clarifying the procedure to deal with changing framework conditions that affect the content and the outcome of the contract (i.e. changing energy prices, use intensity of an installation).

– Detailed information on the obligations of each of the contracting party and of the penalties for their breach.

↓ 2012/27/EU (adapted)

ANNEX XV

CORRELATION TABLE

Directive 2004/8/EC	This Directive
Article 1	Article 1(1)
Article 2	Article 1(1)
Article 3, point (a)	Article 2, point (30)
Article 3, point (b)	Article 2, point (32)
Article 3, point (c)	Article 2, point (31)
Article 3, point (d)	Article 2, point (33)
Article 3, points (e) and (f)	—
Article 3, point (g)	Article 2, point (35)
Article 3, point (h)	—
Article 3, point (i)	Article 2, point (34)
Article 3, point (j)	—
Article 3, point (k)	Article 2, point (36)
Article 3, point (l)	Article 2, point (37)
Article 3, point (m)	Article 2, point (39)
Article 3, point (n)	Article 2, point (38)
Article 3, point (o)	—
—	Article 2, points (40), (41), (42), (43), and (44)
Article 4(1)	Annex II, point (f), first subpoint
Article 4(2)	Article 14(10), second subparagraph
Article 4(3)	—
Article 5	Article 14(10), first subparagraph and Annex X
Article 6	Article 14(1) and (3), Annex VIII and IX

~~Article 7(1)~~	~~Article 14(11)~~
~~Article 7(2) and (3)~~	~~—~~
~~Article 8~~	~~Article 15(5)~~
~~—~~	~~Article 15(6), (7), (8) and (9)~~
~~Article 9~~	~~—~~
~~Article 10(1) and (2)~~	~~Article 14(1) and 24(2), Annex XIV, Part 2~~
~~Article 10(3)~~	~~Article 24(6)~~
~~Article 11~~	~~Article 24(3)~~
~~—~~	~~Article 24(5)~~
~~Article 12(1) and (3)~~	~~—~~
~~Article 12(2)~~	~~Annex II, point (c)~~
~~Article 13~~	~~Article 22(2)~~
~~Article 14~~	~~—~~
~~Article 15~~	~~Article 28~~
~~Article 16~~	~~—~~
~~Article 17~~	~~Article 29~~
~~Article 18~~	~~Article 30~~
~~Annex I~~	~~Annex I, Part II~~
~~Annex II~~	~~Annex I, Part I and Part II, last subparagraph~~
~~Annex III~~	~~Annex II~~
~~Annex IV~~	~~Annex VIII~~
~~—~~	~~Annex IX~~

~~Directive 2006/32/EC~~	~~This Directive~~
~~Article 1~~	~~Article 1(1)~~
~~Article 2~~	~~Article 1(1)~~
~~Article 3, point (a)~~	~~Article 2, point (1)~~

~~Article 3, point (b)~~	~~Article 2, point (4)~~
~~Article 3, point (c)~~	~~Article 2, point (6)~~
~~Article 3, point (d)~~	~~Article 2, point (5)~~
~~—~~	~~Article 2, points (2) and (3)~~
~~Article 3, point (e)~~	~~Article 2, point (7)~~
~~Article 3, points (f), (g), (h) and (i)~~	~~—~~
~~—~~	~~Article 2, points (8) to (19)~~
~~Article 3, point (j)~~	~~Article 2, point (27)~~
~~—~~	~~Article 2, point (28)~~
~~Article 3, point (k)~~	~~—~~
~~Article 3, point (l)~~	~~Article 2, point (25)~~
~~—~~	~~Article 2, point (26)~~
~~Article 3, point (m)~~	~~—~~
~~Article 3, point (n)~~	~~Article 2, point (23)~~
~~Article 3, point (o)~~	~~Article 2, point (20)~~
~~Article 3, point (p)~~	~~Article 2, point (21)~~
~~Article 3, point (q)~~	~~Article 2, point (22)~~
~~Article 3, points (r) and (s)~~	~~—~~
~~—~~	~~Article 2, points (24), (29), (44) and (45)~~
~~—~~	~~Article 3~~
~~—~~	~~Article 4~~
~~Article 4~~	~~—~~
~~Article 5~~	~~Articles 5 and 6~~
~~Article 6(1)(a)~~	~~Article 7(8), points (a) and (b)~~
~~Article 6(1)(b)~~	~~Article 18(3)~~
~~Article 6(2)~~	~~Article 7(1), (5), (6), (7), (9), (10), (11)~~

