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Proposal for a

DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

on energy efficiency (recast)

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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 EU'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 made a proposal for a European Climate Law, and with the 2030 Climate Target Plan[3], the Commission proposed to raise the EU's ambition on reducing greenhouse gas emissions to at least 55% below 1990 levels by 2030. This 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[4] to put forward a comprehensive plan to increase the European Union's target for 2030 towards 55% in a responsible way. It 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 needs to be raised in a manner that will spur sustainable economic growth, create jobs, deliver health and environmental benefits for EU citizens, and contribute to the long-term global competitiveness of the EU 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.

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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.

Projections indicate that, if current policies are fully implemented, greenhouse gas emissions reductions 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 EU economy cannot be achieved[7]. The Energy Efficiency Directive to capture the cost-effective energy saving opportunities has led to the EU's current energy efficiency policy. 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 EU 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 exceptional circumstances, 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 and 29.7% for primary energy consumption 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 IA 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. 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 EU energy policy and should be taken into account across all

[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] Reference to SWD (**to be completed**)

sectors, going beyond the energy system, at all levels, and also 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.

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 EU 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. Europe's Digital Strategy[9] 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 total EU final energy consumption. [10] Overall, the EU-share of public procurement contracts attributed to central government bodies is estimated to be approximately 16%. At Member State level this varies between 5% and 86% [11] . Public buildings are estimated to use around 2% of EU 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.[12] Heating and cooling consumes half of EU 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. [13] Heating and cooling, therefore, plays a crucial role in the EU'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 [14] . Energy losses in energy transformation, transmission and distribution can be significant[15]. The absence of common methodologies and reporting, make it difficult to compare networks or operators or benchmark performance. In fact, there is no uniform EU definition of energy losses, which results in sub-optimal data quality, which needs to be addressed.

The household sector makes up around a quarter of all EU final energy consumption. 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

[9] 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).

[10] **EED IA SWD (Add reference), cf. section 2.2.2.**

[11] 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).

[12] **EED IA SWD (Add reference), cf. Annex H.**

[13] **EED IA SWD (Add reference), cf. section 2.2.2.**

[14] An EU Strategy on Heating and Cooling (COM/2016/051 final)

[15] See for example; 2nd CEER Report on Power Losses; Council of European Energy Regulators; 2020

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.[16]

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 we are to create a social Europe that caters for the needs of all its citizens. 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 unemployment. Also medium-income households might be at risk of facing energy poverty in the near future. 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. [17] As required by the European Green Deal, the Energy Efficiency Directive together with the other initiatives under the `Fit for 55 Package´ 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 [18] (Energy Performance of Buildings Directive (EBPD)), products (Directive 2009/125/EC, Regulation (EU) 2017/1369 and Regulation (EU) 2020/740[19]) and Governance Regulation (EU) 2018/1999. These policies play a very important role in delivering energy savings when products are replaced or buildings constructed or renovated[20]. The Proposal is consistent with the proposal for revision of the Renewable Energy Directive[21].[22]

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16 **EED IA SWD (Add reference), cf. section 2.2.2.**

17 **EED IA SWD (Add reference), cf. section 2.2.2 and Annex L.**

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

19 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.

20 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.

21 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.

22 **EED IA SWD (Add reference), cf.** Annex M**.**

This Energy Efficiency Directive Recast proposal 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 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 consumers 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 5and] 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.

The details for the reporting on various provisions of the Energy Efficiency Directive are set in the Governance Regulation (Regulation (EU) 2018/1999[23]). Under this Regulation, each Member State is required to establish a 10-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 the modalities 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 and might require subsequent amendment of the Governance Regulation to ensure coherence between the two legal acts. New provisions, mainly related to setting national contributions, gap filling mechanisms and reporting obligations, should be transferred and streamlined with the Governance Regulation, once it is

[23] OJ L 328, 21.12.2018, p. 1–77

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, Ecodesign Directive, Energy and Tyre Labelling Regulations.[24] 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 EU 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 '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 (ESR), Land use, Land Use Change and Forestry policies (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 EU policies.[25]

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 EU level (e.g. stricter national building codes and programmes promoting higher classes of appliances). Pricing

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[24] **EED IA SWD (Add reference), cf.** Annex M.
[25] **EED IA SWD (Add reference), cf.** Annex M

measures such as the EU ETS[26] and the Energy Taxation Directive[27] 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 relief European citizens from dependencies from fossil fuels and increasing energy costs, some action can lead to distributional effects. The extension of the EU ETS on the buildings and transport sectors, for example, will result in increasing energy prices, and may have social impacts, especially on vulnerable households, or people affected by energy poverty. The `Fit for 55 Package´ however proposes mitigating measures. Support measures, for example, promoting energy efficiency, such as the strengthening of the energy savings obligation and strong energy efficiency measures to empower and protect vulnerable customers, people affected by energy poverty, and, where applicable, people living in social housing, will help to mitigate these effects.

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[28]. 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 savings obligations 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 Energy Efficiency Directive will incentives the uptake of energy efficiency measures in the transport sector.

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(c). As the Treaty contains a specific energy legal basis, it is appropriate to use it.

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[26] 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.

[27] 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.

[28] 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

- **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 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.[29]

EU 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, EU 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 EU targets, thus *de facto* formally recognising the essential role of EU 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 EU 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, EU 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.

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[29] **EED IA SWD (Add reference), cf. in particular section 2.**

A coordinated approach at EU level can create trust, reliability and continuity, increasing the likelihood of different actors investing and getting involved. Policies at EU 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.

Coordinated action at the EU level, furthermore, enables fuller 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. The EU's energy and climate targets for 2030 are collective targets. In this regard, coordinated EU policies have a better chance of transforming the EU 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 EU level. A coordinated and harmonised approach at the EU level will enable and enhance Member States´ actions, and ensure the four freedoms. A common EU 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 EU level will allow consumers to enjoy the same basic rights and to receive comparable and recognisable information across the EU. A common EU 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 EU 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 EU measures. Policies adopted at EU 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 EU single market acts as a strong driver for cost-efficiency in achieving GHG emission reductions.

A common EU 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 EU 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 EU-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 EU 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 EU-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 EU 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 or occupied by all public bodies on the territory of a Member State. This measure shall ensure that Member States continue to lead 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 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 to achieve 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 consumers, people affected by energy poverty and, where applicable, people living in social housing. A harmonised approach will 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 EU-wide impacts of economic and health crisis show that a harmonised approach is also required to empower and protect vulnerable consumers 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 consumers, 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[30] 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 EU ambition in line with the increased climate target of at least

30 **EED IA SWD (Add reference)**

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 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 considers the Energy Efficiency Directive´s aim to address distributional impacts from a possible extension of the ETS. 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 EU 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 Interinstitutional Agreement on better law-making[31]. 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 XVII to the recast Directive.

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

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

- **Ex-post evaluation of existing legislation[32]**

The Energy Efficiency Directive remains relevant in delivering increased energy efficiency in EU 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[33], 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 COVID19 crisis, a large share of this energy efficiency and energy saving potential would remain unexploited, largely 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 consumers 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 EU thanks to its targets (notably Article 4 and Article 6) and binding measures (notably Article 8 on energy savings obligations), even though the progress in achieving the EU 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 EU as a whole, and the Governance Regulation provides for further EU measures if the targets are not met, the indicative nature of the target does not support its achievement. Article 8 remains an effective measure responsible for generating energy savings mostly in the buildings sector. Obligations for public sector (Articles 6 and 7) 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

[32] **SWD (Impact Assessment) –reference to be added.**

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

promoting the use of energy audits across the EU. However, important 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 Articles 22 and 23 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 according to Article 23 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 27). 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 EU in a cost-effective manner. Several provisions subject to `conditionalities´ (e.g. in Articles 6, 7, 12-19, 23) 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 8 (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 objectives in the context of the initiatives under the European Green Deal.

In terms of EU added value, EU intervention was key to achieve energy efficiency improvements across the EU. 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 EU 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 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 EU'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.

- **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 Directive (EU) 2012/27/EU as amended by Directive (EU) 2018/2002 on energy efficiency.

- **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[34] 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 EU 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, 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

[34] SWD (reference as soon as available)

substantial social benefits from reductions in 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[35] 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 simply 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.

Ensuring that 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.

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**

[35] SWD (reference as soon as available)

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 a 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 of Articles 4, 5, 6 and 8 is proposed in Article 33 of this recast Directive.

- **Explanatory documents (for directives)**

The purpose of the new article on the Energy Efficiency First principle is to ensure that the principle is applied where relevant and properly monitored. 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 EU 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 EU 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 targets remain indicative given strong opposition of the majority of Member States towards binding national targets and to be in line with other binding requirements in form of sub-targets and energy savings obligation. However, 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 or occupied 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 5bis 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 5 and 8. However, 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 consumers, 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 their policy mixes have no adverse effects on vulnerable consumers, people affected by energy poverty and, where applicable, people living in social housing. Article 8 requires Member States to achieve a share of the total amount of required end-use energy savings among vulnerable consumers, 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 consumers, people affected by energy poverty and, where applicable, people living in social housing. Annex VI excludes the accountability of energy saving from policy measures promoting 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 "data centre sustainability indicator".

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 requires Member States to define a concept of vulnerable final users in addition to the concept of vulnerable customers pursuant to Article 28 and 29 of the Electricity Directive. For the purpose of this Directive, the two concepts together are defined as vulnerable consumers. Article 19ter introduces an obligation for Member States to implement energy efficiency improvement measures as a priority among vulnerable consumers, 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 measures under the extension of the EU Emissions Trading System to buildings and road transport, and to foster the roll-out of enabling funding and financial tools. Article 19ter 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, waste or industrial residues.

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 three 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[36],

Having regard to the opinion of the Committee of the Regions[37],

Acting in accordance with the ordinary legislative procedure,

Whereas:

↓ new

(1) Directive 2012/27/EU of the European Parliament and of the Council [38] has been substantially amended several times[39]. 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

[36] OJ C […], […], p. […].
[37] OJ C […], […], p. […].
[38] 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).
[39] See Annex XV, Part A.

↓ 2012/27/EU recital 2 (adapted)

decreasing energy imports. It helps to reduce greenhouse gas emissions in a cost-effective way and thereby to mitigate climate change. Shifting to a more energy-efficient economy should also accelerate the spread of innovative technological solutions and improve the competitiveness of industry in the Union, boosting economic growth and creating high quality jobs in several sectors related to energy efficiency.

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~~ Conclusi~~on~~s ~~of the~~ European Council ~~of~~ 4 February ~~201~~1 acknowledged that ~~the~~ Union ~~energy efficiency target is not~~ ~~on~~ track a~~nd~~ that determined acti~~on~~ is required to tap the ~~considerable potential for higher energy savings in buildings, transport, products and processes. Those conclusion~~s also provi~~de~~ that t~~he~~ implementati~~on~~ ~~of the~~ Uni~~on~~ energy ~~efficiency targe~~t will be reviewed by 2013 and furth~~er~~ measur~~es~~ considered if necessary.

↓ 2012/27/EU recital 8 (adapted)

~~On 8 March 2011~~, t~~he~~ Commissi~~on~~ adopted its Communicati~~on~~ ~~on~~ an Energy Efficiency Plan ~~2011~~. T~~he~~ Communicati~~on~~ confirmed that t~~he~~ Uni~~on~~ is ~~not~~ ~~on~~ track to achi~~eve~~ its energy ~~efficiency targe~~t. Th~~is~~ ~~is~~ desp~~ite~~ the progress ~~in~~ national energy efficiency policies outlined in ~~the first National Energy Efficiency Action Plans submitted by Member States i~~n fulfilment ~~of~~ t~~he~~ requirements ~~of~~ Directi~~ve~~ 2006/32/EC ~~of~~ t~~he~~ European Parliame~~nt~~ a~~nd~~ ~~of~~ t~~he~~ Council ~~of~~ 5 April ~~200~~6 ~~on~~ energy end-use efficiency and energy services[40]. Initial analysi~~s~~ of the ~~secon~~d Acti~~on~~ Pla~~ns~~ confirms that t~~he~~ Uni~~on~~ is ~~not~~ ~~on~~ trac~~k~~. To remedy that, the Energy ~~Efficiency Plan 201~~1 spelled ~~ou~~t a series ~~of~~ ener~~g~~y efficiency policies a~~nd~~ measures covering ~~the~~ full energy chai~~n~~, includi~~n~~g energy generati~~on~~, transmissi~~on~~ a~~nd~~ distributi~~on~~; t~~he~~ leading ~~role of~~ t~~he~~ public sect~~or~~ in energy efficiency; buildings a~~nd~~ appliances; industry; a~~nd~~ t~~he~~ need ~~to empower final customers to manage their energy consumption~~. Energy efficiency in the ~~transport secto~~r was considered in parallel in t~~he~~ White Paper ~~on~~ Transport, adopted ~~on~~ 28 ~~March 2011~~. In particular, Initiati~~ve~~ ~~2~~6 ~~of~~ t~~he~~ White Paper calls f~~or~~ appropriate standar~~ds~~ for ~~CO_2 emission~~s ~~of~~ vehicles in all modes, where necessary supplemented ~~by~~ requirements on ~~energy efficiency to address all types of propulsio~~n systems.

