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Objet:	Proposition de DIRECTIVE DU PARLEMENT EUROPÉEN ET DU CONSEIL relative à l'efficacité énergétique (refonte) - Orientation générale

I. INTRODUCTION

1. Le 14 juillet 2021, la Commission a soumis au Parlement européen et au Conseil, dans le cadre du paquet «Ajustement à l'objectif 55», la proposition de refonte de la directive sur l'efficacité énergétique. Cette proposition vise, en particulier, à actualiser l'objectif de réduction de la consommation d'énergie au niveau de l'UE au niveau requis pour atteindre l'objectif de réduction des émissions de gaz à effet de serre d'au moins 55 % par rapport à 1990. Elle vise également à garantir que les États membres continuent à mettre en œuvre de manière cohérente des mesures d'efficacité énergétique correspondant à l'ambition au niveau de l'UE et à leurs ambitions nationales décrites dans les plans nationaux pour l'énergie et le climat.

2. Le 18 mai 2022, la Commission européenne a présenté son plan « REPowerEU », un plan pour réduire rapidement la dépendance aux carburants fossiles et accélérer la transition énergétique.

II. EXAMEN PAR LES AUTRES INSTITUTIONS

3. Le Parlement européen a désigné la commission de l'industrie, de la recherche et de l'énergie (ITRE) comme commission responsable de cette proposition et M. Niels FUGLSANG (DK, S&D) comme rapporteur et devrait adopter son rapport en septembre 2022.
4. Le Comité économique et social européen a adopté son avis sur la proposition susmentionnée le 9 décembre 2021, tandis que l'avis du Comité européen des régions n'est pas encore disponible.

III. ETAT DES TRAVAUX AU SEIN DU CONSEIL

5. Entre juillet et novembre 2021, le Groupe énergie a examiné la proposition. Le Conseil TTE des ministres de l'énergie a tenu, lors de sa réunion du 2 décembre 2021, un débat d'orientation pour la suite des travaux sur le dossier, au sein des instances préparatoires, sur la base d'un rapport de progrès.

6. L'examen de la première version révision du texte (REV1) a débuté en groupe énergie le 6 janvier 2022. Après deux versions discutées lors de sept groupes énergie, le COREPER du 13 avril a permis de recueillir les orientations des Etats membres sur quatre articles (article 4 et l'annexe I, article 5, article 8 et article 24). A l'issue de ces débats, une troisième révision du texte a été publiée et examinée en deux groupes énergie supplémentaires, puis le COREPER du 25 mai a permis de recueillir les orientations des Etats membres sur les contributions nationales à l'objectif collectif contraignant UE à l'article 4 et sur l'état général des négociations et les dernières étapes pour parvenir à une orientation générale. Une cinquième révision du texte a été publiée et examinée en groupe énergie le 7 juin. A la suite de ces échanges, le COREPER du 8 juin a permis d'évaluer les besoins de flexibilité supplémentaire pour le calcul du partage de l'effort à l'article 4, via la prise en compte des plans nationaux énergie climat et pour l'obligation d'économie d'énergie de l'article 8, via l'introduction dans la méthodologie de calcul des économies d'énergie réalisées grâce aux technologies de combustion des combustibles fossiles dans le secteur industriel, pour une durée très limitée et si le besoin est confirmé par des audits énergétiques et des conditions dûment justifiées. Le CORPER du 17 juin a permis d'examiner une sixième révision du texte et prenant en compte ces éléments. En plus de l'intégration des plans nationaux énergie climat dans l'évaluation de la contribution des Etats membres et de l'intégration encadrée des fossiles pour le domaine de

l’industrie, cette révision inclait une trajectoire d'intégration progressive des municipalités et des organismes publics pour la consommation des organismes publics à l’article 5 et une dérogation pour Chypre et Malte concernant l’obligation d’économies d’énergie à l’article 8.

7. A l’issue du COREPER du 17 juin, il est apparu qu’il était nécessaire d’inclure des éléments supplémentaires. Une septième révision a donc été publiée en vue du COREPER du 22 juin, qui comprend les éléments suivants :

- à l’article 4 sur le calcul des contributions nationales, au paragraphe 4 permettant d’offrir une marge de manœuvre de plus ou moins 2% par rapport au résultat de la formule, le pourcentage de flexibilité a été porté à 2, 5% ;
- à l’article 4 sur le calcul des contributions nationales, au paragraphe 5 sur le mécanisme permettant de s’assurer que la somme des contributions permet d’atteindre l’objectif de l’Union, une reformulation a été proposée pour simplifier le paragraphe et clarifier le fonctionnement, le mécanisme a été conservé. La Commission ne peut pas adresser de contribution révisée aux Etats membres dont elle a jugé l’objectif initialement notifié dans le plan comme étant satisfaisant, dès lors que ces Etats membres sont minoritaires, en termes de consommation, parmi ceux dont la contribution est inférieure à la formule de l’annexe I. La Commission ne pouvait pas réviser la contribution des Etats membres lorsque celle-ci était égale ou supérieure au résultat de la formule de l’annexe I. Un ajout a été fait pour clarifier le fait que la Commission doit s’assurer qu’il n’existe plus de différence entre la somme des contributions nationales et l’objectif de l’Union ;
- à l’article 5, sur le rôle moteur du secteur public, il a été proposé de clarifier le considérant 28 sur le périmètre couvert par les organismes publics, pour préciser que le logement social et le chauffage urbain n’étaient pas couverts lorsque la consommation finale ne provenait pas d’un organisme public.
- à l’article 6 sur le rôle exemplaire du secteur public, au paragraphe 2 sur les exemptions, il a été ajouté que les Etats membres pouvaient décider de ne pas rénover au niveau d’un bâtiment à énergie quasi-nulle si cela n’était pas techniquement, économiquement ou fonctionnellement faisable. Il n’est pas possible alors de compter la rénovation de ces bâtiments dans l’atteinte de l’objectif de rénovation du paragraphe 1 de cet article ;

- enfin, à l’annexe V sur la prise en compte encadrée des fossiles dans le cacul de l’obligation d’économies d’énergie de l’article 8, le seuil de 100TJ a été retiré en contre partie de l’ajout d’une condition de publicité des données qui ont mené au recours aux énergies fossiles.

8. Dans la version annexée, les nouveaux textes sont indiqués en **gras et soulignés** et les suppressions sont ~~barrées.~~
Les nouveaux textes qui ont été ajoutés dans les versions précédentes sont indiqués en **gras**.
Les suppressions qui figuraient dans les versions précédentes sont indiquées en ***~~italique barré~~***.

IV. CONCLUSION

9. Au vu de ce qui précède, le Comité des représentants permanents est invité :

- à examiner le texte de compromis tel qu'il figure en annexe de la présente note, en vue d’une orientation générale,
- recommander au Conseil de dégager, lors de la session du Conseil TTE (énergie) du 27 juin 2022, une orientation générale sur la proposition de directive du parlement européen et du conseil relative à l’efficacité énergétique (refonte).

↓ 2012/27/EU (adapted)

2021/0203 (COD)

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)

↓ 2012/27/EU

HAVE ADOPTED THIS DIRECTIVE:

CHAPTER I

SUBJECT MATTER, SCOPE, DEFINITIONS AND ENERGY EFFICIENCY TARGETS

Article 1

Subject matter and scope

🡻 2018/2002 Art. 1.1 (adapted)
⇨ new

1. This Directive establishes a common framework of measures to promote energy efficiency within the Union in order to ensure that the Union's ~~2020 headline~~ target~~s~~ on energy efficiency ~~of 20 % and its 2030 headline targets on energy efficiency of at least 32,5 %~~ ⌦ is ⌫ ~~are~~ met and ~~paves the way for~~ ⌦ enables ⌫ further energy efficiency improvements ~~beyond those dates~~.

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

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

🡻 2012/27/EU

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

Article 2

Definitions

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

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

⇩ new

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

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

🡻 2012/27/EU (adapted)
⇨ new

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

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[1] 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).

(5~~3~~) ‘final energy consumption’ means all energy supplied to industry, transport ⇨ (including energy consumption in international aviation) ⇦, households, ⇨ public and private ⇦ services, ~~and~~ agriculture ⇨ , forestry and fishing and other end-users (final consumers of energy) ⇦. It excludes ⇨ energy consumption in international maritime bunkers, ambient ~~**heat** **energy**~~**[1]** ⇦ deliveries to the ~~energy~~ transformation sector, and the energy ~~industries themselves~~ ⇨ sector and losses due to transmission and distribution (definitions in Annex A of Regulation (EC) No 1099/2008 apply) ⇦ ;

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

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

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

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

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[1] Recital XX: Ambient energy is the difference between the heat produced by heat pumps and the electricity they consume. It is understood that ambient energy can refer to both space heating and space cooling applications. Thus, ambient energy refers to energy extracted with heat pumps from the environment (ground, air or water) for space heating or cooling. Electricity used by heat pumps in cooling use, as well as electricity used by heat pumps in heating use, are included in electricity consumption for space heating and cooling.”

(10~~8~~) ‘public bodies’ means ‘~~*contracting authorities’ as defined in Directive 2014/24/EU2004/18/EC of the European Parliament and of the Council*~~[1] **national, regional or local authorities and entities directly financed[2] and administered by these authorities but not having industrial or commercial character** ~~of 31 March 2004 on the coordination of procedures for the award of public works contracts, public supply contracts and public service contracts~~[3];

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

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

⇩ new

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

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

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1 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).

2 **Modify recital 28:** (28) To fulfil their obligation, Member States should target the final energy consumption of all public services and installations of public bodies. **Public bodies are determined as national, regional or local authorities and entities directly financed and administered by these authorities but not having industrial or commercial character. To this end, "administered by these authorities" means that a national, regional or local authority has a majority on the decision of the choice of the entity's management and "financed by these authorities" means that these entities are mostly funded by public funds.** ~~To determine the scope of addressees, Member States should apply the definition of contracting authorities provided in the Directive 2014/24/EU of the European Parliament and of the Council~~. 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. **Only the final energy consumption of public bodies is covered by the obligation. That will for example exclude energy consumption from social housing and district heating, when the final energy consumption is not from public bodies.** 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.

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

↓ 2012/27/EU (adapted)
⇨ new

(14~~11~~) ‘energy management system’ means a set of interrelated or interacting elements of a plan which sets an energy efficiency objective and a strategy to achieve that objective ⇨ , including monitoring of actual energy consumption, actions taken to increase energy efficiency and measurement of progress ⇦;

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

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

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

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

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

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

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

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

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

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

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

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

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

(28~~25~~) ‘energy audit’ means a systematic procedure with the purpose of obtaining adequate knowledge of the ~~existing~~ energy consumption profile of a building or group of buildings, an industrial or commercial operation or installation or a private or public service, identifying and quantifying ⌦ opportunities for ⌫ cost-effective energy savings ~~opportunities,~~ ⇨ identifying the potential for cost-effective use or production of renewable energy ⇦ and reporting the findings;

~~(26) 'small and medium-sized enterprises' or 'SMEs' means enterprises as defined in Title I of the Annex to Commission Recommendation 2003/361/EC of 6 May 2003 concerning the definition of micro, small and medium-sized enterprises [1]; the category of micro, small and medium-sized enterprises is made up of enterprises which employ fewer than 250 persons and which have an annual turnover not exceeding EUR 50 million, and/or an annual balance sheet total not exceeding EUR 43 million;~~

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

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

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

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

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

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

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1 ~~OJ L 124, 20.5.2003, p. 36~~

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

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

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

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

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

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

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

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

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

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

(4443) ‘efficient individual heating and cooling’ means an individual heating and cooling supply option that, compared to efficient district heating and cooling, measurably reduces the input of non-renewable primary energy needed to supply one unit of delivered energy within a relevant system boundary or requires the same input of non-renewable primary energy but at a lower cost, taking into account the energy required for extraction, conversion, transport and distribution;

⇩ new

(45) ‘data centre’ means a structure, or group of structures*, with the purpose of centralized accommodation, interconnection and operation of information technology and network telecommunications equipment providing data storage, processing and transport services together with all the facilities and infrastructures for power distribution and environmental control and the necessary levels of resilience and security required to provide the desired service availability;* **used to house, connect and operate computer systems/servers and associated equipment for data storage, processing and/or distribution, as well as related activities.**[1]

🡻 2012/27/EU

⇨ new

(4644) ‘substantial refurbishment’ means a refurbishment whose cost exceeds 50 % of the investment cost for a new comparable unit;

(4745) ‘**independent** aggregator’ *means a demand service provider that combines multiple short-duration consumer loads for sale or auction in organised energy markets* ⇨ **means** *has the meaning attributed to* ‘independent aggregator’ as defined by Article 2(19) of Directive (EU) 2019/944 ⇦;

[1] **https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32022R0132**

⇩ new

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

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

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

Article 3

Energy efficiency first principle

1. In conformity with the energy efficiency first principle, ~~*and taking into account the Commission Recommendation on the energy efficency first principle*~~ Member States shall ensure that energy efficiency solutions are taken into account in the planning, policy and major investment decisions **that is to say large-scale investments with a value of more than ~~*50*~~150 euro million each or ~~*75*~~250 euro million for transport infrastructure projects,** related to the following sectors:

(a) energy systems, and

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

When implementing this paragraph, Member States may take into account the Commission Recommendation on the energy efficiency first principle[1].

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

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

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

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

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

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[1] Commission Recommendation of 28.9.2021 on Energy Efficiency First: from principles to practice. Guidelines and examples for its implementation in decision-making in the energy sector and beyond (C(2021) 7014 final).

↓ 2012/27/EU

Article ~~43~~

Energy efficiency targets

⇩ new

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

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

↓ 2012/27/EU (adapted)

⇨ new

2~~1~~. Each Member State shall set ~~an indicative~~ **indicative** national energy efficiency ~~target, based on either primary or~~ ⇨ contributions **based on either** ~~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 together with an indicative trajectory for those contributions ⇦ to the Commission ~~in accordance with Article 24(1) and Annex XIV Part 1~~ ⇨ as part of the updates of their integrated national energy and climate plans in accordance with Article 14 of Regulation (EU) 2018/1999, and as part of their integrated national energy and climate plans as referred to in, and in accordance with, the procedure set out in Article 3 and Articles 7 to 12 of Regulation (EU) 2018/1999 ⇦. When doing so, ~~they~~ ⌦ Member States ⌫ shall ~~also express those targets in terms of an absolute level of primary energy consumption and final energy consumption in 2020 and shall~~ ⇨**also express those contributions in terms of an absolute level of primary energy consumption and final energy consumption in 2030. When setting its indicative national energy efficiency contribution, Member States shall** ~~use the formula defined in Annex I~~ **and take into account the requirements set out in paragraph 3** ~~*of this Directive*~~ and ⇦ explain how, and on the basis of which data, ~~this has~~ ⇨ the contributions have ⇦ been calculated. **For this purpose, they may use the formula defined in Annex I.**

⇩ new

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

🡻 2012/27/EU (adapted)
⇨ new

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

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

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

🡻 2012/27/EU (adapted)

(b) the measures provided for in this Directive;

~~(c) the measures adopted to reach the national energy saving targets adopted pursuant to Article 4(1) of Directive 2006/32/EC; and~~

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

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

⇩ new

(d) any relevant factors affecting efficiency efforts, ~~as set out in Annex I,~~ ~~*such as*~~:

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

ii. the equitable distribution of efforts across the Union;

iii. the energy intensity of the economy;

🡻 2012/27/EU

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

⇩ new

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

🡻 2012/27/EU

⇨ new

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

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

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

⇩ new

(iv) decarbonisation of energy intensive industries~~.~~**;**

(v) economic energy savings potential;

(vi) current climate conditions and climate change forecast.

🡻 2012/27/EU

~~(e) early action.~~

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

~~2. By 30 June 2014, the Commission shall assess progress achieved and whether the Union is likely to achieve energy consumption of no more than 1483 Mtoe of primary energy and/or no more than 1086 Mtoe of final energy in 2020.~~

↓ 2012/27/EU (adapted)

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

~~(a) sum the national indicative energy efficiency targets reported by Member States;~~

~~(b) assess whether the sum of those targets can be considered a reliable guide to whether the Union as a whole is on track, taking into account the evaluation of the first annual report in accordance with Article 24(1), and the evaluation of the National Energy Efficiency Action Plans in accordance with Article 24(2);~~

~~(c) take into account complementary analysis arising from:~~

~~(i) an assessment of progress in energy consumption, and in energy consumption in relation to economic activity, at Union level, including progress in the efficiency of energy supply in Member States that have based their national indicative targets on final energy consumption or final energy savings, including progress due to these Member States' compliance with Chapter III of this Directive;~~

~~(ii) results from modelling exercises in relation to future trends in energy consumption at Union level;~~

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

~~(d)compare the results under points (a) to (c) with the quantity of energy consumption that would be needed to achieve energy consumption of no more than 1483 Mtoe of primary energy and/or no more than 1086 Mtoe of final energy in 2020.~~

🡻 2019/504 Art. 1

~~5. Each Member State shall set indicative national energy efficiency contributions towards the Union's 2030 targets as referred to in Article 1(1) of this Directive in accordance with Articles 4 and 6 of Regulation (EU) 2018/1999 of the European Parliament and of the Council[1]. When setting those contributions, Member States shall take into account that the Union's 2030 energy consumption has to be no more than 1 128 Mtoe of primary energy and/or no more than 846 Mtoe of final energy. Member States shall notify those contributions to the Commission as part of their integrated national energy and climate plans as referred to in, and in accordance with, the procedure pursuant to Articles 3 and 7 to 12 of Regulation (EU) 2018/1999.~~

⇩ new

4. When applying the requirements set out in paragraph 3, Member States shall ensure that their contribution be within a ~~2~~ 2, 5 percentage point margin of what it would have been if resulted from the formula defined in Annex I.

~~[1] 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).~~

5. The Commission shall assess that the collective contribution of Member States is at least equal to the binding Union target set in paragraph 1. Where the Commission concludes that it is insufficient, within two months after notification by Member States, the Commission shall adress to each Member State with a national contribution below what it would have been using the formula in Annex I, a corrected indicative national energy efficiency contribution ensuring that the collective contribution of Member States reaches the binding Union target and based on :

(a) the remaining collective reduction of energy consumption needed to achieve the binding Union target set in paragraph 1;

(b) the relative GHG intensity per GDP unit in 2019 among those Member States concerned by the address of the Commission;

(c) the GDP of those Member States in 2019.

Among the Member States with a national contribution below what it would have been using the formula in Annex I, ~~if~~ for primary energy and final energy consumption respectively, the Commission shall:

- **(i) calculate** the sum of the contributions resulting from the formula of the Member States for which the NECP submitted **in 2020** under the Regulation (EU) 2018/1999 was assessed by the Commission as "sufficient"**;** ~~is lower than the sum of the contributions under the formula of those that were not assessed as "sufficient", the Commission shall not revise, be it for primary energy or final energy consumption, the indicative national contribution of the Member States with a "sufficient" NECP.~~
- **(ii) calculate the sum of the contributions resulting from the formula of the Member States for which the NECP submitted in 2020 under the Regulation (EU) 2018/1999 was not assessed by the Commission as "sufficient";**
- **(iii) If (i) is lower than (ii), then the Commission shall not revise, , the indicative national contribution of the Member States for which the NECP submitted in 2020 under the Regulation (EU) 2018/1999 was assessed by the Commission as "sufficient";**

When applying the mechanism set out in this paragraph, the Commission shall ensure that there is no difference left, be it for primary energy or final energy consumptions, between the sum of the national contributions of all Member States and the binding Union target set in paragraph 1.

~~Those~~ Member States that have indicative national contributions revised by the Commission shall update within six months their notification as set out in paragraph 2, with their new indicative national *~~energy efficiency~~* contributions together with an update of their indicative trajectory for those contributions and, where applicable, their additionnal measures.

