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Subject: Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF
THE COUNCIL on the promotion of the use of energy from renewable
sources (recast)
- General approach

1. The Presidency aims to reach a general approach on this proposal at the 18 December meeting of the TTE (Energy) Council. After the COREPER discussion on the issue of renewable energy in the transport sector (Art. 25) on 27 October, and the COREPER discussion on 24 November devoted to the draft Directive as a whole, COREPER is now invited to finalise its examination on the draft Directive as reflected in the Annex and the Addendum¹, with a view to reaching agreement on it and submitting it to the TTE Council for acceptance as a general approach.

¹ *cf. cf. doc. 8697/17 ADD 1 REV 2*

2. Further to the COREPER discussion on 24 November, the results from that discussion have been carefully considered by the Presidency, and intensive technical discussions have continued at bilateral level. As a result, the text was improved further as regards several technical issues, in particular in Article 3 (Union binding target), Article 6 (stability of financial support schemes), Article 7 (calculation of the share of renewable energy), Article 19 (guarantees of origin), Article 21 (renewable self-consumers), Article 24 (district heating and cooling), Article 25 (transport sector), Article 26 (sustainability and greenhouse gas emissions saving criteria for biofuels, bioliquids and biomass fuels) and Article 27 (verification of compliance with sustainability and greenhouse gas emissions saving criteria), as well as in several recitals (recitals 18, 51, 69 and 96bis).

It must be underlined that even though the text was improved as regards technical issues, no major new overall compromises were created for the substance of the Articles concerned.

For these and other important political issues, the Presidency considers that the compromises as presented to COREPER on 24 November already reflected a delicate political balance that prevented further major changes to those issues. Besides the Articles cited above, this also concerns *inter alia* the permit granting process (Art. 16), the notification procedure (Art. 17), and the renewable energy communities (Art. 22).

In the Presidency's view, the text of the draft Directive is mature and stable to a large extent, even though a political consideration of the overall compromise, and of key political issues such as renewable energy in transport (Art. 25) and heating and cooling (Art. 23) is still needed at the meeting of the TTE (Energy) Council on 18 December. For this purpose, compromises on these two Articles shall be put forward before the Council meeting; these compromises shall be based on delegations' interventions from the COREPER meetings on 27 October and 24 November, with any updates to their positions that delegations may have during the COREPER meeting on 8 December.

3. COREPER is invited to conclude discussions on the remaining technical issues that delegations may still wish to raise, and forward the open political issues to the Council meeting in view of reaching a general approach.

Changes compared to the Commission proposal are indicated in **bold blue highlighted text**; deletions are marked with [].

Changes compared to the previous text are indicated in **bold underlined blue highlighted text**; deletions are marked with [] or .

To improve the readability of the document, (sub)paragraphs from the original Commission proposal (*i.e.* (sub)paragraphs that are proposed to be deleted in their entirety) are now deleted, this is indicated by [].

N.B. The Opinion of the Consultative Working Party of Legal Services can be found in doc. 13344/17. This opinion identifies in point (1) text in the original Commission proposal (including the Annexes) which should have been identified with grey-shaded text. Its substantial correction in point (2) has been incorporated into this text (REV 3).

Proposal for a

DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

on the promotion of the use of energy from renewable sources (recast)

(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article **192(1) and** 194(2) thereof,

Having regard to the proposal from the European Commission,

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

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

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

Acting in accordance with the ordinary legislative procedure

Whereas:

- (1) Directive 2009/28/EC of the European Parliament and of the Council² has been substantially amended several times³. Since further amendments are to be made, that Directive should be recast in the interests of clarity.
- (2) Promoting renewable forms of energy is one of the goals of the Union energy policy **that is pursued by this Directive. Simultaneously this Directive pursues the environmental objectives of preserving, protecting and improving the quality of environment, of protecting human health and of a prudent and rational utilisation of natural resources through the development of new and renewable forms of energy. As regards this Directive both sets of objectives are indissociably linked while none is secondary or indirect to the other.** The increased use of energy from renewable sources constitutes an important part of the package of measures needed to reduce greenhouse gas emissions and comply with the 2015 Paris Agreement on Climate Change, and the Union 2030 energy and climate framework, including the binding target to cut emissions in the Union by at least 40% below 1990 levels by 2030. **The Union's binding renewable energy target for 2030, Member States contributions to the latter target, including their baseline scenarios resuming their national overall targets for 2020, are among the elements which have an overarching importance for the Union's energy and environmental policy. Other such elements of overarching importance are for instance contained in this Directive's framework for developing renewable heating and cooling and for the development of renewable transport fuels.**

² Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC (OJ L 140, 5.6.2009, p. 16).

³ See Annex XI, Part A.

- (2bis) [] The increased use of energy from renewable sources** also has an important part to play in promoting the security of energy supply, technological development and innovation and providing opportunities for employment and regional development, especially in rural and isolated areas or regions with low population density .
- (3) In particular, increasing technological improvements, incentives for the use and expansion of public transport, the use of energy efficiency technologies and the promotion of the use of energy from renewable sources in the electricity, heating and cooling sectors as well as in the transport sector are very effective tools, together with energy efficiency measures, for reducing greenhouse gas emissions in the Union and the Union's dependence on imported gas and oil.
- (4) Directive 2009/28/EC established a regulatory framework for the promotion of the use of energy from renewable sources which set binding national targets on the share of renewable energy sources in energy consumption and transport to be met by 2020. Commission Communication of 22 January 2014⁴ established a framework for future Union energy and climate policies and promoted a common understanding of how to develop those policies after 2020. The Commission proposed that the Union 2030 target for the share of renewable energy consumed in the Union should be at least 27%.
- (5) The European Council of October 2014 endorsed that target, indicating that Member States may set their own more ambitious national targets **in order to deliver on their planned contributions to the Union 2030 target and go beyond them.**

⁴ "A policy framework for climate and energy in the period from 2020 to 2030" (COM/2014/015 final).

- (6) The European Parliament, in its Resolutions on "A policy framework for climate and energy in the period from 2020 to 2030" and on "the Renewable energy progress report", has favoured a binding Union 2030 target of at least 30% of total final energy consumption from renewable energy sources, stressing that that target should be implemented by means of individual national targets taking into account the individual situation and potential of each Member State.
- (7) It is thus appropriate to establish a Union binding target of at least 27% share of renewable energy. Member States should define their contribution to the achievement of this target as part of their Integrated National Energy and Climate Plans through the governance process set out in Regulation [Governance].
- (8) The establishment of a Union binding renewable energy target for 2030 would continue to encourage the development of technologies which generate renewable energy and provide certainty for investors. A target defined at the Union level would leave greater flexibility for Member States to meet their greenhouse gas reduction targets in the most cost-effective manner in accordance with their specific circumstances, energy mixes and capacities to produce renewable energy.

- (9) **In order to ensure the consolidation of the results achieved under Directive 2009/28/EC, the national targets set for 2020 should constitute Member States' minimum contribution to the new 2030 framework. Under no circumstances the national share of renewables should fall below such contribution and in that case [], the relevant Member States should take the appropriate measures to ensure that this baseline is maintained [] as set out in Regulation [Governance]. If a Member State does not maintain its baseline share as measured over a one-year period, it should, within one year, take additional measures to cover this gap to its baseline scenario. Where a Member State has effectively taken such necessary measures and fulfilled its obligation to cover the gap, it should be deemed to comply with the mandatory requirements of its base-line scenario as from the moment in time when the gap in question occurred and both under this Directive and under Regulation [Governance]. The Member State in question therefore cannot be considered to have failed to fulfil its obligation to maintain its baseline share for the period in time where the gap occurred. Both the 2020 and 2030 frameworks indissociably serve the environmental and energy policy objectives of the Union.**
- (10) Member States should take additional measures in the event that the share of renewables at the Union level does not meet the Union trajectory towards the at least 27% renewable energy target. As set out in Regulation [Governance], if an ambition gap is identified by the Commission during the assessment of the Integrated National Energy and Climate Plans, the Commission may take measures at Union level in order to ensure the achievement of the target. If a delivery gap is identified by the Commission during the assessment of the Integrated National Energy and Climate Progress Reports, Member States should apply the measures set out in Regulation [Governance], which are giving them enough flexibility to choose.
- (11) In order to support Member States' ambitious contributions to the Union target, a financial framework aiming to facilitate investments in renewable energy projects in those Member States should be established, also through the use of financial instruments.

- (12) The Commission should focus the allocation of funds on the reduction of the cost of capital of renewables projects, which has a material impact on the cost of renewable energy projects and on their competitiveness, **as well as to the development of essential infrastructure for an enhanced technically and economically affordable uptake of renewable energy such as transmission and distribution grid infrastructure, intelligent networks and interconnections.**
- (13) The Commission should facilitate the exchange of best practices between the competent national or regional authorities or bodies, for instance through regular meetings to find a common approach to promote a higher uptake of cost-efficient renewable energy projects, encourage investments in new, flexible and clean technologies, and set out an adequate strategy to manage the retirement of technologies which do not contribute to the reduction of emissions or deliver sufficient flexibility, based on transparent criteria and reliable market price signals.
- (14) Directive 2001/77/EC of the European Parliament and of the Council⁵, Directive 2003/30/EC of the European Parliament and of the Council⁶, and Regulation (EC) 1099/2008 of the European Parliament and of the Council⁷ established definitions for different types of energy from renewable sources. Directive XXXX/XX/EU of the European Parliament and of the Council of⁸ established definitions for the electricity sector in general. In the interests of legal certainty and clarity it is appropriate to use those definitions in this Directive.