↓ 2012/27/EU recital 9 (adapted)

~~On 8 March 2011~~, t~~he~~ Commissi~~on~~ also adopted a Roadmap f~~or~~ movi~~ng~~ to a competiti~~ve~~ low ~~carbo~~n economy in 2050, identifying t~~he~~ need from this perspecti~~ve~~ f~~or~~ more foc~~us~~ ~~on~~ energy ~~efficiency.~~

↓ 2012/27/EU recital 10 (adapted)

~~In this context it is necessary to update th~~e Union's legal framework for energy efficiency ~~with a Directiv~~e pursui~~ng~~ the overall objecti~~ve~~ ~~of~~ t~~he~~ energy efficiency target ~~of~~ savi~~ng~~ ~~2~~0 % ~~of~~ t~~he~~ Union's primary energy consumpti~~on~~ by ~~2020~~, a~~nd~~ ~~of~~ maki~~ng~~ further energy efficiency ~~improvements after 2020~~. To that e~~nd~~, this Directi~~ve~~ should establish a commo~~n~~ framework ~~to promote energy efficiency within th~~e Uni~~on~~ a~~nd~~ lay down specific acti~~on~~s to implement ~~some~~ ~~of~~ t~~he~~ proposals included in t~~he~~ Energy Efficiency Plan ~~201~~1 a~~nd~~ achi~~eve~~ t~~he~~ significant ~~unrealised energy saving potential~~s ~~it~~ identifies.

↓ 2012/27/EU recital 11 (adapted)

~~Decisio~~n No 406/2009/EC ~~of~~ t~~he~~ European Parliame~~nt~~ a~~nd~~ ~~of~~ t~~he~~ Council ~~of~~ ~~2~~3 April ~~200~~9 on ~~the effort of Membe~~r State~~s~~ to redu~~e~~ their greenhouse ga~~s~~ emissions to m~~ee~~t the

[40] ~~OJ L~~ 11~~4~~, 27.4.200~~6~~, p. 64.

↓ 2012/27/EU recital 12 (adapted)

Community's greenhouse gas emission reduction commitments up to 2020 [41] 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 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.

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[42] and Directive 2006/32/EC should be strengthened.

⇩ new

(2) With the 2030 Climate Target Plan[43], the Commission proposed to raise the EU's ambition on reducing greenhouse gas emissions to at least 55% below 1990 levels by 2030. This 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[44] to put forward a comprehensive plan to increase the European Union's target for 2030 towards 55% in a responsible way. It 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.

(3) 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.[45] The European Council concluded that climate ambition needs to be raised in a manner that will spur sustainable economic growth, create jobs, deliver health and environmental benefits for EU citizens, and contribute to the long-term global competitiveness of the EU economy by promoting innovation in green technologies.

(4) To implement this, the European Commission 2021 Work Programme 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

[41] OJ L 140, 5.6.2009, p. 136.

[42] OJ L 52, 21.2.2004, p. 50.

[43] 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.

[44] 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.

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

including energy efficiency, renewables, land use, energy taxation, effort sharing and emissions trading.

(5) Projections indicate that, if current policies are fully implemented, greenhouse gas emissions reductions 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.

(6) The need to capture the cost-effective energy saving opportunities has led to the EU's current energy efficiency policy. In December 2018, Directive 2012/27/EU was amended as part of the 'Clean Energy for All Europeans package', in particular to include a new headline 2030 EU energy efficiency target of at least 32.5% (compared to projected energy use in 2030).

(7) Energy efficiency is a key area of action, without which the full decarbonisation of the EU economy cannot be achieved [46] . According to the impact assessment accompanying this Directive, energy efficiency improvements will need to be significantly raised from the current ambition level of 32.5%. The sum of national contributions communicated by Member States in the national energy climate plans 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. 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 the EU 27. This gap also affects the level of efforts needed to reach the higher ambition of energy efficiency targets.

(8) 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 EU building stock has a poor energy performance. Another increasingly important sector is the information and communications technology (ICT) sector, which is responsible for 5 to 9% of the world's total electricity use and more than 2% of all emissions. In this context, the Europe's Digital Strategy [47] highlighted the need for highly energy-efficient and sustainable data centres and transparency measures for telecoms operators on their environmental footprint.

(9) 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. Improving energy efficiency throughout the full energy chain, including energy generation, transmission, distribution and end-use, will benefit the environment,

[46] 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.

[47] 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).

↓ 2018/2002 recital 1

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[48] (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.

~~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[49] (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

(10) ⊠ This ⊠ Directive ~~2012/27/EU of the~~ European Parliament and of the Council of ~~25~~ October ~~2012~~ on energy efficiency is an element to progress towards ~~the Energy Union~~ ⇨ 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, and also 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. ⇨ While the principle should be applied without prejudice to other legal obligations, objectives and principles, these should also not hamper or exempt from applying the principle. ⇦ The Commission should ensure that energy efficiency and demand-side response can compete on equal terms with

[48] OJ L 282, 19.10.2016, p. 4.

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

[50] ~~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).

🡻 2018/2002 recital 3
⇨ new

generation capacity. ~~Energy efficiency need~~s to ~~b~~e considered whenever decisions ~~relating t~~o planning the energy system or ~~t~~o financing are taken. Energy efficiency improvements need to be made whenever they are more cost-effective than equivalent supply-side solutions. 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 considered as a priority in alleviating energy poverty. ⇦

(11) Energy efficiency should be recognised as a crucial element and a priority consideration in future investment decisions on the Union's energy infrastructure.

⇩ new

⇨ The principle should be applied taking primarily the system efficiency approach and societal perspective. Consequently, it should help increase the efficiency of individual end-user 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[51]. ⇦

(12) The energy efficiency first principle has been defined in the Regulation (EU) 2018/1999[52] and is at the core of the Energy System Integration Strategy[53]. While the principle is based on cost-effectiveness, its application has wider implications which can vary depending on the circumstances. The Commission has prepared dedicated guidelines to help operationalise and apply the principle, by proposing specific tools and examples of application in various sectors. The Commission has also issued a recommendation to Member States that builds on the requirements of this Directive and calls for specific actions in relation to the application of the principle.

(13) 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 - large-scale investments with a value of more than EUR 50 million each or EUR 75 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.

(14) 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

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[51] OJ L 198, 22.6.2020, p. 13–43

[52] 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.

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

transition. As required by Regulation (EU) 2018/1999 and Directive (EU) 2019/944[54], the Commission provided indicative guidance on appropriate indicators for measuring energy poverty and on the definition of a ‘significant number of households in energy poverty’. [55] Directive (EU) 2019/944 requires Member States to take appropriate measures to address energy poverty wherever it is identified, including measures addressing the broader context of poverty. Directive 2009/73/EC contains similar provisions.

(15) Low and medium income households, vulnerable customers and final users, people facing or risking to face 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 these individuals and households or to alleviate energy poverty. A holistic approach in policy making and in implementing policies and measures requires Member States to ensure that other policies and measures have no adverse effect on these individuals and households.

⬇ 2018/2002 recital 4 (adapted)
⇨ new

(16) 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 [56]), products (Directive 2009/125/EC, Regulation (EU) 2017/1369 and Regulation (EU) 2020/740[57]) and governance mechanism (Regulation (EU) 2018/1999). These policies play a very important role in delivering energy savings when products are replaced or buildings constructed or renovated[58].

(17) Reaching an ambitious energy efficiency target requires barriers to be removed in order to facilitate investment in energy efficiency measures ⇨ , enable energy efficient behaviour and address market and information failures ⇦ . 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,

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[54] Article 29 of 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)

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

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

[57] 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

[58] 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.

↓ 2018/2002 recital 5 (adapted)

⇩ new

(18) 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 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.~~

(19) It is projected that the 32.5% EU energy efficiency target for 2030 and the other policy instruments of the existing framework would allow GHG emissions to be reduced by about 45% by 2030.[59] For an increased climate ambition of a 55% 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 should decrease by at least 36-37% and 38-39% respectively.

(20) The Union's energy efficiency target was initially set and continued to be 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 (i.e. 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 this updated baseline, the Union will need to further increase its energy efficiency ambition by at least [xx-xx]% in 2030 compared to the level of efforts under the 2020 Reference Scenario.

(21) The new way of expressing the level of ambition for the Union's targets does not affect the actual level of efforts needed. The definition of final and primary energy consumption differs from the Eurostat methodology, as the indicators used for the purpose of this Directive exclude ambient heat and include energy consumption in international aviation for the target in final energy. The use of new indicators also implies that any changes in energy consumption of blast furnaces are now only reflected in primary energy consumption.

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

↓ 2018/2002 recital 6 (adapted)

(22) The need for the Union to ~~achieve~~ ⇨ improve ⇦ its energy efficiency ~~targets at Ulevel,~~ ⇨ should be ⇦ expressed in primary and/~~or~~ final energy consumption, ~~should be~~

~~clearly set out i~~n the form of a target of at least 32,5 % ~~for 2030~~. Projecti~~on~~s ma~~de~~ in 2007 ~~showed a primary energy consumptio~~n in ~~2030 of 188~~7 Mt~~oe~~ a~~nd~~ a final energy consumption ~~of 141~~6 Mtoe. A ~~32,~~5 % reducti~~on~~ results in 1273 Mt~~oe~~ a ⇨ new t~~oe~~ in ~~203~~0 respectively. ~~That target, which is o~~f t~~he~~ same nature as t~~he~~ Union's ~~202~~0 target, should ~~be~~ assessed by the ~~Commissio~~n ~~for~~ t~~he~~ purpose ~~of~~ revisi~~ng~~ it upward~~s~~ by ~~202~~3 in the case of substanti~~al~~ cost ~~reductions~~ or, where needed, to meet t~~he~~ Union's international commitments for ~~decarl~~ ⇨ to be achieved in 2030, indicating additional level of efforts compared to the measures in place or planned in the national energy and climate plans. The 2020 Reference Scenario projects [xx] Mtoe of final energy consumption and [xx] Mtoe of primary energy consumption to be reached in 2030 (excluding ambient heat and including international aviation). An additional reduction of [xx] % results in [xx] Mtoe and [xx] Mtoe in 2030 respectively. Compared to 2005 levels, it means that final energy consumption in the Union should be reduced by [xx] % and primary and energy consumption should be reduced by some [xx] %. ⇦ There are no binding targets at Member State level in the 2020 a~~nd~~ 2030 perspective~~s~~, and ⇨ Member States should establish their contribution to t~~he~~ achievement of the Union's energy efficiency target taking into account the formula provided in this Directive. ⇦ t~~he~~ freed~~o~~m 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.

⇨ Member States' contributions to the Union's target should be expressed in final a~~nd~~/or primary energy consumption to ensure consistency and monitoring of progress. ⇦ ~~Member States should set their national indicative~~ energy efficiency contributi~~on~~s taki~~ng~~ into account ~~that t~~he Union's ~~203~~0 energy consumption has to ~~be no~~ more than 1273 Mt~~oe of~~ primary ~~energy and/or no~~ more than 9~~5~~6 Mtoe of final energy. This mea~~ns~~ that primary energy ~~consumptio~~n in t~~he~~ Uni~~on~~ should ~~be~~ reduced [↓ 2012/27/EU recital 13 ⇨ new ~~n~~d final energy consumpti~~on~~ should the achievement of the Union's 2030 targets is necessary and is provided for in Regulation (EU) 2018/1999 of the European Parliament and of the Council[60].

(23) 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 ⇦ . These ⇨ policies and measures ⇦ ~~targets~~ and the individual

[60] 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) (~~see~~ page 1 of th~~is~~ Official Journal).

↓ 2012/27/EU recital 14 (adapted)

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.~~

~~Directive~~ 2009/28/EC ~~of the~~ European Parliament ~~and of the~~ Council ~~of 2~~3 April ~~2009~~ ~~on~~ the ~~promotion of the~~ use ~~of~~ energy ~~from~~ renewable sources[61] states that Cyprus ~~and~~ Malta, ~~due~~ to ~~their insular and~~ peripheral character, rely ~~on~~ aviation as a ~~mode of~~ transport, which is ~~essential for~~ their citizens ~~and~~ their economy. As a result, Cyprus ~~and~~ Malta ~~have~~ a gross final ~~consumption~~ of energy in national air transport which is disproportionately high, i.e. more ~~than three times the~~ Community average in 200~~5~~, ~~and~~ are ~~thus~~ disproportionately affected by ~~the~~ current technological ~~and~~ regulatory constraints.

↓ 2012/27/EU recital 15
⇨ new

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

↓ 2012/27/EU recital 16 (adapted)

~~Bearing in mind~~ that ~~the~~ Council conclusions ~~of~~ ~~1~~0 ~~June~~ 20~~1~~1 ~~on~~ the Energy Efficiency Plan 20~~1~~1 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 202~~0 ~~for~~ mobilising investment in the renovation ~~of~~ residential and

[61] ~~OJ L 140~~, 5.6.2009, ~~p~~. 16.

⇩ new

~~commercial buildings with a view to improvin~~g t~~h~~e energy performance ~~o~~f th~~e~~ buildi~~n~~g stock. ~~That strategy should address cost-effective~~ deep renovati~~o~~ns which lead to a refurbishment th~~a~~t reduc~~e~~es both th~~e~~ delivered a~~n~~d th~~e~~ final energ~~y~~ consumpti~~o~~n ~~o~~f a buildi~~n~~g by a significant ~~percentage compared with th~~e pre-renovation levels leading to a very high energy ~~performance. Such deep renovation~~s could also b~~e~~ carried o~~u~~t in stages.

(25) [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 needed at EU level. To comply with the final energy consumption target of [xx%], the EU will have to decrease its final energy consumption by [xx%] 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 [xx%] would 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.]

(26) [To fulfil the obligation, Member States should address 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 [62] . 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.]

(27) [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.]

(28) [Public authorities should obtain support from entities such as sustainable energy agencies, where applicable established at regional or local level. The organisation of those agencies should reflect the individual needs of public authorities in a certain region or acting in a certain area of the public sector. Centralised agencies may 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 could serve as one-stop-shops as required by Article 21. These agencies could be 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

[62] 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 094 28.3.2014, p. 65.

public authorities in the implementation of energy related policies. Sustainable energy agencies or other entities to assist regional and local authorities should 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 and other existing initiatives for this purpose. The decarbonisation plans should be linked to territorial development plans and take account the comprehensive assessment prepared under Article 23.]

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

(29) [Member States should support the agencies by capacity building. For this 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.]