When a Member State has notified an indicative national contribution equal or above what it would have been using the formula in Annex I, the Commission shall not revise this aforementionned contribution.

6*~~4~~3*. Where the Commission concludes, on the basis of its assessment pursuant to Article 29(1) and (3) of Regulation (EU) 2018/1999, that insufficient progress has been made towards meeting the energy efficiency contributions, Member States that are above their indicative trajectories referred to in paragraph 2 of this Article shall ensure that additional measures are implemented within one year following the date of reception of the Commission's assessment in order to ensure getting back on track to reach their energy efficiency contributions. Those additional measures shall include, but shall not be limited to **at least one of**~~,~~ the following measures:

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

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

c. adjusting the obligation for public sector;

d. making a voluntary financial contribution to the National Energy Efficiency Fund referred to in Article ~~25~~ **28** or another financing instrument dedicated to energy efficiency, where the annual financial contributions shall be equal to the investments required to reach the indicative trajectory.

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

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

7~~5~~4. The Commission shall assess by 31 December 2026 any methodological changes in the data reported pursuant to Regulation (EC) No 1099/2008 on energy statistics, in the methodology for calculating energy balance and in energy models for European energy use and, if necessary, propose technical calculation adjustments to the Union's 2030 targets with a view to maintaining the level of ambition set out in paragraph 1 of this Article.

↓ 2018/2002 Art. 1.2

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

↓ 2012/27/EU (adapted)

CHAPTER II

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

⇩ new

Article 5

Public sector leading on energy efficiency

1.a. Member States shall ensure that the total final energy consumption of all public bodies combined is reduced by at least 1,7% each year **or alternatively by at least [1.9%] each year if excluding public transport or armed forces**, when compared to the year X-2 (with X as the year when this ~~*Directive enters into force*~~ **Article shall be transposed**). **To fulfil this obligation, Member States shall establish a baseline, which includes the final energy consumption of all public bodies for year X-2.**

1.b. In a transitional period of ~~*two*~~ four years after the transposition date of this article, the target set out in ~~this~~ paragraph 1.a will be indicative. During the transitional period, Member States may use estimated consumption data, and ~~*two*~~ four years after the transposition date of this Article Member States shall adjust the baseline and align the estimated final energy consumption of all public bodies to the actual final energy consumption of all public bodies.

1c. The obligation provided in paragraph 1a and the requirements provided in paragraphs 1.a and 1.b shall not include, until 31 December 2026, the energy consumption of public bodies in local administrative units [to be defined in Article 2 with reference to ESTAT] serving less than 50.000 inhabitants and, until 31 December 2029, the energy consumption of public bodies in local administrative units [to be defined in Article 2 with reference to ESTAT] serving less than 5.000 inhabitants.

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

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

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

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

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

[1] Recital (28) will be complemented as follows to clarify the application of this paragraph:

(28) To fulfil their obligation, Member States should target the final energy consumption of all public services and installations of public bodies. To determine the scope of addressees, Member States should apply the definition of contracting authorities provided in the Directive 2014/24/EU of the European Parliament and of the Council[65]. 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. **Member States should provide planning and annual reporting on the consumption of public bodies in an aggregated form per sector. The aggregation should be made, where available, at the level of NACE codes, such as E36, E37-39, H49, M72, O84, P85, Q86, Q87-88, R90-92, as well as separately for activates such as public transport (a small portion of code H) or street lighting which do not have their NACE code.**

🡻 2012/27/EU (adapted)
⇨ new

Article 6~~5~~~~1~~

Exemplary role of public bodies' buildings

1. Without prejudice to Article 7 of Directive 2010/31/EU of the European Parliament and of the Council[2], each Member State shall ensure that~~, as from 1 January 2014,~~ ⇨ at least ⇦ 3 % of the total floor area of heated and/or cooled buildings owned ~~and occupied~~ by ~~its central government~~ ⇨ public bodies ⇦, is renovated each year to⌦ at least ⌫ ~~meet at least the minimum energy performance requirements that it has set~~ ⇨ be transformed into nearly zero-energy buildings[3] ⇦ in ~~application of~~ ⌦ accordance with ⌫ Article ~~4~~ ⇨ 9 ⇦ of Directive 2010/31/EU.

1bis. Member states may exclude social housing from the obligation under paragraph 1. When a Member State decides to do so, it shall communicate to the Commission in its Building renovation plan in accordance with Art.3 of the recast EPBD other energy efficiency policies and measures targeted at improving the minimum energy performance standards of social housing.

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2 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).

3 **Addition of the following paragraph at the end of recital 31: The requirement to transform buildings into nearly zero-energy buildings does not exclude or prohibit a differentiation between nearly zero-energy building levels for new or renovated buildings. The definition of nearly zero-energy buildings, including the cost-optimal level, is defined in Directive 2010/31/EU.**

⇩ new

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

🡻 2012/27/EU (adapted)

⇨ new

~~The 3 % rate shall be calculated on the total floor area of buildings with a total useful floor area over 500 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 ⌦ having ⌫ ~~with~~ a total useful floor area ~~over 500 m² and, as of 9 July 2015,~~ over 250 m^2 owned ~~and occupied~~ by ~~central government and by these administrative departments~~ ⇨ public bodies ⇦ of the Member State concerned ⌦ and which ⌫ ~~that~~, on 1 January ~~of each year, do not meet the national minimum energy performance requirements set in application of Article 4 of Directive 2010/31/EU~~ ⇨ 2024, are not nearly zero-energy buildings ⇦.

~~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.~~

2. Member States may decide not to renovate up to the level provided in paragraph 1:

(a) buildings owned by public bodies officially protected as part of a designated environment, or because of their special architectural or ~~historical~~ historic 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 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.

For any building not included in points (a) to (c), Member States may decide not to renovate it up to the level provided in paragraph 1 if they assess by their own that it is not technically, economically or functionally feasible for this building to be transformed into a near zero energy building. When doing so, Member States can not count the renovation of this building towards the fulfilment of the requirement set out in paragraph 1.

~~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.~~

3. If a Member State renovates more than 3 % of the total floor area of buildings owned by public bodies in a given year, it may count the excess towards the annual renovation rate of any of the three following years.

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

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

(a) the floor area in m²; ~~and~~

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

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

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

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

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

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

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

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

6. Member States may opt for an alternative approach to paragraphs 1 to 4 of this Article that shall achieve every year an amount of energy savings in public bodies' buildings that is at least equivalent to that required in paragraph 1. ~~***ensures that a staged renovation to nearly zero-energy building follows the steps set out in a renovation passport. This alternative approach shall achieve, every year an amount of energy savings in public bodies' buildings that is at least equivalent to that required in paragraph 1.***~~

When implementing the alternative approach, Member States shall ensure that~~~~,~~ **each year a renovation passport in accordance with [Article 10][1] of Directive 2010/31/EU is introduced for buildings representing at least 3% of the total floor area of heated and/or cooled buildings owned by public bodies. ~~**f**~~**For** ~~***every building subject to the renovation obligation in the public sector, the renovation passport is set to achieve***~~ **a these buildings, the renovation to nearly zero-energy building**[2] ~~**renovation**~~ **shall be achieved** ~~***within 8 years and***~~ **at the latest by 2040** ~~***20350.***~~

For the purpose of the alternative approach, Member States may estimate the energy savings that paragraph 1 to 4 would generate by using appropriate standard values for the energy consumption of reference public bodies' buildings before and after renovation to be transformed into near zero energy buildings in accordance with [Article 9][3] of Directive 2010/31/EU.

Member States opting for the alternative approach shall notify to the Commission, by 31 December 2023, their projected energy savings to achieve the equivalent of energy savings in the buildings covered by paragraph 1 by 2030.

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1 **Article number to be updated at the end of the EPBD adoption process.**

3 Article number to be updated at the end of the EPBD adoption process.

Article 7~~6~~[1]

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

1. Member States shall ensure that ~~central governments~~ ⇨ contracting authorities and contracting entities, when concluding public contracts and concessions with a value equal to or greater than the thresholds laid down in Article 8 of Directive 2014/23/EU, Article 4 of Directive 2014/24/EU and Article 15 of Directive 2014/25/EU, ⇦ purchase only products, services, ~~and~~ buildings ⌦ and ⌫ ⇨ works ⇦ with high energy-efficiency performance ~~insofar as that is consistent with cost-effectiveness, economical feasibility, wider sustainability, technical suitability, as well as sufficient competition, as~~ ⌦ in accordance with the requirements ⌫ referred to in Annex ~~III~~IV ⌦ to this Directive ⌫, **unless it is not technically feasible**.

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

⇩ new

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

[1] **Recital XX : All the principles of the Directive 2014/23/EU of the European Parliament and the Council of 26 February 2014 on the award of concession contracts, the Directive 2014/24/EU of the European Parliament and the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC and the Directive 2014/25/EU of the European Parliament and the Council of 26 February 2014 on procurement by entities operating in the water, energy, transport and postal services sectors and repealing Directive 2004/17/EC remain fully applicable within the framework of this Directive.**

🡻 2012/27/EU (adapted)
⇨ new

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

3. ~~Member States shall encourage public bodies, including at regional and local levels, with due regard to their respective competences and administrative set-up, to follow the exemplary role of their central governments to purchase only products, services and buildings with high energy-efficiency performance.~~ ⇨ Notwithstanding paragraph 4 of Article 2~~6~~7 of this Directive, ⇦ Member States shall ~~encourage public bodies~~ ⇨ *ensure* **encourage** that contracting authorities and contracting entities ⇦ ~~, when tendering service contracts with significant energy content, to~~ assess the ~~possibility~~ ⇨ feasibility ⇦ of concluding long-term energy performance contracts that provide long-term energy savings ⇨ when procuring service contracts with significant energy content ⇦.

4. Without prejudice to paragraph 1, when purchasing a product package ⌦ fully ⌫ covered ~~as a whole~~ by a delegated act adopted under Regulation (EU) 2017/1369 of the European Parliament and of the Council[2] ~~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.

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1 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).

2 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

5. Member States may require that contracting authorities and contracting entities, **when concluding contracts as referred to in paragraph 1**, take into account, where appropriate, wider sustainability, social, environmental and circular economy aspects in procurement practices with a view to achieving the Union's decarbonisation and zero pollution objectives. Where appropriate, and in accordance with the requirements laid down in Annex IV, Member States shall require contracting authorities and contracting entities to take into account Union green public procurement criteria **or available equivalent national criteria**.

To ensure transparency in the application of energy efficiency requirements in the procurement process, Member States shall make publicly available information on the energy efficiency impact of contracts with a value equal to or greater than the thresholds referred to in paragraph 1**, by publishing this information in the respective notices on Tenders Electronic Daily (TED), in accordance with Directives 2014/24/EU, 2014/25/EU, 2014/23/EU and implementing Regulation (EU) 2019/1780.**

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 having a floor area larger than 2000 square meters.

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

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

🡻 2012/27/EU (adapted)
⇨ new

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

⇩ new

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

↓ 2018/2002 Art. 1.3 (adapted)
⇨ new

CHAPTER III

⌦ *EFFICIENCY IN ENERGY USE* ⌫

Article 8~~7~~

Energy savings obligation

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

(a) new savings each year from 1 January 2014 to 31 December 2020 of 1,5 % of annual energy sales to final customers by volume, averaged over the most recent three-year period prior to 1 January 2013. Sales of energy, by volume, used in transport may be excluded, in whole or in part, from that calculation;

(b) new savings each year from 1 January 2021 to 31 December ~~2030~~ ⇨ ~~2023~~ **2030** ⇦ of

(i) 0,8 % of annual final energy consumption, averaged over the most recent three-year period prior to 1 January 2019. By way of derogation from that requirement, Cyprus and Malta shall achieve new savings each year from 1 January 2021 to 31 December- ~~2030~~⇨-2023 ⇦ equivalent to 0,24 % of annual final energy consumption, averaged over the most recent three-year period prior to 1 January 2019;~~.~~

(ii) **1,1 % of annual final energy consumption from 1 January 2024 to 31 December 2025, averaged over the most recent three-year period prior to 1 January 2019.**

(iii) **1,3 % of annual final energy consumption from 1 January 2026 to 31 December 2027, averaged over the most recent three-year period prior to 1 January 2019.**

(iv) **1,5 % of annual final energy consumption from 1 January 2028 to 31 December 2030, averaged over the most recent three-year period prior to 1 January 2019.**

c) **By way of derogation from the requirements set out in point (b) (ii – iv) of the first subparagraph, Cyprus and Malta shall achieve new savings each year from 1 January 2024 to 31 December 2030 equivalent to 0,45 % of annual final energy consumption, averaged over the most recent three-year period prior to 1 January 2019.**

⇩ new

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

🡻 2018/2002 Art. 1.3

⇨ new

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

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

~~10~~2. Member States shall achieve the amount of energy savings required under paragraph 1 of this Article either by establishing an energy efficiency obligation scheme referred to in Article 9~~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. ~~9.~~ 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 V.

⇩ new

3. Member States shall implement energy efficiency obligation schemes, alternative policy measures, or a combination of both, or programmes or measures financed under an Energy Efficiency National Fund, as a priority among**, but not limited to,** people affected by energy poverty, vulnerable customers and, where applicable, people living in social housing **or financially weak households**.[1] Member States shall ensure that policy measures implemented pursuant to this Article have no adverse effect on those persons. Where applicable, Member States shall make the best possible use of funding, including public funding, funding facilities established at Union level, and revenues from allowances pursuant to Article 22(3)(b) with the aim of removing adverse effects and ensuring a just and inclusive energy transition.

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[1] Recital 61 will be complemented as follows in order to reflect the concept of vulnerable customers: This Directive refers to the concept of vulnerable customers, which Member States are to establish pursuant to Directive (EU) 2019/944. **Each Member State shall define the concept of vulnerable customers which may refer to energy poverty and, inter alia, to the prohibition of disconnection of electricity to such customers in critical times. The concept of vulnerable customers may include income levels, the share of energy expenditure of disposable income, the energy efficiency of homes, critical dependence on electrical equipment for health reasons, age or other criteria. This allows Member States to include households that are considered as financially weak in the national context.** In addition, pursuant to Directive 2012/27/EU, the notion of 'final users' alongside the notion of 'final customer' clarifies that the rights to billing and consumption information also apply to consumers without individual or direct contracts with the supplier of energy used for collective heating, cooling or domestic hot water production systems in multi-occupant buildings. The concept of vulnerable customers does not necessarily ensure the targeting of final users. Therefore, in order to ensure that the measures set out in this Directive reach all individuals and households in a situation of vulnerability, Member States should include not only customers, in its strict sense, but also final users, in establishing their definition of vulnerable customers.

Without prejudice to Directive (EU) 2019/944 on common rules for the internal market for electricity and Regulation (EU) 2019/943 on the internal market for electricity, in designing such policy measures, Member States shall consider and promote the role of renewable energy communities and citizen energy communities in the contribution to the implementation towards these policy measures.

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

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

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

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

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

🡻 2018/2002 Art. 1.3 (adapted)
⇨ new

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

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

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

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

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

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

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

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

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

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

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

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

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

(f) exclude from the calculation of the amount of required energy savings ⇨ pursuant to point (a) and (b) **(i)** of the first subparagraph of paragraph 1 ⇦, 30 % of the verifiable amount of energy generated on or in buildings for own use as a result of policy measures promoting new installation of renewable energy technologies;

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

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

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

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

Regardless of whether Member States exclude, in whole or in part, energy used in transport from their calculation baseline or make use of any of the options listed in paragraph 8~~4~~, they shall ensure that the calculated net amount of new savings to be achieved in final energy consumption during the ~~obligation~~ period ⇨ referred to in point (b) **(i)** 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) **(i)** of the first subparagraph of paragraph 1.

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

⇩ new

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

12. Where on the basis of the assessment of the integrated national energy and climate progress reports pursuant to Article 29 of Regulation (EU) 2018/1999, or of the draft or final update of the latest notified integrated national energy and climate plan pursuant to Article 14 of Regulation (EU) 2018/1999, or the assessment of the subsequent draft and final integrated national energy and climate plans pursuant to Article 3 and 7 to 12 of Regulation (EU) 2018/1999, the Commission concludes that policy measures do not ensure the achievement of the required amount of cumulative end-use energy savings by the end of the obligation period, the Commission may issue recommendations in accordance with Article 34 of Regulation (EU) 2018/1999 to the Member States whose policy measures it deems insufficient to ensure the fulfilment of their energy savings obligations.

↓ 2018/2002 Art. 1.3

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

⇩ new

13. Where a Member State has not achieved the required cumulative end-use energy savings by the end of each obligation period set out in paragraph 1 of this Article, it shall achieve the outstanding energy savings in addition to the cumulative end-use energy savings required by the end of the following obligation period**. Alternatively, where a Member State has achieved cumulative end-use energy savings above the required level by the end of each obligation period set out in paragraph 1 of this Article, it shall be entitled to carry the eligible amount of no more than 10% of such surplus into the following obligation period without having the target commitment being increased**.

↓ 2018/2002 Art. 1.3

⇨ new

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

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

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

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

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

11. In designing policy measures to fulfil their obligations to achieve energy savings, Member States shall take into account the need to alleviate energy poverty in accordance with criteria established by them, taking into consideration their available practices in the field, by requiring, to the extent appropriate, a share of energy efficiency measures under their national energy efficiency obligation schemes, alternative policy measures, or programmes or measures financed under an Energy Efficiency National Fund, to be implemented as a priority among vulnerable households, including those affected by energy poverty and, where appropriate, in social housing.

Member States shall include information about the outcome of measures to alleviate energy poverty in the context of this Directive in the integrated national energy and climate progress reports in accordance with Regulation (EU) 2018/1999.

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

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

⇩ new

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

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

🡻 2018/2002 Art. 1.4

⇨ new

Article 97a

Energy efficiency obligation schemes

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

Where Member States decide to fulfil their obligations to achieve the amount of savings required under Article 8(1) by way of an energy efficiency obligation scheme, Member States may also appoint an implementing public authority to administer the scheme.

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.

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

⇩ new

4. Member States may require obligated parties to achieve a share of their energy savings obligation among people affected by energy poverty, vulnerable customers and, where applicable, people living in social housing. Member States may also require obligated parties to achieve energy cost reduction targets**, provided they result in end use energy savings and are calculated in accordance with Annex V,** and to achieve energy savings by promoting energy efficiency improvement measures, including financial support measures mitigating carbon price effects on SMEs and micro-SMEs.

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

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

↓ 2018/2002 Art. 1.4 (adapted)
⇨ new

7~~4~~. Member States shall express the amount of energy savings required of each obligated party in terms of either final or primary energy consumption. The method chosen to express the amount of energy savings required shall also be used to calculate the savings claimed by obligated parties. ⇨ When converting the amount of energy savings, ⇦ ~~T~~the ⇨ net calorific values ⇦ ~~conversion factors~~ set out ⇨ in Annex VI of Commission Implementing Regulation (EU) 2018/2066[1] and the primary energy factor pursuant to Article 29 ⇦ ~~in Annex IV~~ shall apply ⇨ unless the use of other conversion factors can be justified ⇦.