	~~and (12)~~
~~—~~	~~Article 7(2) and (3)~~
~~Article 6(3)~~	~~Article 18(2), points (b) and (c)~~
~~Article 6(5)~~	~~—~~
~~Article 7~~	~~Article 17~~
~~Article 8~~	~~Article 16(1)~~
~~—~~	~~Article 16(2) and (3)~~
~~Article 9(1)~~	~~Article 19~~
~~Article 9(2)~~	~~Article 18(1), point (d), subpoint (i)~~
~~—~~	~~Article 18(1), points (a), (b), (c), (d), subpoint (ii), and (e)~~
~~Article 10(1)~~	~~Article 15(4)~~
~~Article 10(2)~~	~~Article 15(3)~~
~~—~~	~~Article 15(7), (8) and (9)~~
~~Article 11~~	~~Article 20~~
~~Article 12(1)~~	~~Article 8(1)~~
~~Article 12(2)~~	~~—~~
~~—~~	~~Article 8(2), (3), (4), (5), (6) and (7)~~
~~Article 12(3)~~	~~—~~
~~Article 13(1)~~	~~Article 9~~
~~Article 13(2)~~	~~Article 10 and Annex VII, point 1.1~~
~~Article 13(3)~~	~~Annex VII, points 1.2 and 1.3~~
~~—~~	~~Article 11~~
~~—~~	~~Article 12~~
~~—~~	~~Article 13~~
~~—~~	~~Article 15(1) and (2)~~
~~—~~	~~Article 18(2), points (a) and (d)~~

—	~~Article 21~~
~~Article 14(1) and (2)~~	~~Article 24(1) and (2)~~
~~Article 14(3)~~	—
~~Article 14(4) and (5)~~	~~Article 24(3)~~
—	~~Article 24(4) and (7) to (11)~~
—	~~Article 22(1)~~
~~Article 15(1)~~	~~Article 22(2)~~
~~Article 15(2), (3) and (4)~~	—
—	~~Article 23~~
—	~~Article 25~~
~~Article 16~~	~~Article 26~~
~~Article 17~~	~~Article 27~~
~~Article 18~~	~~Article 28~~
~~Article 19~~	~~Article 29~~
~~Article 20~~	~~Article 30~~
~~Annex I~~	—
~~Annex II~~	~~Annex IV~~
~~Annex III~~	—
~~Annex IV~~	—
~~Annex V~~	—
~~Annex VI~~	~~Annex III~~
—	~~Annex V~~
—	~~Annex VI~~
—	~~Annex VII~~
—	~~Annex XI~~
—	~~Annex XII~~
—	~~Annex XIII~~

—	~~Annex XIV~~
—	~~Annex XV~~

↑

ANNEX XV

Part A

Repealed Directive with list of the successive amendments thereto (referred to in Article 36)

Directive 2012/27/EU of the European Parliament and of the Council (OJ L 315, 14.11.2012, p. 1)	
Council Directive 2013/12/EU (OJ L 141, 28.5.2013, p. 28)	
Directive (EU) 2018/844 of the European Parliament and of the Council (OJ L 156, 19.6.2018, p. 75)	only Article 2
Directive (EU) 2018/2002 of the European Parliament and of the Council (OJ L 328, 21.12.2018, p. 210)	
Regulation (EU) 2018/1999 of the European Parliament and of the Council (OJ L 328, 21.12.2018, p. 1)	only Article 54
Decision (EU) 2019/504 of the European Parliament and of the Council (OJ L 85I , 27.3.2019, p. 66)	only Article 1
Commission Delegated Regulation (EU) 2019/826 (OJ L 137, 23.5.2019, p. 3)	
Directive (EU) 2019/944 of the European Parliament and of the Council (OJ L 158, 14.6.2019, p. 125)	only Article 70