(30) ~~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 are, alongside industry, the main energy users and source of emissions. [63] Buildings are responsible for about 40% of the EU's total energy consumption and for 36% of its greenhouse gas emissions from energy. [64] The Renovation Wave [65] addresses the twin challenge of energy 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 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 this is cost-effective in the framework of the renovation of their buildings stock in line with their Long Term Renovation Strategies or national renovation programmes. ⇦ This 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 1~~9 May ~~on the~~ energy ~~performance~~ of buildings [66] . ⇨ 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

[63] 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.

[64] See IRP, Resource Efficiency and Climate Change, 2020, and UN Environment Emissions Gap Report 2019.

[65] COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives COM/2020/662 final.

[66] 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).

⇩ new

commitments for decarbonisation. ⇦ 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 nearly zero-energy buildings ⇦ . ~~It should be possible for Member States to take alternative cost-efficient measures to achieve an equivalent improvement of the energy performance of the buildings within their central government estate. The obligation to renovate floor area of central government buildings should apply to the administrative departments whose competence extends over the whole territory 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.~~

(31) To set the rate, Member States need to have an overview of the buildings that do not reach the nearly-zero energy buildings level. The obligation to publish and keep updated an inventory of public buildings can be fulfilled as part of an overall database of energy performance certificates. These lists enable also private actors including energy service companies to propose renovation solutions and they can be aggregated by the EU Building Stock Observatory.

⇩ 2012/27/EU recital 18
⇨ new

(32) ⇨ In 2020, more than half of the world's population lives in urban areas. This is expected to reach 80% by 2050. Cities and metropolitan areas are centres of economic activity, knowledge generation, innovation and new technologies. Cities influence the quality of life of 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. Member States should encourage municipalities and other public bodies to adopt integrated and sustainable energy efficiency plans with clear objectives, to involve citizens in their development and implementation and to adequately inform them about their content and progress in achieving objectives. Such plans can yield considerable energy savings, especially if they are implemented by energy management systems that allow the public bodies concerned to better manage their energy consumption. Exchange of experience between cities, towns and other public bodies should be encouraged with respect to the more innovative experiences.

⇩ new

(33) Horizon Europe framework programme includes a mission on climate-neutral and smart cities. It aims at supporting, promoting and showcasing 100 European cities in their systemic transformation towards climate neutrality by 2030 and turning these cities into innovation hubs for all cities, benefiting quality of life and sustainability in Europe. Energy efficiency is expected to be a key component of the proposed

↓ 2012/27/EU recital 19 ⇨ new

decarbonisation pathways. Member States should play an active role in ensuring the success of the mission by working with cities to lift regulatory and other barriers, providing cities incentives and support and facilitating the exchange and replication of the results to the other cities and towns.

(34) With regard to the purchase of certain products and services and the purchase and rent of buildings, ~~central governments~~ ⇨ public bodies ⇦ which conclude public works supply or service contracts should lead by example and make energy-efficient purchasing decisions. This should apply to the administrative departments whose competence extends over the whole territory 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. For products other than those covered by the energy efficiency requirements for purchasing in this Directive, Member States should encourage public bodies to take into account the energy efficiency of purchase.

⇩ new

(35) All public entities investing public resources through procurement should lead by example when awarding contracts and concessions by choosing products, buildings and services with the highest energy efficiency performance. In this context, all award procedures for public contracts and concessions with the value above the thresholds defined in Articles 6 and 7 of Directive 2014/23/EU, Article 2(1) of Directive 2014/24/EU, and Articles 3 and 4 of Directive 2014/25/EU, need to take into account the energy efficiency performance of the products, buildings and services set by EU or national law, by considering as priority the energy efficiency first principle in their procurement procedures.

(36) It is also important that Member States monitor how the energy efficiency requirements are taken into account by contracting authorities and contracting entities into procurement of products, buildings and services by ensuring that information of energy efficiency impacts of those wining tenders above the thresholds referred to in the procurement directives are made publically available. This will allow stakeholders and citizens to assess the role of public sector towards ensuring energy efficiency first in public procurement in a transparent manner.

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

(38) It is important that Member States provide the necessary support to public bodies in the uptake of energy efficiency requirements 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 could actively promote the use of digital tools and cooperation amongst public bodies to exchange best practice.

(39) Given that buildings are responsible for greenhouse gas emissions before and after their operational lifetime, it is recommended that Member States also consider the whole life-cycle of carbon emissions of buildings. This 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. Contracting authorities are important actors in this regard that can take action as part of procurement procedures by purchasing new buildings that address global warming potential over the full life-cycle.

(40) The global warming potential over the full life-cycle measures the greenhouse gas emissions associated with the building at different stages along the life cycle. It therefore measures the building's overall contribution to emissions that lead to climate change. This 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.

↓ 2012/27/EU recital 20 (adapted)

(41) 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 defined in the Level(s) common EU framework for indicator 1.2. Where a national calculation tool exists, or is required for making disclosures or for obtaining building permits, the respective tool may be used to provide the required disclosure. Other calculation tools may be used if they fulfil the minimum criteria laid down by the Level(s) common EU framework.

~~An assessment of the possibility of establishing a 'white~~ certificate' sche~~me~~ at Union level ~~has shown that, in the~~ curre~~n~~t situati~~on~~, such a system would create excessive administrative ~~costs a~~nd that there is a risk that energy savings would ~~b~~e concentrated in a number of ~~Member States a~~nd ~~no~~t introduced across t~~h~~e Uni~~on~~. T~~h~~e objecti~~v~~e ~~o~~f such a Union-level ~~scheme could be better~~ achieved, ~~a~~t least ~~a~~t this stag~~e~~, by means of national energy efficiency ~~obligation schemes for energy utilities or other alternative policy measures that achieve the same amoun~~t of energy savings. It is appropriate f~~o~~r t~~h~~e level of ambiti~~on~~ ~~o~~f such schemes to ~~b~~e established in a common framework at Union level wh~~il~~e providing significant flexibility ~~to Member States to take fully into accoun~~t t~~h~~e national organisati~~on~~ of market actors, the ~~specific context o~~f t~~h~~e energy sect~~o~~r a~~n~~d final customers' habits. T~~h~~e comm~~o~~n 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.

↓ 2012/27/EU recital 21 (adapted)

~~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 2~~5 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.

~~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 1~~3 October ~~200~~3 establishing a scheme for greenhouse gas emission ~~allowance trading within~~ the Community[67] 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.

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[67] ~~OJ L 275~~, 25.10.200~~3~~, ~~p~~. 32.

↓ 2018/2002 recital 7

↓ 2018/2002 recital 8

(42) 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.

(43) 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

(44) ~~In view of~~ ~~the~~ climate and energy framework ~~for~~ 2030, Tthe energy savings obligation established by ⊠ this ⊠ Directive ~~2012/27/EU~~ should ⇨ be increased ⇦ ~~be extended beyond~~ ⊠ 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

(45) 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[68].

[68] 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

↓ 2018/2002 recital 13 (adapted)
⇨ new

(46) Member States are required to achieve cumulative end-use energy savings for the entire obligation period ~~2021~~ [X] up [X] 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 [xx%] 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 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.~~

(47) ~~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 [X] only [X] for the period 2021 to 2030. ⇨ This individual savings rate should cease to apply as of 1 January 2024. ⇦

↓ 2018/2002 recital 14
⇨ new

(48) Where they use 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 distributors or retailers or only certain categories thereof are designated as obligated parties.

↓ 2018/2002 recital 15 (adapted)
⇨ new

↓ 2018/2002 recital 16 (adapted)

(49) 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 ⇨ , except direct fossil fuel combustion, ⇦ that reduce fuel use per kilometre are also capable of being eligible, subject to compliance with the rules on materiality and additionality set out in Annex VI to ~~Directive~~ 2012/27/EU as ~~amended~~ by this Directive. ~~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~~[69].

(50) Measures taken by Member States pursuant to Regulation (EU) 2018/842 of the European Parliament and of the Council [70] 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)

(51) 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.

↓ 2018/2002 recital 18 (adapted)
⇨ new

(52) ~~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 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 of and

[69] ~~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).~~

[70] 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 19

Annex VI~~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.

(53) 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

(54) 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 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

(55) 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. These 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 ENTSO-E and the EU DSO Entity may also provide useful contributions and should support their members in the uptake of energy efficiency measures. ⇦

⇩ new

🡻 2018/2002 recital 22
⇨ new

(56) 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. Also in these cases National Regulatory Authorities are best placed to monitor and steer the system evolution towards an increased efficiency, and entities such as ENTSOG may provide useful contributions and should support their members in the uptake of energy efficiency measures.

(57) 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

🡻 2018/2002 recital 23 (adapted)
⇨ new

⇨ and applied whenever cost-effective and the energy efficiency first principle should be considered. Conversely, advanced irrigation technologies could substantially reduce water consumption in agriculture and the energy used for treating and transporting it ⇦ .

In accordance with Article 9 ⌦ TFEU ⌫ ~~of the~~ Treaty ~~on the~~ Functioning ~~of the EUnion~~, the Union's energy efficiency policies should be inclusive and should therefore ensure accessibility to energy efficiency measures for consumers affected by energy poverty. Improvements to the 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. 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~~ ⌦ was ⌫ extended to alternative policy measures and Energy Efficiency National Funds. ~~and~~ ⌦ This ⌫ 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, including funding and financial facilities established at EU level. ⇦

⇩ new

🡻 2018/2002 recital 24
⇨ new

(58) This Directive refers to the concept of vulnerable customers, which Member States should establish pursuant to Directive (EU) 2019/944. In addition, Directive (EU) 2018/2002, amending Directive 2012/27/EU, introduced the notion of 'final users' alongside the notion of 'final customer' already used in the Directive to clarify 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 put forward in this Directive reach all individuals and households in a situation of vulnerability, when establishing their definition of vulnerable customers, Member States should include not only customers, stricto sensu, but also final users.

(59) Around ~~50~~ ⇨ 34 ⇦ million households in the Union ~~are affected by energy poverty~~ ⇨ were unable to keep their home adequately warm in 2019[71] ⇦ . ⇨ The European Green Deal prioritises the social dimension of the transition by committing to the principle that `no one is left behind´. ⇦ 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 adequate financial

🡻 2012/27/EU recital 24

⇨ 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.

(60) 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

71 COMMISSION RECOMMENDATION of 14.10.2020 on energy poverty, C(2020) 9600 final.

⇩ new

14000 (Environmental Management Systems) and thus be also in line with the provisions of Annex VII~~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.

(61) The criterion to define the application of energy management systems and of energy audits should be the enterprise's average consumption to increase the sensitivity of these 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 from these audits.

🡻 2012/27/EU recital 25

(62) 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

(63) Another important sector to which increasing attention is being paid is the information and communications technology (ICT) sector. In 2018, the ICT products consumed almost 260 TWh or ~10% of the EU27 electricity consumption; of which data centers alone accounted for approximately 45 TWh or 1,7% of the total EU27 electricity consumption . 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. This measure is concerning 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.

(64) The data centre sustainability indicator should be used to measure four basic dimension of a sustainable data centre, namely how efficiently it uses energy, how much of this energy comes from renewable energy sources, the reuse of any waste heat that it produces and the usage of freshwater. The data centre sustainability indicator 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 indicator should be optional for Member States.

↓ 2018/2002 recital 25

↓ 2018/2002 recital 26

(65) 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.

(66) 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. 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

(67) 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)

(68) 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

(69) 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)

(70) 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 [illegible] 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)

↓ 2018/2002 recital 32

(71) 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.~~

(72) 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)

(73) ~~By 2~~25 October 2020, ~~N~~newly 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

↓ 2018/2002 recital 35

(74) 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.

(75) 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[72], 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[73], ~~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

72 ~~OJ L 211~~, 14.8.2009, p. 55.
73 ~~OJ L 211~~, 14.8.2009, p. 94.

↓ 2012/27/EU recital 29 (adapted)

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.

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 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 34 (adapted)

(76) 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

(77) 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. These 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 if 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 20~~1~~0 ~~on~~ industrial emissions[74] and for

[74] 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).

↓ 2012/27/EU recital 36

authorisation under ~~Directive 2009/72/EC~~ Directive (EU) 2019/944 of the European Parliament and of the Council[75].

(78) 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 [76], 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.

↓ 2012/27/EU recital 37
⇨ new

(79) 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

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

(81) Requirements for efficient district heating and cooling should be consistent with long-term climate policy goals. For that reason, what constitutes an efficient district heating and cooling system should ensure the increase of primary energy efficiency and a progressive integration of renewable energy. This Directive thus introduces progressively stricter requirements for heating and cooling supply, applicable during specific time periods and ultimately applicable from 1 January 2050 onwards.

[75] Directive (EU) 2019/944 of the European Parliament and of the Council of 5 June 2019 on common rules for the internal market for electricity and amending Directive 2012/27/EU (OJ L 158, 14.6.2019, p. 125).

[76] 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 38 (adapted)

↓ 2012/27/EU recital 39 (adapted) ⇨ new

(82) High-efficiency cogeneration ~~should be~~ [X] has been [X] defined by the ~~energy~~ obtained by combined production instead of separate production of heat and electricity. ⇨ Requirements for the 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.

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

↓ 2012/27/EU recital 40

(84) 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

(85) 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 am~~o~~ng t~~h~~e criteria f~~o~~r determini~~n~~g t~~h~~e Best ~~Available Techniques that should serv~~e as a reference f~~o~~r setti~~n~~g t~~h~~e permit conditi~~o~~ns for ~~installations within~~ it~~s~~ scope, including combustion installations wi~~t~~h a total rated thermal ~~input~~ ~~o~~f ~~5~~0 MW ~~o~~r more. However, that Directi~~v~~e gives Member States t~~h~~e opti~~o~~n not to ~~impose requirements relating~~ to energy efficiency ~~o~~n combusti~~o~~n units ~~o~~r other un~~i~~ts emitting ~~carbo~~n dioxi~~d~~e ~~o~~n t~~h~~e site, f~~o~~r t~~h~~e activities listed in Annex I to Directi~~v~~e 2003/87/EC. ~~Member States could include~~ informati~~o~~n ~~o~~n energy efficiency levels in their reporti~~n~~g under ~~Directiv~~e 2010/75/EU.