8~~5~~. Member States shall ⌦ establish ⌫ ~~put in place~~ measurement, control and verification systems ⌦ for carrying out ⌫ ~~under which~~ documented verification ~~is carried out~~ on at least a statistically significant proportion and representative sample of the energy efficiency improvement measures put in place by the obligated parties. The measurement, control and verification shall be carried out independently of the obligated parties. ⇨ Where an entity is an obligated party under a national energy efficiency obligation scheme under Article 9 and under the EU Emissions Trading System to buildings and road transport [COM(2021) 551 final, 2021/0211 (COD)[2]], the monitoring and verification system shall ensure that the carbon price passed through when releasing fuel for consumption [according to Article 1(21) of COM(2021) 551 final, 2021/0211 (COD)] shall be taken into account in the calculation and reporting of energy savings of the entity´s energy saving measures. ⇦

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

[2] Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Directive 2003/87/EC establishing a system for greenhouse gas emission allowance trading within the Union, Decision (EU) 2015/1814 concerning the establishment and operation of a market stability reserve for the Union greenhouse gas emission trading scheme and Regulation (EU) 2015/757, (Text with EEA relevance){SEC(2021) 551 final} - {SWD(2021) 557 final} - {SWD(2021) 601 final} - {SWD(2021) 602 final.

⇩ new

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

🡻 2018/2002 Art. 1.4 (adapted)

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

(a) ~~permit obligated parties~~ to count towards their obligation certified energy savings achieved by energy service providers or other third parties, including when obligated parties promote measures through other State-approved bodies or through public authorities that may involve formal partnerships and may be in combination with other sources of finance. Where Member States so permit, they shall ensure that the certification of energy savings follows an approval process that is put in place in the Member States, that is clear, transparent, and open to all market participants, and that aims to minimise the costs of certification;

(b) ~~allow obligated parties~~ to count savings obtained in a given year as if they had instead been obtained in any of the four previous or three following years as long as this is not beyond the end of the obligation periods set out in Article 8~~7~~(1).

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

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

Article 10~~7b~~

Alternative policy measures

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

2. For all measures other than those relating to taxation, Member States shall put in place measurement, control and verification systems under which documented verification is carried out on at least a statistically significant proportion and representative sample of the energy efficiency improvement measures put in place by the participating or entrusted parties. The measurement, control and verification shall be carried out independently of the participating or entrusted parties.

⇩ new

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

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

↓ 2012/27/EU (adapted)

Article 11~~8~~

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

⇩ new

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

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

The results of the energy audits including the recommendations from these audits shall be transmitted to the management of the enterprise. Member States shall ensure that the results and the implemented recommendations are published in the enterprise's annual report**, except information subject to national laws protecting trade and business secrets and confidentiality**.[1]

[1] Modification of the first sentence of recital 63: "To tap the energy savings potential in certain market segments where energy audits are generally not offered commercially (such as small and medium-sized enterprises (SMEs)), Member States should develop programmes to encourage SMEs to undergo energy audits. Energy audits should be mandatory and regular for ~~*large*~~ **enterprises with the average annual energy consumption within a certain threshold,** as energy savings can be significant. […]"

For the purposes of paragraphs 1 and 2, Member States shall require that if an enterprise has an annual consumption of more than 100 TJ and 10 TJ respectively any given year, this information be made available to the national authorities in charge of the implementation of this article. For this purpose, Member States can promote the use of a new or existing platform to facilitate the collection of the required data at national level.

↓ 2012/27/EU
⇨ new

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

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

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

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

For the purpose of guaranteeing the high quality of the energy audits and energy management systems, Member States shall establish transparent and non-discriminatory minimum criteria for energy audits based on Annex VI. ⇨ Member States shall **designate a competent authority or body to** ensure that **the timelines for conducting energy audits as specified in paragraph 2 are respected and the minimum criteria set out in Annex VI are correctly applied.** ~~*quality checks are carried out to ensure the validity and accuracy of energy audits.*~~ ⇦

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

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

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

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

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

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

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

⇩ new

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

🡻 2012/27/EU
⇨ new

6~~5~~. 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 **covers the necessary elements of the energy management system and that the contract** complies with the requirements set out in Annex XIV.

🡻 2012/27/EU (adapted)
⇨ new

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

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

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

~~⇩ new~~

~~*10. Without prejudice to paragraphs 1 to 9, Member States shall require, by 15 March 2024 and every year thereafter, owners and operators of every data centre in their territory with a significant energy consumption to make publicly available the information set out in Annex VI (`Minimum requirements for monitoring and publishing the energy performance of data centres´), which Member States shall subsequently report to the Commission[1] By way of derogation from this requirement, data centers used or providing their services exclusively with a final purpose for defence, civil security and protection of population purposes shall not be covered by the provisions of this paragraph.*~~

~~*[1] The Commission is currently working on the concept of significant energy consumption for data centers. The outcome of this work may be part of the legislative text or a delegated act at a later stage.*~~

⇨ **new**

Article 11a

Data centres

1. Member States shall require, by 15 March 2024 and every year thereafter, owners and operators of every data centre in their territory with a significant energy consumption to make publicly available the information set out in Annex VIa, which Member States shall subsequently report to the Commission.[1]

2. Data centers used or providing their services exclusively with final purposes for defence, civil security and protection of population shall not be covered by the provisions of paragraph 1.

🡻 2012/27/EU

Article 12~~9~~

🡻 2019/944 Art. 70.1(a)

Metering for natural gas

[1] **The Commission is currently working on the concept of significant energy consumption for data centers. The outcome of this work may be part of the legislative text or a delegated act at a later stage.**

2019/944 Art. 70.1(b)

1. Member States shall ensure that, in so far as it is technically possible, financially reasonable, and proportionate to the potential energy savings, for natural gas final customers are provided with competitively priced individual meters that accurately reflect the final customer's actual energy consumption and that provide information on actual time of use.

2012/27/EU

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

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

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

2019/944 Art. 70.1(c)

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

2012/27/EU

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

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

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

↓ 2018/2002 Art. 1.6 (adapted)

Article 13~~9a~~

Metering for heating, cooling and domestic hot water

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

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

Article 14~~9b~~

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

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

Where the use of individual meters is not technically feasible or where it is not cost-efficient to measure heat consumption in each building unit, individual heat cost allocators shall be used to measure heat consumption at each radiator unless it is shown by the Member State in question that the installation of such heat cost allocators would not be cost-efficient. In those cases, alternative cost-efficient methods of heat consumption measurement may be considered. The general criteria, methodologies and/or procedures to determine technical non-feasibility and non-cost effectiveness shall be clearly set out and published by each Member State.

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

3. Where multi-apartment or multi-purpose buildings are supplied from district heating or district cooling, or where own common heating or cooling systems for such buildings are prevalent, Member States shall ensure they have in place transparent, publicly available national rules on the allocation of the cost of heating, cooling and domestic hot water consumption in such buildings to ensure transparency and accuracy of accounting for individual consumption. Where appropriate, such rules shall include guidelines on the manner in which to allocate cost for energy that is used as follows:

(a) domestic hot water;

(b) heat radiated from the building installation and for the purpose of heating the common areas, where staircases and corridors are equipped with radiators;

(c) for the purpose of heating or cooling apartments.

Article 15~~9c~~

Remote reading requirement

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

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

↓ 2012/27/EU

Article 16~~10~~

↓ 2019/944 Art. 70.2(a)

Billing information for natural gas

↓ 2019/944 Art. 70.2(b) (adapted)

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

↓ 2012/27/EU

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

↓ 2019/944 Art. 70.2(c)

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

↓ 2012/27/EU (adapted)

Complementary information on historical consumption shall include:

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

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

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

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

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

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

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

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

↓ 2018/2002 Art. 1.8 (adapted)

Article 17~~10a~~

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

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

This obligation may, where a Member State so provides, save in the case of sub-metered consumption based on heat cost allocators under Article 14~~9b~~, be fulfilled by a system of regular self-reading by the final customer or final user whereby they communicate readings from their meter. Only where the final customer or final user has not provided a meter reading for a given billing interval shall billing be based on estimated consumption or a flat rate.

2. Member States shall:

(a) require that, if information on the energy billing and historical consumption or heat cost allocator readings of final users is available, it be made available upon request by the final user, to an energy service provider designated by the final user;

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

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

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

Member States may provide that, at the request of the final customer, the provision of billing information shall not be considered to constitute a request for payment. In such cases, Member States shall ensure that flexible arrangements for actual payment are offered.

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

🡻 2018/2002 Art. 1.9

Article 18~~11~~

🡻 2019/944 Art. 70.3

Cost of access to metering and billing information for natural gas

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🡻 2018/2002 Art. 1.9

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

↓ 2018/2002 Art. 1.10

Article 19~~11a~~

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

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

2. Notwithstanding paragraph 1 of this Article, the distribution of costs of billing information for the individual consumption of heating, cooling and domestic hot water in multi-apartment and multi-purpose buildings pursuant to Article 14~~9b~~ shall be carried out on a non-profit basis. Costs resulting from the assignment of that task to a third party, such as a service provider or the local energy supplier, covering the measuring, allocation and accounting for actual individual consumption in such buildings, may be passed onto the final users to the extent that such costs are reasonable.

3. In order to ensure reasonable costs for sub-metering services as referred to in paragraph 2, Member States may stimulate competition in that service sector by taking appropriate measures, such as recommending or otherwise promoting the use of tendering and/or the use of interoperable devices and systems facilitating switching between service providers.

⇩ new

CHAPTER IV

CONSUMER INFORMATION AND EMPOWERMENT

Article 20

Basic contractual rights for heating, cooling and domestic hot water

1. Without prejudice to Union rules on consumer protection, in particular Directive 2011/83/EU of the European Parliament and of the Council[1] and Council Directive 93/13/EEC[2], Member States shall ensure that final customers and, where explicitly referred to, final users are granted the rights provided for in paragraphs 2 to 8 of this Article. [3]

[1] 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).

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

[3] Proposed new recital (90a) to explain the rationale of the Article: "**This Directive strengthens the protection of consumers introducing basic contractual rights for district heating, cooling and domestic hot water, coherent with the level of rights, protection and empowerment that the Directive (EU) 2019/944 has introduced for final customers in the electricity sector. Plain and unambiguous information should be made available to consumers concerning their rights. Several factors impede consumers from accessing, understanding and acting upon the various sources of market information available to them. The introduction of basic contractual rights can help, among others, in the proper understanding of the baseline of the quality of services offered in the contract by the supplier, including the quality and characteristics of the supplied energy. In addition, it can contribute in the minimisation of hidden or extra costs that could result from the introduction of either upgraded or new services after the signing of the contract and without the clear understanding and agreement by the customer. These services could concern the energy supplied, metering and billing services, purchase and installation or ancillary and maintenance services and costs related to the network, the metering devices, local heating or cooling equipment, etc. The requirements will contribute to the improvement of comparability of offers and ensure the same level of basic contractual rights for all European citizens regarding heating, cooling and domestic hot water, without restricting the national competences.**"

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

(a) the identity**,** ~~*and*~~ address **and contact details** of the supplier;

(b) the services provided and the **minimum** service quality levels **included**;

(c) the types of maintenance service ~~*offered*~~ **included in the contract without additional charges**;

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

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

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

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

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

(i) the contact details enabling the customer to identify relevant one-stop-shops referred to in point (i) of the third subparagraph of Article 21(2).

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**, including prices and tariffs,** 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 **and the possibility to terminate their contract if they do not accept the new 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. **The termination of contract shall not result in extra cost to the final customer.**

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[1].

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

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

[1] 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.

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.

7a. (new) In case of planned disconnection, suppliers shall provide the customers concerned with adequate information on alternative measures sufficiently in advance and at no extra cost. Such alternative measures may refer to sources of support to avoid disconnection, prepayment systems, energy audits, energy consultancy services, alternative payment plans, debt management advice or disconnection moratoria.

↓ 2012/27/EU (adapted)

Article 21~~12~~

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

⇩ new

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

🡻 2012/27/EU (adapted)
⇨ new

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

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

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

(i) fiscal incentives;

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

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

(iv) exemplary projects;

(v) workplace activities;

⇩ new

(vi) training activities;

(vii) digital tools.

🡻 2012/27/EU

⇨ new

⇨ For the purposes of this article, these measures shall **include the creation of a supportive framework for** ~~*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**, in particular for the** ⇦:

⇩ new

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

🡻 2012/27/EU

⇨ new

(ii) communication of~~:~~

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

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

⇩ new

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

↓ 2012/27/EU (adapted)
⇨ new

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

⇩ new

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

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.

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

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.

↓ 2012/27/EU (adapted)
⇨ new

~~*Article 19*~~

~~**Other measures to promote energy efficiency**~~

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

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

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

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

⇩ new

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

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

🡻 2012/27/EU
⇨ new

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

⇩ new

Article 22

Empowering and protecting vulnerable customers and alleviating energy poverty

1. **Without prejudice to their national economic and social policies,** Member States shall take appropriate measures to empower and protect people affected by energy poverty, vulnerable customers and, where applicable, people living in social housing.

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

2. ~~*Without prejudice to their national economic and social policies,*~~ Member States ~~*shall*~~ **may** implement energy efficiency improvement measures and related consumer protection or information measures, in particular those set out in Article 21 and Article 8(3), as a priority among people affected by energy poverty, vulnerable customers and, where applicable, people living in social housing to alleviate energy poverty.

3. ~~*Without prejudice to their national economic and social policies, to*~~ **To** support vulnerable customers, people affected by energy poverty and, where applicable, people living in social housing, Member States ~~*shall*~~ **may**:

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

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

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

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

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

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

4. Member States shall establish **or entrust** a**n existing** 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*,~~ **and** ~~*measures to generate robust long term solutions to mitigate energy poverty and to develop appropriate*~~ technical assistance and financial tools **aimed at alleviating energy poverty**. Member States shall strive to ensure a network of experts' composition that ensures gender balance and reflects the perspectives of **all** ~~in all their diversity~~.

Member States may entrust the same network of experts **to offer advise on**:

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

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

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

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

↓ 2012/27/EU (adapted)

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

CHAPTER V~~III~~

EFFICIENCY IN ENERGY SUPPLY

Article 23~~14~~

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

⇩ new

1. As part of **the** ~~*its*~~ integrated national energy and climate plan plan**s**, **and their** ~~*its subsequent integrated national energy and climate plan*~~ **updates (as from June 2024)**, ~~*and respective progress reports notified*~~ in accordance with Regulation (EU) 2018/1999, each Member State shall notify to the Commission a comprehensive heating and cooling assessment. That comprehensive assessment shall contain the information set out in Annex IX and shall be accompanied with the assessment carried out pursuant to Article 15(7) of Directive (EU) 2018/2001.

↓ 2012/27/EU (adapted)

~~1. By 31 December 2015, Member States shall carry out and notify to the Commission a comprehensive assessment of the potential for the application of high-efficiency cogeneration and efficient district heating and cooling, containing the information set out in Annex VIII. If they have already carried out an equivalent assessment, they shall notify it to the Commission.~~

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

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

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

2. Member States shall ensure that the ~~*public is*~~ ~~**relevant**~~ **stakeholders, affected by the comprehensive assessment, are** given the opportunity to participate in the preparation of heating and cooling plans, the comprehensive assessment and the policies and measures~~.~~**, subject to national laws protecting trade, business secrets and confidentiality.**

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

⇩ new

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

[1] 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).

🡻 2012/27/EU

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

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

🡻 new

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

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

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

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

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

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

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

Member States shall ensure that the ~~public~~ **relevant stakeholders, affected by the planning are** ~~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 **provide** support **to** regional and local authorities, **which may include** ~~*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 **ensure more efficient consumption of** ~~*increase*~~ primary energy ~~*efficiency*~~ and **to increase** 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, 50% renewable energy and** 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**, 50% waste heat, 50% renewable energy** and waste heat, **or a system** where the **total** share of renewable energy ~~is at least 20%~~, **waste heat or high-efficiency cogenerated heat is at least 80% and while the total share of renewable and waste heat is at least 35%** ;

d. from 1 January 2045, a system using at least 75 % renewable energy, **75% waste heat or 75% renewable energy** and waste heat, **and using at least 95% renewable energy, waste heat and high-efficiency cogenerated heat;** ~~where the share of renewable energy is at least 40%;~~

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

~~For the purposes of paragraphs (a) - (e) an efficient district heating and cooling system is also a system that uses at least half of the share of renewable energy foreseen by each date, and the remaining share of the non-renewable energy sources do not emit greenhouse gases.~~

2. Member States may also choose, as an alternative to the criteria set out in points (a) to (e) of the paragraph 1 of this article, a sustainability performance criteria based on the amount of greenhouse gas emissions from the district heating and cooling system per unit of heat or cold delivered to the customers, taking into consideration measures implemented to fulfil the obligation pursuant to [Article 24(4) Renewable Energy Directive COM(2021) 557 final[1]]. When choosing this criteria, an efficient district heating and cooling system is a system which has ~~have~~ the following maximum amount of greenhouse gas emissions per unit of heat or cold delivered to the customers:

a. until 31 December 2025 : 200 grams/kWh

b. from 1 January 2026 : 150 grams/kWh

c. from 1 January 2035: 100 grams/kWh

d. from 1 January 2045 : 50 grams/kWh

e. from 1 January 2050 : 0 grams/kWh

Member states may choose to apply the aforementioned criteria of greenhouse gas emissions per unit of heat or cold for any given period referred to points (a) to (e) of this paragraph. When doing so, they shall notify the Commission of their choice at least three months after this directive enters into force for the period referred to point (a) and at least six months before the beginning of the periods referred to points (b) to (e)~~the given period~~. This notification shall include the measures implemented to fulfil the obligation pursuant to [Article 24 (4) Renewable Energy Directive COM (2021) 557 final[2]] if they have not been notified before in the latest update of their NECP.

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[1] **Proposal for a Directive of the European Parliament and of the Council~~DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL~~ amending Directive (EU) 2018/2001 of the European Parliament and of the Council, Regulation (EU) 2018/1999 of the European Parliament and of the Council and Directive 98/70/EC of the European Parliament and of the Council as regards the promotion of energy from renewable sources, and repealing Council Directive (EU) 2015/652.**

[2] **Proposal for a Directive of the European Parliament and of the Council amending Directive (EU) 2018/2001 of the European Parliament and of the Council, Regulation (EU) 2018/1999 of the European Parliament and of the Council and Directive 98/70/EC of the European Parliament and of the Council as regards the promotion of energy from renewable sources, and repealing Council Directive (EU) 2015/652.**

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

4~~3~~. Member States shall ensure that as from 1 January 2025, and every five years thereafter, operators of all existing district heating and cooling systems with a total ~~*energy*~~ **heat and cold** output exceeding 5 MW and which do not meet the criteria set out in paragraph 1(b) to (e), prepare a plan to ~~*increase*~~ **ensure more** ~~*primary energy*~~ efficien**t consumption of primary energy**~~*cy*~~ and **to increase the share of renewable energy in heating and cooling supply** ~~*renewable energy*~~. The plan shall include measures to meet the criteria set out in paragraph 1(b) to (e) and shall be approved by the competent authority.

🡻 2012/27/EU (adapted)

⇨ new

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

(a) a ~~new~~ thermal electricity generation installation with ~~a~~ ⇨ an average annual ⇦ total ~~thermal~~ ⇨ energy ⇦ input exceeding ~~20~~ ⇨ **10** ~~5~~ ⇦ MW ~~is planned~~, in order to assess the cost and benefits of providing for the operation of the installation as a high-efficiency cogeneration installation;

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

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

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

⇩ new

(b) an industrial installation with an average annual total energy input exceeding **10** ~~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 **10** ~~5~~ MW, such as wastewater treatment facilities and LNG facilities in order to assess utilisation of waste heat on-site and off-site;

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

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

🡻 2012/27/EU

⇨ new

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

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

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

(a) those peak load and back-up electricity generating installations which are planned to operate under 1500 operating hours per year as a rolling average over a period of five years, based on a verification procedure established by the Member States ensuring that this exemption criterion is met;

~~(b)nuclear power installations;~~

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

⇩ new

(c) data centres whose waste heat is or will be used in a district heating network or directly for space heating, domestic hot water preparation or other uses in the building or group of buildings where it is located.