Part B

Time-limits for transposition into national law
(referred to in Article 36)

Directive	Time-limit for transposition
2012/27/EU	5 June 2014
(EU) 2018/844	10 March 2020
(EU) 2018/2002	25 June 2020, with the exception of points 5 to 10 of Article 1 and points 3 and 4 of the Annex
	25 October 2020 as regards points 5 to 10 of Article 1 and points 3 and 4 of the Annex
(EU) 2019/944	31 December 2019 as regards point (5)(a) of Article 70
	25 October 2020 as regards point (4) of Article 70
	31 December 2020 as regards points (1) to (3), (5)(b) and (6) of Article 70

ANNEX XVI

CORRELATION TABLE

Directive 2012/27/EU	This Directive
Article 1	Article 1
Article 2, introductory wording	Article 2, introductory wording
Article 2, point 1	Article 2, point 1
-	Article 2, points 2 and 3
Article 2, point 2	Article 2, point 4
Article 2, point 3	Article 2, point 5
Article 2, point 4	Article 2, point 6
Article 2, point 5	Article 2, point 7
Article 2, point 6	Article 2, point 8
Article 2, point 7	Article 2, point 9
Article 2, point 8	Article 2, point 10
Article 2, point 9	-
Article 2, point 10	Article 2, point 11
_	Article 2, points 12 and 13
Article 2, point 11	Article 2, point 14
Article 2, point 12	Article 2, point 15
Article 2, point 13	Article 2, point 16
Article 2, point 14	Article 2, point 17
Article 2, point 15	Article 2, point 18
Article 2, point 16	Article 2, point 19
Article 2, point 17	Article 2, point 20
Article 2, point 18	Article 2, point 21
Article 2, point 19	Article 2, point 22
Article 2, point 20	Article 2, point 23

Article 2, point 21	Article 2, point 24
Article 2, point 22	Article 2, point 25
Article 2, point 23	Article 2, point 26
Article 2, point 24	Article 2, point 27
Article 2, point 25	Article 2, point 28
Article 2, point 26	-
Article 2, point 27	Article 2, point 29
Article 2, point 28	Article 2, point 30
Article 2, point 29	Article 2, point 31
Article 2, point 30	Article 2, point 32
Article 2, point 31	Article 2, point 33
Article 2, point 32	Article 2, point 34
Article 2, point 33	Article 2, point 35
Article 2, point 34	Article 2, point 36
Article 2, point 35	Article 2, point 37
Article 2, point 36	Article 2, point 38
Article 2, point 37	Article 2, point 39
Article 2, point 38	Article 2, point 40
Article 2, point 39	Article 2, point 41
Article 2, point 40	-
Article 2, point 41	Article 2, point 42
Article 2, point 42	Article 2, point 43
Article 2, point 43	Article 2, point 44
-	Article 2, point 45
Article 2, points 44 and 45	Article 2, points 46 and 47
-	Article 2, points 48, 49 and 50
-	Article 3

-	Article 4(1)
Article 3(1), first subparagraph	Article 4(2), first subparagraph
Article 3(1), second subparagraph, introductory wording	Article 4(2), second subparagraph, introductory wording
Article 3(1), second subparagraph, points (a) and (b)	Article 4(2), second subparagraph, points (a) and (b)
Article 3(1), second subparagraph, point (c)	-
Article 3(1), second subparagraph, point (d)	Article 4(2), second subparagraph, point (c)
Article 3(1), third subparagraph, introductory wording	-
-	Article 4(2), second subparagraph, point (d), introductory wording
-	Article 4(2), second subparagraph, points (d)(i), (ii) and (iii)
Article 3(1), third subparagraph, point (a)	Article 4(2), second subparagraph, point (d)(iv)
-	Article 4(2), second subparagraph, point (e), introductory wording
Article 3(1), third subparagraph, point (b)	Article 4(2), second subparagraph, point (e)(i)
Article 3(1), third subparagraph, point (c)	Article 4(2), second subparagraph, point (e)(ii)
Article 3(1), third subparagraph, point (d)	Article 4(2), second subparagraph, point (e)(iii)
Article 3(1), third subparagraph, point (e)	-
Article 3(2) and (3)	-
Article 3(4)	Article 33(6)
Article 3(5) and (6)	-
-	Article 4(3)
-	Article 4(4)
-	Article 5
Article 5(1), first subparagraph	Article 6(1), first subparagraph