↓ 2012/27/EU recital 43

↓ new

(87) Without prejudice to future possible revisions of Directive 2009/73/EC and of

(86) ember 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[77] ~~of 13~~ July ~~200~~9 ~~on~~ conditions for access to the network for cross-border exchanges in electricity[78] and Regulation (EC) No 715/2009 of the European Parliament and of the Council ~~of 13~~ July 2009 ~~on~~ conditi~~ons~~ ~~for~~ access to t~~he~~ natural gas transmission ~~networks~~ [79] . Producers of electricity generated from high-efficiency cogeneration should be allowed to issue a call for tender for the connection work. Access to the grid system for electricity produced from high-efficiency cogeneration, especially for small scale and micro-cogeneration units, should be facilitated. In accordance with Article 9~~3~~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.

Regulation (EC) No 715/2009, this Directive introduces provisions related to billing,

↓ new

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 for electricity in 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.

(88) This Directive recognises the positive contribution of renewable energy communities, according to Directive (EU) 2018/2001, and citizen energy communities, according to Directive (EU) 2019/944 towards the objectives of the European Green Deal and the 2030 Climate Target Plan. 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 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.

[77] 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).

[78] ~~OJ L 211~~, 14.8.200~~9~~, p. 15.

[79] 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).

↓ 2012/27/EU recital 44 (adapted)

(89) 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 measures if 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.

~~Deman~~d response is an important instrument for improving energy efficiency, since it ~~significantly increases the opportunities fo~~r consumers ~~o~~r third parties nominated by them to ~~tak~~e acti~~o~~n ~~o~~n consumpti~~o~~n a~~n~~d billi~~n~~g informati~~o~~n a~~n~~d t~~hu~~s provides a mechanism to reduce ~~o~~r shift consumpti~~o~~~~n~~, resulti~~n~~g in energy savings in both final consumpti~~o~~n a~~nd~~, through the ~~more optimal use o~~f networ~~k~~s a~~n~~d generati~~o~~n assets, in energy generati~~o~~~~n~~, transmissi~~o~~n and ~~distribution.~~

↓ 2012/27/EU recital 45
⇨ new

(90) ~~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 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. This 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. This requires a shift from the narrow economic efficiency perspective to maximised social welfare. The energy efficiency 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

(91) 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 training ⇦ schemes for the providers of energy services, energy audits and other energy efficiency improvement measures.

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

⇨ The schemes should be assessed every three 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. ⇦

(92) 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, a ~~contribute to this.~~ ⇨ and available ⇦ ~~M~~model 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

⇩ new

and increase trust to energy services providers ⇦ . ~~As in other forms of third-party financing arrangements,~~ ~~I~~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. ⇨ This can help attracting private capital which is key for increasing building renovation rates in the EU, bring expertise into the market and create innovative business models. The requirement for non-residential buildings with the useful floor area above 1000 m2 to assess the feasibility of using energy performance contracting for renovation is a step ahead to increase the trust in energy services companies and pave the way for increasing these projects in the future. ⇦

(93) Given the ambitious renovation objectives over the next decade in the context of the Renovation Wave Strategy, there is a need 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.

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

(95) Member States shall continue supporting the public sector in the uptake of energy performance contracting by providing model contracts that take into account the

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

available European standards, tendering guidelines and the updated Eurostat guidance of 2017 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.

⇨ Member States have taken action to identify and address the regulatory and non-regulatory barriers. However, ⇦ t~~T~~here is a need to ~~identify and~~ ⇨ increase 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

Member States used the National Energy Efficiency Action Plans (NEEAPs) of 2014 and 2017 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 need to continue working in this direction and tap the energy efficiency potential represented by the fact that more than 4 out of 10 Europeans live in flats and more than 3 out of 10 Europeans are tenants (Eurostat, 2016).

🡻 2012/27/EU recital 49

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

🡻 2012/27/EU recital 50

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; resources allocated to energy efficiency in the multiannual financial framework, in

↓ 2012/27/EU recital 51

particular cohesion, structural and rural development funds, and dedicated European financial instruments, such as the European Energy Efficiency Fund.

(50) 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[80].

↓ 2012/27/EU recital 52

(51) 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

(52) 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 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.

[80] 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).

↓ 2012/27/EU recital 54

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

↓ 2012/27/EU recital 55 (adapted)

In the implementation of the ~~20 %~~ energy efficiency target, the Commission will have to 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[81] ~~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~~[82], 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 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)~~[83] has been instrumental in creating an

[81] 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).

[82] ~~OJ L 1, 5.1.2010, p. 10.~~

[83] ~~OJ L 310~~, 9.11.2006, p. 15.

↓ 2012/27/EU recital 58 (adapted)

~~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.

~~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 ~~2~~1 October ~~2009~~ establishing a framework for the setting of ecodesign requirements for ~~energy-related~~ products[84] and Directive 2010/30/EU of the European Parliament and of the ~~Council of~~ ~~1~~9 May ~~201~~0 on the indication by labelling and standard product information of ~~the~~ consumption of energy and other resources by energy-related products [85] ~~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)

(36) Member State measures should be supported by well-designed and effective Union financial instruments, such as the European Structural and Investment Funds, the ~~European Fund~~ for Strategic Investments 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 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

(37) Cross–sectorial law provides a strong basis for consumer protection for a wide range of energy services that exist, 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.

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84 ~~OJ L 285~~, 31.10.20~~09~~, ~~p~~. 10.

85 ~~OJ L 153~~, 18.6.201~~0~~, p. 1.

↓ 2018/2002 recital 38 (adapted)
⇨ new

(37) 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 introduce speedy and effective complaint-handling procedures.

(38) 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~~

↓ 2018/2002 recital 39 (adapted)

[X] this [X] Directive and to submit a report to the European Parliament and to the Council by 28 February ⇨ 2027 ⇦ ~~2024~~ should be [X] laid down [X] ~~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.

(39) Local and regional authorities should be given a leading role in the development and design, execution and assessment of the measures laid down in [X] this [X] 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

(40) Reflecting technological progress and the growing share of renewable energy sources in the electricity generation sector, the default coefficient for savings in kWh electricity should be reviewed in order to reflect changes in the primary energy factor (PEF) for electricity. Calculations reflecting the energy mix of the PEF for electricity are based on annual average values. The 'physical energy content' accounting method is used for nuclear electricity and heat generation and the 'technical conversion efficiency' method is used for electricity and heat generation from fossil fuels and biomass. For non-combustible renewable energy, the method is the direct equivalent based on the 'total primary energy' approach. To calculate the primary energy share for electricity in cogeneration, the method set out in Annex II to 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 data.

↓ 2018/2002 recital 41

(1) 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)

(2) 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

(3) 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 promoting transport, services or products based on direct combustion of fossil fuel technologies cannot be counted. ⇦

⇩ new

(4) 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

↓ 2012/27/EU recital 60 (adapted)

practices, benchmarking, networking activities, as well as innovative practices by an online platform.

~~Sinc~~e the objective of this Directiv~~e~~, namely to achieve the Union's energy efficiency target ~~o~~f ~~2~~0 % by ~~202~~0 a~~n~~d pa~~v~~e t~~h~~e way towar~~d~~s further energy efficiency improvements beyond ~~2020~~, can~~no~~t ~~b~~e sufficiently achieved by t~~h~~e Member States wit~~hou~~t taki~~n~~g additional energy ~~effiecieny measures, and can be~~ better achieved at Uni~~o~~n level, t~~h~~e Uni~~o~~n may adopt ~~measures, in accordance with th~~e principle ~~o~~f subsidiarity as set ~~ou~~t in Article 5 of t~~h~~e Treaty ~~o~~n European Uni~~on~~. In accordance with t~~h~~e principle ~~o~~f proportionality, as set ~~ou~~t in that ~~Article, this Directiv~~e does ~~no~~t go bey~~on~~d what is necessary in order to achi~~ev~~e that objective.

↓ 2018/2002 recital 45 (adapted)

(5) 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 ~~beyon~~d those dates, 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)

(6) 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 t~~h~~e Treaty ~~o~~n t~~h~~e Functioni~~n~~g of t~~h~~e 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 i~~s of particular importance that the Commission carry out ~~appropriate consultation~~s during its preparatory wor~~k~~, including at expert level. The ~~Commission~~, when preparing a~~n~~d drawing ~~u~~p delegated acts, should ensure a ~~simultaneous, timely and appropriate transmissio~~n ~~o~~f relevan~~t~~ documents to the ~~European Parliamen~~t a~~n~~d t~~h~~e Council.

↓ 2018/2002 recital 37 (adapted)

(7) ~~In order to mak~~e it possible f~~o~~r t~~h~~e Annexes to Directi~~v~~e 2012/27/EU a~~n~~d the ~~harmonise~~d efficiency reference valu~~e~~s to be updated, it is necessary to extend the ~~delegatio~~n ~~o~~f powers granted to t~~h~~e 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

↓ 2012/27/EU recital 62

Law-Making [86] . 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.

(6) 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 1~~6 February 2011 laying down the rules and general ~~principles concerning mechanisms for~~ control by Member States ~~of the~~ Commission's ~~exercise of implementing powers~~[87].

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

⇩ new

(7) 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 the earlier Directive.

↓ 2012/27/EU recital 65 (adapted)

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

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[86] OJ L 123, 12.5.2016, p. 1.

[87] 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).

↓ 2012/27/EU recital 66 (adapted)

~~In accordanc~~e with the Joint Political Declaration of Member States and the Commission on ~~explanatory documents o~~f ~~2~~8 September 20~~11~~, Member States ha~~v~~e undertaken to ~~accompany, in justified cases, th~~e notificati~~o~~n of their transpositi~~o~~n measures with ~~o~~ne or ~~more documents explainin~~g t~~h~~e relationship between t~~h~~e components ~~o~~f a directi~~v~~e a~~n~~d the ~~corresponding parts o~~f national transpositi~~o~~n instruments. With regard to this Directive, the ~~legislato~~r considers t~~h~~e transmissi~~o~~n ~~o~~f such documents to ~~b~~e justified,

↓ 2012/27/EU

HAVE ADOPTED THIS DIRECTIVE:

CHAPTER I

SUBJECT MATTER, SCOPE, DEFINITIONS AND ENERGY EFFICIENCY TARGETS

Article 1

↓ 2018/2002 Art. 1.1 (adapted)
⇨ new

Subject matter and scope

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 ~~pave~~s the way for ⊠ enables ⊠ further ⇨ 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 ~~e~~stablishment of indicative national energy efficiency ~~targets and~~ contributions for ~~202~~0 and 2030.

This Directive contributes to the implementation of the energy efficiency first principle,

↓ 2012/27/EU

⇨ thus contributing to the European Union as an inclusive, fair and prosperous society with a modern, resource-efficient and competitive economy ⇦ .

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:

⇩ new

(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 2~~2 October ~~2008~~ ~~o~~n energy statistics[88];

(2) 'energy efficiency first' means taking utmost account in energy planning, and in policy and investment decisions, of alternative cost-efficient energy efficiency measures to make energy demand and energy supply more efficient, in particular by means of cost-effective end-use energy savings, demand response initiatives and more efficient conversion, transmission and distribution of energy, whilst still achieving the objectives of those decisions.

↓ 2012/27/EU
⇨ new

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

(~~4~~2) 'primary energy consumption' means gross inland consumption, excluding non-energy uses ⇨ and ambient heat ⇦ ;

(~~5~~3) 'final energy consumption' means all energy supplied to industry, transport ⇨ (including energy consumption in international aviation but excluding energy consumption in international maritime bunkers) ⇦ , households, services ⇨ public sector ⇦ and agriculture. It excludes deliveries to the energy transformation sector and the energy industries themselves ⇨ . It excludes ambient heat ⇦ ;

(~~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;

[88] 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).

(97) '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;

(108) 'public bodies' means 'contracting authorities' as defined in Directive 2014/24/EU~~2004/18/EC~~ of the European Parliament and of the Council [89] ~~of 31 March 2004~~ on the coordination of procedures for the award of public works contracts, public supply contracts and public service contracts[90];

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

⇩ new

(1110) '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;

(12) 'contracting authorities' means contracting authorities as defined in Directive 2014/23/EU, Directive 2014/24/EU and Directive 2014/25/EU;

🡻 2012/27/EU (adapted)
⇨ new

(13) 'contracting entities' means contracting entities as defined in Directive 2014/23/EU, Directive 2014/24/EU and Directive 2014/25/EU;

(1411) 'energy management system' means a set of interrelated or interacting elements of a plan which sets an energy efficiency objective and a strategy to achieve that objective ⇨ , including monitoring of actual energy consumption, actions taken to increase energy efficiency and measurement of progress ⇦ ;

(1512) '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;

(1613) 'international standard' means a standard adopted by the International Standardisation Organisation and made available to the public;

(1714) '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 87;

[89] 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).
[90] ~~OJ L 134~~, 30.4.2004, p. 114.

(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 Directive (EU) 2019/944~~2009/72/EC~~ and Directive 2009/73/EC ⇨ , ~~f~~electricity and 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 ~~fr~~ ⇦ cost-effective energy savings ~~opportunities,~~ ⇨ identifying the potential for cost-effective use or production of renewable energy ⇦ and reporting the findings;

(29~~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[91]; 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;

(30~~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;

(31~~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 ⇦ ;

(32~~29~~) ‘transmission system operator’ means ‘transmission system operator’ as defined in Directive (EU) 2019/944~~2009/72/EC~~ and Directive 2009/73/EC ⇨ , ~~in~~ electricity and gas, ⇦ respectively;

(33~~30~~) ‘cogeneration’ means the simultaneous generation in one process of thermal energy and electrical or mechanical energy;

(34~~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;

(35~~32~~) ‘useful heat’ means heat produced in a cogeneration process to satisfy economically justifiable demand for heating or cooling;

36~~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 III;

(37~~34~~) ‘high-efficiency cogeneration’ means cogeneration meeting the criteria laid down in Annex III~~II~~;

(38~~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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[91] Commission Recommendation of 6 May 2003 concerning the definition of micro, small and medium-sized enterprises (OJ L 124, 20.5.2003, p. 36).