↓ 2012/27/EU (adapted)
⇨ new

Member States may also lay down thresholds, expressed in terms of the amount of available useful waste heat, the demand for heat or the distances between industrial installations and district heating networks, for exempting individual installations from the provisions of points ~~(c) and (d)~~ ⇨ (c) and (d) ⇦ of paragraph 5~~45~~.

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

7~~67~~. Member States shall adopt authorisation criteria as referred to in Article 8~~7~~ of Directive (EU) 2019/944~~2009/72/EC~~, or equivalent permit criteria, to:

(a) take into account the outcome of the comprehensive assessment referred to in ~~paragraph 1~~ Article 23(1);

(b) ensure that the requirements of paragraph ~~4~~5 are fulfilled; ~~and~~

(c) take into account the outcome of cost-benefit analysis referred to in paragraph 5~~45~~.

8~~78~~. Member States may exempt individual installations from being required, by the authorisation and permit criteria referred to in paragraph 7~~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 reasoned notification of its decision to the Commission within three months of the date of taking it. ⇨ The Commission may issue an opinion on the notification within three months of its receipt. ⇦

9~~89~~. Paragraphs 5, 6, 7 and 8 ~~45, 56, 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

10 ~~9.~~ Member States shall collect information on cost-benefit analyses carried out in accordance with paragraph ~~4~~ **5** points (a), (b), (c) and (d) of this Article. That information should contain at least the data on available heat supply amounts and heat parameters, number of planned operating hours annually and geographical location of the sites. That data shall be published with the due respect of its potential sensitivity.

🡻 2012/27/EU (adapted)

⇨ new

11~~10~~. On the basis of the harmonised efficiency reference values referred to in point (f) of Annex III~~II~~, Member States shall ensure that the origin of electricity produced from high-efficiency cogeneration can be guaranteed according to objective, transparent and non-discriminatory criteria laid down by each Member State. They shall ensure that this guarantee of origin complies with the requirements and contains at least the information specified in Annex XI~~X~~. Member States shall mutually recognise their guarantees of origin, exclusively as proof of the information referred to in this paragraph. Any refusal to recognise a guarantee of origin as such proof, in particular for reasons relating to the prevention of fraud, must be based on objective, transparent and non-discriminatory criteria. Member States shall notify the Commission of such refusal and its justification. In the event of refusal to recognise a guarantee of origin, the Commission may adopt a decision to compel the refusing party to recognise it, in particular with regard to objective, transparent and non-discriminatory criteria on which such recognition is based.

The Commission shall be empowered to review, by means of delegated acts in accordance with Article 31~~23~~ of this Directive, the harmonised efficiency reference values laid down in ~~Commission Implementing Decision 2011/877/EU~~[1] Commission Delegated Regulation (EU) 2015/2402[2] ~~on the basis of Directive 2004/8/EC by 31 December 2014~~.

12~~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~~**~~3~~***

Energy transformation, transmission and distribution

1. ~~Member States shall ensure that~~ N~~n~~ational energy regulatory authorities ~~pay due regard to~~ ⇨ shall apply the ⇦ energy efficiency ⇨ first principle in accordance with Article 3 of this Directive ⇦ in carrying out the regulatory tasks specified in Directives (EU) 2019/944~~2009/72/EC~~ and 2009/73/EC regarding their decisions on the operation of the gas and electricity infrastructure ⇨ , including their decisions on network tariffs ⇦ **as set out in Article 18 of Regulation (EU) 2019/943 and in Article 13 of Regulation (EU) 715/2009 of the European Parliament and of the Council**. **When doing so, national energy regulatory authorities may take into account security of supply and market integration.**

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1 ~~OJ L 343, 23.12.2011, p. 91.~~

2 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).

~~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) 2019/944209/72/EC and taking into account the costs and benefits of each measure, provide incentives for grid operators to make available system services to network users permitting them to implement energy efficiency improvement measures in the context of the continuing deployment of smart grids.~~

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

⇩ new

2. Member States shall ensure that gas and electricity transmission and distribution system operators apply the energy efficiency first principle in accordance with Article 3 of this Directive in their network planning, network development and **major** 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 **or other designated national authorities** shall ~~*provide*~~ **verify that** methodologies ~~*and guidance*~~ **used by transmission system operators and distribution system operators** ~~*on how to*~~ assess alternatives in the cost-benefit analysis~~*, taking*~~ **and take** into account **the** wider benefits **of energy efficiency solutions.** ~~*, and*~~ **National regulatory authorities or other designated national authorities shall also** verify the implementation of the energy efficiency first principle by the transmission system operators or distribution system operators when approving, verifying or monitoring the**ir** projects **and network development plans pursuant to Article 32(3) and 51 of Directive 2019/944 and Article 22 of Directive 2009/73/EC.** ~~*submitted by the transmission system operators or distribution system operators.*~~

3[1]. Member States shall ensure that transmission and distribution system operators map network losses and take cost-effective measures to **optimize networks where it is** ~~reduce network losses, unless~~ **technically and financially** ~~not~~ **feasible**. Transmission and distribution system operators shall report those measures and expected energy savings through the reduction of network losses to the national energy regulatory authority. National energy regulatory authorities shall **provide for incentives to** ~~*limit the possibility for*~~ transmission and distribution system operators to **optimize networks where it is technically and financially feasible** ~~*recover*~~ ~~**reduce** avoidable network losses *from tariffs paid by consumers*~~. Member States shall ensure that transmission and distribution system operators assess energy efficiency improvement measures with regard to their existing gas or electricity transmission or distribution systems and improve energy efficiency in infrastructure design and operation. Member States shall encourage transmission and distribution system operators to develop innovative solutions to improve the energy efficiency of existing systems through incentive based regulations **in compliance with the tariff principles set out in Article 18 of Regulation (EU) 2019/943 and Article 13 of Regulation (EU) 715/2009**.

4. National energy regulatory authorities shall include a specific section on the progress achieved in energy efficiency improvements regarding the operation of the gas and electricity infrastructure in the annual report drawn up pursuant to Article 59(1)(i) of Directive (EU) 2019/944 and pursuant to Article 41 of Directive (EU) 2009/73/EC. In these reports, national energy regulatory authorities shall provide an assessment of network losses in the operation of the gas and electricity infrastructure, the measures carried out by transmission and distribution system operators, and, where applicable, provide recommendations for energy efficiency improvements.

[1] **Recital XX : Pursuant to Article 15(2) of 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, all Member States have undertaken an assessment of the energy efficiency potentials of their gas and electricity infrastructure, and have identified concrete measures and investments for the introduction of cost-effective energy efficiency improvements in the network infrastructure, with a timetable for their introduction. The results of these actions represent a solid basis for the application of the energy efficiency first principle in their network planning, network development and investment decisions.**

↓ 2012/27/EU (adapted)

5. For electricity, Member States shall ensure that network regulation and network tariffs fulfil the criteria in Annex XII~~XI~~, taking into account guidelines and codes developed pursuant to Regulation (EU) 2019/943~~(EC) No 714/2009~~ **and the obligation set out in Article 59(7)(a) of Directive 2019~~2009/~~944/EC to allow that necessary investments in the networks are carried out in a manner ensuring the viability of the networks**.

~~2. Member States shall ensure, by 30 June 2015, that:~~

~~(a) an assessment is undertaken of the energy efficiency potentials of their gas and electricity infrastructure, in particular regarding transmission, distribution, load management and interoperability, and connection to energy generating installations, including access possibilities for micro energy generators;~~

~~(b) concrete measures and investments are identified for the introduction of cost-effective energy efficiency improvements in the network infrastructure, with a timetable for their introduction.~~

↓ 2018/2002 Art. 1.11

~~2a. By 31 December 2020, the Commission shall, after consulting relevant stakeholders, prepare a common methodology in order to encourage network operators to reduce losses, implement a cost-efficient and energy-efficient infrastructure investment programme and properly account for the energy efficiency and flexibility of the grid.~~

↓ 2012/27/EU
⇨ new

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.

74. ~~Member States~~ ⇨ National regulatory authorities ⇦ shall ensure the removal of those incentives in transmission and distribution tariffs that are detrimental to the ~~overall efficiency (including~~ energy efficiency~~)~~ of the generation, transmission, distribution and supply of electricity ⇨ and gas ⇦ ~~or those that might hamper participation of demand response, in balancing markets and ancillary services procurement. Member States shall ensure that network operators are incentivised to improve efficiency in infrastructure design and operation, and, within the framework of Directive (EU) 2019/944209/72/EC, that tariffs allow suppliers to improve consumer participation in system efficiency, including demand response, depending on national circumstances~~.

↓ 2019/944 Art. 70.5(a)

85. ~~5~~. Transmission system operators and distribution system operators shall comply with the requirements set out in Annex XII.

↓ 2012/27/EU

⇨ new

~~Member States may particularly facilitate the connection to the grid system of electricity produced from high-efficiency cogeneration from small-scale and micro-cogeneration units. Member States shall, where appropriate, take steps to encourage network operators to adopt a simple notification 'install and inform' process for the installation of micro-cogeneration units to simplify and shorten authorisation procedures for individual citizens and installers.~~

~~6. Subject to the requirements relating to the maintenance of the reliability and safety of the grid, Member States shall take the appropriate steps to ensure that, where this is technically and economically feasible with the mode of operation of the high-efficiency cogeneration installation, high-efficiency cogeneration operators can offer balancing services and other operational services at the level of transmission system operators or distribution system operators. Transmission system operators and distribution system operators shall ensure that such services are part of a services bidding process which is transparent, non-discriminatory and open to scrutiny.~~

9. Where appropriate, ~~Member States~~ ⇨ national regulatory authorities ⇦ may require transmission system operators and distribution system operators to encourage high-efficiency cogeneration to be sited close to areas of ⇨ heat ⇦ demand by reducing the connection and use-of-system charges.

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~~[1].

~~Member States may encourage operators of installations referred to in the first subparagraph to improve their annual average net operational rates.~~

[1] ~~(OJ L 24, 29.1.2008, p. 8).~~

CHAPTER VIIV

HORIZONTAL PROVISIONS

Article 2616

Availability of qualification, accreditation and certification schemes

~~1. Where a Member State considers that the national level of technical competence, objectivity and reliability is insufficient, it shall ensure that, by 31 December 2014, certification and/or accreditation schemes and/or equivalent qualification schemes, including, where necessary, suitable training programmes, become or are available for providers of energy services, energy audits, energy managers and installers of energy-related building elements as defined in Article 2(9) of Directive 2010/31/EU.~~

~~2. Member States shall ensure that the schemes referred to in paragraph 1 provide transparency to consumers, are reliable and contribute to national energy efficiency objectives.~~

⇩ new

1. Member States shall **set up the framework** ensur**inge** the appropriate level of competences for energy efficiency-**related** professions that corresponds to the market needs. Member States in close cooperation with the social partners shall ensure that certification and/or equivalent qualification schemes, including, where necessary, suitable training programmes, are available for energy efficiency-**related** professions including providers of energy services, providers of energy audits, energy managers, independent experts and installers of building elements **and providers of integrated renovation works** pursuant to Directive 2010/31/EU, and are reliable and contribute to national energy efficiency objectives and the overall EU decarbonisation objectives.

Member States shall ensure that ~~P~~providers roviders of certification, and/or equivalent qualification schemes, including, where necessary, suitable training programmes ~~*shall be*~~ **are** accredited according to Regulation (EC) No 765/2008[1]**, where applicable**.

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

⬇ 2012/27/EU (adapted)
⇨ new

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

Member States shall take appropriate measures to make consumers aware of the availability of ~~qualification and/or certification~~ ⌦ the ⌫ schemes in accordance with Article 27~~18~~(1).

⇩ new

4. Member States shall assess by 31 December 2024 and every ~~*four*~~ **five** 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 **and providers of integrated renovation works** pursuant to Directive 2010/31/EU, and shall make the assessment and recommendations thereof publically available. **Member States may include these assessments in their integrated national energy and climate plans.**

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[1] Regulation (EC) No 765/2008 of the European Parliament and of the Council of 9 July 2008 setting out the requirements for accreditation and market surveillance relating to the marketing of products and repealing Regulation (EEC) No 339/93 , (OJ L 218, 13.8.2008, p. 30–47).

↓ 2012/27/EU (adapted)
⇨ new

~~*Article 17*~~

~~**Information and training**~~

~~1. Member States shall ensure that information on available energy efficiency mechanisms and financial and legal frameworks is transparent and widely disseminated to all relevant market actors, such as consumers, builders, architects, engineers, environmental and energy auditors, and installers of building elements as defined in Directive 2010/31/EU.~~

~~4. Member States shall, with the participation of stakeholders, including local and regional authorities, promote suitable information, awareness-raising and training initiatives to inform citizens of the benefits and practicalities of taking energy efficiency improvement measures.~~

Article 27~~18~~

Energy services

1. Member States shall promote the energy services market and access ⌦ to it ⌫ for SMEs ~~to this market~~ by~~:~~

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

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

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

⇩ new

(c) available energy services providers that are qualified and/or certified and their qualifications and/or certifications in accordance with Article 26.

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

🡻 2012/27/EU (adapted)
⇨ new

2.~~(b) encouraging~~ ⌦ Member States shall encourage ⌫ the development of quality labels, inter alia, by trade associations ⇨ , based on European or international standards where relevant ⇦;

3.~~(c) making~~ ⌦ Member States shall make ⌫ publicly available and regularly ~~updating~~ ⌦ update ⌫ a list of available energy service providers who are qualified and/or certified and their qualifications and/or certifications in accordance with Article 26~~16~~, or ~~providing~~ ⌦ provide ⌫ an interface where energy service providers can provide information.

⇩ new

4. Member States shall encourage public bodies to use energy performance contracting for renovations of large buildings. For renovations of large non-residential buildings with a useful floor area above 1000 m^2, Member States shall ensure that public bodies assess the feasibility of using energy performance contracting.

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

🡻 2012/27/EU (adapted)
⇨ new

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

(a~~i~~) providing model contracts for energy performance contracting which include at least the items listed in Annex XIII ⇨ and take into account the existing European or international standards, available tendering guidelines and Eurostat guide to the statistical treatment of energy performance contracts in government accounts ⇦;

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

⇩ new

(c) making publicly available a database of implemented and ongoing energy performance contracting projects that includes the projected and achieved energy savings.

🡻 2012/27/EU (adapted)
⇨ new

6~~2~~. Member States shall support the proper functioning of the energy services market~~,~~ ~~where appropriate,~~ by ⌦ taking the following measures ⌫:

(a) identifying and publicising point(s) of contact where final customers can obtain the information referred to in paragraph 1;

(b) ~~taking, if necessary, measures to remove~~ ⌦ removing ⌫ the regulatory and non-regulatory barriers that impede the uptake of energy performance contracting and other energy efficiency service models for the identification and/or implementation of energy saving measures;

~~(c)considering putting in place or assigning the role of an independent mechanism, such as an ombudsman, to ensure the efficient handling of complaints and out-of-court settlement of disputes arising from energy service contracts;~~

⇩ new

(c) setting up and promoting the role of advisory bodies and independent market intermediaries including one stop shops or similar support mechanisms to stimulate market development on the demand and supply sides, and making information about those support mechanisms publically available and accessible to market actors.

7. For the purpose of supporting the proper functioning of the energy services market, Member States may establish an individual mechanism or designate an ombudsperson to ensure the efficient handling of complaints and out-of-court settlement of disputes arising from energy service and energy performance contracts.

🡻 2012/27/EU (adapted)

⇨ new

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

8~~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 **pursuant to Article 22(1)**, people affected by energy poverty and, where applicable, people living in social housing including by integrating an equality perspective so that no one is left behind ⇦.

⇨ 3. Member States shall adopt measures that **promote and encourage** ~~*ensure*~~ that energy efficiency lending products, such as green mortgages and green loans, secured and unsecured, are offered widely and in a non-discriminatory manner by financial institutions and, are visible and accessible to consumers. Member States shall adopt measures to facilitate the implementation of on-bill and on-tax financing schemes**, taking into account the the Commission guidance adopted in accordance with paragraph 8**. ⇦ Member States shall ~~encourage~~ ⇨ ensure that ⇦ t~~he provision of information to~~ banks and other financial institutions ⌦ receive information on opportunities to participate in the financing of energy efficiency improvement measures ⌫ ~~on possibilities of participating~~, including through the creation of public/private partnerships~~, in the financing of energy efficiency improvement measures~~. **Member States shall encourage the setting up of loan guarantee facilities for energy efficiency investment.**

4~~3~~. The Commission shall facilitate the exchange of best practice between the competent national or regional authorities or bodies, e.g. through annual meetings of the regulatory bodies, public databases with information on the implementation of measures by Member States, and country comparison.

↓ 2018/2002 Art. 1.12 (adapted)
⇨ new

5~~3a~~. In order to mobilise private financing for energy efficiency measures and energy renovation, in accordance with Directive 2010/31/EU, the Commission shall conduct a dialogue with both public and private financial institutions in order to map out possible actions it can take.

6~~3b~~. The actions referred to in paragraph 5~~43a~~ shall include the following ⌦ elements ⌫:

(a) mobilising capital investment into energy efficiency by considering the wider impacts of energy savings ~~for financial risk management~~;

(b) ensuring better energy and finance performance data by:

(i) examining further how energy efficiency investments improve underlying asset values;

(ii) supporting studies to assess the monetisation of the non-energy benefits of energy efficiency investments.

7~~3c~~. For the purpose of mobilising private financing of energy efficiency measures and energy renovation, Member States shall, when implementing this Directive:

(a) consider ways to make better use of energy audits under Article 11~~8~~ to influence decision-making;

(b) make optimal use of the possibilities and tools ⇨ available from the Union budget, and ⇦ proposed in the smart finance for smart buildings initiative ⇨ and in Commission Communication entitled ‘Renovation Wave´ ⇦.

8~~3d~~. By ~~1 January 2020,~~ ⇨ 31 December 2024 ⇦ the Commission shall provide guidance for Member States ⇨ and market actors ⇦ on how to unlock private investment.

⇩ new

The guidance shall have the purpose of helping Member States and market actors to develop and implement their energy efficiency investments in the various Union programmes, and will propose adequate financial mechanisms and solutions, with a combination of grants, financial instruments and project development assistance, to scale up existing initiatives and use the Union funding as a catalyst to leverage and trigger private financing.

🡻 2012/27/EU (adapted)
⇨ new

9~~4~~. Member States may set up an Energy Efficiency National Fund. The purpose of this fund shall be ⇨ to implement energy efficiency measures, ~~*including measures pursuant to Article 8(3) and Article 22 , as a priority among vulnerable customers, people affected by energy poverty and, where applicable, people living in social housing, and* ⇦ *to support* ⇨ *implement* ⇦ *national energy efficiency initiatives* ⇨ *measures*~~ to support Member States in meeting their national energy efficiency contributions and their indicative trajectories referred to in Article 4(2) **and where applicable including measures pursuant to Article 8(3) and Article 22 as a priority among vulnerable customers, people affected by energy poverty and people living in social housing.** The Energy Efficiency National Fund may be financed with revenues from the allowance auctions pursuant to the EU Emission Trading System on buildings and transport sectors ⇦.

10~~5~~. Member States may allow ⇨ public bodies to fulfil ⇦ ~~for~~ the obligations set out in Article 6~~5~~(1) ~~to be fulfilled~~ by ⌦ means of ⌫ annual contributions to the Energy Efficiency National Fund ~~of an amount~~ ⌦ equivalent ⌫ ~~equal~~ to the ⌦ amount of the ⌫ investments required to achieve those obligations.

11~~6~~. Member States may provide that obligated parties can fulfil their obligations set out in Article 8~~7~~(1) ⇨ and (4) ⇦ by contributing annually to the Energy Efficiency National Fund an amount equal to the investments required to achieve those obligations.