⁵ Directive 2001/77/EC of the European Parliament and of the Council of 27 September 2001 on the promotion of electricity produced from renewable energy sources in the internal electricity market (OJ L 283, 27.10.2001, p. 33).

⁶ Directive 2003/30/EC of the European Parliament and of the Council of 8 May 2003 on the promotion of the use of biofuels or other renewable fuels for transport (OJ L 123, 17.5.2003, p. 42).

⁷ Regulation (EC) 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)

⁸ Directive XXXX/XX/EU of the European Parliament and of the Council of ... concerning common rules for the internal market in electricity (OJ L...)

(15) Support schemes for electricity generated from renewable sources have proved to be an effective way of fostering deployment of renewable electricity. If and when Member States decide to implement support schemes, such support should be provided in a form that is as non-distortive as possible for the functioning of electricity markets. To this end, an increasing number of Member States allocate support in a form where support is granted in addition to market revenues **and introduce market-based systems to determine the necessary level of support. Together with steps to make the market fit for rising shares of renewables this is a key element of increasing the market integration of renewables. For small-scale and demonstration projects specific conditions including feed-in-tariffs might still be necessary to ensure a positive cost-benefit ratio. These conditions should be in line with the rules set out in Article 11 of the Regulation [Electricity Market regulation].**

(16) Electricity generation from renewable sources should be deployed at the lowest possible cost for consumers and taxpayers. When designing support schemes and when allocating support, Member States should seek to minimise the overall system cost of deployment **along the decarbonisation pathway towards the low-carbon economy objective for the year 2050. Market-based mechanisms, such as competitive bidding have proven to effectively reduce support cost in competitive markets in many circumstances. However, in specific circumstances of very limited competition, competitive bidding may not necessarily lead to efficient price discovery. For this reason balanced exemptions may need to be considered to ensure cost-effectiveness and minimise overall support cost. While Member States develop their support schemes they should consider various outcomes that market-based mechanisms may have on policies outside the electricity sector and may consider limiting bidding processes to specific technologies may be justified where there is a need to take [] full account of grid and system integration and development needs, the resulting energy mix, and the long term potential of technologies. Such technology specific support also allows to take into account the technology specific characteristics such as different lead times, spatial planning requirements and environmental permitting requirements, which might impede efficient competition across technologies.**

(16bis) Member States have different renewable energy potentials and operate different schemes of support for energy from renewable sources at the national level. The majority of Member States apply support schemes that grant benefits solely to energy from renewable sources that is produced on their territory. For the proper functioning of national support schemes it is vital that Member States continue to be able to control the effect and costs of their national support schemes according to their different potentials. One important means to achieve the aim of this Directive remains to guarantee the proper functioning of national support schemes, as under Directives 2001/77/EC and 2009/28/EC, in order to maintain investor confidence and allow Member States to design effective national measures for their respective contribution to the Union's 2030 target for renewable energy and for any national target they have set for themselves. This Directive should facilitate cross-border support of energy from renewable sources without affecting national support schemes in a disproportionate manner.

(17) The opening of support schemes to cross-border participation limits negative impacts on the internal energy market and can, under certain conditions, help Member States achieve the Union target more cost-efficiently. Cross-border participation is also the natural corollary to the development of the Union renewables policy **fostering convergence and cooperation to contribute []** Union-level binding target **[]**. It is therefore appropriate to **[] encourage** Member States to open support to projects located in other Member States, and define several ways in which such progressive opening may be implemented, ensuring compliance with the provisions of the Treaty on the Functioning of the European Union, including Articles 30, 34 and 110. **As electricity flows cannot be traced, it is appropriate to link the opening to shares representing an aspiration towards actual levels of physical interconnections and to allow Member States to restrict their open support schemes to Member States with whom they have a direct network connection as a practical proxy for demonstrating the existence of physical flows between the Member States. This should not however in any way affect cross-zonal and cross-border functioning of the electricity markets.**

(17bis) In order to ensure that the opening of support schemes is reciprocal and brings mutual benefits a cooperation agreement should be signed between participating Member States. Member States should retain control over the pace of deployment of renewable electricity capacity on their territory, in order in particular to take account of associated integration costs and required grid investments. Member States should thus be allowed to limit the participation of installations located on their territory to tenders opened to them by other Member States, where they can demonstrate that doing so would, inter alia, threaten the security of their electricity system or lead to disproportionate costs. The bilateral agreement should sufficiently reflect on all relevant points, such as, reflect on how the costs concerning the project which are built by a state on the territory of another state are accounted for, including the expenditures related to strengthening networks, transfers of energy, storage and back-up capacities, as well as possible congestions in the network. When doing so, Member States should however have taken due consideration of all measures that may allow for a cost-effective integration of such additional renewable electricity capacity, be they of regulatory nature (for instance related to market design) or additional investments in various sources of flexibility (for instance interconnections, storage, demand response, or flexible generation).

(18) Without prejudice to **Articles 107 and 108 of the Treaty on the Functioning of the European Union []**, renewables support policies should be stable and avoid **unjustified [] retroactive** changes. Such changes have a direct impact on capital financing costs, the costs of project development and therefore on the overall cost of deploying renewables in the Union. Member States should prevent the revision of any support **that has been** granted to renewable energy projects from having a negative impact on their economic viability, **unless such a revision, based on clear, objective and pre-defined criteria, had been already envisaged in the original design of the support scheme.** In this context, Member States should promote cost-effective support policies and ensure their financial sustainability.

- (19) Member States' obligations to draft renewable energy action plans and progress reports and the Commission's obligation to report on Member States' progress are essential in order to increase transparency, provide clarity to investors and consumers and allow for effective monitoring. Regulation [Governance] integrates those obligations in the Energy Union governance system, where planning, reporting and monitoring obligations in the energy and climate fields are streamlined. The transparency platform on renewable energy is also integrated in the broader e-platform established in Regulation [Governance].
- (20) It is necessary to set transparent and unambiguous rules for calculating the share of energy from renewable sources and for defining those sources.
- (21) In calculating the contribution of hydropower and wind power for the purposes of this Directive, the effects of climatic variation should be smoothed through the use of a normalisation rule. Further, electricity produced in pumped storage units from water that has previously been pumped uphill should not be considered to be electricity produced from renewable energy sources.
- (22) Heat pumps enabling the use of **[] ambient and geothermal energy** at a useful temperature level **or systems providing cooling** need electricity or other auxiliary energy to function. The energy used to drive **these systems []** should therefore be deducted from the total usable **energy or energy removed from the area[]**. Only **such heating and cooling systems [] where the** output **or energy removed from an area []** significantly exceeds the primary energy needed to drive it should be taken into account. **Cooling systems contribute to the energy use in Member States and it is therefore appropriate to take into account the renewable share of the energy used in such systems.**
- (23) Passive energy systems use building design to harness energy. This is considered to be saved energy. To avoid double counting, energy harnessed in this way should not be taken into account for the purposes of this Directive.

(24) Some Member States have a large share of aviation in their gross final consumption of energy. In view of the current technological and regulatory constraints that prevent the commercial use of biofuels in aviation, it is appropriate to provide a partial exemption for such Member States, by excluding from the calculation of their gross final consumption of energy in national air transport, the amount by which they exceed one-and-a-half times the Union average gross final consumption of energy in aviation in 2005, as assessed by Eurostat, i.e. 6,18 %. Cyprus and Malta, due to their insular and peripheral character, rely on aviation as a mode of transport, which is essential for their citizens and their economy. As a result, Cyprus and Malta have a gross final consumption of energy in national air transport which is disproportionately high, i.e. more than three times the Union average in 2005, and are thus disproportionately affected by the current technological and regulatory constraints. For those Member States it is therefore appropriate to provide that the exemption should cover the amount by which they exceed the Union average gross final consumption of energy in aviation in 2005 as assessed by Eurostat, i.e. 4,12 %.

(25) In order to ensure that Annex IX takes into account the principles of the waste hierarchy established in Directive 2008/98/EC of the European Parliament and of the Council⁹, the Union sustainability criteria, and the need to ensure that the Annex does not create additional demand for land while promoting the use of wastes and residues, the Commission, when regularly evaluating the Annex, should consider the inclusion of additional feedstocks that do not cause significant distortive effects on markets for (by-) products, wastes or residues.

⁹ Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives (OJ L 312, 22.11.2008, p. 3).