(39~~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;

(40~~37~~) ‘cogeneration unit’ means a unit that is able to operate in cogeneration mode;

(41~~38~~) ‘small-scale cogeneration unit’ means a cogeneration unit with installed capacity below 1 MW_e;

(42~~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;~~

(43~~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 ⇦ ;

(44~~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;

⇩ new

(45~~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;

(46) ‘data centre’ means a structure, or group of structures, dedicated to the 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

(47~~44~~) ‘substantial refurbishment’ means a refurbishment whose cost exceeds 50 % of the investment cost for a new comparable unit;

(4845) 'aggregator' means ~~a demand service provider that combines multiple short-duration consumer loads for sale or auction in organised energy markets~~

⇩ new

⇨ 'independent aggregator' as defined in Directive (EU) 2019/944 ⇦ .

(49) '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.

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

Article 3

Energy Efficiency First Principle

1. In line with the energy efficiency first principle, Member States shall ensure that energy efficiency solutions are considered:

a. in energy system related planning, policy and major investment decisions, and

b. in relevant planning, policy and major investment decisions in non-energy sectors, when having 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. When 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 line with Article 17 of Regulation (EU) 2018/1999 on how the principle was taken into account in the national and regional energy system related planning, policy and major investment decisions.

↓ 2012/27/EU

Article 43

↓ new

Energy efficiency targets

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

↓ 2012/27/EU (adapted)
⇨ new

2. Each Member State shall set ~~an indicative~~ national energy efficiency ~~target, based on either primary or~~ ⇨ contributions for ⇦ final ~~energy consumption,~~ ✕ and/or ~~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 and 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 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 and ⇦ explain how, and on the basis of which data, ~~this has~~ ⇨ the contributions have ⇦ been calculated. Member States shall also provide the shares of energy consumption of energy end-use sectors, including industry, residential, services, information and communications technology (ICT) and transport, in their national energy efficiency contributions.

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

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

(a) that the Union's ⇨ 2030 ⇦ ~~2020~~ energy consumption has to be no

↓ 2012/27/EU (adapted)

more than ~~1483~~ ⇨ [xx] Mtoe of final energy or no more than [xx] ⇦ Mtoe of primary energy ~~or no more than 1086 Mtoe of final energy~~ ⇨ consumption ⇦;

(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

(cd) other measures to promote energy efficiency within Member States and at Union level;.

⇩ new

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

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

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

ii. equitable distribution of efforts across the Union;

iii. energy intensity of economy;

↓ 2012/27/EU

(iva) remaining cost-effective energy-saving potential;

⇩ new

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

↓ 2012/27/EU (adapted)
⇨ new

(ib) GDP evolution and forecast;

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

(iiid) development of all sources of renewable energies, nuclear energy, carbon capture and storage.; and

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

(c) early action.

2. By 30 June 2014, the Commission shall assess progress achieved and whether the Union is likely to achieve energy consumption of no more than 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 report~~e~~d by Member ~~States;~~

~~(b) assess whethe~~r the sum of those targets ~~ca~~n be considere~~d~~ a reliable guide to ~~whether th~~e Unio~~n~~ as a whole is ~~o~~n track~~,~~ takin~~g~~ into acco~~unt~~ t~~he~~ evaluatio~~n~~ ~~o~~f the ~~first annual report in accordance with Article 24(1), an~~d t~~he~~ evaluatio~~n~~ ~~o~~f the ~~National~~ Energy Efficiency Action Plans in accordan~~ee~~ with Article 24(2);

~~(c)~~ tak~~e~~ into acc~~ount~~ complementary analysis arisi~~ng~~ 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 ~~Chapte~~r III of this Directive;

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

(ii) results from modelling exercises in relation to future trends in energy ~~consumptio~~n at Unio~~n~~ level;

~~(d) compare the results under points (a) to (c) with th~~e quantity ~~o~~f energy ~~consumptio~~n that would ~~b~~e needed to achie~~v~~e energy consumptio~~n~~ ~~o~~f ~~n~~o more than ~~148~~3 Mt~~oe~~ ~~o~~f primary energy and/~~o~~r ~~n~~o more than ~~1086~~ Mtoe ~~o~~f 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[92]~~. 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.~~

[92] ~~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).~~

⇩ new

3. Where the Commission concludes, based on 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 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, such as:

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

b. increasing energy savings obligation set in Article 8;

c. adjusting the obligation for public sector;

d. making a voluntary financial contribution to the National Energy Efficiency Fund as referred to in Article 25 or other financing instrument dedicated to energy efficiency, where the annual financial contributions shall equal to the investments required to reach the indicative trajectory.

Where a Member State is above its indicative trajectory referred to in paragraph 2, it shall include in its integrated national energy and climate 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 if these national measures are sufficient to achieve the Union's energy efficiency targets. In the case of insufficient national measures, the Commission shall, as appropriate, propose measures and exercise its power at Union level in addition to those recommendations in order to ensure, in particular, the achievement of the Union's 2030 targets for energy efficiency.

🡻 2018/2002 Art. 1.2

4. The Commission shall assess by 31 December 2026 any methodological changes in the data reported under Regulation (EC) No 109/2008 on energy statistics, in the methodology for calculating energy balance and in energy models for European energy use and, if needed, propose technical calculation adjustments to the Union’s 2030 targets with a view to maintaining the level of ambition set in paragraph 1.

~~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 [xx %] each year, compared to the year N-2.

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 this obligation, 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, after consulting stakeholders and the public, specific energy efficiency measures in their decarbonisation plans.

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.

↓ 2012/27/EU (adapted)
⇨ new

5. Member States shall encourage that public bodies consider life time carbon emissions of their public bodies' investment and policy activities.]

Article ~~6~~5

Exemplary role of public bodies' buildings

1 ithout prejudice to Article 7 of Directive 2010/31/EU, 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 ⇨ or ⇦ 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.

~~The 3 % rate shall be calculated on the total floor area of buildings with a total useful floor area over 500 m² owned and occupied by the central government of the Member State concerned that, on 1 January of each year, do not meet the national minimum energy performance requirements set in application of Article 4 of Directive 2010/31/EU. That threshold shall be lowered to 250 m² 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 with a total useful floor area ~~over 500~~ m² ~~and~~, as of 9 July 2015, over 250 m² owned ~~and~~ ⇨ or ⇦ occupied by ~~central government and by these administrative departments~~ ⇨ public bodies ⇦ 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~~ ⇨ 2024, are not nearly zero-energy buildings ⇦ .

~~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.~~

<u>2</u>4. Member States may count towards the annual renovation rate of ~~central government~~ buildings new buildings occupied ~~and~~ ⇨ or ⇦ 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~~.

~~3~~For the purposes of ⇨ this Article ⇦ ~~paragraph 1~~, ~~by 3~~1 December 2013, M~~m~~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~~ ~~50~~0 m^2 a~~nd~~, as of ~~9 July 2015,~~ 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 g~~data ⇨ pursuant to 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 p~~P~~urchasing ~~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 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 line with the requirements referred to in Annex IV to this Directive .

⇩ new

~~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 4 of Directive 2004/18/EC.~~

Member States shall ensure that contracting authorities and contracting entities, when concluding public contracts and concessions with a value equal to or greater than the thresholds referred to in paragraph 1 of this Article, apply the energy efficiency first principle in line with Article 3 of this Directive, including for those public contracts and concessions for which specific requirements are not provided in Annex IV to this Directive.

↓ 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 1~~3 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[93].

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[1] 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.

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[93] 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).

⇩ new

4 Without prejudice to paragraph 1, when purchasing a product package covered as a whole by a delegated act adopted under Regulation (EU) 2017/1369 of the European Parliament and of the Council[94] 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.

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 objectives. Where appropriate, and in line with the requirements laid down in Annex IV, Member States shall consider requiring contracting authorities and contracting entities to take into account EU green public procurement criteria.

To ensure transparency on how energy efficiency requirements have been considered in the procurement, Member States shall make publically available information on the energy efficiency impacts of the contracts with a value equal to or greater than the thresholds referred to in paragraph 1 of this Article. 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 information publically available for the contracts, in particular for new buildings 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 levels, by providing clear rules and guidelines including methodologies on the assessment of lifecycle costs and environment impacts and costs, putting in place competence support centres, encouraging cooperation amongst public bodies and using aggregated procurement and digital procurement where possible.

🡻 2012/27/EU (adapted)
⇨ new

6 legal and regulatory provisions, and administrative practices, regarding public purchasing and annual budgeting and accounting, with a view to ensuring 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.

6.(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.

94 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).

⇩ new

Member States shall report to the Commission on measures taken to address the barriers to uptake of energy efficiency improvements under this Article as part of the integrated national energy and climate progress reports in line with 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;

⇩ new

(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 equivalent to 0,24 % of annual final energy consumption, averaged over the most recent three-year period prior to 1 January 2019.

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

↓ 2018/2002 Art. 1.3 (adapted)
⇨ new

Member States shall decide how to phase the calculated quantity of new savings over each period referred to in points (a), (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.~~

⇩ new

(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~~7a~~ or by adopting alternative policy measures referred to in Article 10~~7b~~. Member States may combine an energy efficiency obligation scheme with alternative policy measures. Member States shall ensure that energy savings resulting from policy measures referred to in Articles 9~~7a~~ and 10~~7b~~ and Article 28(11)~~20(6)~~ are calculated in accordance with Annex VI.

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 contributing to the implementation of 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, which 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 according to paragraph 3 of this Article in their integrated national energy and climate plans and progress reports in accordance with Regulation (EU) 2018/1999.

↓ 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 a given obligation period shall not count towards the amount of required energy savings for the previous obligation period. ⇦

6 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 4.

7 Where Member States make use ⇦ of any ⇦ of the possibilities provided for in ~~point~~ (a), (b) or (c) of paragraph 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. Subject to paragraph 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 Articles 23(4), point (b) of Article 2414(4), and Article 251(1) to (10). 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 VIV 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 ⇨ in 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 ⇨ in 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 9a and 107b, notified by Member States in their National Energy Efficiency Action Plans and reported in their progress reports in accordance with Article 24.

95. Member States shall apply and calculate the effect of the options chosen under paragraph 4 for the periods 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 4. All the options chosen under paragraph 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 4, provided individual actions referred to in point (d) of paragraph 4 continue to have a verifiable and measurable impact after 31 December 2020. All the options chosen under paragraph 4 taken together shall not lead to a reduction of more than 35 % of the amount of energy savings calculated in accordance with paragraphs 2 and 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 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.

⇩ new

10~~6~~. Member States shall describe in their integrated national energy and climate plans, in accordance with Annex III to Regulation (EU) 2018/1999, 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 4 of this Article were applied.

(11) Member States shall notify to the Commission the amount of the required energy savings referred to in point (c) of the first subparagraph of paragraph 1 of this Article and paragraph of [4] 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 VI 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.

🡻 2018/2002 Art. 1.3

(12) Where on the basis of the assessment of the integrated national energy and climate progress reports pursuant to Article 21 of Regulation (EU) 2018/1999, or the draft 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 final integrated national energy and climate plans pursuant to Article 3 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 to the Member States whose policy measures it deems insufficient to ensure the fulfilment of their energy savings obligations.

~~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. If a Member State has not achieved the required cumulative end-use energy savings by the end of each obligation period according to 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

~~8. By way of derogation from paragraph 1 of this~~ ⇨ new ~~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).~~

~~9. Member States shall ensure that savings resulting from policy measures referred to in Articles 7a and 8 7b and Article 20(6) are calculated in accordance with Annex V.~~

~~10. 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 7a or by adopting alternative policy measures referred to in Article 8 7b. Member States may combine an energy efficiency obligation scheme with alternative policy measures.~~

~~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.~~

14~~12~~. ⇨ As part of their national energy and climate plans and progress reports 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 point (b) and (c) of the first subparagraph of paragraph 1 contribute to the achievement of their national contribution pursuant to Article 4.

🡻 2018/2002 Art. 1.4
⇨ new

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

Article 9~~7a~~

Energy efficiency obligation schemes

1. Where Member States decide to fulfil their obligations to achieve the amount of savings required under Article 8~~7~~(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 8~~7~~(9~~4~~) and (10~~5~~), their cumulative end-use energy savings requirement as set out in Article 8~~7~~(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 8~~7~~(1) or, if Member States so decide, through certified savings stemming from other parties as described in point (a) of paragraph 10~~6~~ of this Article.

⇩ new

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.

(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. Member States may also require obligated parties to achieve energy savings by individual actions, including financial support measures, to allow

SMEs and micro-SMEs compensating carbon price effects by carrying out energy efficiency improvements,

(5) Member States may require obligated parties to work with local authorities or municipalities to target individual actions among people affected by energy poverty, vulnerable customers and, where applicable, people living in social housing. 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 line with national financing and support schemes, or energy audits.

↓ 2018/2002 Art. 1.4
⇨ new

(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 its final customers (identifying changes in energy savings to previously submitted information) and regarding technical and financial support provided.

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. The conversion factors set out in Annex VIIV shall apply.

⇩ new

85. Member States shall put in place measurement, control and verification systems under which documented verification is carried out on at least a statistically significant proportion and representative sample of the energy efficiency improvement measures put in place by the obligated parties. The measurement, control and verification shall be carried out independently of the obligated parties. ⇨ If an entity is an obligated party under a national energy efficiency obligation scheme under this Article and under the extension of the EU Emissions Trading System to buildings and road transport [Reference to proposal], the monitoring and verification system shall ensure that the carbon price passed through when releasing fuel for consumption [according to Article XX of Directive XX] shall be taken into account when calculating and reporting the energy savings of its energy saving measures. ⇦

(9) Member States shall inform the Commission, as part of the integrated national energy and climate progress reports in line with 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

106. Within the energy efficiency obligation scheme, Member States may 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 87(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.