12~~7~~. Member States may use their revenues from annual emission allocations under Decision No 406/2009/EC for the development of innovative financing ~~mechanisms to give practical effect to the objective in Article 5 of improving the energy performance of buildings~~ ⇨ for energy efficiency improvements ⇦.

Article 29~~21~~

Conversion factors ⌦ and primary energy factors ⌫

1. For the purpose of comparison of energy savings and conversion to a comparable unit, the ⇨ net calorific values in Annex VI of Commission Implementing Regulation (EU) 2018/2066[1] and the primary energy factors ⇦ ~~conversion factors~~ set out in ⇨ paragraph 2 ⇦ ~~Annex IV~~ shall apply unless the use of other ~~conversion~~ ⇨ values or ⇦ factors can be justified.

⇩ new

2. A primary energy factor shall be applicable when energy savings are calculated in primary energy terms using a bottom-up approach based on final energy consumption.3. For savings in kWh electricity, Member States shall apply a coefficient in order to accurately calculate the resulting primary energy consumption savings. Member States shall apply a default coefficient of 2,1 unless they use their discretion to define a different coefficient based upon justified national circumstances.

4. For savings in kWh of other energy carriers, Member States shall apply a coefficient in order to accurately calculate the resulting primary energy consumption savings. 5. Where Member States establish their own coefficient to a default value provided pursuant to this Directive, Member States shall establish this through a transparent methodology on the basis of national circumstances affecting primary energy consumption. The circumstances shall be substantiated, verifiable and based on objective and non-discriminatory criteria.

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

5. Where establishing an own coefficient, Member States shall take into account the energy mix included in the update of their integrated national energy and climate plans and subsequent integrated National Energy and Climate Plan to be notified to the Commission in accordance with Regulation (EU) 2018/1999. If they deviate from the default value Member States shall notify the coefficient that they use to the Commission along with the calculation methodology and underlying data in the update of their integrated National Energy and Climate Plans and subsequent integrated National Energy and Climate Plans in accordance with Regulation (EU) 2018/1999.

6. By 25 December 2022 and every four years thereafter, the Commission shall revise the default coefficient on the basis of observed data. That revision shall be carried out taking into account its effects on other Union law such as Directive 2009/125/EC and Regulation (EU) 2017/1369.

↓ 2012/27/EU (adapted)
⇨ new

CHAPTER VII~~V~~

FINAL PROVISIONS

Article 30~~13~~

Penalties

Member States shall lay down the rules on penalties applicable in case of non-compliance with the national provisions adopted pursuant to ~~Articles 7 to 11a and Article 18(3)~~ ⇨ this Directive ⇦ and shall take the necessary measures to ensure that they are implemented. The penalties provided for shall be effective, proportionate and dissuasive. Member States shall notify those provisions to the Commission ⇨ by [transposition date] ⇦ ~~by 5 June 2014~~ and shall notify it without delay of any subsequent amendment affecting them.

Article 31~~22~~

Delegated acts

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

🡻 2018/2002 Art. 1.13 (adapted)
⇨ new

2. The Commission is empowered to adopt delegated acts in accordance with Article 32~~23~~ to amend ⇨ or supplement ⇦ this Directive by adapting to technical progress the values, calculation methods, default primary energy coefficient ⌦ s ⌫ and requirements ⌦ referred to ⌫ in ⇨ Article 29, ⇦ Annexes ⌦ II, III, V, VII to XI, and XIII ⌫ ~~I to V, VII to X, and XII~~.

⇩ new

3. The Commission is empowered to adopt delegated acts in accordance with Article 32 to amend or supplement this Directive by establishing, after having consulted the relevant stakeholders, a common Union scheme for rating the sustainability of data centres located in its territory. The scheme shall establish the definition of data centre sustainability indicators, and, pursuant to paragraph 10 of Article 11 of this Directive, define the minimum thresholds for significant energy consumption and set out the key indicators and the methodology to measure them.

🡻 2012/27/EU

Article 32~~23~~

Exercise of the delegation

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

🡻 2018/2002 Art. 1.14(a)

⇨ new

2. The power to adopt delegated acts referred to in Article 31~~22~~ shall be conferred on the Commission for a period of five years from ~~24 December 2018~~ ⇨ [*date of publication in OJ*] ⇦. The Commission shall draw up a report in respect of the delegation of power not later than nine months before the end of the five-year period. The delegation of power shall be tacitly extended for periods of an identical duration, unless the European Parliament or the Council opposes such extension not later than three months before the end of each period.

🡻 2012/27/EU

3. The delegation of power referred to in Article 31~~22~~ may be revoked at any time by the European Parliament or by the Council. A decision to revoke shall put an end to the delegation of the power specified in that decision. It shall take effect the day following the publication of the decision in the *Official Journal of the European Union* or at a later date specified therein. It shall not affect the validity of any delegated acts already in force.

🡻 2018/2002 Art. 1.14(b)

~~43a~~. Before adopting a delegated act, the Commission shall consult experts designated by each Member State in accordance with the principles laid down in the Interinstitutional Agreement of 13 April 2016 on Better Law-Making[1].

1 ~~OJ L 123, 12.5.2016, p. 1.~~

↓ 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~~

Review and monitoring of implementation

↓ 2018/2002 Art. 1.15(a)

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)

~~5. The Commission shall review the continued need for the possibility of exemptions set out in Article 24(5)14(6) for the first time in the assessment of the first National Energy Efficiency Action Plan and every three years thereafter. Where the review shows that any of the criteria for these exemptions can no longer be justified taking into account the availability of heat load and the real operating conditions of the exempted installations, the Commission shall propose appropriate measures.~~

⇩ new

2. By 31 October 2025 and every four years thereafter, the Commission shall evaluate the existing measures to achieve energy efficiency increase and decarbonisation in heating and cooling. The evaluation shall take into account:

(a) Energy efficiency and greenhouse gases emissions trends in heating and cooling, including in district heating and cooling;

(b) Interlinkages between measures taken;

(c) Changes in energy efficiency and greenhouse gas emissions in the heating and cooling;

(d) Existing and planned energy efficiency policies and measures and greenhouse gas reduction policies and measures at national and EU level, and

(e) Measures Member States provided in their comprehensive assessments pursuant to Article 23(1) of this Directive and notified in accordance with Article 17 (1) of Regulation (EU) 2018/1999.

The **evaluation** ~~*Commission*~~ may **be accompanied** ~~*propose*~~, ~~*if appropriate,*~~ measures to ensure the achievement of the Union's climate **and** energy targets.

🡻 2012/27/EU

3~~6~~**.** Member States shall submit to the Commission before 30 April each year statistics on national electricity and heat production from high and low efficiency cogeneration, in accordance with the methodology shown in Annex II~~I~~, in relation to total heat and electricity production. They shall also submit annual statistics on cogeneration heat and electricity capacities and fuels for cogeneration, and on district heating and cooling production and capacities, in relation to total heat and electricity production and capacities. Member States shall submit statistics on primary energy savings achieved by application of cogeneration in accordance with the methodology shown in Annex III~~II~~.

↓ 2012/27/EU (adapted)

~~7. By 30 June 2014 the Commission shall submit the assessment referred to in Article 3(2) to the European Parliament and to the Council, accompanied, if necessary, by proposals for further measures.~~

~~8. The Commission shall review the effectiveness of the implementation of Article 6 by 5 December 2015, taking into account the requirements laid down in Directive 2004/18/EC and shall submit a report to the European Parliament and the Council. That report shall be accompanied, if appropriate, by proposals for further measures.~~

~~9. By 30 June 2016, the Commission shall submit a report to the European Parliament and the Council on the implementation of Article 7. That report shall be accompanied, if appropriate, by a legislative proposal for one or more of the following purposes:~~

~~(a) to change the final date laid down in Article 67(1);~~

~~(b) to review the requirements laid down in Article 67(1), (2) and (3);~~

~~(c) to establish additional common requirements, in particular as regards the matters referred to in Article 67(7).~~

~~10. By 30 June 2018, the Commission shall assess the progress made by Member States in removing the regulatory and non-regulatory barriers referred to in Article 19(1). This assessment shall be followed, if appropriate, by proposals for further measures.~~

↓ 2018/2002 Art. 1.15(b) (adapted)

~~12. By 31 December 2019, the Commission shall assess the effectiveness of the implementation of the definition of small and medium-sized enterprises for the purposes of Article 8(4), and shall submit a report to the European Parliament and to the Council. As soon as possible after submission of that report, the Commission shall, if appropriate, adopt legislative proposals.~~

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

514. ⌦ Subject to any changes to the retail market provisions of Directive 2009/73/EC, ⌫ ~~B~~by 31 December 2021, the Commission~~,~~ shall~~, unless changes to the retail market provisions of Directive 2009/73/EC on common rules for the internal market in gas have meanwhile been proposed,~~ carry out an assessment, and submit a report to the European Parliament and to the Council, on the provisions related to metering, billing and consumer information for natural gas, with the aim of aligning them, where appropriate, with the relevant provisions for electricity in Directive (EU) 2019/944~~2009/72/EC~~, in order to strengthen consumer protection and enable final customers to receive more frequent, clear and up-to-date information about their natural gas consumption and to regulate their energy use. As soon as possible after submission of that report, the Commission shall, ⌦ where ⌫ ~~if~~ appropriate, adopt legislative proposals.

↓ 2018/2002 Art. 1.2 (adapted)

64. By 31 October 2022, the Commission shall assess whether the Union has achieved its 2020 headline target~~s~~ on energy efficiency.

🡻 2018/2002 Art. 1.15(b)
⇨ new

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;~~

(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~~[1] and in the light of economic and innovation developments;

⇩ new

(b) the Union's 2030 headline targets on energy efficiency set out in Article 4(1) with a view to revising those that targets upwards in the event of substantial cost reductions resulting from economic or technological developments, or where needed to meet the Union's decarbonisation targets for 2040 or 2050, or its international commitments for decarbonisation;

(c) if Member States shall continue to achieve new annual savings in accordance with point (c) of the first subparagraph of Article 8 for the ten-year periods after 2030;

(d) if Member States shall continue to ensure that at least 3% of the total floor area of heated and/or cooled buildings owned by public bodies is renovated each year in accordance with paragraph 1 of Article 6 with a view to revising the renovation rate in that Article;

1 ~~OJ L 282, 19.10.2016, p. 4.~~

(e) if Member States shall continue to achieve a share of energy savings among vulnerable customers, people affected by energy poverty, and, where applicable, people living in social housing, in accordance with paragraph 3 of Article 8 for the ten-year periods after 2030;

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

↓ 2018/2002 Art. 1.15(b)

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

↓ 2012/27/EU (adapted)
⇨ new

~~*Article 25*~~

~~**Online platform**~~

~~The Commission shall establish an online platform in order to foster the practical implementation of this Directive at national, regional and local levels. That platform shall support the exchange of experiences on practices, benchmarking, networking activities, as well as innovative practices.~~

Article 34~~26~~

Committee procedure

1. The Commission shall be assisted by a committee. That committee shall be a committee within the meaning of Regulation (EU) No 182/2011.

2. Where reference is made to this paragraph, Article 4 of Regulation (EU) No 182/2011 shall apply.

Article 35~~28~~

Transposition

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with ~~this Directive~~ ⌦ Articles […] and Annexes […] ⌫ [articles and annexes which have been amended in substance by comparison with the repealed Directive] by ⇨ […] ⇦ ~~5 June 2014~~.

~~Notwithstanding the first subparagraph, Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with Article 4, the first subparagraph of Article 5(1), Article 5(5), Article 5(6), the last subparagraph of Article 7(9), Article 14(6), Article 19(2), Article 24(1) and Article 24(2) and point (4) of Annex V by the dates specified therein.~~

They shall ~~forthwith~~ ⌦ immediately ⌫ communicate ~~to the Commission~~ the text of those ~~provisions~~ ⌦ measures to the Commission ⌫.

When Member States adopt those ⌦ measures ⌫ ~~provisions~~, they shall contain a reference to this Directive or be accompanied by such a reference on the occasion of their official publication. ⌦ They shall also include a statement that references in existing laws, regulations and administrative provisions to the Directive repealed by this Directive shall be construed as references to this Directive. ⌫ Member States shall determine how such reference is to be made ⌦ and how that statement is to be formulated ⌫.

2. Member States shall communicate to the Commission the text of the main provisions of national law which they adopt in the field covered by this Directive.

Article 36~~27~~

~~Amendments and~~ Rr~~r~~epeal~~s~~

~~1.~~Directive ~~2006/32/EC~~ ⌦ 2012/27/EU, as amended by the acts listed in Annex XV, Part A, ⌫ is repealed ⌦ with effect ⌫ from ⇨ […] ⇦ [the day after the date in the first subparagraph of Article 35(1)] ~~5 June 2014, except for Article 4(1) to (4) thereof and Annexes I, III and IV thereto~~, without prejudice to the obligations of the Member States relating to the ~~time-limit~~ ⌦ time-limits ⌫ for ~~its~~ ⌦ the ⌫ transposition into national law ⌦ of the Directives set out in Annex XV, Part B ⌫ . ~~Article 4(1) to (4) of, and Annexes I, III and IV to Directive 2006/32/EC shall be repealed with effect from 1 January 2017.~~

~~Directive 2004/8/EC is repealed from 5 June 2014, without prejudice to the obligations of the Member States relating to the time-limit for its transposition into national law.~~

References to ⌦ the repealed ⌫ Directive~~s~~ ~~2006/32/EC and 2004/8/EC~~ shall be construed as references to this Directive and shall be read in accordance with the correlation table ~~set out~~ in Annex XVI~~XV~~.

~~2. Article 9(1) and (2) of Directive 2010/30/EU is deleted from 5 June 2014.~~

~~3. Directive 2009/125/EC is amended as follows:~~

~~(1)the following recital is inserted:~~

~~‘(35a) Directive 2010/31/EU of the European Parliament and of the Council of 19 May 2010 on the energy performance of buildings[1] 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):~~

~~‘This shall be without prejudice to the energy performance requirements and system requirements set by Member States in accordance with Article 4(1) and Article 8 of Directive 2010/31/EU.’.~~

Article 37~~29~~

Entry into force

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

⌦ Articles […] and Annexes […] [articles and annexes which are unchanged by comparison with the repealed Directive] shall apply from […] [the day after the date in the first subparagraph of Article 35(1)]. ⌫

~~[1] OJ L 153, 18.6.2010, p. 13.;~~

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*

ANNEX

⇩ new

ANNEX I

NATIONAL CONTRIBUTIONS TO THE UNION'S ENERGY EFFCIENCY TARGETS IN 2030 IN FINAL AND/OR PRIMARY ENERGY CONSUMPTION

1. The level of national contributions is calculated based on the ~~*indicative*~~ formula:

$$FEC_{C_{2030}} = C_{EU}(1 - Target)\, FEC_{B_{2030}}$$

$$PEC_{C_{2030}} = C_{EU}(1 - Target)\, PEC_{B_{2030}}$$

Where C_{EU} is a correction factor, *Target* is the level of national-specific ambition and FEC_{B2030} PEC_{B2030} is the 2020 Reference Scenario used as a baseline for 2030.

2. The following ~~*indicative*~~ formula represents the objective criteria reflecting the factors listed in points (d) (i) to (iv) of Article 4(2), each used for defining the level of national-specific ambition in % (*Target*) and having the same weight in the formula (0,25):

a) a flat rate contribution ("F_{flat}");

b) GDP-per-capita dependent contribution ("F_{wealth}");

c) energy intensity dependent contribution ("$F_{intensity}$");

d) cost-effective energy savings potential contribution ("$F_{potential}$").

3. F_{flat} represents the 2030 Union target that includes the additional efforts needed to reach the Union's energy efficiency targets in FEC and PEC compared to the 2020 Reference Scenario projections for 2030.

4. F_{wealth} shall be calculated for each Member State based on its three-year average Eurostat's real GDP per capita index to the Union's three-year average over the 2017-2019 period, expressed in Purchasing power parities (PPPs).

5. $F_{intensity}$ shall be calculated for each Member State based on its three-year average final energy intensity (FEC or PEC per real GDP in PPPs) index to the Union's three-year average over 2017-2019 period.

6. $F_{potential}$ shall be calculated for each Member State based on the final or primary energy savings under the PRIMES MIX 55% scenario for 2030. The savings are expressed in relation to 2020 Reference Scenario projections for 2030.

7. For each criteria provided in point 2(a) to (d), a lower and upper limit shall be applied. The level of ambition for each factor shall be capped at 50% and 150% of the Union average level of ambition under a given factor.

8. The source of the input data used to calculate the factors is Eurostat unless stated otherwise.

9. F_{total} shall be calculated as the weighted sum of all four factors (F_{flat}. F_{wealth} $F_{intensity}$ and $F_{potential}$). The target shall be then calculated as the product of the total factor F_{total} and the EU target.

10. A primary and final energy correction factor C_{EU} shall be applied to all Member States to calibrate the sum of all national contributions to the Union primary and final energy consumption targets in 2030. The factor C_{EU} is identical for all Member States.

↓ 2012/27/EU (adapted)

ANNEX II~~I~~

GENERAL PRINCIPLES FOR THE CALCULATION OF ELECTRICITY FROM COGENERATION

Part I

General principles

Values used for calculation of electricity from cogeneration shall be determined on the basis of the expected or actual operation of the unit under normal conditions of use. For micro- cogeneration units the calculation may be based on certified values.

(a) Electricity production from cogeneration shall be considered equal to total annual electricity production of the unit measured at the outlet of the main generators ⌦ if following conditions are met ⌫ :

(i) in cogeneration units of types (b), (d), (e), (f), (g) and (h) referred to in Part II with an annual overall efficiency set by Member States at a level of at least 75 %; ~~and~~

(ii) in cogeneration units of types (a) and (c) referred to in Part II with an annual overall efficiency set by Member States at a level of at least 80 %.

(b) In cogeneration units with an annual overall efficiency below the value referred to in point (a)(i) ~~of point (a)~~ (cogeneration units of types (b), (d), (e), (f), (g), and (h) referred to in Part II) or with an annual overall efficiency below the value referred to in point (a)(ii) ~~of point (a)~~ (cogeneration units of types (a) and (c) referred to in Part II) ⌦ electricity from ⌫ cogeneration is calculated according to the following formula:

$E_{CHP}=H_{CHP}*C$

where:

E_{CHP} is the amount of electricity from cogeneration;

C is the power-to-heat ratio;

H_{CHP} is the amount of useful heat from cogeneration (calculated for this purpose as total heat production minus any heat produced in separate boilers or by live steam extraction from the steam generator before the turbine).

The calculation of electricity from cogeneration must be based on the actual power-to-heat ratio. If the actual power-to-heat ratio of a cogeneration unit is not known, the following default values may be used, in particular for statistical purposes, for units of types (a), (b), (c), (d) and (e) referred to in Part II provided that the calculated cogeneration electricity is less or equal to total electricity production of the unit:

Type of the unit	Default power to heat ratio, C
Combined cycle gas turbine with heat recovery	0,95
Steam back pressure turbine	0,45
Steam condensing extraction turbine	0,45
Gas turbine with heat recovery	0,55
Internal combustion engine	0,75

If Member States introduce default values for power-to-heat ratios for units of types (f), (g), (h), (i), (j) and (k) referred to in Part II, such default values shall be published and shall be notified to the Commission.

(c) If a share of the energy content of the fuel input to the cogeneration process is recovered in chemicals and recycled this share can be subtracted from the fuel input before calculating the overall efficiency used in points (a) and (b).

(d) Member States may determine the power-to-heat ratio as the ratio of electricity to useful heat when operating in cogeneration mode at a lower capacity using operational data of the specific unit.