- (26) To create opportunities for reducing the cost of meeting the Union target laid down in this Directive and to give flexibility to Member States to comply with their obligation not to go below their 2020 national targets after 2020, it is appropriate both to facilitate the consumption in Member States of energy produced from renewable sources in other Member States, and to enable Member States to count energy from renewable sources consumed in other Member States towards their own renewable energy share. For this reason, **a European Renewable Energy Platform (“ERDP”) will be put in place, enabling trading renewable energy shares between Member States, in addition to bilateral cooperation agreements.** [] **This shall [] complement voluntary [] opening [] of support schemes** to projects located in other Member States . **[] The agreements [] between Member States** include statistical transfers, joint projects between Member States or joint support schemes.
- (27) Member States should be encouraged to pursue all appropriate forms of cooperation in relation to the objectives set out in this Directive. Such cooperation can take place at all levels, bilaterally or multilaterally. Apart from the mechanisms with effect on target renewable energy share calculation and target compliance, which are exclusively provided for in this Directive, namely statistical transfers between Member States **done bilaterally or via ERDP**, joint projects and joint support schemes, cooperation can also take the form of, for example, exchanges of information and best practices, as provided for, in particular, in the e-platform established by Regulation [Governance], and other voluntary coordination between all types of support schemes.

- (28) It should be possible for imported electricity, produced from renewable energy sources outside the Union to count towards Member States' **renewable energy shares**. In order to guarantee an adequate effect of energy from renewable sources replacing conventional energy in the Union as well as in third countries it is appropriate to ensure that such imports can be tracked and accounted for in a reliable way. Agreements with third countries concerning the organisation of such trade in electricity from renewable energy sources will be considered. If, by virtue of a decision taken under the Energy Community Treaty¹⁰ to that effect, the contracting parties to that Treaty are bound by the relevant provisions of this Directive, the measures of cooperation between Member States provided for in this Directive should be applicable to them.
- (29) The procedure used for the authorisation, certification and licensing of renewable energy plants should be objective, transparent, non-discriminatory and proportionate when applying the rules to specific projects. In particular, it is appropriate to avoid any unnecessary burden that could arise by classifying renewable energy projects under installations which represent a high health risk.
- (30) For the benefit of rapid deployment of energy from renewable sources and in view of their overall high sustainable and environmental beneficial quality, Member States should, when applying administrative rules, planning structures and legislation which are designed for licensing installations with respect to pollution reduction and control for industrial plants, for combating air pollution and for the prevention or minimisation of the discharge of dangerous substances in the environment, take into account the contribution of renewable energy sources towards meeting environmental and climate change objectives, in particular when compared to non-renewable energy installations.

¹⁰ **OJ L 198, 20.7.2006, p. 18.**

- (31) The coherence between the objectives of this Directive and the Union's other environmental legislation should be ensured. In particular, during the assessment, planning or licensing procedures for renewable energy installations, Member States should take account of all Union environmental legislation and the contribution made by renewable energy sources towards meeting environmental and climate change objectives, in particular when compared to non-renewable energy installations.
- (32) National technical specifications and other requirements falling within the scope of Directive (EU) 2015/1535 of the European Parliament and of the Council ¹¹ relating for example to levels of quality, testing methods or conditions of use, should not create barriers for trade in renewable energy equipment and systems. Therefore, support schemes for energy from renewable sources should not prescribe national technical specifications which deviate from existing Union standards or require the supported equipment or systems to be certified or tested in a specified location or by a specified entity.
- (33) At national and regional level, rules and obligations for minimum requirements for the use of energy from renewable sources in new and renovated buildings have led to considerable increases in the use of energy from renewable sources. Those measures should be encouraged in a wider Union context, while promoting the use of more energy-efficient applications of energy from renewable sources through building regulations and codes.
- (34) In order to facilitate and accelerate the setting of minimum levels for the use of energy from renewable sources in buildings, the calculation of those minimum levels in new and existing buildings subject to major renovation should **provide sufficient basis for assessing whether the inclusion of minimum levels of renewables is technically, functionally and economically feasible. Member States should among other means allow the use of efficient district heating and cooling as well as other energy infrastructure, where district heating and cooling networks are not available, to fulfill these requirements.**

¹¹ Directive (EU) 2015/1535 of the European Parliament and of the Council of 9 September 2015 laying down a procedure for the provision of information in the field of technical regulations and of rules on Information Society services (OJ L 241, 17.9.2015, p. 1)

(35) To ensure that national measures for developing renewable heating and cooling are based on comprehensive mapping and analysis of the national renewable and waste energy potential and provide for increased integration of renewable energy and waste heat and cold sources, it is appropriate to require that Member States carry out an assessment of their national potential of renewable energy sources and the use of waste heat and cold for heating and cooling, in particular to facilitate mainstreaming renewable energy in heating and cooling installations and promote efficient and competitive district heating and cooling as defined by Article 2(41) of Directive 2012/27/EU of the European Parliament and of the Council¹². To ensure consistency with energy efficiency requirements for heating and cooling and reduce administrative burden this assessment should be included in the comprehensive assessments carried out and notified in accordance with Article 14 of that Directive.

¹² Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC (OJ L 315, 14.11.2012, p. 1).

- (36) The lack of transparent rules and coordination between the different authorisation bodies has been shown to hinder the deployment of energy from renewable sources. **[] Providing guidance to the applicants throughout their permit-granting processes through an [] administrative contact point [] should reduce complexity for the project developer and increase efficiency and transparency. [] Administrative approval procedures for installations using energy from renewable sources should be streamlined with transparent timetables and time limits for decisions, to the extent possible, taking into account possible unforeseeable delays that may occur in the process. A manual of procedures should be made available to facilitate the understanding of procedures for project developers and citizens wishing to invest in renewable energy sources. In order to foster the uptake of renewables by micro, small and medium-sized enterprises (SMEs) and individual citizens to the objectives set out in this Directive, decisions on grid connection should be replaced by simple notifications to the competent body for small renewable energy projects, including decentralised ones such as rooftop solar installations. In order to respond to the increasing need for the repowering of existing renewables plants, streamlined permit granting procedures should be set out.** Planning rules and guidelines should be adapted to take into consideration cost-effective and environmentally beneficial renewable heating and cooling and electricity equipment. This Directive, in particular the provisions on the organisation and duration of the permit granting process, should apply without prejudice to international and Union law, including provisions to protect the environment and human health.

(38) Another barrier to the cost-effective deployment of renewables is the lack of predictability by investors over the expected deployment of support by Member States. In particular, Member States should ensure that investors have sufficient predictability on the planned use of support, **in the form of, inter alia, support schemes, tax incentives or market-based renewable energy obligation schemes**, by Member States. This allows industry to plan and develop a supply chain, leading to lower overall cost of deployment.

[]¹³

(40) Information and training gaps, especially in the heating and cooling sector, should be removed in order to encourage the deployment of energy from renewable sources.

(41) In so far as the access or pursuit of the profession of installer is a regulated profession, the preconditions for the recognition of professional qualifications are laid down in Directive 2005/36/EC of the European Parliament and of the Council¹⁴. This Directive therefore applies without prejudice to Directive 2005/36/EC.

(42) While Directive 2005/36/EC lays down requirements for the mutual recognition of professional qualifications, including for architects, there is a further need to ensure that architects and planners properly consider an optimal combination of renewable energy sources and high-efficiency technologies in their plans and designs. Member States should therefore provide clear guidance in this regard. This should be done without prejudice to the provisions of Directive 2005/36/EC and in particular Articles 46 and 49 thereof.

¹³ **Note: parts of recital 39 were incorporated in recital 36.**

¹⁴ Directive 2005/36/EC of the European Parliament and of the Council of 7 September 2005 on the recognition of professional qualifications (OJ L 255, 30.9.2005, p. 22).

- (43) Guarantees of origin issued for the purpose of this Directive have the sole function of showing to a final customer that a given share or quantity of energy was produced from renewable sources. A guarantee of origin can be transferred, independently of the energy to which it relates, from one holder to another. However, with a view to ensuring that a unit of renewable energy is disclosed to a customer only once, double counting and double disclosure of guarantees of origin should be avoided. Energy from renewable sources in relation to which the accompanying guarantee of origin has been sold separately by the producer should not be disclosed or sold to the final customer as energy from renewable sources.
- (44) It is appropriate to allow the consumer market for electricity from renewable energy sources to contribute to the development of energy from renewable sources. Member States should therefore **be able to** require electricity suppliers who disclose their energy mix to final customers in accordance with Article X of Directive [Market Design], or who market energy to consumers with a reference to the consumption of energy from renewable sources, to use guarantees of origin from installations producing energy from renewable sources.
- (45) It is important to provide information on how the supported electricity is allocated to final customers. In order to improve the quality of that information to consumers, Member States should ensure that guarantees of origin are issued for all units of renewable energy produced, **except for when they decide not to issue guarantees of origin to producers who also receive financial support, to account for the market value of the guarantees of origin.** In addition, with a view to avoiding double compensation, renewable energy producers already receiving financial support should **[] have the market value of the guarantees of origin issued to them deducted in that relevant support scheme. []**

- (46) Directive 2012/27/EU provides for guarantees of origin for proving the origin of electricity produced from high-efficiency cogeneration plants. However, no use is specified for such guarantees of origin, so their use should also be [] enabled when disclosing the use of energy from high efficiency CHP.
- (47) Guarantees of origin, which are currently in place for renewable electricity [], should be extended to cover renewable gas. **Extending the guarantees of origin system to renewable heating and cooling and fossil fuel sources as an option should also be enabled.** This would provide a consistent means of proving to final customers the origin of renewable gases such as biomethane and would facilitate greater cross-border trade in such gases. It would also enable the creation of guarantees of origin for other renewable gases such as hydrogen.
- (48) There is a need to support the integration of energy from renewable sources into the transmission and distribution grid and the use of energy storage systems for integrated variable production of energy from renewable sources, in particular as regards the rules regulating dispatch and access to the grid. Directive [Electricity Market Design] lays down the framework for the integration of electricity from renewable energy sources. However, this framework does not include provisions on the integration of gas from renewable energy sources into the gas grid. It is therefore necessary to keep them in this Directive .
- (49) The opportunities for establishing economic growth through innovation and a sustainable competitive energy policy have been recognised. Production of energy from renewable sources often depends on local or regional SMEs. The opportunities for growth and employment that investments in regional and local production of energy from renewable sources bring about in the Member States and their regions are important. The Commission and the Member States should therefore support national and regional development measures in those areas, encourage the exchange of best practices in production of energy from renewable sources between local and regional development initiatives and promote the use of cohesion policy funding in this area.