117. 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 107b

Alternative policy measures

1. Where Member States decide to fulfil their obligations to achieve the savings required under Article 87(1) by way of alternative policy measures, they shall ensure, without prejudice to Article 87(94) and (105), that the energy savings required under Article 87(1) are achieved among final customers.

⇩ new

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 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.

3. Member States shall inform the Commission, as part of the integrated national energy and climate progress reports in line with Article 17 of Regulation (EU) 2018/1999, on the measurement, control and verification systems put in place, including but not limited to methods used, problems 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. In case of a decrease in the tax rate, Member States shall justify how the taxation measures still generate new energy savings.

↓ 2012/27/EU (adapted)

Article <u>11</u>~~8~~

⇩ new

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

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 must be carried out in an independent and cost-effective manner by qualified or accredited experts in line with requirements under Article 23 or implemented and supervised by independent authorities under national legislation. Energy audits shall be carried out no more than four years from the date of the previous energy audit.

↓ 2012/27/EU
⇨ new

The results of the energy audits including the recommendations from these audits must 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, if applicable.

<u>3</u>~~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 <u>VII</u>~~VI~~. ⇨ Member States shall ensure that there are quality checks 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 paragraph 2 of this Article ⇦ 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.~~

⇩ new

~~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.~~

~~5.~~ Member States shall develop programmes to encourage non-SMEs that are not subject to paragraph 1 or paragraph 2 of this Article 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 of Annex XV.

↓ 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 International Standards - shall be exempted from the requirements of ~~paragraph 4~~ ⇨ paragraphs 1 and 2 ⇦ , provided that the [X] environmental [X] management system concerned includes an energy audit on the basis of the minimum criteria based on Annex VII~~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.

⇩ new

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.

10. Without prejudice to paragraphs 1 to 9 of this Article, Member States shall require, by [15 March 2024] and every year thereafter, owners and operators of each data centre in their territory with a significant energy consumption to make publicly available the information set out in point 2 of Annex VII, which Member States shall subsequently report to the Commission.

↓ 2012/27/EU

↓ 2019/944 Art. 70.1(a)

Article 12~~9~~

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;

↓ 2019/944 Art. 70.1(c)

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

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;

↓ 2018/2002 Art. 1.6 (adapted)

(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.

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~~, [X] newly installed [X] 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

↓ 2012/27/EU

evices by 1 January 2027, save where the Member State in question shows that this is not cost-efficient.

↓ 2019/944 Art. 70.2(a)

Article 16~~10~~

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 VIII~~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 VIII~~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;

↓ 2018/2002 Art. 1.8 (adapted)

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

Article 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 IX~~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 IX~~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.

↓ 2018/2002 Art. 1.9

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.

↓ 2019/944 Art. 70.3

Article 18~~11~~

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.

⇩ new

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.

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 [95] and Council Directive 93/13/EEC [96], Member States shall ensure that final customers and, where explicitly referred to, final users have 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;

[95] 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)

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

(h) information relating to consumer rights, including information on complaint handling and all of the information referred to in this paragraph, that 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.

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[97] .

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. Customers shall be protected against unfair or misleading selling methods. 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.

↓ 2012/27/EU (adapted)

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.

Article 21~~12~~

~~Consumer~~ Iinformation and ~~empowering programme~~ ⊠ awareness raising ⊠

[97] 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.

⇩ new

↓ 2012/27/EU (adapted)
⇨ 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 consumers, consumer organisations, 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 Directive 2010/31/EU.

2~~1~~. Member States shall take appropriate measures to promote and facilitate an efficient use of energy by ⇨ households and ⇦ small ~~energy~~ ⇨ non-household ⇦ ~~end~~ 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 ~~a~~ 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, grants or subsidies;

(iii) information provision;

(iv) exemplary projects;

⇩ new

(v) workplace activities;

(vi) training activities;

↓ 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 and financial advice and assistance on energy efficiency, including

🡻 2012/27/EU
⇨ new

energy renovations of buildings and the take-up of renewable energy for buildings to energy customers and final users, especially household and small non-household ones;

(ii) communication of:

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

(iii~~ii~~) ⇨ dissemination of ⇦ information on energy efficiency measures

⇩ new

⇨ and financing instruments ⇦ ~~;~~.

(iv) provision of single points of contact, to provide customers 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 energy consumers

⇩ new

⇨ , including vulnerable customers, people affected by energy poverty and, where applicable, people living in social housing, ⇦ on energy efficiency.

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 ombudsman or a consumer body, or through a regulatory authority. Where the final customer is a consumer within the meaning of Directive 2013/11/EU, 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.

↓ 2012/27/EU (adapted)
⇨ new

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.

~~Article~~ 19

~~Other~~ measures to promote energy efficiency

⇨ 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~~ [X] owners [X] and ~~the tenant~~ [X] ~~a~~ [X] ~~o~~f a building or among owners [X] of a building or building unit [X], 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 [X] such [X] barriers may include providing incentives, ~~d~~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 [X] to market actors such as those referred in paragraph 1 [X].

⇩ new

~~2~~. T~~h~~e evaluati~~o~~n ~~o~~f barriers a~~n~~d measures referred to in paragra~~p~~h 1 shall ~~b~~e notified to ~~the Commission i~~n the first National Energy Efficiency Action Plan referred ~~t~~o ~~i~~n Article ~~24(2). Th~~e Commissi~~o~~n shall encoura~~g~~e ~~th~~e shari~~n~~g ~~o~~f national best practices in this regard.

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 as defined in 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 costumers 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.

   To define the concept of vulnerable customers pursuant to Articles 28(1) and 29 of Directive (EU) 2019/944, Member States shall include final users, namely 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 and have no direct or individual contract with the energy supplier.

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 paragraph 3 of Article 8, 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 9 of this Directive, or measures under the extension of the EU Emissions Trading System to buildings and road transport [Reference to proposal];

   b. where applicable, consider the investment of revenues from the auctioning of ETS allowances into energy efficiency improvement measures as priority actions, or make best possible use of public funding at national and EU level [Fund];

   c. where applicable, implement forward-looking mitigating energy efficiency improvement measures or carry out early 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. 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 may use the same network of experts to, amongst others,

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

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

↓ 2012/27/EU (adapted)

c. 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.

~~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 effieiency, 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~~

⇩ new

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

1. As part of their integrated national energy and climate plans in accordance with Regulation (EU) 2018/1999, each Member State shall notify to the Commission a comprehensive heating and cooling assessment. The comprehensive assessment shall contain

↓ 2012/27/EU (adapted)

the information set out in Annex X and should be accompanied with the assessment pursuant to Article 15(7) of Directive (EU) 2018/2001.

~~1~~. By ~~3~~1 December 201~~5~~, Member States shall carry ~~out~~ a~~n~~d notify to t~~h~~e Commissi~~o~~n a ~~comprehensive~~ assessme~~n~~t ~~of~~ t~~h~~e potential f~~o~~r t~~h~~e applicati~~o~~n ~~of~~ high-efficiency cogeneration ~~and efficient district heatin~~g a~~n~~d cooling, containi~~n~~g the informati~~o~~n set out in Annex VIII. If ~~they have already carried out an equivalent assessmen~~t, they sha~~l~~l notify ~~i~~t ~~t~~o the Commission.

~~Th~~e comprehensi~~ve~~ assessme~~n~~t shall take full acc~~o~~unt ~~of~~ t~~h~~e analysis ~~of~~ t~~h~~e national ~~potentia~~ls for high-efficiency cogenerati~~o~~n carried ~~ou~~t under Directi~~ve~~ 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.~~

⇩ new

~~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.~~

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)
⇨ new

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 ~~a~~ climatic 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~~[98].

⊠ 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. ⊠

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

[98] 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).

take adequate measures for efficient district heating and cooling infrastructure to be developed and/or to accommodate the development of high-efficiency cogeneration and the use of heating and cooling from waste heat and renewable energy sources in accordance with ~~paragraphs 1, 5, and 7~~ ⇨ paragraph 1 and Article 24(4) and (6) ⇦ .

⇩ new

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.

5. Member States shall adopt policies and measures, which ensure that the potential identified in the comprehensive assessments carried out in line with paragraph 1. These policies and measures shall include at least the elements set out in Annex X. Each Member State shall notify these policies and measures as part of their integrated national energy and climate plans and progress reports 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 with total population higher than 50.000. These plans should at least:

(a) be based on the information and data provided in the comprehensive assessments carried out in line with paragraph 1 provide 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 strategy how to utilize the potential identified in line with 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 when a district heating and cooling system with total energy output exceeding 5 MW is built or substantially refurbished it meets the criteria of paragraph 1 applicable at such time when it starts or continues its operation after the refurbishment.

↓ 2012/27/EU (adapted)
⇨ new

3. Member States shall ensure that every five years after 1 January 2025 a plan to increase primary energy efficiency and renewable energy is prepared by the operators of all existing district heating and cooling systems with total energy output exceeding 5 MW and which do not meet the criteria set out in paragraph 1(b) to (e) of this Article. 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.

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

~~(~~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;

~~(c) 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;~~

~~(d) 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;~~

⇩ new

~~(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.~~

(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 [2] MW level, in order 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.

🡻 2012/27/EU
⇨ new

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

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;~~

⇩ new

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

(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 5.

Member States shall notify exemptions adopted under this paragraph to the Commission ~~by~~ 31 December 2013 ~~and any subsequent changes to them thereafter~~.

67. Member States shall adopt authorisation criteria as referred to in Article 87 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 13;

(b) ensure that the requirements of paragraph 45 are fulfilled; ~~and~~

(c) take into account the outcome of cost-benefit analysis referred to in paragraph 45.

78. Member States may exempt individual installations from being required, by the authorisation and permit criteria referred to in paragraph 67, 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 ~~so~~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 upon ~~i~~s receipt. ⇦

89. Paragraphs 45, ~~5~~6, 67 and 78 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 performed cost-benefit analyses carried out in line with paragraph 4 points (a), (b), (c) and (d) of this Article. This 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. This data shall be published while respecting the potential sensitivity of this information.

↓ 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 XII~~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 29~~23~~ of this Directive, the harmonised efficiency reference values laid down in Commission Implementing Decision 2011/877/EU[99] Commission Delegated Regulation (EU) 2015/2402[100] ~~o~~n t~~h~~e basis ~~o~~f Directi~~v~~e 2004/8/EC by ~~3~~1 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)

[99] ~~OJ L 343~~, 23.12.20~~11~~, p. 91.

[100] 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).

2019/944~~2009/72/EC~~ and 2009/73/EC regarding their decisions on the operation of the gas and electricity infrastructure ⇨ , include 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.~~

⇩ new

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

2 Member States shall ensure that gas and electricity transmission and distribution network 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 should 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 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 network operators map network losses and take cost-effective measures to reduce network losses. Transmission and distribution network 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 network operators to recover avoidable network losses from tariffs paid by consumers. Member States shall ensure that transmission and distribution 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 network 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 produced pursuant Article 59(l) of Directive (EU) 2019/944 related to the electricity sector 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 network operators, and, if 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 XIII~~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 J~~une ~~2015~~, that:

~~(a)~~ an assessment is undertaken ~~o~~f t~~h~~e energy efficiency potentials ~~o~~f their gas and ~~electricity infrastructure, i~~n particular regarding transmission, distribution, load ~~management~~ a~~n~~d interoperability, a~~n~~d connecti~~o~~n to energy generati~~n~~g installations, ~~includin~~g access possibilities for micro energy generators;

↓ 2018/2002 Art. 1.11

~~(b) concrete measures an~~d investments are identified f~~o~~r t~~h~~e introduction of ~~cost-effective energy efficiency improvement~~s ~~i~~n the network infrastructure, w~~i~~th a ~~timetabl~~e for the~~i~~r introduction.

~~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

6~~3~~. Member States may permit components of schemes and tariff structures with a social aim for net-bound energy transmission and distribution, provided that any disruptive effects on the transmission and distribution system are kept to the minimum necessary and are not disproportionate to the social aim.

↓ 2019/944 Art. 70.5(a)

7~~4~~. ~~Membe~~r States ⇨ National regulatory authorities ⇦ shall ensure the removal o~~f~~ 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 service~~s procurement. Membe~~r~~ State~~s~~ shall ensure that~~ network operators are incentivised to improv~~e efficiency in infrastructure design and~~ operation~~, a~~nd~~, within the framework of Directive (EU) 2019/944~~2009/72/EC~~, that tariffs~~ allo~~w suppliers to impro~~v~~e consumer participati~~o~~n in system efficiency, includi~~n~~g demand~~ response, depending on national circumstances~~.

8~~5~~. Transmission system operators and distribution system operators shall comply with the requirements set out in Annex XIV~~XII~~.

↓ 2012/27/EU

~~Member States may particularly facilitate the connection~~ ⇨ new ~~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 ~~or~~ 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.

10~~7~~. Member States may allow producers of electricity from high-efficiency cogeneration wishing to be connected to the grid to issue a call for tender for the connection work.

11~~9~~. 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[101]~~.

~~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

[101] ~~Directive 2008/1/EC of the European Parliament and of the Council of 15 January 2008 concerning integrated pollution prevention and control (OJ L 24, 29.1.2008, p. 8).~~

~~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.~~

⇩ new

~~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.~~

1. Member States shall ensure the appropriate level of competences for energy efficiency professions that corresponds to the market needs. Member States shall ensure that certification and/or accreditation schemes 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 as defined in Directive 2010/31/EU, and are reliable and contribute to national energy efficiency objectives and the overall EU decarbonisation objectives.