Article 5(1), second subparagraph	-
Article 5(1), third subparagraph	Article 6(1), second subparagraph
Article 5(1), fourth and fifth subparagraph	-
Article 5(2) and (3)	-
Article 5(4)	Article 6(2)
Article 5(5)	Article 6(3)
Article 5(6) and (7)	-
Article 6(1), first subparagraph	Article 7(1), first subparagraph
Article 6(1), second subparagraph	-
-	Article 7(1), second subparagraph
Article 6(1), third subparagraph	-
Article 6(2), (3) and (4)	Article 7(2), (3) and (4)
-	Article 7(5) and (6)
-	Article 7(7), second subparagraph
Article 7(1), introductory wording, point (a) and (b)	Article 8(1), introductory wording, point (a) and (b)
-	Article 8(1), point (c)
Article 7(1), second subparagraph	Article 8(5)
Article 7(1), third subparagraph	Article 8(1), second subparagraph
Article 7(1), fourth subparagraph	Article 8(1), third subparagraph
-	Article 8(2), (3) and (4)
Article 7(2)	Article 8(6)
Article 7(3)	Article 8(7)
Article 7(4)	Article 8(8)
Article 7(5)	Article 8(9)
Article 7(6)	Article 8(10)
Article 7(7)	-

Article 7(8)	-
Article 7(9)	-
Article 7(10)	-
Article 7(11)	-
	Article 8(11), (12) and (13)
Article 7(12)	Article 8(14)
Article 7a (1), (2) and (3)	Article 9(1), (2) and (3)
-	Article 9(4), (5) and (6)
Article 7a (4) and (5)	Article 9(7) and (8)
-	Article 9(9)
Article 7a (6) and (7)	Article 9(10) and (11)
Article 7b (1) and (2)	Article 10(1) and (2)
-	Article 10(3) and (4)
-	Article 11(1) and (2)
Article 8(1) and (2)	Article 11(3) and (4)
Article 8(3) and (4)	-
-	Article 11(5)
Article 8(5)	Article 11(6)
-	Article 11(7)
Article 8(6)	Artice 11(8)
Article 8(7)	Article 11(9)
-	Article 11(10)
Article 9	Article 12
Article 9a	Article 13
Article 9b	Article 14
Article 9c	Article 15
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Article 10a	Article 17
Article 11	Article 18
Article 11a	Article 19
-	Article 20
-	Article 21(1)
Article 12(1)	Article 21(2)
Article 12(2), introductory wording and point (a), subpoints (i) to (v)	Article 21(2), second subparagraph, subpoints (i) to (v)
	Article 21(2), second subparagraph, subpoint (vi)
Article 12(2), point (b)	Article 21(2), third subparagraph
-	Article 21(2), third subparagraph, point (i)
Article 12(2), point (b), subpoints (i) and (ii)	Article 21(2), third subparagraph, points (ii) and (iii)
-	Article 21(2), third subparagraph, point (iv)
-	Article 21(4)
-	Article 21(5), third and fourth subparagraphs
-	Article 22
Article 13	Article 30
Article 14(1) and (2)	-
-	Article 23(1) and (2)
Article 14(3)	Article 23(3), first subparagraph
-	Article 23(3), second subparagraph
Article 14(4)	Article 23(4)
-	Article 23(5) and (6)
-	Article 24(1), (2) and (3)
Article 14(5), introductory wording and point (a)	Article 24(4), introductory wording and point (a)
Article 14(5), points (b), (c) and (d)	-