(e) Member States may use other reporting periods than one year for the purpose of the calculations according to points (a) and (b).

Part II

Cogeneration technologies covered by this Directive

(a) Combined cycle gas turbine with heat recovery

(b) Steam back pressure turbine

(c) Steam condensing extraction turbine

(d) Gas turbine with heat recovery

(e) Internal combustion engine

(f) Microturbines

(g) Stirling engines

(h) Fuel cells

(i) Steam engines

(j) Organic Rankine cycles

(k) Any other type of technology or combination thereof falling under the definition laid down in ⌦ point (32) of ⌫ Article 2~~(30)~~.

When implementing and applying the general principles for the calculation of electricity from cogeneration, Member States shall use the detailed Guidelines established by Commission Decision 2008/952/EC ~~of 19 November 2008 establishing detailed guidelines for the implementation and application of Annex II to Directive 2004/8/EC of the European Parliament and of the Council~~[45].

_____

[45] Commission Decision 2008/952/EC of 19 November 2008 establishing detailed guidelines for the implementation and application of Annex II to Directive 2004/8/EC of the European Parliament and of the Council (OJ L 338, 17.12.2008, p. 55).

↓ 2012/27/EU

ANNEX ~~III~~ II

METHODOLOGY FOR DETERMINING THE EFFICIENCY OF THE COGENERATION PROCESS

Values used for calculation of efficiency of cogeneration and primary energy savings shall be determined on the basis of the expected or actual operation of the unit under normal conditions of use.

(a) High-efficiency cogeneration

For the purpose of this Directive high-efficiency cogeneration shall fulfil the following criteria:

– cogeneration production from cogeneration units shall provide primary energy savings calculated according to point (b) of at least 10 % compared with the references for separate production of heat and electricity;~~;~~

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

ò new

– **For cogeneration units that are built or substantially refurbished after the transposition of this annexe,** direct emissions of the carbon dioxide from cogeneration production that is fuelled with fossil fuels, are less than 270 gCO_2 per 1 kWh of energy output from the combined generation (including heating/cooling, power and mechanical energy).

– When a cogeneration unit is built or substantially refurbished, Member States shall ensure that there is no increase in the use of fossil fuels other than natural gas in existing heat sources compared to the annual consumption averaged over the previous three calendar years of full operation before refurbishment, and that any new heat sources in that system do not use fossil fuels other than natural gas.

↓ 2012/27/EU

(b) Calculation of primary energy savings

The amount of primary energy savings provided by cogeneration production defined in accordance with Annex III~~I~~ shall be calculated on the basis of the following formula:

$$PES = \left(1 - \frac{1}{\frac{CHPH\eta}{RefH\eta} + \frac{CHPE\eta}{RefE\eta}}\right) \times 100\,\%$$

Where:

PES is primary energy savings.

CHP Hη is the heat efficiency of the cogeneration production defined as annual useful heat output divided by the fuel input used to produce the sum of useful heat output and electricity from cogeneration.

Ref Hη is the efficiency reference value for separate heat production.

CHP Eη is the electrical efficiency of the cogeneration production defined as annual electricity from cogeneration divided by the fuel input used to produce the sum of useful heat output and electricity from cogeneration. Where a cogeneration unit generates mechanical energy, the annual electricity from cogeneration may be increased by an additional element representing the amount of electricity which is equivalent to that of mechanical energy. This additional element does not create a right to issue guarantees of origin in accordance with Article 2~~4~~14(10).

Ref Eη is the efficiency reference value for separate electricity production.

(c) Calculations of energy savings using alternative calculation

Member States may calculate primary energy savings from a production of heat and electricity and mechanical energy as indicated below without applying Annex III~~I~~ to exclude the non-cogenerated heat and electricity parts of the same process. Such a production can be regarded as high-efficiency cogeneration provided it fulfils the efficiency criteria in point (a) of this Annex and, for cogeneration units with an electrical capacity larger than 25 MW, the overall efficiency is above 70 %. However, specification of the quantity of electricity from cogeneration produced in such a production, for issuing a guarantee of origin and for statistical purposes, shall be determined in accordance with Annex III~~I~~.

If primary energy savings for a process are calculated using alternative calculation as indicated above the primary energy savings shall be calculated using the formula in point (b) of this Annex replacing: 'CHP Hη' with 'Hη' and 'CHP Eη' with 'Eη', where:

Hη shall mean the heat efficiency of the process, defined as the annual heat output divided by the fuel input used to produce the sum of heat output and electricity output.

Eη shall mean the electricity efficiency of the process, defined as the annual electricity output divided by the fuel input used to produce the sum of heat output and electricity output. Where a cogeneration unit generates mechanical energy, the annual electricity from cogeneration may be increased by an additional element representing the amount of electricity which is equivalent to that of mechanical energy. This additional element will not create a right to issue guarantees of origin in accordance with Article 24~~14~~(10).

(d) Member States may use other reporting periods than one year for the purpose of the calculations according to points (b) and (c) of this Annex.

(e) For micro-cogeneration units the calculation of primary energy savings may be based on certified data.

(f) Efficiency reference values for separate production of heat and electricity

The harmonised efficiency reference values shall consist of a matrix of values differentiated by relevant factors, including year of construction and types of fuel, and must be based on a well-documented analysis taking, inter alia, into account data from operational use under realistic conditions, fuel mix and climate conditions as well as applied cogeneration technologies.

The efficiency reference values for separate production of heat and electricity in accordance with the formula set out in point (b) shall establish the operating efficiency of the separate heat and electricity production that cogeneration is intended to substitute.

The efficiency reference values shall be calculated according to the following principles:

(i)~~1.~~ ~~F~~for cogeneration units the comparison with separate electricity production shall be based on the principle that the same fuel categories are compared;~~.~~

(ii)~~2.~~ e~~E~~ach cogeneration unit shall be compared with the best available and economically justifiable technology for separate production of heat and electricity on the market in the year of construction of the cogeneration unit;~~.~~

(iii)~~3.~~ t~~T~~he efficiency reference values for cogeneration units older than 10 years of age shall be fixed on the reference values of units of 10 years of age;~~.~~

(iv)~~4.~~ t~~T~~he efficiency reference values for separate electricity production and heat production shall reflect the climatic differences between Member States.

↓ 2012/27/EU (adapted)
⇨ new

ANNEX IV~~III~~

ENERGY EFFICIENCY REQUIREMENTS FOR ~~PURCHASING PRODUCTS~~ ⌦ PUBLIC PROCUREMENT ⌫ ~~, SERVICES AND BUILDINGS BY CENTRAL GOVERNMENT~~

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

(a) where a product is covered by a delegated act adopted under Regulation (EU) 2017/1369~~Directive 2010/30/EU~~ or by a related Commission implementing directive, purchase only the products that comply with the criterion ~~of belonging to the highest energy efficiency class possible in the light of the need to ensure sufficient competition~~ ⇨ laid down in Article 7(2) of that Regulation ⇦;

(b) where a product not covered under point (a) is covered by an implementing measure under Directive 2009/125/EC adopted after the entry into force of this Directive, purchase only products that comply with energy efficiency benchmarks specified in that implementing measure;

~~(c) purchase office equipment products covered by Council Decision 2006/1005/EC of 18 December 2006 concerning conclusion of the Agreement between the Government of the United States of America and the European Community on the coordination of energy-efficiency labelling programmes for office equipment[46] that comply with energy efficiency requirements not less demanding than those listed in Annex C to the Agreement attached to that Decision;~~

~~46~~ ~~OJ L 381, 28.12.2006, p. 24.~~

⇩ new

(c) where a product or a service is covered by the Union green public procurement criteria **or available equivalent national criteria**, with relevance to energy efficiency of the product or service, make best efforts to purchase only products and services that respect at least the technical specifications set at 'core' level in the relevant Union green public procurement criteria **or available equivalent national criteria,** including among others for data centres, server rooms and cloud services, ~~*Union green public procurement criteria for*~~ road lighting and traffic signals, ~~*Union green public procurement criteria for*~~ computers, monitors tablets and smartphones;

🡻 2012/27/EU (adapted)
⇨ new

(d) purchase only tyres that comply with the criterion of having the highest fuel energy efficiency class, as defined by ~~Regulation (EC) No 1222/2009 of the European Parliament and of the Council of 25 November 2009 on the labelling of tyres with respect to fuel efficiency and other essential parameters~~[47] Regulation (EU) 2020/740 of the European Parliament and of the Council[48]. 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;

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47 ~~OJ L 342, 22.12.2009, p. 46.~~

48 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).

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

(f) purchase, or make new rental agreements for, only buildings that comply at least with **nearly zero energy level, without prejudice to Article 6 of this Directive,** ~~*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~~ **historic** 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.

2012/27/EU

ANNEX IV

ENERGY CONTENT OF SELECTED FUELS FOR END USE – CONVERSION TABLE (*)

Energy commodity	kJ (NCV)	kgoe (NCV)	kWh (NCV)
1 kg coke	28 500	0,676	7,917
1 kg hard coal	17 200 — 30 700	0,411 — 0,733	4,778 — 8,528
1 kg brown coal briquettes	20 000	0,478	5,556
1 kg black lignite	10 500 — 21 000	0,251 — 0,502	2,917 — 5,833
1 kg brown coal	5 600 — 10 500	0,134 — 0,251	1,556 — 2,917
1 kg oil shale	8 000 — 9 000	0,191 — 0,215	2,222 — 2,500
1 kg peat	7 800 — 13 800	0,186 — 0,330	2,167 — 3,833

1 kg peat briquettes	16 000 — 16 800	0,382 — 0,401	4,444 — 4,667
1 kg residual fuel oil (heavy oil)	40 000	0,955	11,111
1 kg light fuel oil	42 300	1,010	11,750
1 kg motor spirit (petrol)	44 000	1,051	12,222
1 kg paraffin	40 000	0,955	11,111
1 kg liquefied petroleum gas	46 000	1,099	12,778
1 kg natural gas (a)	47 200	1,126	13,10
1 kg liquefied natural gas	45 190	1,079	12,553
1 kg wood (25 % humidity) (a)	13 800	0,330	3,833
1 kg pellets/wood bricks	16 800	0,401	4,667
1 kg waste	7 400 — 10 700	0,177 — 0,256	2,056 — 2,972
1 MJ derived heat	1 000	0,024	0,278

1 kWh electrical energy	3 600	0,086	1 (*)

1. *Source:* Eurostat.

(*) Member States may apply different conversion factors if these can be justified.

(*) 93 % methane.

(*) 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).

(*) Applicable when energy savings are calculated in primary energy terms using a bottom-up approach based on final energy consumption. For savings in kWh electricity Member States may apply a default coefficient of 2,5. Member States may apply a different coefficient provided they can justify it.

↓ 2018/2002 Art. 1.16 and Annex .2

ANNEX V

COMMON METHODS AND PRINCIPLES FOR CALCULATING THE IMPACT OF ENERGY EFFICIENCY OBLIGATION SCHEMES OR OTHER POLICY MEASURES UNDER ARTICLES 8~~7~~, 9~~7a~~ AND 10~~7b~~ AND ARTICLE 28(11)~~20(6)~~

1. Methods for calculating energy savings other than those arising from taxation measures for the purposes of Articles 8~~7~~, 9~~7a~~ and 10~~7b~~ and Article 28(11)~~20(6)~~.

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

(a) deemed savings, by reference to the results of previous independently monitored energy improvements in similar installations. The generic approach is termed '*ex ante*';

(b) metered savings, whereby the savings from the installation of a measure, or package of measures, are determined by recording the actual reduction in energy use, taking due account of factors such as additionality, occupancy, production levels and the weather which may affect consumption. The generic approach is termed '*ex post*';

(c) scaled savings, whereby engineering estimates of savings are used. This approach may be used only where establishing robust measured data for a specific installation is difficult or disproportionately expensive, e.g. replacing a compressor or electric motor with a different kWh rating from that for which independent information about savings has been measured, or where those estimates are carried out on the basis of nationally established methodologies and benchmarks by qualified or accredited experts that are independent of the obligated, participating or entrusted parties involved;

(d) **When calculating the energy savings for the purpose of Article 8(3) that can be counted to fulfil the obligation in Article 8(3), Member States might estimate the energy savings of vulnerable customers, persons affected by energy poverty, financially weak households, or, where applicable, persons living in social housing based on engineering estimates using standardised occupancy and thermal comfort conditions or parameters, such as parameters defined in national building regulations. The way comfort is considered for actions in buildings should be reported by the Member States to the Commission together with the explanations about their calculation methodology.**

(e) surveyed savings, where consumers' response to advice, information campaigns, labelling or certification schemes or smart metering is determined. This approach may be used only for savings resulting from changes in consumer behaviour. It shall not be used for savings resulting from the installation of physical measures.

2. In determining the energy savings for an energy efficiency measure for the purposes of Articles 8~~7~~, 9~~7a~~ and 10~~7b~~ and Article 28(11)~~20(6)~~, the following principles apply:

⇩ new

(a) Member States shall demonstrate that **one of the objectives of** the policy measure**, whether new or existing,** ~~*has been implemented for the purpose of fulfilling the energy savings obligation and achieving*~~ **is the achievement of** end-use energy savings pursuant to Article 8(1)~~*. Member States*~~ **and** shall provide evidence and their documentation that the energy savings are caused by a policy measure, including voluntary agreements;

🡻 2018/2002 Art. 1.16 and Annex .2
⇨ new

(b~~a~~) t~~T~~he savings shall be shown to be additional to those that would have occurred in any event without the activity of the obligated, participating or entrusted parties, or implementing public authorities. To determine the savings that can be claimed as additional, Member States shall have regard to how energy use and demand would evolve in the absence of the policy measure in question by taking into account at least the following factors: energy consumption trends, changes in consumer behaviour, technological progress and changes caused by other measures implemented at Union and national level;~~.~~

~~(~~c~~b~~) s~~S~~avings resulting from the implementation of mandatory Union law shall be considered to be savings that would have occurred in any event, and thus shall not be claimed as energy savings for the purpose of Article 8~~7~~(1). By way of derogation from that requirement, savings related to the renovation of existing buildings may be claimed as energy savings for the purpose of Article 8~~7~~(1), provided that the materiality criterion referred to in point 3(h) of this Annex is ensured. ~~Savings resulting from the implementation of national minimum requirements established for new buildings prior to the transposition of Directive 2010/31/EU can be claimed as energy savings for the purpose of point (a) of Article 7(1), provided that the materiality criterion referred to in point 3(h) of this Annex is ensured and those savings have been notified by Member States in their National Energy Efficiency Action Plans in accordance with Article 24(2).~~ ⇨ Measures promoting energy efficiency improvements in the public sector pursuant to Article 5 and Article 6 may be eligible to be taken into account for the fulfilment of energy savings required under Article 8(1), provided that they result in verifiable, and measurable or estimable, end-use energy savings. The calculation of energy savings shall comply with the requirements of this Annex; ⇦

⇩ new

(d) measures taken pursuant to Regulation (EU) 2018/842 on binding annual greenhouse gas emission reductions can be considered material, but Member States have to show that they result in verifiable and measurable or estimable end-use energy savings. The calculation of energy savings shall comply with the requirements of this Annex;

(e) Member States can ~~not~~ count ~~*reduced*~~ **end use** energy **savings** ~~*use*~~ in sectors, including the transport and building sector, that would have occurred in any event as a result of emission trading pursuant to the EU ETS Directive **and, where applicable, other national ETS requirements** towards the fulfilment of the energy savings obligation pursuant to Article 8(1) **provided that they have implemented complementary policy measures pursuant to Article 9 or 10.** If an entity is an obligated party under a national energy efficiency obligation scheme under Article 9 of this Directive and under the EU Emissions Trading System for buildings and road transport [COM(2021) 551 final,2021/0211 (COD)], the monitoring and verification system shall ensure that the carbon price passed through when releasing fuel for consumption [according Article 1(21) of COM(2021) 551 final,2021/0211 (COD)] is taken into account when calculating and reporting the energy savings of its energy saving measures;

🡻 2018/2002 Art. 1.16 and Annex .2
⇨ new

(f~~e~~) c~~C~~redit may be given only for savings exceeding the following levels:

(i) Union emission performance standards for new passenger cars and new light commercial vehicles following the implementation of ~~Regulations (EC) No 443/2009[49] and (EU) No 510/2011 of the European Parliament and of the Council[50]~~ Regulation (EU) 2019/631 of the European Parliament and of the Council[51]; ⇨ Member States must provide ~~*evidence*~~ **justification**, their assumptions and their calculation methodology to show additionality to the Union´s new vehicle CO2 requirements; ⇦

(ii) Union requirements relating to the removal from the market of certain energy related products following the implementation of implementing measures under Directive 2009/125/EC;~~.~~ ⇨ Member States shall provide evidence, their assumptions and their calculation methodology to show additionality; ⇦

(g~~d~~) p~~P~~olicies with the purpose of encouraging higher levels of energy efficiency of products, equipment, transport systems, vehicles and fuels, buildings and building elements, processes or markets shall be permitted ⇨ , except those policy measures regarding the use of direct combustion of fossil fuel technologies that are **newly** implemented as from 1 January 2024 ⇦;

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49 ~~Regulation (EC) No 443/2009 of the European Parliament and of the Council of 23 April 2009 setting emission performance standards for new passenger cars as part of the Community's integrated approach to reduce CO_2 emissions from light-duty vehicles (OJ L 140, 5.6.2009, p. 1).~~

50 ~~Regulation (EU) No 510/2011 of the European Parliament and of the Council of 11 May 2011 setting emission performance standards for new light commercial vehicles as part of the Union's integrated approach to reduce CO_2 emissions from light-duty vehicles (OJ L 145, 31.5.2011, p. 1).~~

51 Regulation (EU) 2019/631 of the European Parliament and of the Council of 17 April 2019 setting CO2 emission performance standards for new passenger cars and for new light commercial vehicles, and repealing Regulations (EC) No 443/2009 and (EU) No 510/2011 (OJ L 111, 25.4.2019, p. 13).

⇩ new

(h) Energy savings as a result of policy measures **newly implemented as from 1 January 2024** regarding the use of direct fossil fuel combustion in products, equipment, transport systems, vehicles, buildings or works shall not count towards the fulfilment of energy savings obligation **pursuant to Article 8(1)(b)** ~~*as from 1 January 2024*~~. **In case of policy measures promoting combinations of technologies, the share of energy savings related to the fossil fuel combustion technology are not eligible.**

By way of derogation for the period 1 January 2024 to 31 December 2030, energy savings from direct fossil fuel combustion technologies improving the energy efficiency in energy intense enterprises in the industry sector ~~**with an average annual consumption higher than 100TJ of energy over the previous three years and taking all energy carriers together**~~**, may only be counted as energy savings for the purpose of Article 8(1)(b)(ii) until 31 December 2030, provided that:**

(i) the enterprise should have carried out an energy audit pursuant to Article 11(2) and an implementation plan including :

- **an overview of all cost-effective energy efficiency measures with a payback period of five years or less, based on simple pay-back period methodologies provided by the Member State,**
- **a timeframe for the implementation of all recommended energy efficiency measures with a payback period of five years or fewer,**
- **a calculation of expected energy savings resulting from the energy efficiency measures recommended and,**

- **energy efficiency measures relate to the use direct fossil fuel combustion technologies with the relevant information needed for :**
    - **proving that the measure identified does not increase to amount of energy needed or the capacity of an installation,**
    - **justifying that the uptake of sustainable, non-fossil fuel technologies is technically not feasible**
    - **showing that the direct fossil fuel combustion technology complies with the most up to date corresponding European emission performance legislation and prevent technology lock-in effects by ensuring future compatibility with climate-neutral alternative non-fossil fuels and technologies.**

(ii) the continuation of the use of direct fossil fuel technologies is an energy efficiency measures to decrease energy consumption with a payback period of five years or less, based on simple pay-back period methodologies provided by the Member State, recommended as result of an energy audit pursuant to Article 11(2) and included in the implementation plan;

(iii) the use of direct fossil fuel technologies complies with the most up to date corresponding European emission performance legislation, does not lead to technology lock-in effects and ensures future compatibility with climate-neutral alternative fuels and technologies;

(iv) the use of direct fossil fuel technologies in the enterprise does not lead to an increased energy consumption or increase the capacity of the installation in that enterprise;

(v) evidence is provided that no alternative, sustainable non-fossil fuel solution was technically feasible ;

(vi) the use of direct fossil fuel technologies result in verifiable, and measurable or estimable, end-use energy savings calculated in compliance with the requirements of this Annex.