🡻 2012/27/EU

2. Member States shall ensure that national certification, accreditation schemes or equivalent qualification schemes, including, where necessary, training programmes, take into account existing European standards.

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

⇩ new

Member States shall take appropriate measures to make consumers aware of the availability of qualification and/or certification schemes in accordance with Article 24~~18~~(1).

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 as defined in Directive 2010/31/EU, and 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. ember States shall promote the energy services market and access for SMEs to this market by:

(~~a~~) disseminating clear and easily accessible information on:

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

⇩ new

(bii) financial instruments, incentives, grants ⇨ , revolving funds, guarantees, insurance schemes, ⇦ and loans to support energy efficiency service projects;

(c) available energy services providers that are qualified and/or certified and their qualifications and/or certifications in accordance with Article 23.

↓ 2012/27/EU (adapted)
⇨ new

(d) available monitoring and verification methodologies and quality control schemes.

2.~~(b)~~ ~~encouraging~~ ⊠ Member States shall encourage ⊠ the development of quality labels, inter alia, by trade associations ⇨ , based on European 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 2616, or ~~providing~~

⇩ new

⊠ provide ⊠ an interface where energy service providers can provide information.

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 m2, Member States shall ensure that public bodies assess the feasibility of using energy performance contracting.

↓ 2012/27/EU (adapted)
⇨ new

Member States may encourage public bodies to combine energy performance contracting with expanded energy services including demand response and storage.

5.~~(d)~~ ~~supporting~~ ⊠ Member States shall support ⊠ the public sector in taking up service offers, in particular for building refurbishment, by:

(ai) providing model contracts for energy performance contracting which include at least the items listed in Annex XV~~XIII~~ ⇨ and take into account ~~to~~ existing European standards, available tendering guidelines and Eurostat guide ⇦ ;

⇩ new

(b~~ii~~) providing information on best practices for energy performance contracting, including, if available, cost-benefit analysis using a life-cycle approach;

(c) making publically 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:

(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

⇩ new

and out-of-court settlement of disputes arising from energy service ⇨ and energy performance ⇦ contracts;

(d) 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.

🡻 2012/27/EU (adapted)
⇨ new

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

7~~3~~. Member States shall ensure that energy distributors, distribution system operators and retail energy sales companies refrain from any activities that may impede the demand for and delivery of energy services or ~~other~~ energy efficiency improvement measures, or hinder the development of markets for such services or measures, including foreclosing the market for competitors or abusing dominant positions.

Article 28~~20~~

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 ⇦ .

⇨ 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, 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 the provision of information to~~ ⇨ ensure that ⇦ 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~~.

2018/2002 Art. 1.12 ⇨ new

43. 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.

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 4~~3a~~ shall include the following:

(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 proposed in the smart finance for smart buildings initiative ⇨ and the Renovation Wave communication ⇦ .

⇩ new

8~~3d~~. By 1 January ~~2020~~ ⇨ 2024 ⇦ , the Commission shall provide guidance for M~~d~~States ⇨ and market actors ⇦ on how to unlock private investment.

The purpose of the guidance shall be helping Member States and market actors to develop and implement their energy efficiency investments in the various EU 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 EU funding as a catalyst to leverage and trigger private financing.

↓ 2012/27/EU (adapted) →1 2019/944 Art. 70.4 ⇨ new

94. 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 paragraph 3 of Article 8 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 paragraph 2 of Article 4 of this Directive ⇦ .

105. Member States may allow for the obligations set out in Article 65(1) to be fulfilled by annual contributions to the Energy Efficiency National Fund of an amount equal to the investments required to achieve those obligations.

116. Member States may provide that obligated parties can fulfil their obligations set out in Article 97(1) and 4 by contributing annually to the Energy Efficiency National Fund an amount equal to the investments required to achieve those obligations.

127. 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 65 of improving the energy performance of buildings~~ ⇨ for energy efficiency improvements ⇦ .

Article 29~~21~~

Conversion factors

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

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 →1 ~~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

↓ 2018/2002 Art. 1.13 (adapted)

1 The Commission ~~shall be~~ [X] is [X] empowered to adopt delegated acts in ~~accordance~~ with Article 32~~23~~ ~~to~~ [X] concerning the [X] review [X] of [X] the ~~annual~~ efficiency reference values referred to in the second subparagraph of Article 24~~14~~(10).

2 The Commission is empowered to adopt delegated acts in accordance with Article 32~~23~~ ~~to amend~~ [X] concerning the amendment of [X] this Directive by adapting ~~to~~ ~~technical~~ progress the values, calculation methods, default primary energy coefficient and requirements in Annexes III to VI~~V~~, VIII~~VII~~ to XII~~X~~, and XIV~~XII~~.

⇩ new

3 The Commission is empowered to adopt delegated acts in accordance with Article 32 to 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 a data centre sustainability indicator, and, pursuant to paragraph 9 of Article 10 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

↓ 2018/2002 Art. 1.14(a)
⇨ new

1. The power to adopt delegated acts is conferred on the Commission subject to the conditions laid down in this Article.

2. The power to adopt delegated acts referred to in Article 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

↓ 2018/2002 Art. 1.14(b)

publication of the decision in the *Official Journal of the European Union* or at a later date specified therein. It shall not affect the validity of any delegated acts already in force.

4~~3a~~. 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[~~102~~].

↓ 2012/27/EU

5~~4~~. As soon as it adopts a delegated act, the Commission shall notify it simultaneously to the European Parliament and to the Council.

6~~5~~. A delegated act adopted pursuant to Article 31~~22~~ 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 33~~24~~

↓ 2018/2002 Art. 1.15(a)

Review and monitoring of implementation

1~~4a~~. In the context of the State of the Energy Union report, the Commission shall report on the functioning of the carbon market in accordance with Article 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)

2~~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.

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 III, 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

[102] ~~O~~J L ~~123~~, 12.5.201~~6~~, ~~p~~. 1.

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 IIIII.

7. y 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).

↓ 2018/2002 Art. 1.15(b) (adapted)

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.

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. 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) 2019/9442009/72/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.

↓ 2018/2002 Art. 1.2 (adapted)

As soon as possible after submission of that report, the Commission shall, if appropriate, adopt legislative proposals.

6~~4~~. 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

7~~15~~. 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;~~

⇩ new

(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[103] and in the light of economic and innovation developments.

~~(b)~~ the Union's 2030 headline targets on energy efficiency set in Article 4 paragraph (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 or occupied by public bodies is renovated each year in accordance with paragraph 1 of Article 6 with a view to revising this renovation rate;

~~(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;

[103] OJ L 282, 19.10.2016, p. 4.

↓ 2018/2002 Art. 1.15(b)

[(f) if Member States shall continue to achieve a reduction of final energy consumption in accordance with paragraph 1 of Article 5.]

That report shall be accompanied, if 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 ~~thi~~s Directive ⊠ Articles […] and Annexes […] ⊠ ~~[a~~rticles and annexes which have been amended in substance by comparison with the repealed Directive] by ⇨ […] ⇦ ~~5 June~~ 2014.

~~Notwithstandin~~g ~~th~~e first subparagra~~ph~~, Member States shall bring into force t~~h~~e laws, ~~regulation~~s a~~n~~d administrative provisions necessary ~~t~~o comply w~~ith~~ Artic~~le~~ 4, the first ~~subparagraph~~ ~~of~~ Article 5(1), Article 5(5), Article 5(6), t~~h~~e last subparagra~~ph~~ ~~of~~ Article 7(9), ~~Article 14(6), Article 19(2), Article 24(1) and~~ Article 24(~~2~~) a~~n~~d poi~~nt~~ (4) ~~of~~ Annex V ~~by~~ the ~~date~~s specifi~~ed~~ therein.

They shall ~~forthwith~~ ⊠ immediately ⊠ communicate ~~to~~ the Commission the t~~ext~~ of those ~~provisions~~ ⊠ measures to the Commission ⊠ .

When Member States adopt those ⊠ measures ⊠ ~~provisions~~, they shall contain a ~~re~~ 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 law, ⊠ 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~~ Rrepeals

~~1.~~ Directive 2012/27/EU~~2006/32/EC~~ ⊠ , 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 XVI, 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 ⊠ Directives ~~2006/32/EC and~~ 2004/8/EC shall be ~~construed~~ as references to this Directive and shall be read in accordance with the correlation table ~~set out~~ in Annex XVII~~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[104] requires Member States to set ~~energy performance requirements for~~ building elements that form part ~~of the~~ building ~~envelope and system~~ requirements in respect of the overall energy performance, the ~~proper installation~~, and the appropriate dimensioning, adjustment and control ~~of~~ the ~~technical building systems~~ which are installed in existing buildings. It is consistent ~~with~~ the objectives of this Directive that these requirements may in certain ~~circumstances limit~~ the installation of energy-related products which comply with ~~this~~ Directive and its implementing measures, provided that such requirements do not ~~constitute~~ an unjustifiable market barrier.'

~~(2) the~~ following sentence is added to ~~the~~ end ~~of~~ Article 6(1):

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104 ~~OJ L 153~~, 18.6.2010, p. 13.;

~~'This shall b~~e wit~~hou~~t prejudice to t~~h~~e energy performance requirements a~~n~~d system ~~requirement~~s set by Member States ~~i~~n accordance w~~i~~th Artic~~l~~e 4(1) and Artic~~l~~e 8 of ~~Directiv~~e 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*

⇩ 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:

$$FFFFFF_{CC2030} = FF_{EEEE}(1 - TTTTTTTTTT)\ FFFFFF_{BB2030}$$

$$PPFFFF_{CC2030} = FF_{EEEE}(1 - TTTTTTTTTT)\ PPFFFF_{BB2030}$$

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(3), 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 EU 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 the wealth and potential factors (F_{wealth} and $F_{pontential}$), a lower and upper limit shall be applied. The level of ambition for each factor shall be capped at 50% and 150% of the EU 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 EU primary and final energy consumption targets in 2030. The factor C_{EU} is identical for all Member States.

↓ 2012/27/EU (adapted)
⇨ new

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 (30) 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 1~~9 November ~~200~~8 establishi~~n~~g detailed guidelines for the ~~implementatio~~n a~~n~~d applicati~~o~~n ~~o~~f Annex II to Directi~~v~~e 2004/8/EC ~~o~~f t~~h~~e European ~~Parliamen~~t a~~n~~d ~~o~~f t~~h~~e Council[105].

[105] 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:

– ogeneration 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;.

↓ new

– production from small-scale and micro-cogeneration units providing primary energy savings may qualify as high-efficiency cogeneration;.

– direct emissions of the carbon dioxide from cogeneration production that is not fuelled with renewable energy, waste or industrial residues, are less than 270gCO_2 per 1 kWh of energy output from the combined generation (including heating/cooling, power and mechanical energy) as of 01.01.2025.

↓ 2012/27/EU

(b) Calculation of primary energy savings

he amount of primary energy savings provided by cogeneration production defined in accordance with Annex III 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 2414(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 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.

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 2414(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. fFor cogeneration units the comparison with separate electricity production shall be based on the principle that the same fuel categories are compared;.

(ii) 2. eEach 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. tThe 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. tThe efficiency reference values for separate electricity production and heat production shall reflect the climatic differences between Member States.

↓ 2012/27/EU
⇨ new

ANNEX IV~~III~~

ENERGY EFFICIENCY REQUIREMENTS FOR PURCHASING PRODUCTS, SERVICES AND BUILDINGS BY ~~CENTRAL GOVERNMENT~~ ⇨ PUBLIC BODIES ⇦

~~entral governments~~ ⇨ In award procedures for public contracts and concessions, contracting authorities and contracting entities ⇦ that purchase products, services or buildings, ~~insofar as this is consistent with cost-effectiveness, economical feasibility, wider sustainability, technical suitability, as well as sufficient competition,~~ shall:

(a) where a product is covered by a delegated act adopted under 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 ⇨ two significantly populated ⇦ energy efficiency ~~class possible in the light of the need to~~ ensure sufficient competition ⇨ classes ⇦ ;

(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;

⇩ new

(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[106]~~ that comply with energy efficiency requirements not less demanding ~~than those listed in Annex C to the Agreement attached to that Decision;~~

(c) where a product or a service is covered by the EU 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 EU green public procurement criteria. Examples of relevant green public procurement criteria include among others, EU green public procurement criteria for data centres, server rooms and cloud services, EU green public procurement criteria for road lighting and traffic signals, EU green public procurement criteria for computers, monitors tablets and smartphones;

~~[106] 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 (OJ L 381, 28.12.2006, p. 24).~~

↓ 2012/27/EU
⇨ 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[107] Regulation (EU) 2020/740 of the European Parliament and of the Council[108]. This requirement shall not prevent public bodies from purchasing tyres with the highest wet grip class or external rolling noise class where justified by safety or public health reasons;

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

(f) purchase, or make new rental agreements for, only buildings that comply at least with the minimum energy performance requirements referred to in Article ~~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.

[107] ~~Regulation (EC) No 1222/2009 of 25 November 2009 on the labelling of tyres with respect to fuel efficiency and other essential parameters (OJ L 342, 22.12.2009, p. 46).~~

[108] 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 (adapted)
→1 2018/2002 Art. 1.16 and

ANNEX V~~IV~~

ENERGY CONTENT OF SELECTED FUELS FOR END USE – CONVERSION TABLE[109] AND PRIMARY ENERGY FACTORS

Energy commodity	kJ (NCV)	kgoe (NCV)	kWh (NCV)
1 kg coke	28500	0,676	7,917
1 kg hard coal	17200 — 30700	0,411 — 0,733	4,778 — 8,528
1 kg brown coal briquettes	20000	0,478	5,556
1 kg black lignite	10500 — 21000	0,251 — 0,502	2,917 — 5,833
1 kg brown coal	5600 — 10500	0,134 — 0,251	1,556 — 2,917
1 kg oil shale	8000 — 9000	0,191 — 0,215	2,222 — 2,500
1 kg peat	7800 — 13800	0,186 — 0,330	2,167 — 3,833
1 kg peat briquettes	16000 — 16800	0,382 — 0,401	4,444 — 4,667
1 kg residual fuel oil (heavy oil)	40000	0,955	11,111
1 kg light fuel oil	42300	1,010	11,750
1 kg motor spirit (petrol)	44000	1,051	12,222
1 kg paraffin	40000	0,955	11,111
1 kg liquefied petroleum gas	46000	1,099	12,778
1 kg natural gas[110]	47200	1,126	13,10

109 Member States may apply different conversion factors if these can be justified.

110 93 % methane.