(50) When favouring the development of the market for renewable energy sources, it is necessary to take into account the positive impact on regional and local development opportunities, export prospects, social cohesion and employment opportunities, in particular as concerns SMEs and independent energy producers.

(51) The specific situation of the outermost regions is recognised in Article 349 of the Treaty on the Functioning of the European Union. The energy sector in the outermost regions is often characterised by isolation, limited supply and dependence on fossil fuels while these regions benefit from important local renewable sources of energy. The outermost regions could thus serve as examples of the application of innovative energy technologies for the Union. It is therefore necessary to promote the uptake of renewable energy in order to achieve a higher degree of energy autonomy for those regions and recognise their specific situation in terms of renewable energy potential and public support needs.

Provision should be made for a derogation of limited local impact that allows Member States to adopt specific criteria in order to ensure eligibility for financial support for the consumption of certain biomass fuels. Member States should be able to adopt such specific criteria for installations using biomass fuel and located in an outermost region as referred to in Article 349 TFEU, as well as for biomass that is used as fuel in the said installations and that does not comply with the harmonised sustainability, energy efficiency and greenhouse gas emissions savings criteria of this Directive. Such specific criteria for biomass fuels should apply irrespective of the place origin of that biomass in any Member State or third country. Moreover, any specific criteria should be objectively justified for reasons of energy independence of the outermost region concerned and of ensuring a smooth transition to the sustainability, energy efficiency and greenhouse gas emissions saving criteria for biomass fuels of this Directive in such an outermost region.

Member States should ensure effective compliance with the specific criteria which they adopted. Finally, national specific criteria should in any event be without prejudice to Article 26(9) of this Directive. This ensures that biofuels, bioliquids and biomass compliant with the harmonised criteria of this Directive will continue to benefit from the trade facilitation pursued by this Directive, including as regards the outermost regions concerned.

- (52) It is appropriate to allow for the development of decentralised renewable energy technologies under non-discriminatory conditions and without hampering the financing of infrastructure investments. The move towards decentralised energy production has many benefits, including the utilisation of local energy sources, increased local security of energy supply, shorter transport distances and reduced energy transmission losses. Such decentralisation also fosters community development and cohesion by providing income sources and creating jobs locally.
- (53) With the growing importance of self-consumption of renewable electricity, there is a need for a definition of renewable self-consumers and a regulatory framework which would empower self-consumers to generate, store, consume and sell electricity without facing disproportionate burdens. **[] Citizens living in apartments for example should be able to benefit from consumer empowerment to the same extent as households in single family homes. While it is quite common that generation of renewable energy takes place on the same site of consumption, it is appropriate to allow Member States themselves to set the boundaries within which self-consumption may take place by, for example, further defining the geographic scope or excluding the use of the public grid, ensuring a level playing field and equal treatment within their respective frameworks.**

(53bis) Renewable self-consumers should not face disproportionate burdens and costs. Their contribution to the achievement of the climate and energy target and the costs and benefits they induce in the wider energy system should be taken into account. However, at the same time and in particular when assessing the cost-reflectiveness of charges Member States should ensure that all consumers contribute in a balanced and adequate way to the overall cost-sharing system of producing, distributing and consuming electricity through charges, levies and taxes, including costs related to support granted to renewable electricity in a way that allows renewable self-consumption and achieves proportionality and system financial sustainability. Provided that these conditions are met and without prejudice to Articles 107 and 108 of the Treaty on the Functioning of the European Union, Member States should retain the right to apply different financial conditions to groups of self-consumers, such as citizens living in apartments, or commercial sites, compared to individual self-consumers, such as households in single family homes.

(54) Local citizen participation in renewable energy projects through renewable energy communities has resulted in substantial added value in terms of local acceptance of renewable energy and access to additional private capital. This local involvement will be all the more crucial in a context of increasing renewable energy capacity in the future. **Measures to allow renewable energy communities to compete on an equal footing with other producers also aim to increase local citizen participation in renewable energy projects and therefore increase acceptance for renewable energies.**

(55) The specific characteristics of local renewable energy communities in terms of size, ownership structure and the number of projects can hamper their competition on equal footing with large-scale players, namely competitors with larger projects or portfolios. Measures to offset those disadvantages include enabling energy communities to operate in the energy system and easing their market integration. **Renewable energy communities should be able to share between themselves energy that is produced by their community-owned installations. However, community members should not be exempt from appropriate costs, charges, levies and taxes that would be borne by non-community member final consumers or generators in a similar situation or when any kind of public grid infrastructure is used for these transfers.**

(55bis) Renewable energy communities, as well as self-consumers, should contribute in a balanced and adequate way to the overall cost-sharing system of producing, distributing and consuming electricity, also through charges, levies and taxes, including, if applicable, costs related to support granted to renewable electricity. Member States should be able to introduce regulatory measures and conditions in order to avoid misuse and unfair competition.

(56) Representing around half of the final energy consumption of the Union, heating and cooling is considered to be a key sector in accelerating the decarbonisation of the energy system. Moreover, it is also a strategic sector in terms of energy security, as it is projected that around 40% of the renewable energy consumption by 2030 should come from renewable heating and cooling. The absence of a harmonised strategy at Union level, the lack of internalisation of external costs and the fragmentation of heating and cooling markets have led to relatively slow progress in this sector so far.

- (57) Several Member States have implemented measures in the heating and cooling sector to reach their 2020 renewable energy target. However, in the absence of binding national targets post-2020, the remaining national incentives may not be sufficient to reach the long-term decarbonisation goals for 2030 and 2050. In order to be in line with such goals, reinforce investor certainty and foster the development of a Union-wide renewable heating and cooling market, while respecting the energy efficiency first principle, it is appropriate to encourage the effort of Member States in the supply of renewable heating and cooling to contribute to the progressive increase of the share of renewable energy. Given the fragmented nature of some heating and cooling markets, it is of utmost importance to ensure flexibility in designing such an effort. It is also important to ensure that a potential uptake of renewable heating and cooling does not have detrimental environmental side-effects **or lead to disproportionate overall costs. In order to minimise this risk, the increase of the share of renewable energy in heating and cooling should take into account the situation of those Member States where this share is already very high as well as the fact that increasing the share of renewable energy sources in district heating and cooling systems in the pace set out as a reference value, may not be the most cost efficient way to increase the overall share of renewable energy sources in the system and to reduce greenhouse gas emissions. Member States should be allowed to set a value that is different from the reference value for their plans.**
- (58) District heating and cooling currently represents around 10% of the heat demand across the Union, with large discrepancies between Member States. The Commission's heating and cooling strategy has recognised the potential for decarbonisation of district heating through increased energy efficiency and renewable energy deployment.
- (59) The Energy Union strategy also recognised the role of the citizen in the energy transition, where citizens take ownership of the energy transition, benefit from new technologies to reduce their bills, and participate actively in the market.

- (60) The potential synergies between an effort to increase the uptake of renewable heating and cooling and the existing schemes under Directives 2010/31/EU and 2012/27/EU should be emphasised. Member States should, to the extent possible, have the possibility to use existing administrative structures to implement such effort, in order to mitigate the administrative burden.
- (61) In the area of district heating, it is therefore crucial to enable **the consumer to request the supply of heat [the fuel-switching to] from renewable energy sources** and prevent regulatory and technology lock-in and technology lock-out through reinforced rights for renewable energy producers and final consumers, and bring the tools to end-consumers to facilitate their choice between the highest energy performance solution that take into account future heating and cooling needs in line with expected building performance criteria. **The final user should be given transparent and reliable information on the efficiency of the network and the share of renewable energy sources in their specific heat supply. It is also appropriate that a final user has the opportunity to explicitly request delivery of heating products only from renewable energy sources.**
- (62) To prepare for the transition towards advanced biofuels and minimise the overall indirect land-use change impacts, it is appropriate to **limit** the amount of biofuels and bioliquids produced from **cereal and other starch-rich crops, sugars and oil** crops that can be counted towards the targets set out in this Directive, **without restricting the overall possibility to use such biofuels and bioliquids.**

The establishment of a limit at Union level should not prevent Member States from providing for lower limits on the amount of biofuels and bioliquids produced from cereal and other starch-rich crops, sugars and oil crops that can be counted at national level towards the targets set out in this Directive, without restricting the overall possibility to use such biofuels and bioliquids.