(vii) evidence is published (website)/publicly available for all interested citizens.

⬇ 2018/2002 Art. 1.16 and Annex .2
⇨ new

(i~~e~~) m~~M~~easures promoting the installation of small-scale renewable energy technologies on or in buildings may be eligible to be taken into account for the fulfilment of energy savings required under Article 8~~7~~(1), provided that they result in verifiable, and measurable or estimable, ⇨ end-use ⇦ energy savings. The calculation of energy savings shall comply with the requirements of this Annex;~~.~~

⇩ new

(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~~ **produced** by solar thermal technologies **from solar radiation** can be excluded from their end-use energy consumption;

↓ 2018/2002 Art. 1.16 and Annex .2 (adapted) ⇨ new

(k~~f~~) f~~F~~or policies that accelerate the uptake of more efficient products and vehicles, ⇨ except those **newly implemented as from 1 January 2024** regarding the use of direct fossil fuel combustion, ⇦ full credit may be claimed, provided that it is shown that such uptake takes place before expiry of the average expected lifetime of the product or vehicle, or before the product or vehicle would usually be replaced, and the savings are claimed only for the period until end of the average expected lifetime of the product or vehicle to be replaced;

(l~~g~~) i~~I~~n promoting the uptake of energy efficiency measures, Member States shall, where relevant, ensure that quality standards for products, services and installation of measures are maintained or introduced where such standards do not exist;

(m~~h~~) t~~T~~o account for climatic variations between regions, Member States may choose to adjust the savings to a standard value or to accord different energy savings in accordance with temperature variations between regions;

(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 2020 or 31 December 2030 as appropriate~~. Alternatively, Member States may adopt another method that is estimated to achieve at least the same total quantity of savings. When using another method, Member States shall ensure that the total amount of energy savings calculated using that method does not exceed the amount of energy savings that would have been the result of their calculation when counting the savings each individual action will achieve during the period from its date of implementation to ~~31 December 2020 or 31 December~~ 2030 ~~as appropriate~~. Member States shall describe in detail in their integrated national energy and climate plans under Regulation (EU) 2018/1999 the other method and the provisions made to ensure that the binding calculation requirement is met.

3. Member States shall ensure that the following requirements for policy measures taken pursuant to Article 10~~87b~~ and Article 28(11)~~20(6)~~ are met:

(a) policy measures and individual actions produce verifiable end-use energy savings;

(b) the responsibility of each participating party, entrusted party or implementing public authority, as relevant, is clearly defined;

(c) the energy savings that are achieved or are to be achieved are determined in a transparent manner;

(d) the amount of energy savings required or to be achieved by the policy measure is expressed in either final or primary energy consumption, using the ⇨ net calorific values or primary energy ⇦ ~~conversion~~ factors ⇨ referred to in Article 29 ⇦ ~~set out in Annex IV~~;

(e) an annual report on the energy savings achieved by entrusted parties, participating parties and implementing public authorities be provided and made publicly available, as well as data on the annual trend of energy savings;

(f) monitoring of the results and taking appropriate measures if progress is not satisfactory;

(g) the energy savings from an individual action are not claimed by more than one party;

(h) the activities of the participating party, entrusted party or implementing public authority are shown to be material to the achievement of the energy savings claimed;~~.~~

⇩ new

(i) the activities of the participating party, entrusted party or implementing public authority have no adverse effects on vulnerable customers, people affected by energy poverty and, where applicable, people living in social housing.

🡻 2018/2002 Art. 1.16 and Annex .2

⇨ new

4. In determining the energy saving from taxation related policy measures introduced under Article 10~~7b~~, the following principles shall apply:

(a) credit shall be given only for energy savings from taxation measures exceeding the minimum levels of taxation applicable to fuels as required in Council Directive 2003/96/EC[52] or 2006/112/EC[53];

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52 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).

53 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).

(b) ⇨ short-run ⇦ price elasticities for the calculation of the impact of the (energy) taxation measures shall represent the responsiveness of energy demand to price changes, and shall be estimated on the basis of recent and representative official data sources; ⇨ which are applicable for the Member State, and, where applicable, based on accompanying studies from an independent institute. If a different price elasticity than short-run elasticities is used, Member States shall explain how energy efficiency improvements due to the implementation of other Union legislation have been included in the baseline used to estimate the energy savings, or how a double-counting of energy savings from other Union legislation has been avoided; ⇦

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

⇩ new

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

(e) Member States shall determine distributional effects of taxation and equivalent measures on vulnerable customers, people affected by energy poverty and, where applicable, people living in social housing, and show the effects of mitigation measures implemented in accordance with Article 22(1) to (3);

(f) Member States shall provide evidence, including calculation methodologies, that where there is an overlap in the impact of energy or carbon taxation measures or emission trading according the EU ETS Directive [COM(2021) 551 final,2021/0211 (COD)], there is no double counting of energy savings.

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

5. Notification of methodology

Member States shall in accordance with Regulation (EU) 2018/1999 notify to the Commission their proposed detailed methodology for the operation of the energy efficiency obligation schemes and alternative measures referred to in Articles 9~~7a~~ and 10~~7b~~, and Article 28(11)~~20(6)~~. Except in the case of taxation, such notification shall include details of:

(a) the level of the energy savings required under ~~point (b) of~~ the first subparagraph of Article 8~~7~~(1) or savings expected to be achieved over the whole period from 1 January 2021 to 31 December 2030;

⇩ new

(b) how the calculated quantity of new energy savings required under the first subparagraph of Article 8(1) or energy savings expected to be achieved will be phased over the obligation period;

🡻 2018/2002 Art. 1.16 and Annex .2

(c~~b~~) the obligated, participating or entrusted parties, or implementing public authorities;

(d~~c~~) target sectors;

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

⇩ new

(f) information on policy measures or programmes or measures financed under an Energy Efficiency National Fund implemented as a priority among people affected by energy poverty, vulnerable customers, and, where applicable, people living in social housing;

(g) the share and the amount of energy savings to be achieved among people affected by energy poverty, vulnerable customers, and, where applicable, people living in social housing;

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

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

🡻 2018/2002 Art. 1.16 and Annex .2

(j~~e~~) the duration of the obligation period for the energy efficiency obligation scheme;

⇩ new

(k) where applicable, the amount of energy savings or cost reduction targets to be achieved by obligated parties among people affected by energy poverty, vulnerable customers, and, where applicable, people living in social housing;

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

(l~~f~~) the actions provided for by the policy measure;

(m~~g~~) the calculation methodology, including how additionality and materiality have been determined and which methodologies and benchmarks are used for deemed and scaled savings, ⇨ and, where applicable, the net calorific values and conversion factors used ⇦ ;

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

(o~~i~~) the approach taken to address climatic variations within the Member State;

(p~~j~~) the monitoring and verification systems for measures under Articles 9~~7a~~ and 10~~7b~~ and how their independence from the obligated, participating or entrusted parties is ensured;

(q~~k~~) in the case of taxation:

(i) the target sectors and segment of taxpayers;

(ii) the implementing public authority;

(iii) the savings expected to be achieved;

(iv) the duration of the taxation measure; ~~and~~

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

⇩ new

(vi) how overlaps with emission trading in accordance with the EU ETS Directive [COM(2021) 551 final,2021/0211 (COD)] have been avoided and the risk of double counting has been abolished.

🡻 2012/27/EU (adapted)

⇨ new

ANNEX VI

MINIMUM CRITERIA FOR ENERGY AUDITS INCLUDING THOSE CARRIED OUT AS PART OF ENERGY MANAGEMENT SYSTEMS

The energy audits referred to in Article 11~~8~~ shall be based on the following ~~guidelines~~⌦ criteria ⌫:

(a) be based on up-to-date, measured, traceable operational data on energy consumption and (for electricity) load profiles;

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

⇩ new

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

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

↓ 2012/27/EU

(e~~e~~) build, whenever possible, on life-cycle cost analysis (LCCA) instead of Simple Payback Periods (SPP) in order to take account of long-term savings, residual values of long-term investments and discount rates;

f~~d~~) be proportionate, and sufficiently representative to permit the drawing of a reliable picture of overall energy performance and the reliable identification of the most significant opportunities for improvement.

Energy audits shall allow detailed and validated calculations for the proposed measures so as to provide clear information on potential savings.

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

⇨ new

ANNEX VIa

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

The following minimum information shall be monitored and published as regards the energy performance of data centres referred to in Article **11a** ~~11(10)~~:

(a) the name of the data centre, the name of the owner and operators of the data centre, **the date of entry into operation and** the municipality where the data centre is based;

(b) the floor area of the data centre; the installed power; the annual incoming and outgoing data traffic; and the amount of data stored and processed within the data centre;

(c) the performance, during the last full calendar year, of the data centre in accordance with key performance indicators about, inter alia, energy consumption, power utilisation, temperature set points, waste heat utilisation, water usage and use of renewable energy.

↓ 2012/27/EU

ANNEX VII

↓ 2019/944 Art. 70.6

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

↓ 2012/27/EU

1. Minimum requirements for billing

1.1. Billing based on actual consumption

In order to enable final customers to regulate their own energy consumption, billing should take place on the basis of actual consumption at least once a year, and billing information should be made available at least quarterly, on request or where the consumers have opted to receive electronic billing or else twice yearly. Gas used only for cooking purposes may be exempted from this requirement.

1.2. Minimum information contained in the bill

Member States shall ensure that, where appropriate, the following information is made available to final customers in clear and understandable terms in or with their bills, contracts, transactions, and receipts at distribution stations:

(a) current actual prices and actual consumption of energy;

(b) comparisons of the final customer's current energy consumption with consumption for the same period in the previous year, preferably in graphic form;

(c) contact information for final customers' organisations, energy agencies or similar bodies, including website addresses, from which information may be obtained on available energy efficiency improvement measures, comparative end-user profiles and objective technical specifications for energy-using equipment.

In addition, wherever possible and useful, Member States shall ensure that comparisons with an average normalised or benchmarked final customer in the same user category are made available to final customers in clear and understandable terms, in, with or signposted to within, their bills, contracts, transactions, and receipts at distribution stations.

1.3. Advice on energy efficiency accompanying bills and other feedback to final customers

When sending contracts and contract changes, and in the bills customers receive or through websites addressing individual customers, energy distributors, distribution system operators and retail energy sales companies shall inform their customers in a clear and understandable manner of contact information for independent consumer advice centres, energy agencies or similar institutions, including their internet addresses, where they can obtain advice on available energy efficiency measures, benchmark profiles for their energy consumption and technical specifications of energy using appliances that can serve to reduce the consumption of these appliances.

↓ 2018/2002 Art. 1.16 and Annex .4 (adapted)

ANNEX VIII~~VIIa~~

MINIMUM REQUIREMENTS FOR BILLING AND CONSUMPTION INFORMATION FOR HEATING, COOLING AND DOMESTIC HOT WATER

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

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

2. Minimum frequency of billing or consumption information

⌦ Until 31 December 2021 ⌫ ~~From 25 October 2020~~, where remotely readable meters or heat cost allocators have been installed, billing or consumption information based on actual consumption or heat cost allocator readings shall be provided to final users at least quarterly upon request or where final customers have opted to receive electronic billing, or else twice a year.

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

3. Minimum information contained in the bill

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

(a) current actual prices and actual consumption of energy or total heat cost and heat cost allocator readings;

(b) information about the fuel mix used and the related annual greenhouse gas emissions, including for final users supplied by district heating or district cooling, and a description of the different taxes, levies and tariffs applied. Member States may limit the scope of the requirement to provide information about greenhouse gas emissions to include only supplies from district heating systems with a total rated thermal input exceeding 20 MW;

(c) comparisons of the final users current energy consumption with consumption for the same period in the previous year, in graphic form, climate corrected for heating and cooling;

(d) contact information for final customers' organisations, energy agencies or similar bodies, including website addresses, from which information on available energy efficiency improvement measures, comparative end-user profiles and objective technical specifications for energy-using equipment may be obtained;

(e) information about related complaints procedures, ombudsman services or alternative dispute resolution mechanisms, as applicable in the Member States;

(f) comparisons with an average normalised or benchmarked final user in the same user category. In the case of electronic bills, such comparisons may instead be made available online and signposted to within the bills.

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

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

ANNEX IX~~VIII~~

POTENTIAL FOR EFFICIENCY IN HEATING AND COOLING

The comprehensive assessment of national heating and cooling potentials referred to in Article 23~~14~~(1) shall include and be based on the following:

Part I

OVERVIEW OF HEATING AND COOLING

1. heating and cooling demand in terms of assessed useful energy[54] and quantified final energy consumption in GWh per year[55] 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[56], within sectors mentioned under point 1 where possible, distinguishing between energy derived from fossil and renewable sources:

[54] The amount of thermal energy needed to satisfy the heating and cooling demand of end-users.

[55] The most recent data available should be used.

[56] The most recent data available should be used.

(i) provided on-site in residential and service sites by:

– heat only boilers;

– high-efficiency heat and power cogeneration;

– heat pumps;

– other on-site technologies and sources;

(ii) provided on-site in non-service and non-residential sites by:

– heat only boilers;

– high-efficiency heat and power cogeneration;

– heat pumps;

– other on-site technologies and sources;

(iii) provided off-site by:

– high-efficiency heat and power cogeneration;

– waste heat;

– 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 ~~I~~ 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[57] sector over the past 5 years, in line with Directive (EU) 2018/2001;

3. a map covering the entire national territory identifying (while preserving commercially sensitive information):

(a) heating and cooling demand areas following from the analysis of point 1, while using consistent criteria for focusing on energy dense areas in municipalities and conurbations;

(b) existing heating and cooling supply points identified under point 2(b) and district heating transmission installations;

(c) planned heating and cooling supply points of the type described under point 2(b) and district heating transmission installations;

4. a forecast of trends in the demand for heating and cooling to maintain a perspective of the next 30 years in GWh and taking into account in particular projections for the next 10 years, the change in demand in buildings and different sectors of the industry, and the impact of policies and strategies related to the demand management, such as long-term building renovation strategies under Directive (EU) 2018/844;

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[57] 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.

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[58] 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 2314(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;

[58] 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.

(b) waste incineration;

(c) high efficiency cogeneration;

(d) renewable energy sources (such as geothermal, solar thermal and biomass) other than those used for high efficiency cogeneration;

(e) heat pumps;

(f) reducing heat and cold losses from existing district networks;

(g) district heating and cooling

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 2314(3) shall include an economic analysis that takes into consideration socioeconomic and environmental factors[59], 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[60], and be linked to data collected under Part I and point 6 of Part II of this Annex;

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

60 The cut-off date for taking into account policies for the baseline scenario is the end of the year preceding to the year by the end of which the comprehensive assessment is due. That is to say, policies enacted within a year prior to the deadline for submission of the comprehensive assessment do not need to be taken into account.

(iii) alternative scenarios to the baseline shall take into account energy efficiency and renewable energy objectives of Regulation (EU) 2018/1999. Each scenario shall present the following elements compared to the baseline scenario:

– economic potential of technologies examined using the net present value as criterion;

– greenhouse gas emission reductions;

– primary energy savings in GWh per year;

– impact on the share of renewables in the national energy mix.

Scenarios that are not feasible due to technical reasons, financial reasons or national regulation may be excluded at an early stage of the cost-benefit analysis, if justified based on careful, explicit and well-documented considerations.

The assessment and decision-making should take into account costs and energy savings from the increased flexibility in energy supply and from a more optimal operation of the electricity networks, including avoided costs and savings from reduced infrastructure investment, in the analysed scenarios.

(b) Costs and benefits

The costs and benefits referred to under point 8(a) shall include at least the following benefits and costs:

(i) Benefits:

– value of output to the consumer (heating, cooling and electricity);

– external benefits such as environmental, greenhouse gas emissions and health and safety benefits, to the extent possible;

– labour market effects, energy security and competitiveness, to the extent possible.

(ii) Costs:

– capital costs of plants and equipment;

– capital costs of the associated energy networks;

– variable and fixed operating costs;

– energy costs;

– environmental, health and safety costs, to the extent possible;

– labour market costs, energy security and competitiveness, to the extent possible.

(c) Relevant scenarios to the baseline:

All relevant scenarios to the baseline shall be considered, including the role of efficient individual heating and cooling.

(i) the cost-benefit analysis may either cover a project assessment or a group of projects for a broader local, regional or national assessment in order to establish the most cost-effective and beneficial heating or cooling solution against a baseline for a given geographical area for the purpose of planning;

~~(ii) Member States shall designate the competent authorities responsible for carrying out the cost-benefit analyses pursuant to Article 14. They shall provide the detailed methodologies and assumptions in accordance with this Annex and establish and make public the procedures for the economic analysis.~~

(d) Boundaries and integrated approach:

(i) the geographical boundary shall cover a suitable well-defined geographical area;

(ii) the cost-benefit analyses shall take into account all relevant centralised or decentralised supply resources available within the system and geographical boundary, including technologies considered under point 7 of Part III of this Annex, and heating and cooling demand trends and characteristics.

(e) Assumptions:

(i) Member States shall provide assumptions, for the purpose of the cost-benefit analyses, on the prices of major input and output factors and the discount rate;

(ii) the discount rate used in the economic analysis to calculate net present value shall be chosen according to European or national guidelines;

(iii) Member States shall use national, European or international energy price development forecasts if appropriate in their national and/or regional/local context;

(iv) the prices used in the economic analysis shall reflect socio economic costs and benefits. External costs, such as environmental and health effects, should be included to the extent possible, i.e. when a market price exists or when it is already included in European or national regulation.

(f) Sensitivity analysis:

(i) a sensitivity analysis shall be included to assess the costs and benefits of a project or group of projects and be based on variable factors having a significant impact on the outcome of the calculations, such as different energy prices, levels of demand, discount rates and other.

Part IV

POTENTIAL NEW STRATEGIES AND POLICY MEASURES

9. overview of new legislative and non-legislative policy measures[61] 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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[61] 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)
⇨ new

ANNEX X~~IX~~

COST-BENEFIT ANALYSIS

~~Part 2~~

Principles for the purpose of Article 24~~14~~(~~45~~) and (6~~7~~)

The cost-benefit analyses shall provide information for the purpose of the measures in Article 24~~14~~(4~~5~~) and (6~~7~~):

If an electricity-only installation or an installation without heat recovery is planned, a comparison shall be made between the planned installations or the planned refurbishment and an equivalent installation producing the same amount of electricity or process heat, but recovering the waste heat and supplying heat through high-efficiency cogeneration and/or district heating and cooling networks.

Within a given geographical boundary the assessment shall take into account the planned installation and any appropriate existing or potential heat ⇨ or cooling ⇦ demand points that could be supplied from it, taking into account rational possibilities (for example, technical feasibility and distance).

The system boundary shall be set to include the planned installation and the heat ⇨ and cooling ⇦ loads, such as building(s) and industrial process. Within this system boundary the total cost of providing heat and power shall be determined for both cases and compared.