1 kg liquefied natural gas	45190	1,079	12,553
1 kg wood (25 % humidity)[111]	13800	0,330	3,833
1 kg pellets/wood bricks	16800	0,401	4,667
1 kg waste	7400 — 10700	0,177 — 0,256	2,056 — 2,972
1 MJ derived heat	1000	0,024	0,278
1 kWh electrical energy	3600	0,086	1[112]

⇩ new

Source: Eurostat.

PRIMARY ENERGY FACTOR

A Primary Energy Factor (PEF) shall be 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 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.

If they establish an alternative coefficient to the default value, 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.

When establishing an alternative coefficient, 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. 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 by…...

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

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

[112] ➔1 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). 🡐

account its effects on other Union law such as Directive 2009/125/EC and Regulation (EU) 2017/1369.

↓ 2018/2002 Art. 1.16 and Annex .2

ANNEX VI~~V~~

COMMON METHODS AND PRINCIPLES FOR CALCULATING THE IMPACT OF ENERGY EFFICIENCY OBLIGATION SCHEMES OR OTHER POLICY MEASURES UNDER ARTICLES 87, ~~97a~~ AND 107~~b~~ AND ARTICLE 28(11)~~20(6)~~

1. Methods for calculating energy savings other than those arising from taxation measures for the purposes of Articles 87, ~~97a~~ and 107~~b~~ 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.

⇩ new

2. In determining the energy savings for an energy efficiency measure for the purposes of Articles 87, ~~97a~~ and 107~~b~~ and Article 28(11)~~20(6)~~, the following principles apply:

(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

(ba) tThe savings shall be shown to be additional to those that would have occurred in any event without the activity of the obligated, p⇨ new 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;.

⇩ new

(cb) sSavings 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 87(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 87(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 ene⇦rgy 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.] ⇦

(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, as a result of a carbon pricing pursuant to the EU ETS Directive towards the fulfilment of energy savings required under 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 extension of the EU Emissions Trading System to buildings and road transport [Reference to proposal], the carbon price passed through when releasing fuel for consumption [according to article XX of

Directive XX] shall be 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 ~~Regulation~~s (EC) ~~No 443/2009~~[113] ~~and~~ (EU) No 510/~~201~~1 ~~of the~~ European Parliament ~~and~~ of the Council[114] Regulation (EU) 2019/631 of the European Parliament and of the Council[115]; ⇨ Member States provide evidence, their assumptions and their calculation methodology to show additionality to EU 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; ⇦

⇩ new

(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 promoting the use of direct combustion of fossil fuel technologies, that are implemented as of 1 January 2024 ⇦ ;

(h) Energy savings as a result of policy measures promoting products, equipment, transport systems, vehicles using direct combustion of fossil fuel technologies may not count towards the fulfilment of energy savings obligation as of 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

[113] ~~Regulation (EC) No 443/2009 of~~ the European Parliament and ~~of~~ the Council of ~~2~~3 April ~~200~~9 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).

[114] ~~Regulation (EU) No 510/2011 of~~ the European Parliament and ~~of~~ the Council ~~of~~ 11 May ~~201~~1 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).

[115] 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).

fulfilment of energy savings required under Article 67(1), provided that they result in verifiable, and measurable or estimable, ⇨ end-use ⇦ energy

⇩ new

calculation of energy savings shall comply with the requirements of this Annex;.

(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

(kf) fFor policies that accelerate the uptake of more efficient products and vehicles, ⇨ except those using direct fossil fuels combustion technologies, ⇦ 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;.

(lg) iIn 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;.

(mh) tTo 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;.

(ni) tThe 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 20 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 ~~3~~1 December ~~202~~0 ~~or 3~~1 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 conversion factors set out in Annex VIV;

(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;

⇩ new

(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;.

(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 107b, 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[116] or 2006/112/EC[117];

(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

[116] 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).
[117] 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).

official data sources; ⇨ which are applicable for the Member State, and, if applicable, based on accompanying studies from an independent institute. If another price elasticity than short-run elasticities had been used, Member States shall explain how energy efficiency improvements due to the implementation of other EU legislation have been included in the baseline used to estimate the energy savings, or how a double-counting of energy savings from other EU legislation has been avoided; ⇦

⇩ new

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

(d) Short-run elasticity estimates should be used to assess the energy savings from taxation measures to avoid overlap with EU law and other policy measures.

(e) Member States shall determine distributional effects of taxation 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 paragraphs 1, 2 and 3 of Article 22.

🡻 2018/2002 Art. 1.16 and Annex .2 (adapted)

(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 carbon pricing according the EU ETS Directive, there is no double counting of energy savings.

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~~7a~~ and 10~~7b~~, and Article 28(11)~~20(6)~~. Except in the case of taxation, such notification shall include details of:

⇩ new

(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;

(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

(cb) the obligated, participating or entrusted parties, or implementing public authorities;

(dc) target sectors;

⇩ new

(ed) policy measures and individual actions, including the expected total amount of cumulative energy savings for each measure;

(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 of energy savings to be achieved among people affected by energy poverty, vulnerable customers, and, where applicable, people living in social housing.

(h) information about the indicators applied, the arithmetic average share and the outcome of policy measures established according to paragraph 3 of Article 8;

↓ 2018/2002 Art. 1.16 and Annex .2

(i) where applicable, information about impacts and adverse effects of policy measures implemented pursuant to paragraph 3 of Article 8 on people affected by energy poverty, vulnerable customers, and, where applicable, people living in social housing.

(je) 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

(lf) the actions provided for by the policy measure;

(mg) the calculation methodology, including how additionality and materiality have been determined and which methodologies and benchmarks are used for deemed and scaled savings;

(nh) the lifetimes of measures, and how they are calculated or what they are based upon;

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

(pj) 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;

(qk) 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

⇩ new

(v) the calculation methodology, including the price elasticities used and how they have been established;.

(vi) how overlaps with carbon pricing in accordance with the EU ETS Directive have been avoided and the risk of double counting has been abolished.

↓ 2012/27/EU
⇨ new

ANNEX VII~~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;

⇩ new

(c) identify energy efficiency measures to decrease energy consumption;

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

↓ 2012/27/EU

(d) identify the potential for cost-effective use or production of renewable energy;

(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.

⇩ new

The data used in energy audits shall be storable for historical analysis and tracking performance.

MINIMUM REQUIREMENTS FOR MONITORING AND PUBLISHING THE ENERGY PERFORMANCE OF DATA CENTRES

Monitoring and publishing of the energy performance of data centres referred to paragraph 9 of Article 11 shall be based on the following minimum information:

(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, waste heat utilisation, water usage and use of renewable energy.

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↓ 2012/27/EU

ANNEX VIII~~VII~~

↓ 2019/944 Art. 70.6

↓ 2012/27/EU

MINIMUM REQUIREMENTS FOR BILLING AND BILLING INFORMATION BASED ON ACTUAL CONSUMPTION OF NATURAL GAS

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 IX~~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 ← ~~Fro~~m ~~2~~5 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).

↓ 826/2019 Art. 1(1) and Annex I (adapted)

ANNEX X~~VIII~~

POTENTIAL FOR EFFICIENCY IN HEATING AND COOLING

The comprehensive assessment of national heating and cooling potentials referred to in Article 20~~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[118] and quantified final energy consumption in GWh per year[119] 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[120], 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;

[118] The amount of thermal energy needed to satisfy the heating and cooling demand of end-users.
[119] The most recent data available should be used.
[120] The most recent data available should be used.

– 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;

– 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[121] 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;

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[121] 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.

(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 Eenergy Uunion, 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;

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 [122] 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 2014(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;

[122] 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.

(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 20~~14~~(3) shall include an economic analysis that takes into consideration socioeconomic and environmental factors[123], 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[124], and be linked to data collected under Part I and point 6 of Part II of this Annex;

(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:

[123] Including the assessment referred to in Article 15, paragraph 7 of Directive (EU) 2018/2001.

[124] 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.

(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 [125] 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;

(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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[125] 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,

↓ 2012/27/EU (adapted)

ANNEX XII~~IX~~

COST-BENEFIT ANALYSIS

~~***Part 2***~~

⇨ new

Principles for the purpose of Article 24(4)~~14(5)~~ 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.

⇩ new

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.

Assessment of waste heat utilization should take into consideration current technologies. The assessment should take into consideration a direct use of waste heat and/or its upgrading to higher temperature levels. 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

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 ac
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.

↓ 2012/27/EU

ANNEX XII~~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

ANNEXXIII ~~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

ANNEXXIV ~~XI~~

ENERGY EFFICIENCY REQUIREMENTS FOR TRANSMISSION SYSTEM OPERATORS AND DISTRIBUTION SYSTEM OPERATORS

↓ 2018/2002 Art. 1.16 and Annex .6

Transmission system operators and distribution system operators shall:

(a) set up and make public their standard rules relating to the bearing and sharing of costs of technical adaptations, such as grid connections, 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 XV~~XIII~~

⇩ new

MINIMUM ITEMS TO BE INCLUDED IN ENERGY PERFORMANCE CONTRACTS ~~WITH~~ THE PUBLIC ~~SECTOR~~ OR IN THE ASSOCIATED TENDER SPECIFICATIONS

– 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 a~~nd~~ IX
~~Article~~ 7(1)	~~Article 14(11)~~
~~Article 7(2~~) a~~nd~~ (3)	~~—~~
~~Article~~ 8	~~Article 15(5)~~
~~—~~	~~Article 15(6)~~, (7~~)~~, (8) and (9)
~~Article~~ 9	~~—~~
~~Article 10(1~~) a~~nd~~ (2)	~~Article 14(1~~) a~~nd~~ 24(2), Annex XIV, Part 2
~~Article 10(3)~~	~~Article 24(6)~~
~~Article~~ 11	~~Article 24(3)~~
~~—~~	~~Article 24(5)~~
~~Article 12(1~~) a~~nd~~ (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	~~Thi~~s Directive
~~Article~~ 1	~~Article~~ 1(1)

~~Artiele~~ 2	~~Artiele~~ 1(1)
~~Article 3~~, poi~~n~~t (a)	~~Article 2~~, poi~~n~~t (1)
~~Article 3~~, poi~~n~~t (b)	~~Article 2~~, poi~~n~~t (4)
~~Article 3~~, poi~~n~~t (c)	~~Article 2~~, poi~~n~~t (6)
~~Article 3~~, poi~~n~~t (d)	~~Article 2~~, poi~~n~~t (5)
~~—~~	~~Article 2~~, points (~~2~~) a~~n~~d (3)
~~Article 3~~, poi~~n~~t (e)	~~Article 2~~, poi~~n~~t (7)
~~Article 3~~, points (f), (g), (~~h~~) a~~n~~d (i)	~~—~~
~~—~~	~~Article 2~~, points (~~8~~) to (19)
~~Artiele~~ 3, point (j)	~~Article 2~~, poi~~n~~t (27)
~~—~~	~~Article 2~~, poi~~n~~t (28)
~~Article 3~~, poi~~n~~t (k)	~~—~~
~~Artiele~~ 3, point (l)	~~Article 2~~, poi~~n~~t (25)
~~—~~	~~Article 2~~, poi~~n~~t (26)
~~Artiele~~ 3, point (m)	~~—~~
~~Article 3~~, poi~~n~~t (n)	~~Article 2~~, poi~~n~~t (23)
~~Article 3~~, poi~~n~~t (o)	~~Article 2~~, poi~~n~~t (20)
~~Article 3~~, poi~~n~~t (p)	~~Article 2~~, poi~~n~~t (21)
~~Article 3~~, poi~~n~~t (q)	~~Article 2~~, poi~~n~~t (22)
~~Article 3~~, points (r) a~~n~~d (s)	~~—~~
~~—~~	~~Article 2~~, points (24), (29), (~~44~~) a~~n~~d ~~(45)~~
~~—~~	~~Artiele~~ 3
~~—~~	~~Artiele~~ 4
~~Artiele~~ 4	~~—~~
~~Artiele~~ 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), (e), (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 1~~0 ~~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 XVI

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 XVII

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 40	-
Article 2, point 41	Article 2, point 43
Article 2, point 42	Article 2, point 44
Article 2, point 43	Article 2, point 45
-	Article 2, point 46
Article 2, points 44 and 45	Article 2, points 47 and 48
-	Article 2, points 49, 50 and 51
-	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), (3) and (4)	-
Article 3(5)	-
Article 3(6)	Article 4(4)
-	Article 4(3)
-	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(3)
Article 5(5)	Article 6(4)
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(1), introductory wording, point (a) and (b), second and third subparagraphs	Article 8(1), introductory wording, point (a) and (b)
-	Article 8(1), point (c)
Article 7(1), second and third subparagraphs	Article 8(1), second and third subparagraphs
-	Article 8(2), (3) and (4)
…	…
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), (2) and (3)	Article 11(3), (4) and (5)
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
Article 10	Article 16
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 21(2), third subparagraph, point (iv)
-	Article 21(4)

-	Article 21(5), second, third and fourth subparagraphs
-	Article 22
Article 13	Article 30
-	Article 23(1)
Article 14(1) and (2)	-
-	Article 23(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), points (a) and (b)	Article 24(5), points (a) and (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[(8)/(9)]	Article 25(11)
Article 16(1) and (2)	-
-	Article 26(1) and (2)
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