(62bis) Yield increases in agricultural sectors through intensified research, technological development and knowledge transfer beyond levels which would have prevailed in the absence of productivity-promoting schemes for food and feed crop-based biofuels, as well as the cultivation of a second annual crop on areas which were previously not used for growing a second annual crop, can contribute to mitigating indirect land-use change.

(63) Directive (EU) 2015/1513 of the European Parliament and of the Council¹⁵ called on the Commission to present without delay a comprehensive proposal for a cost-effective and technology-neutral post-2020 policy in order to create a long-term perspective for investment in sustainable biofuels with a low risk of causing indirect land-use change [] **with a headline target of** decarbonising the transport sector. **An obligation on Member States to require [] fuel suppliers to deliver an overall share of fuels from renewable energy sources** can provide certainty for investors and encourage the continuous development of alternative renewable transport fuels including advanced biofuels, renewable liquid and gaseous transport fuels of non-biological origin, and renewable electricity in transport. [] **Since renewable alternatives might not be freely and cost-efficiently available for all fuel suppliers, it is appropriate to allow Member States to distinguish between them and to exempt, if necessary, types of fuel suppliers from the obligation.** As transport fuels are traded easily, fuel suppliers in Member States with low endowments of the relevant resources should be able to easily obtain renewable fuels from elsewhere.

(63bis) A European database should be put in place to ensure transparency and traceability of sustainable biofuels. While Member States should be allowed to continue to use or establish national databases, these databases should be linked to the European database, in order to ensure instant data transfers and harmonisation of data flows.

¹⁵ Directive (EU) 2015/1513 of the European Parliament and of the Council of 9 September 2015 amending Directive 98/70/EC relating to the quality of petrol and diesel fuels and amending Directive 2009/28/EC on the promotion of the use of energy from renewable sources (OJ L 239, 15.9.2015, p. 1).

(64) Advanced biofuels and other biofuels and biogas produced from feedstock listed in Annex IX, renewable liquid and gaseous transport fuels of non-biological origin, and renewable electricity in transport can contribute to low carbon emissions, stimulating the decarbonisation of the Union transport sector in a cost-effective manner, and improving inter alia energy diversification in the transport sector while promoting innovation, growth and jobs in the Union economy and reducing reliance on energy imports. **[] An obligation on Member States to require** fuel **[] supplier a share of advanced biofuels** should encourage continuous development of advanced fuels, including biofuels, and it is important to ensure that the incorporation obligation also incentivises improvements in the greenhouse gas performance of the fuels supplied to meet it. The Commission should assess the greenhouse gas performance, technical innovation and sustainability of those fuels.

(64bis) Multipliers for renewable electricity supplied for the transport sector should be used for the promotion of using electricity in transport and in order to reduce the comparative disadvantage in energy statistics. An electric drivetrain is about three times more energy efficient than a combustion engine and it is not possible to account for all electricity supplied for electric rail and road vehicles in statistics through dedicated metering (e.g. charging at home), thus multipliers should be used to ensure positive impacts of electrified renewable energy-based transport are properly accounted for.

(64ter) In light of climatic constraints that limit the possibility to consume certain types of biofuels due to environmental and health concerns, and the absence of railways system in their territory, it is appropriate that Cyprus and Malta should, for the purposes of demonstrating compliance with national renewable energy obligations placed on fuels suppliers, be allowed to take into account these inherent limitations.

- (65) The promotion of **recycled carbon fuels []** that are produced from **[] processing gases and exhaust gases of non-renewable origin from industrial installations** can also contribute towards the policy objectives of energy diversification and transport decarbonisation **when they fulfil the appropriate minimum greenhouse gas savings threshold.** It is therefore appropriate to include those fuels in the **[]** obligation on fuel suppliers, **whilst giving Member States the option not to consider these fuels in the obligation if they do not wish to do so.**
- (66) Feedstocks which have low indirect land use change impacts when used for biofuels, should be promoted for their contribution to the decarbonisation of the economy. Especially feedstocks for advanced biofuels, for which technology is more innovative and less mature and therefore needs a higher level of support, should be included in an annex to this Directive. In order to ensure that this annex is up to date with the latest technological developments while avoiding unintended negative effects, an evaluation should take place after the adoption of the Directive in order to assess the possibility to extend the annex to new feedstocks.
- (67) The costs of connecting new producers of gas from renewable energy sources to the gas grids should be based on objective, transparent and non-discriminatory criteria and due account should be taken of the benefit that embedded local producers of gas from renewable sources bring to the gas grids.

- (68) In order to exploit the full potential of biomass to contribute to the decarbonisation of the economy through its uses for materials and energy, the Union and the Member States should promote greater sustainable mobilisation of existing timber and agricultural resources and the development of new forestry and agriculture production systems. **Examples of such systems are cultivation of intermediate or cover crops, which are cultivated when the growing conditions are not optimal or favourable for the cultivation of main crop. Since grown on the same land used for the main crop production, intermediate crops do not trigger demand for additional land. Intermediate crops increase the agricultural output per unit area improving soil quality and reducing soil erosion.**
- (69) Biofuels, bioliquids and biomass fuels should always be produced in a sustainable manner. Biofuels, bioliquids and biomass fuels used for compliance with the Union target laid down in this Directive, and those which benefit from support schemes, should therefore be required to fulfil sustainability and greenhouse gas emissions savings criteria. **The harmonisation of these criteria for biofuels, bioliquids and biomass is essential for the achievement of energy policy objectives of the Union as set out in Article 194(1) of Treaty on the Functioning of the European Union. In this context, it ensures the functioning of the internal energy market and thus facilitates, especially with regard to Article 26(9) of this Directive, trade between Member States in compliant biofuels, bioliquids and biomass fuels. The positive effects of the harmonisation of the above criteria on the smooth functioning of the internal energy market and on the avoidance of distortion of competition in the Union cannot be frustrated. However, in order to allow for a smooth phasing in of the harmonised sustainability and greenhouse gas emissions savings criteria for biomass fuels used in heat and power, Member States should be allowed to apply, as a transitional measure, the national sustainability and greenhouse gas emissions savings criteria existing prior to the date of entry into force of this Directive to those plants which receive support under already approved schemes, until expiration of the subsidies granted under those schemes.**

- (70) The Union should take appropriate steps in the context of this Directive, including the promotion of sustainability and greenhouse gas emissions savings criteria for biofuels, and for bioliquids and biomass fuels used for heating or cooling and electricity generation .
- (71) The production of agricultural raw material for biofuels, bioliquids and biomass fuels , and the incentives for their use provided for in this Directive, should not have the effect of encouraging the destruction of biodiverse lands. Such finite resources, recognised in various international instruments to be of value to all mankind, should be preserved. It is therefore necessary to provide sustainability and greenhouse gas emissions savings criteria ensuring that biofuels, bioliquids and biomass fuels qualify for the incentives only when it is guaranteed that the agricultural raw material does not originate in biodiverse areas or, in the case of areas designated for nature protection purposes or for the protection of rare, threatened or endangered ecosystems or species, the relevant competent authority demonstrates that the production of the agricultural raw material does not interfere with such purposes. Forests should be considered as biodiverse according to the sustainability criteria, where they are primary forests in accordance with the definition used by the Food and Agriculture Organisation of the United Nations (FAO) in its Global Forest Resource Assessment, or where they are protected by national nature protection law. Areas where the collection of non-wood forest products occurs should be considered to be biodiverse forests, provided the human impact is small. Other types of forests as defined by the FAO, such as modified natural forests, semi-natural forests and plantations, should not be considered as primary forests. Having regard, furthermore, to the highly biodiverse nature of certain grasslands, both temperate and tropical, including highly biodiverse savannahs, steppes, scrublands and prairies, biofuels, bioliquids and biomass fuels made from agricultural raw materials originating in such lands should not qualify for the incentives provided for by this Directive. The Commission should establish appropriate criteria to define such highly biodiverse grasslands in accordance with the best available scientific evidence and relevant international standards.

(72) Land should not be converted for the production of agricultural raw material for biofuels, bioliquids and biomass fuels if its carbon stock loss upon conversion could not, within a reasonable period, taking into account the urgency of tackling climate change, be compensated by the greenhouse gas emission saving resulting from the production and use of biofuels, bioliquids and biomass fuels. This would prevent unnecessary, burdensome research by economic operators and the conversion of high-carbon-stock land that would prove to be ineligible for producing agricultural raw materials for biofuels bioliquids and biomass fuels. Inventories of worldwide carbon stocks indicate that wetlands and continuously forested areas with a canopy cover of more than 30 % should be included in that category.