Heat ⇨ or cooling ⇦ loads shall include existing heat ⇨ or cooling ⇦ loads, such as an industrial installation or an existing district heating ⇨ or cooling ⇦ system, and also, in urban areas, the heat ⇨ or cooling ⇦ load and costs that would exist if a group of buildings or part of a city were provided with and/or connected into a new district heating ⇨ or cooling ⇦ network.

The cost-benefit analysis shall be based on a description of the planned installation and the comparison installation(s), covering electrical and thermal capacity, as applicable, fuel type, planned usage and the number of planned operating hours annually, location and electricity and thermal demand.

⇩ new

Assessment of waste heat utilization shall take into consideration current technologies. The assessment shall take into consideration the direct use of waste heat or its upgrading to higher temperature levels, or both. In case of waste heat recovery on-site, at least the use of heat exchangers, heat pumps, and heat to power technologies shall be assessed. In case of waste heat recovery off-site, at least industrial installations, agriculture sites and district heating networks shall be assessed as potential demand points.

🡻 2012/27/EU
⇨ new

For the purpose of the comparison, the thermal energy demand and the types of heating and cooling used by the nearby heat ⇨ or cooling ⇦ demand points shall be taken into account. The comparison shall cover infrastructure related costs for the planned and comparison installation.

Cost-benefit analyses for the purposes of Article 24(4)~~14(5)~~ shall include an economic analysis covering a financial analysis reflecting actual cash flow transactions from investing in and operating individual installations.

Projects with positive cost-benefit outcome are those where the sum of discounted benefits in the economic and financial analysis exceeds the sum of discounted costs (cost-benefit surplus).

Member States shall set guiding principles for the methodology, assumptions and time horizon for the economic analysis.

Member States may require that the companies responsible for the operation of thermal electric generation installations, industrial companies, district heating and cooling networks, or other parties influenced by the defined system boundary and geographical boundary, contribute data for use in assessing the costs and benefits of an individual installation.

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↓ 2012/27/EU

ANNEX XI~~X~~

GUARANTEE OF ORIGIN FOR ELECTRICITY PRODUCED FROM HIGH-EFFICIENCY COGENERATION

(a) Member States shall take measures to ensure that:

(i) the guarantee of origin of the electricity produced from high-efficiency cogeneration:

– enable producers to demonstrate that the electricity they sell is produced from high-efficiency cogeneration and is issued to this effect in response to a request from the producer;~~,~~

– is accurate, reliable and fraud-resistant;~~,~~

– is issued, transferred and cancelled electronically;

(ii) the same unit of energy from high-efficiency cogeneration is taken into account only once.

(b) The guarantee of origin referred to in Article 24~~14~~(10) shall contain at least the following information:

(i) the identity, location, type and capacity (thermal and electrical) of the installation where the energy was produced;

(ii) the dates and places of production;

(iii) the lower calorific value of the fuel source from which the electricity was produced;

(iv) the quantity and the use of the heat generated together with the electricity;

(v) the quantity of electricity from high-efficiency cogeneration in accordance with Annex III~~II~~ that the guarantee represents;

(vi) the primary energy savings calculated in accordance with Annex IIIH based on the harmonised efficiency reference values indicated in point (f) of Annex IIIH;

(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.

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↓ 2012/27/EU

ANNEX XII~~XI~~

ENERGY EFFICIENCY CRITERIA FOR ENERGY NETWORK REGULATION AND FOR ELECTRICITY NETWORK TARIFFS

1. Network tariffs shall be **transparent, non-discriminatory and in line with Article 18 of Regulation (EU) 2019/943 and** 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 **independent** ~~*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.

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↓ 2012/27/EU

ANNEX XIII~~XII~~

ENERGY EFFICIENCY REQUIREMENTS FOR TRANSMISSION SYSTEM OPERATORS AND DISTRIBUTION SYSTEM OPERATORS

Transmission system operators and distribution system operators shall:

↓ 2018/2002 Art. 1.16 and Annex .6

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

↓ 2012/27/EU

(b) provide any new producer of electricity produced from high-efficiency cogeneration wishing to be connected to the system with the comprehensive and necessary information required, including:

(i) a comprehensive and detailed estimate of the costs associated with the connection;

(ii) a reasonable and precise timetable for receiving and processing the request for grid connection;

(iii) a reasonable indicative timetable for any proposed grid connection. The overall process to become connected to the grid should be no longer than 24 months, bearing in mind what is reasonably practicable and non-discriminatory;

(c) provide standardised and simplified procedures for the connection of distributed high-efficiency cogeneration producers to facilitate their connection to the grid.

The standard rules referred to in point (a) shall be based on objective, transparent and non-discriminatory criteria taking particular account of all the costs and benefits associated with the connection of those producers to the grid. They may provide for different types of connection.

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↓ 2012/27/EU (adapted)

ANNEX XIV~~XIII~~

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

⇩ new

– Findings /recommendations of an analysis/ **energy** 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.

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↓ 2012/27/EU (adapted)

~~ANNEX XV~~

~~CORRELATION TABLE~~

~~Directive 2004/8/EC~~	~~This Directive~~
~~Article 1~~	~~Article 1(1)~~
~~Article 2~~	~~Article 1(1)~~
~~Article 3, point (a)~~	~~Article 2, point (30)~~
~~Article 3, point (b)~~	~~Article 2, point (32)~~
~~Article 3, point (c)~~	~~Article 2, point (31)~~
~~Article 3, point (d)~~	~~Article 2, point (33)~~
~~Article 3, points (e) and (f)~~	~~—~~
~~Article 3, point (g)~~	~~Article 2, point (35)~~
~~Article 3, point (h)~~	~~—~~
~~Article 3, point (i)~~	~~Article 2, point (34)~~
~~Article 3, point (j)~~	~~—~~
~~Article 3, point (k)~~	~~Article 2, point (36)~~
~~Article 3, point (l)~~	~~Article 2, point (37)~~
~~Article 3, point (m)~~	~~Article 2, point (39)~~

~~Article 3, point (n)~~	~~Article 2, point (38)~~
~~Article 3, point (o)~~	~~—~~
~~—~~	~~Article 2, points (40), (41), (42), (43), and (44)~~
~~Article 4(1)~~	~~Annex II, point (f), first subpoint~~
~~Article 4(2)~~	~~Article 14(10), second subparagraph~~
~~Article 4(3)~~	~~—~~
~~Article 5~~	~~Article 14(10), first subparagraph and Annex X~~
~~Article 6~~	~~Article 14(1) and (3), Annex VIII and IX~~
~~Article 7(1)~~	~~Article 14(11)~~
~~Article 7(2) and (3)~~	~~—~~
~~Article 8~~	~~Article 15(5)~~
~~—~~	~~Article 15(6), (7), (8) and (9)~~
~~Article 9~~	~~—~~
~~Article 10(1) and (2)~~	~~Article 14(1) and 24(2), Annex XIV, Part 2~~
~~Article 10(3)~~	~~Article 24(6)~~
~~Article 11~~	~~Article 24(3)~~
~~—~~	~~Article 24(5)~~
~~Article 12(1) and (3)~~	~~—~~
~~Article 12(2)~~	~~Annex II, point (e)~~

~~Article 13~~	~~Article 22(2)~~
~~Article 14~~	~~—~~
~~Article 15~~	~~Article 28~~
~~Article 16~~	~~—~~
~~Article 17~~	~~Article 29~~
~~Article 18~~	~~Article 30~~
~~Annex I~~	~~Annex I, Part II~~
~~Annex II~~	~~Annex I, Part I and Part II, last subparagraph~~
~~Annex III~~	~~Annex II~~
~~Annex IV~~	~~Annex VIII~~
~~—~~	~~Annex IX~~

~~Directive 2006/32/EC~~	~~This Directive~~
~~Article 1~~	~~Article 1(1)~~
~~Article 2~~	~~Article 1(1)~~
~~Article 3, point (a)~~	~~Article 2, point (1)~~
~~Article 3, point (b)~~	~~Article 2, point (4)~~
~~Article 3, point (c)~~	~~Article 2, point (6)~~
~~Article 3, point (d)~~	~~Article 2, point (5)~~

—	~~Article 2, points (2) and (3)~~
~~Article 3, point (e)~~	~~Article 2, point (7)~~
~~Article 3, points (f), (g), (h) and (i)~~	—
—	~~Article 2, points (8) to (19)~~
~~Article 3, point (j)~~	~~Article 2, point (27)~~
—	~~Article 2, point (28)~~
~~Article 3, point (k)~~	—
~~Article 3, point (l)~~	~~Article 2, point (25)~~
—	~~Article 2, point (26)~~
~~Article 3, point (m)~~	—
~~Article 3, point (n)~~	~~Article 2, point (23)~~
~~Article 3, point (o)~~	~~Article 2, point (20)~~
~~Article 3, point (p)~~	~~Article 2, point (21)~~
~~Article 3, point (q)~~	~~Article 2, point (22)~~
~~Article 3, points (r) and (s)~~	—
—	~~Article 2, points (24), (29), (44) and (45)~~
—	~~Article 3~~
—	~~Article 4~~

~~Article 4~~	~~—~~
~~Article 5~~	~~Articles 5 and 6~~
~~Article 6(1)(a)~~	~~Article 7(8), points (a) and (b)~~
~~Article 6(1)(b)~~	~~Article 18(3)~~
~~Article 6(2)~~	~~Article 7(1), (5), (6), (7), (9), (10), (11) and (12)~~
~~—~~	~~Article 7(2) and (3)~~
~~Article 6(3)~~	~~Article 18(2), points (b) and (c)~~
~~Article 6(5)~~	~~—~~
~~Article 7~~	~~Article 17~~
~~Article 8~~	~~Article 16(1)~~
~~—~~	~~Article 16(2) and (3)~~
~~Article 9(1)~~	~~Article 19~~
~~Article 9(2)~~	~~Article 18(1), point (d), subpoint (i)~~
~~—~~	~~Article 18(1), points (a), (b), (c), (d), subpoint (ii), and (e)~~
~~Article 10(1)~~	~~Article 15(4)~~
~~Article 10(2)~~	~~Article 15(3)~~
~~—~~	~~Article 15(7), (8) and (9)~~
~~Article 11~~	~~Article 20~~

~~Article 12(1)~~	~~Article 8(1)~~
~~Article 12(2)~~	~~—~~
~~—~~	~~Article 8(2), (3), (4), (5), (6) and (7)~~
~~Article 12(3)~~	~~—~~
~~Article 13(1)~~	~~Article 9~~
~~Article 13(2)~~	~~Article 10 and Annex VII, point 1.1~~
~~Article 13(3)~~	~~Annex VII, points 1.2 and 1.3~~
~~—~~	~~Article 11~~
~~—~~	~~Article 12~~
~~—~~	~~Article 13~~
~~—~~	~~Article 15(1) and (2)~~
~~—~~	~~Article 18(2), points (a) and (d)~~
~~—~~	~~Article 21~~
~~Article 14(1) and (2)~~	~~Article 24(1) and (2)~~
~~Article 14(3)~~	~~—~~
~~Article 14(4) and (5)~~	~~Article 24(3)~~
~~—~~	~~Article 24(4) and (7) to (11)~~
~~—~~	~~Article 22(1)~~
~~Article 15(1)~~	~~Article 22(2)~~

~~Article 15(2), (3) and (4)~~	~~—~~
~~—~~	~~Article 23~~
~~—~~	~~Article 25~~
~~Article 16~~	~~Article 26~~
~~Article 17~~	~~Article 27~~
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ANNEX XV

Part A

Repealed Directive with list of the successive amendments thereto
(referred to in Article 36)

Directive 2012/27/EU of the European Parliament and of the Council (OJ L 315, 14.11.2012, p. 1)	
Council Directive 2013/12/EU (OJ L 141, 28.5.2013, p. 28)	
Directive (EU) 2018/844 of the European Parliament and of the Council (OJ L 156, 19.6.2018, p. 75)	only Article 2
Directive (EU) 2018/2002 of the European Parliament and of the Council (OJ L 328, 21.12.2018, p. 210)	
Regulation (EU) 2018/1999 of the European Parliament and of the Council (OJ L 328, 21.12.2018, p. 1)	only Article 54
Decision (EU) 2019/504 of the European Parliament and of the Council (OJ L 85I , 27.3.2019, p. 66)	only Article 1

Commission Delegated Regulation (EU) 2019/826 (OJ L 137, 23.5.2019, p. 3)	
Directive (EU) 2019/944 of the European Parliament and of the Council (OJ L 158, 14.6.2019, p. 125)	only Article 70

Part B

Time-limits for transposition into national law

(referred to in Article 36)

Directive	Time-limit for transposition
2012/27/EU	5 June 2014
(EU) 2018/844	10 March 2020
(EU) 2018/2002	25 June 2020, with the exception of points 5 to 10 of Article 1 and points 3 and 4 of the Annex
	25 October 2020 as regards points 5 to 10 of Article 1 and points 3 and 4 of the Annex
(EU) 2019/944	31 December 2019 as regards point (5)(a) of Article 70
	25 October 2020 as regards point (4) of Article 70
	31 December 2020 as regards points (1) to (3), (5)(b) and (6) of Article 70

ANNEX XVI

CORRELATION TABLE

Directive 2012/27/EU	This Directive
Article 1	Article 1
Article 2, introductory wording	Article 2, introductory wording
Article 2, point 1	Article 2, point 1
-	Article 2, points 2 and 3
Article 2, point 2	Article 2, point 4
Article 2, point 3	Article 2, point 5
Article 2, point 4	Article 2, point 6
Article 2, point 5	Article 2, point 7
Article 2, point 6	Article 2, point 8
Article 2, point 7	Article 2, point 9
Article 2, point 8	Article 2, point 10
Article 2, point 9	-
Article 2, point 10	Article 2, point 11
_	Article 2, points 12 and 13
Article 2, point 11	Article 2, point 14
Article 2, point 12	Article 2, point 15

Article 2, point 13	Article 2, point 16
Article 2, point 14	Article 2, point 17
Article 2, point 15	Article 2, point 18
Article 2, point 16	Article 2, point 19
Article 2, point 17	Article 2, point 20
Article 2, point 18	Article 2, point 21
Article 2, point 19	Article 2, point 22
Article 2, point 20	Article 2, point 23
Article 2, point 21	Article 2, point 24
Article 2, point 22	Article 2, point 25
Article 2, point 23	Article 2, point 26
Article 2, point 24	Article 2, point 27
Article 2, point 25	Article 2, point 28
Article 2, point 26	-
Article 2, point 27	Article 2, point 29
Article 2, point 28	Article 2, point 30
Article 2, point 29	Article 2, point 31
Article 2, point 30	Article 2, point 32
Article 2, point 31	Article 2, point 33

Article 2, point 32	Article 2, point 34
Article 2, point 33	Article 2, point 35
Article 2, point 34	Article 2, point 36
Article 2, point 35	Article 2, point 37
Article 2, point 36	Article 2, point 38
Article 2, point 37	Article 2, point 39
Article 2, point 38	Article 2, point 40
Article 2, point 39	Article 2, point 41
Article 2, point 40	-
Article 2, point 41	Article 2, point 42
Article 2, point 42	Article 2, point 43
Article 2, point 43	Article 2, point 44
-	Article 2, point 45
Article 2, points 44 and 45	Article 2, points 46 and 47
-	Article 2, points 48, 49 and 50
-	Article 3
-	Article 4(1)
Article 3(1), first subparagraph	Article 4(2), first subparagraph
Article 3(1), second subparagraph, introductory wording	Article 4(2), second subparagraph, introductory wording

Article 3(1), second subparagraph, points (a) and (b)	Article 4(2), second subparagraph, points (a) and (b)
Article 3(1), second subparagraph, point (c)	-
Article 3(1), second subparagraph, point (d)	Article 4(2), second subparagraph, point (c)
Article 3(1), third subparagraph, introductory wording	-
-	Article 4(2), second subparagraph, point (d), introductory wording
-	Article 4(2), second subparagraph, points (d)(i), (ii) and (iii)
Article 3(1), third subparagraph, point (a)	Article 4(2), second subparagraph, point (d)(iv)
-	Article 4(2), second subparagraph, point (e), introductory wording
Article 3(1), third subparagraph, point (b)	Article 4(2), second subparagraph, point (e)(i)
Article 3(1), third subparagraph, point (c)	Article 4(2), second subparagraph, point (e)(ii)
Article 3(1), third subparagraph, point (d)	Article 4(2), second subparagraph, point (e)(iii)
Article 3(1), third subparagraph, point (e)	-
Article 3(2) and (3)	-
Article 3(4)	Article 33(6)

Article 3(5) and (6)	-
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Article 5(1), third subparagraph	Article 6(1), second subparagraph
Article 5(1), fourth and fifth subparagraph	-
Article 5(2) and (3)	-
Article 5(4)	Article 6(2)
Article 5(5)	Article 6(3)
Article 5(6) and (7)	-
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Article 6(1), second subparagraph	-
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Article 6(2), (3) and (4)	Article 7(2), (3) and (4)
-	Article 7(5) and (6)
-	Article 7(7), second subparagraph

Article 7(1), introductory wording, point (a) and (b)	Article 8(1), introductory wording, point (a) and (b)
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Article 7(1), third subparagraph	Article 8(1), second subparagraph
Article 7(1), fourth subparagraph	Article 8(1), third subparagraph
-	Article 8(2), (3) and (4)
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Article 7(3)	Article 8(7)
Article 7(4)	Article 8(8)
Article 7(5)	Article 8(9)
Article 7(6)	Article 8(10)
Article 7(7)	-
Article 7(8)	-
Article 7(9)	-
Article 7(10)	-
Article 7(11)	-
	Article 8(11), (12) and (13)
Article 7(12)	Article 8(14)

Article 7a (1), (2) and (3)	Article 9(1), (2) and (3)
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Article 7a (4) and (5)	Article 9(7) and (8)
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Article 7a (6) and (7)	Article 9(10) and (11)
Article 7b (1) and (2)	Article 10(1) and (2)
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-	Article 11(1) and (2)
Article 8(1) and (2)	Article 11(3) and (4)
Article 8(3) and (4)	-
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Article 8(6)	Artice 11(8)
Article 8(7)	Article 11(9)
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Article 9c	Article 15
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Article 12(1)	Article 21(2)
Article 12(2), introductory wording and point (a), subpoints (i) to (v)	Article 21(2), second subparagraph, subpoints (i) to (v)
	Article 21(2), second subparagraph, subpoint (vi)
Article 12(2), point (b)	Article 21(2), third subparagraph
-	Article 21(2), third subparagraph, point (i)
Article 12(2), point (b), subpoints (i) and (ii)	Article 21(2), third subparagraph, points (ii) and (iii)
-	Article 21(2), third subparagraph, point (iv)
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Article 14(5), introductory wording and point (a)	Article 24(4), introductory wording and point (a)
Article 14(5), points (b), (c) and (d)	-
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Article 14(5), second and third subparagraphs	Article 24(4), third and fourth subparagraphs
Article 14(6), point (a)	Article 24(5), point (a)
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Article 14(7), (8) and (9)	Article 24(6), (7) and (8)

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Article 15(1), first subparagraph	Article 25(1)
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Article 15(2) and (2a)	-
Article 15(3), (4) and (5), first subparagraph	Article 25(6), (7) and (8)
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Article 15(6), first subparagraph	-
Article 15(6), second subparagraph	Article 25(9)
Article 15(7)	Article 25(10)
Article 15(9), first subparagraph	Article 25(11)
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Article 16(1) and (2)	-
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Article 18(1), introductory wording	Article 27(1), introductory wording
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Article 24(15), point (b)	Article 33(7), point (a)

	Article 33(7), point (b), (c), (d), (e) and (f)
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