-	Article 24(4), points (b), (c) and (d) and second subparagraph
Article 14(5), second and third subparagraphs	Article 24(4), third and fourth subparagraphs
Article 14(6), point (a)	Article 24(5), point (a)
Article 14(6), point (b)	-
Article 14(6), point (c)	Article 24(5), point (b)
-	Article 24(5), point (c)
Article 14(6), second and third subparagraphs	Article 24(5), second and third subparagraphs
Article 14(7), (8) and (9)	Article 24(6), (7) and (8)
-	Article 24(9)
Article 14(10) and (11)	Article 24(10) and (11)
Article 15(1), first subparagraph	Article 25(1)
Article 15(1), second and third subparagraphs	-
-	Article 25(2), (3) and (4)
Article 15(1), fourth subparagraph	Article 25(5)
Article 15(2) and (2a)	-
Article 15(3), (4) and (5), first subparagraph	Article 25(6), (7) and (8)
Article 15(5), second suparagraph	-
Article 15(6), first subparagraph	-
Article 15(6), second subparagraph	Article 25(9)
Article 15(7)	Article 25(10)
Article 15(9), first subparagraph	Article 25(11)
Article 15(9), second subparagraph	-
Article 16(1) and (2)	-
-	Article 26(1) and (2)
Article 16(3)	Article 26(3)
-	Article 26(4)

Article 17(1), first subparagraph	-
Article 17(1), second subparagraph	Article 28(3)
Article 17(2)	Article 21(3)
Article 17(3)	-
Article 17(4)	-
Article 17(5)	Article 21(6)
Article 18(1), introductory wording	Article 27(1), introductory wording
Article 18(1), point (a), subpoints (i) and (ii)	Article 27(1), points (a) and (b)
-	Article 27(1), points (c) and (d)
Article 18(1), point (b)	Article 27(2)
Article 18(1), point (c)	Article 27(3)
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Article 18(1), point (d), subpoints (i) and (ii)	Article 27(5), points (a) and (b)
-	Article 27(5), point (c)
Article 18(2), points (a) and (b)	Article 27(6), points (a) and (b)
Article 18(2), point (c) and (d)	-
-	Article 27(6), point (c)
-	Article 27(7)
Article 18(3)	Article 27(8)
Article 19(1), point (a)	Article 21(5), first subparagraph
Article 19(1), point (b)	Article 7(7), first subparagraph
Article 19(1), second subparagraph	Article 21(5), second subparagraph
Article 19(2)	-
Article 20(1) and (2)	Article 28(1) and (2)
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Article 20(3), (3a), (3b) and (3c)	Article 28(4), (5), (6) and (7)
Article 20(3d)	Article 28(8), first subparagraph

-	Article 28(8), second subparagraph
Article 20(4), (5), (6) and (7)	Article 28(9), (10), (11) and (12)
Article 21	Article 29(1)
-	Article 29(2), (3), (4), (5), (6) and (7)
Article 22(1) and (2)	Article 31(1) and (2)
-	Article 31(3)
Article 23	Article 32
Article 24(4a), (5) and (6)	Article 33(1), (2) and (3)
Article 24(7), (8), (9), (10), (12)	-
Article 24(13) and (14)	Article 33(4) and (5)
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Article 24(15), point (a)	-
Article 24(15), point (b)	Article 33(7), point (a)
	Article 33(7), point (b), (c), (d), (e) and (f)
Article 24(15), second subparagraph	Article 33(7), second subparagraph
Article 25	-
Article 26	Article 34
Article 27, first subparagraph	Article 36, first subparagraph
Article 27, second subparagraph	-
Article 27, third subparagraph	Article 36, second subparagraph
Article 27(2) and (3)	-
Article 28(1), first subparagraph	Article 35(1), first subparagraph
Article 28(1), second subparagraph	-
Article 28(1), third and fourth subparagraphs	Article 35(1), second and third subparagraphs
Article 28(2)	Article 35(2)
Article 29	Article 37
Article 30	Article 38

-	Annex I
Annex I	Annex II
Annex II	Annex III
Annex III	Annex IV
Annex IV	-
Annex V	Annex V
Annex VI	Annex VI
Annex VII	Annex VII
Annex VIIa	Annex VIII
Annex VIII	Annex IX
Annex IX	Annex X
Annex X	Annex XI
Annex XI	Annex XII
Annex XII	Annex XIII
Annex XIII	Annex XIV
Annex XV	-
-	Annex XV
-	Annex XVI