(74) In the framework of the Common Agricultural Policy Union, farmers should comply with a comprehensive set of environmental requirements in order to receive direct support. Compliance with those requirements can be most effectively verified in the context of agricultural policy. Including those requirements in the sustainability scheme is not appropriate as the sustainability criteria for bioenergy should set out rules that are objective and apply globally. Verification of compliance under this Directive would also risk causing unnecessary administrative burden.

(75) It is appropriate to introduce Union-wide sustainability and greenhouse gas emission saving criteria for biomass fuels used in the electricity and heating and cooling generation, in order to continue to ensure high greenhouse gas savings compared to fossil fuel alternatives, to avoid unintended sustainability impacts, and to promote the internal market.


(76) To ensure that, despite the growing demand for forest biomass, harvesting is carried out in a sustainable manner in forests where regeneration is ensured, that special attention is given to areas explicitly designated for the protection of biodiversity, landscapes and specific natural elements, that biodiversity resources are preserved and that carbon stocks are tracked, woody raw material should come only from forests that are harvested in accordance with the principles of sustainable forest management developed under international forest processes such as Forest Europe and are implemented through national laws or the best management practices at the forest holding level. Operators should take the appropriate steps in order to minimise the risk of using unsustainable forest biomass for the production of bioenergy. To that end, operators should put in place a risk-based approach. In this context, it is appropriate for the Commission to develop operational guidance on the verification of compliance with the risk based approach, following the consultation of the Energy Union Governance Committee, and the Standing Forestry Committee established by Council Decision 89/367/EEC¹⁶.

(77) In order to minimise the administrative burden, the Union sustainability and greenhouse gas saving criteria should apply only to electricity and heating from biomass fuels produced in installations with a [] **total rated thermal input** equal or above to 20 MW.

¹⁶ Council Decision 89/367/EEC of 29 May 1989 setting up a Standing Forestry Committee (OJ L 165, 15.6.1989, p. 14).

- (78) Biomass fuels should be converted into electricity and heat in an efficient way in order to maximise energy security and greenhouse gas savings, as well as to limit emissions of air pollutants and minimise the pressure on limited biomass resources. For this reason, public support to installations with a **[] total rated thermal input** equal to or exceeding 20 MW, if needed, should only be given to highly efficient combined power and heat installations as defined Article 2(34) of Directive 2012/27/EU. Existing support schemes for biomass-based electricity should however be allowed until their due end date for all biomass installations. In addition electricity produced from biomass in new installations with a **[] total rated thermal input** equal to or exceeding 20 MW should only count towards renewable energy targets and obligations in the case of highly efficient combined power and heat installations. In accordance with State aid rules, Member States should however be allowed to grant public support for the production of renewables to installations, and count the electricity they produce towards renewable energy targets and obligations, in order to avoid an increased reliance on fossil fuels with higher climate and environmental impacts where, after exhausting all technical and economic possibilities to install highly efficient combined heat and power biomass installations, Member States would face a substantiated risk to security of supply of electricity.
- (79) The minimum greenhouse gas emission savings threshold for biofuels and bioliquids produced in new installations should be increased in order to improve their overall greenhouse gas balance as well as to discourage further investments in installations with a low greenhouse gas emission savings performance. This increase provides investment safeguards for biofuels and bioliquids production capacities.
- (80) Based on experience in the practical implementation of the Union sustainability criteria, it is appropriate to strengthen the role of voluntary international and national certification schemes for verification of compliance with the sustainability criteria in a harmonised manner.

- (81) It is in the interests of the Union to encourage the development of voluntary international or national schemes that set standards for the production of sustainable biofuels, bioliquids, and biomass fuels and that certify that the production of biofuels, bioliquids, and biomass fuels meets those standards. For that reason, provision should be made for schemes should = be recognised as providing reliable evidence and data, where they meet adequate standards of reliability, transparency and independent auditing. In order to ensure that the compliance with the sustainability and greenhouse gas emissions savings criteria is verified in a robust and harmonised manner and in particular to prevent fraud, the Commission should be empowered to set out detailed implementing rules, including adequate standards of reliability, transparency and independent auditing to be applied by the voluntary schemes.
- (82) Voluntary schemes play an increasingly important role in providing evidence of compliance with the sustainability and greenhouse gas emissions saving criteria for biofuels, bioliquids and biomass fuels. It is therefore appropriate for the Commission to require voluntary schemes, including those already recognised by the Commission, to report regularly on their activity. Such reports should be made public in order to increase transparency and to improve supervision by the Commission. Furthermore, such reporting would provide the necessary information for the Commission to report on the operation of the voluntary schemes with a view to identifying best practice and submitting, if appropriate, a proposal to further promote such best practice.
- (83) To facilitate the functioning of the internal market, evidence regarding the sustainability and greenhouse gas emissions criteria for biomass for energy that has been obtained in accordance with a scheme that has been recognised by the Commission should be accepted in all Member States. Member States should contribute towards ensuring the correct implementation of the certification principles of voluntary schemes by supervising the operation of certification bodies that are accredited by the national accreditation body and by informing the voluntary schemes about relevant observations.

- (84) In order to avoid a disproportionate administrative burden, a list of default values should be laid down for common biofuel, bioliquid and biomass fuel production pathways and that list should be updated and expanded when further reliable data is available. Economic operators should always be entitled to claim the level of greenhouse gas emission saving for biofuels, bioliquids and biomass fuels established by that list. Where the default value for greenhouse gas emission saving from a production pathway lies below the required minimum level of greenhouse gas emission saving, producers wishing to demonstrate their compliance with this minimum level should be required to show that actual emissions from their production process are lower than those that were assumed in the calculation of the default values.
- (85) It is necessary to lay down clear rules for the calculation of greenhouse gas emission savings from biofuels, bioliquids and biomass fuels and their fossil fuel comparators.
- (86) In accordance with the current technical and scientific knowledge, the greenhouse gas accounting methodology should take into account the transformation of the solid and gaseous biomass fuels into final energy in order to be consistent with the calculation of renewable energy for the purposes of counting towards the Union target laid down in this Directive. The allocation of emissions to co-products, as distinct from wastes and residues, should also be reviewed in cases where electricity and/or heating and cooling are produced in co-generation or multi-generation plants.
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- (88) If land with high stocks of carbon in its soil or vegetation is converted for the cultivation of raw materials for biofuels, bioliquids and biomass fuels, some of the stored carbon will generally be released into the atmosphere, leading to the formation of carbon dioxide. The resulting negative greenhouse gas impact can offset the positive greenhouse gas impact of the biofuels, bioliquids or biomass fuels, in some cases by a wide margin. The full carbon effects of such conversion should therefore be taken into account in calculating the greenhouse gas emission saving of particular biofuels, bioliquids and biomass fuels. This is necessary to ensure that the greenhouse gas emission saving calculation takes into account the totality of the carbon effects of the use of biofuels, bioliquids and biomass fuels.

- (89) In calculating the greenhouse gas impact of land conversion, economic operators should be able to use actual values for the carbon stocks associated with the reference land use and the land use after conversion. They should also be able to use standard values. The methodology of the Intergovernmental Panel on Climate Change is the appropriate basis for such standard values. That work is not currently expressed in a form that is immediately applicable by economic operators. The Commission should therefore revise the guidelines of 10 June 2010 for the calculation of land carbon stocks for the purpose of Annex V to this Directive, while ensuring coherence with Regulation (EU) No 525/2013 of the European Parliament and of the Council¹⁷.
- (90) Co-products from the production and use of fuels should be taken into account in the calculation of greenhouse gas emissions. The substitution method is appropriate for the purposes of policy analysis, but not for the regulation of individual economic operators and individual consignments of transport fuels. In those cases the energy allocation method is the most appropriate method, as it is easy to apply, is predictable over time, minimises counter-productive incentives and produces results that are generally comparable with those produced by the substitution method. For the purposes of policy analysis the Commission should also, in its reporting, present results using the substitution method.
- (91) Co-products are different from residues and agricultural residues, as they are the primary aim of the production process. It is therefore appropriate to clarify that agricultural crop residues are residues and not co-products. This has no implications on the existing methodology but clarifies the existing provisions.

¹⁷ Regulation No 525/2013 of the European Parliament and of the Council of 21 May 2013 on a mechanism for monitoring and reporting greenhouse gas emissions and for reporting other information at national and Union level relevant to climate change and repealing Decision No 280/2004/EC (OJ L 165, 18.6.2013, p. 13)

- (92) The established method of using energy allocation as a rule for dividing greenhouse gas emissions between co-products has worked well and should be continued. It is appropriate to align the methodology for calculating greenhouse gas emissions coming from the use of cogeneration of heat and electricity (CHP) when the CHP is used in processing biofuels, bioliquids and biomass fuels to the methodology applied to a CHP being the end use.
- (93) The methodology takes into account the reduced greenhouse gas emissions arising from the use of CHP, compared to the use of electricity- and heat-only plants, by taking into account the utility of heat compared to electricity, and the utility of heat at different temperatures. It follows that higher temperature should bear a larger part of the total greenhouse gas emissions, than heat at low temperature, when the heat is co-produced with electricity. The methodology takes into account the whole pathway to final energy, including conversion to heat or electricity.
- (94) It is appropriate for the data used in the calculation of the default values to be obtained from independent, scientifically expert sources and to be updated as appropriate as those sources progress their work. The Commission should encourage those sources to address, when they update their work, emissions from cultivation, the effect of regional and climatological conditions, the effects of cultivation using sustainable agricultural and organic farming methods, and the scientific contribution of producers, within the Union and in third countries, and civil society.
- (95) Global demand for agricultural commodities is growing. Part of that increased demand will be met through an increase in the amount of land devoted to agriculture. The restoration of land that has been severely degraded and therefore cannot be used, in its present state, for agricultural purposes is a way of increasing the amount of land available for cultivation. The sustainability scheme should promote the use of restored degraded land because the promotion of biofuels, bioliquids and biomass fuels will contribute to the growth in demand for agricultural commodities.

(96) In order to ensure a harmonised implementation of the greenhouse gas emissions calculation methodology and to align to the latest scientific evidence the Commission should be empowered to adapt the methodological principles and values necessary for assessing whether greenhouse gas emissions savings criteria have been fulfilled and to decide that reports submitted by Member States and third countries contain accurate data on cultivation emissions of feedstock.

(96bis) European gas grids are becoming more integrated. The promotion of the production and use of biomethane, its injection into natural gas grid and cross-border trade create a need to ensure proper accounting of renewable energy as well as avoiding double incentives resulting from different support schemes in various Member States. The mass balance system related to verification of bioenergy sustainability should contribute to address these issues.

(97) The achievement of the objectives of this Directive requires that the Union and Member States dedicate a significant amount of financial resources to research and development in relation to renewable energy technologies. In particular, the European Institute of Innovation and Technology should give high priority to the research and development of renewable energy technologies.

(98) The implementation of this Directive should reflect, where relevant, the provisions of the Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters, in particular as implemented through Directive 2003/4/EC of the European Parliament and of the Council¹⁸.

¹⁸ Directive 2003/4/EC of the European Parliament and of the Council of 28 January 2003 on public access to environmental information (OJ L 41, 14.2.2003, p. 26).

(99) In order to amend or supplement non-essential elements of the provisions of this Directive, the power to adopt acts in accordance with Article 290 of the Treaty on the Functioning of the European Union should be delegated to the Commission in respect of the list of feedstocks for the production of advanced biofuels, the contribution of which towards the fuel suppliers' obligation in transport is limited; the adaptation of the energy content of transport fuels to scientific and technical progress; the methodology to determine the share of biofuel resulting from biomass being processed with fossil fuels in a common process; the implementation of agreements on mutual recognition of guarantees of origin; the establishment of rules to monitor the functioning of the system of guarantees of origin; and the rules for calculating the greenhouse gas impact of biofuels, bioliquids and their fossil fuel comparators. It is of particular importance that the Commission carry out appropriate consultations during its preparatory work, including at expert level, and that those consultations be conducted in accordance with the principles laid down in the Interinstitutional Agreement of 13 April 2016 on Better Law-Making. In particular, to ensure equal participation in the preparation of delegated acts, the European Parliament and the Council receive all documents at the same time as Member States' experts, and their experts systematically have access to meetings of Commission expert groups dealing with the preparation of delegated acts.



(101) Since the objectives of this Directive, namely to achieve at least 27% share of energy from renewable sources in the Union's gross final consumption of energy by 2030, cannot be sufficiently achieved by the Member States but can rather, by reason of the scale of the action, be better achieved at Union level, the Union may adopt measures, in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty on European Union. In accordance with the principle of proportionality, as set out in that Article, this Directive does not go beyond what is necessary in order to achieve those objectives.

- (102) The obligation to transpose this Directive into national law should be confined to those provisions which represent a substantive amendment as compared to the earlier Directive. The obligation to transpose provisions which are unchanged arises under the earlier Directive.
- (103) In accordance with the Joint Political Declaration of Member States and the Commission on explanatory documents of 28 September 2011¹⁹, Member States have undertaken to accompany, in justified cases, the notification of their transposition measures with one or more documents explaining the relationship between the components of a directive and the corresponding parts of national transposition instruments.
- (104) This Directive should be without prejudice to the obligations of the Member States relating to the time-limit for the transposition into national law of the Directives set out in part B of Annex XI.

HAVE ADOPTED THIS DIRECTIVE:

Article 1

Subject-matter

This Directive establishes a common framework for the promotion of energy from renewable sources. It sets a binding Union target for the overall share of energy from renewable sources in gross final consumption of energy in 2030. It also lays down rules on financial support to electricity produced from renewable sources, self-consumption of renewable electricity, and renewable energy use in the heating and cooling and transport sectors, regional cooperation between Member States and with third countries, guarantees of origin, administrative procedures and information and training. It establishes sustainability and greenhouse gas emissions saving criteria for biofuels, bioliquids and biomass fuels.

¹⁹ OJ C 369, 17.12.2011, p. 14.

Article 2

Definitions

For the purposes of this Directive, the definitions in Directive 2009/72/EC of the European Parliament and of the Council²⁰ apply.

The following definitions also apply:

(a) 'energy from renewable sources' means energy from renewable non-fossil sources, namely wind, solar (solar thermal and solar photovoltaic) and geothermal energy, ambient energy [], tide, wave and other ocean energy, hydropower, biomass, landfill gas, sewage treatment plant gas and biogases;

(b) 'ambient energy []' means naturally occurring [] thermal energy at a useful temperature level which is extracted or captured by means of heat pumps that need electricity or other auxiliary energy to function for heating and cooling purposes, and [] can be stored in the ambient air ~~or indoor air~~, beneath the surface of solid earth or in surface water. [];

(b bis) 'geothermal energy' means energy stored in the form of heat beneath the surface of solid earth;

(c) 'biomass' means the biodegradable fraction of products, waste and residues from biological origin from agriculture, including vegetal and animal substances, forestry and related industries including fisheries and aquaculture, as well as the biodegradable fraction of waste, including industrial and municipal waste of biological origin ;

²⁰ Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC (OJ L 211, 14.8.2009, p. 55).

(d) 'gross final consumption of energy' means the energy commodities delivered for energy purposes to industry, transport, households, services including public services, agriculture, forestry and fisheries, including the consumption of electricity and heat by the energy branch for electricity and heat production and including losses of electricity and heat in distribution and transmission;

(e) 'district heating' or 'district cooling' means the distribution of thermal energy in the form of steam, hot water or chilled liquids, from a central source of production through a network to multiple buildings or sites, for the use of space or process heating or cooling;

(f) 'bioliquids' means liquid fuel for energy purposes other than for transport, including electricity and heating and cooling, produced from biomass;

(g) 'biofuels' means liquid fuel for transport produced from biomass;

(h) 'guarantee of origin' means an electronic document which has the sole function of providing proof to a final customer that a given share or quantity of energy was produced from renewable sources ;

(i) 'support scheme' means any instrument, scheme or mechanism applied by a Member State or a group of Member States, that promotes the use of energy from renewable sources by reducing the cost of that energy, increasing the price at which it can be sold, or increasing, by means of a renewable energy obligation or otherwise, the volume of such energy purchased. This includes, but is not restricted to, investment aid, tax exemptions or reductions, tax refunds, renewable energy obligation support schemes including those using green certificates, and direct price support schemes including feed-in tariffs and **sliding and fixed** premium payments;

(j) 'renewable energy obligation' means a support scheme requiring energy producers to include a given proportion of energy from renewable sources in their production, requiring energy suppliers to include a given proportion of energy from renewable sources in their supply, or requiring energy consumers to include a given proportion of energy from renewable sources in their consumption. This includes schemes under which such requirements may be fulfilled by using green certificates;

(k) 'actual value' means the greenhouse gas emission saving for some or all of the steps of a specific biofuel production process calculated in accordance with the methodology laid down in part C of Annex V;

(l) 'typical value' means an estimate of the greenhouse gas emissions and emission saving for a particular biofuel, bioliquid or biomass fuel production pathway, which is representative of the Union consumption ;

(m) 'default value' means a value derived from a typical value by the application of pre-determined factors and that may, in circumstances specified in this Directive, be used in place of an actual value;

(n) 'waste' shall be defined as in Article 3(1) of Directive 2008/98/EC; substances that have been intentionally modified or contaminated to meet that definition are not covered by this definition;

(o) 'starch-rich crops' means crops comprising mainly cereals (regardless of whether only the grains are used, or the whole plant, such as in the case of green maize, is used), tubers and root crops (such as potatoes, Jerusalem artichokes, sweet potatoes, cassava and yams), and corm crops (such as taro and cocoyam);

(p) 'ligno-cellulosic material' means material composed of lignin, cellulose and hemicellulose such as biomass sourced from forests, woody energy crops and forest-based industries' residues and wastes;

(q) 'non-food cellulosic material' means feedstocks mainly composed of cellulose and hemicellulose, and having a lower lignin content than ligno-cellulosic material; it includes food and feed crop residues (such as straw, stover, husks and shells), grassy energy crops with a low starch content (such as ryegrass, switchgrass, miscanthus, giant cane and cover crops before and after main crops), industrial residues (including from food and feed crops after vegetal oils, sugars, starches and protein have been extracted), and material from biowaste;

(r) 'residue' means a substance that is not the end product(s) that a production process directly seeks to produce; it is not a primary aim of the production process and the process has not been deliberately modified to produce it;

(s) 'renewable liquid and gaseous transport fuels of non-biological origin' means liquid or gaseous fuels other than biofuels whose energy content comes from renewable energy sources other than biomass, and which are used in transport;

(t) 'agricultural, aquaculture, fisheries and forestry residues' means residues that are directly generated by agriculture, aquaculture, fisheries and forestry; they do not include residues from related industries or processing;

(u) 'low indirect land-use change-risk biofuels and bioliquids' means biofuels and bioliquids, the feedstocks of which were produced within schemes which reduce the displacement of production for purposes other than for making biofuels and bioliquids and which were produced in accordance with the sustainability criteria for biofuels and bioliquids set out in Article 26;

(x) 'distribution system operator' means an operator as defined in Article 2(6) of Directive 2009/72/EC;

(y) 'waste heat or cold' means heat or cold which is generated as by-product in industrial, **tertiary sector, including indoor air in buildings,** or power generation installations, **except where combined heat and power generation is used,** and which would be dissipated unused in air or water without access tfo a district heating or cooling system;

(z) 'repowering' means renewing power plants producing renewable energy, including the full or partial replacement of installations or operation systems and equipment, in order to replace capacity or **to increase efficiency or capacity of the installation;**

(aa) 'renewable self-consumer' means an active customer as defined in Directive [MDI Directive] **operating within confined boundaries** who **generates renewable electricity for it's own needs, []** and may store and sell **self-generated** renewable electricity [], provided that, for non-household renewable self-consumers, those activities do not constitute their primary commercial or professional activity;

II

(cc) 'power purchase agreement' means a contract under which a legal person agrees to purchase renewable electricity directly from an energy generator;

(dd) 'food and feed crops' means starch-rich crops, sugars and oil crops produced on agricultural land as a main crop excluding residues, waste or ligno-cellulosic material. **Intermediate crops such as catch crops and cover crops are not considered main crops;**

(ee) 'advanced biofuels' means biofuels that are produced from feedstocks listed in part A of Annex IX;

(ff) 'recycled carbon fuels'²¹ means liquid and gaseous fuels that are produced from processing gases and exhaust gases of non-renewable origin from industrial installations;

(gg) 'fuel supplier' means the entity supplying fuel to the market that is responsible for passing fuel through an excise duty point or, in case of electricity or where no excise is due, any other relevant entity designated by a Member State;

(hh) 'agricultural biomass' means biomass produced from agriculture;

(ii) 'forest biomass' means biomass produced from forestry;

[]

(kk) 'SME' means a micro, small or medium sized enterprise as defined in Commission Recommendation 2003/361/EC²²;

(ll) 'forest regeneration' means the re-establishment of a forest stand by natural or artificial means following the removal of the previous stand by felling or as a result of natural causes, including fire or storm;

(mm) 'forest holding' means one or more parcels of forest and other wooded land which constitute a single unit from the point of view of management or utilisation;

²¹ Note: for these 'recycled carbon fuels', the methodology for the calculation of their greenhouse gas savings is to be determined via a delegated act under Article 25(6) and the GHG emissions savings level is set at 70% in Article 25.

²² Commission Recommendation of 6 May 2003 concerning the definition of micro, small and medium-sized enterprises (OJ L 124, 20.5.2003, p. 36).

(nn) 'biowaste' means **biowaste as defined in Article 3(4) of Directive 2008/98/EC []**;

(oo) 'residual energy mix' means the total annual energy mix for a Member State, excluding the share covered by the cancelled guarantees of origin;

(pp) 'biomass fuels' means gaseous and solid fuels produced from biomass;

(qq) 'biogas' means gaseous fuels produced from biomass;

(rr) 'opened tender' means a tender procedure for the installation of renewable energy plants organised by a Member State and opened for bids from projects located in one or several other Member States;

(ss) 'joint tender' means a tender procedure for the installation of renewable energy plants jointly designed and organised by two or more Member States, that is open to projects located in all Member States involved;

(tt) 'opened certificate scheme' means a certificate scheme implemented by a Member State, that is open to installations located in one or several other Member States;

(uu) 'financial instruments' means financial instruments as defined in Regulation (EU, Euratom) No 966/2012 of the European Parliament and of the Council²³.

(vv) 'sourcing area' means the geographically defined area from which the forest biomass is sourced, from which reliable and independent information is available and where conditions are sufficiently homogeneous to evaluate the risk of the sustainability and legality characteristics of the forest biomass.

²³ Regulation (EU, Euratom) No 966/2012 of the European Parliament and of the Council of 25 October 2012 on the financial rules applicable to the general budget of the Union and repealing Council Regulation (EC, Euratom) No 1605/2002 (OJ L 298, 26.10.2012, p. 1).

(ww) 'renewable energy community' means a legal entity which, according to applicable national law, is effectively controlled by shareholders or members who are natural persons, local authorities, including municipalities, or small and micro enterprises located in the proximity of the renewable energy projects owned and developed by that community. The primary purpose of an energy community is to provide environmental, economic or social community benefits for its members or the local areas where it operates rather than financial profits. With regard to the activities in the electricity sector, it shall be considered an energy community as defined in Directive [MDI Directive].

(xx) 'reference value' means a value to which Member States may refer when considering what level of endeavour is appropriate in their national circumstances for the purposes of Article 23.

Article 3

Union binding overall target for 2030

1. Member States shall collectively ensure that the share of energy from renewable sources in the Union's gross final consumption of energy in 2030 is at least 27%.

2. Member States' respective contributions to this overall 2030 target shall be set and notified to the Commission as part of their Integrated National Energy and Climate Plans in accordance with Articles 3 to 5 and Articles 9 to 11 of Regulation [Governance].

3. From 1 January 2021 onwards, the share of energy from renewable sources in each Member State's gross final consumption of energy shall not be lower than that shown in the third column of the table in part A of Annex I. Member States shall take the necessary measures to ensure compliance with the baseline. If a Member State does not maintain its baseline share as measured over a one-year period, the first and second sub-paragraphs of Article 27(4bis) of Regulation [Governance] shall apply.

4. The Commission shall support the high ambition of Member States through an enabling framework comprising the enhanced use of Union funds, in particular financial instruments, especially [] for the following purposes:

a) Reducing the cost of capital for renewable energy projects.

b) The development of transmission and distribution grid infrastructure, intelligent networks, storage facilities and interconnections, [where appropriate] in particular with a view of achieving a 15% target on 2030, to increase the technically and economically affordable level of renewables in the electricity system.

c) Enhanced regional cooperation between Member States and between Member States and third countries, through joint projects, joint support schemes and the opening of support schemes for renewable electricity to generators located in other Member States.

4bis. The Commission shall support Member States who choose to contribute to the Union binding overall target using cooperation mechanisms by establishing a facilitative platform.

Article 4

Financial support for electricity from renewable sources

1. [] In order to reach the Union target set in Article 3(1), and Member State's respective contributions to this target set at a national level for the deployment of renewable energy, Member States may apply support schemes. Support schemes for electricity from renewable sources shall incentivise integration of electricity from renewable energy sources in the electricity market in a market-based and market-responsive way [], avoiding unnecessary distortions of electricity markets [].

2. Support for electricity from renewable sources shall be designed so as to integrate electricity from renewable sources in the electricity market and ensure that renewable energy producers are responding to market price signals and maximise their market revenues. **To this end, in direct price support schemes support shall be granted in the form of a [] market premium, which could be, inter alia, sliding or fixed. Member States may consider, in accordance with [Electricity Directive] and [Electricity Regulation], developing specific conditions for supporting small-scale installations and demonstration projects.**

3. Member States shall ensure that support for renewable electricity is granted in an open, transparent, competitive, non-discriminatory and cost-effective manner. **Member States may consider developing specific conditions or providing exemptions from competitive bidding processes particularly for small-scale installations and demonstration projects.**

Member States may also consider mechanisms to ensure the regional diversification of renewables deployment particularly to ensure cost-efficient system integration.

3bis. Member States may consider limiting competition between technologies on the basis of one or several of the following objectives, where such objectives cannot be addressed in the design of the support: grid and system development objectives, the longer term potential of a particular technology, the objective to diversify the energy mix, the objective to avoid distortions on the raw material markets, and system integration costs.

[]

5. This article shall apply without prejudice to Articles 107 and 108 of the Treaty on the Functioning of the European Union [].

Article 5

Opening of support schemes for renewable electricity

1. **Member States shall have the right to decide, in accordance with Articles 7 to 13 of this Directive, to which extent they support energy from renewable sources which is produced in a different Member State. However,** Member States **may** open support for electricity generated from renewable sources to generators located in other Member States under the conditions laid down in this Article.

Thus Member States **may provide** that support for **a share** of the newly-supported capacity, **or of the budget allocated thereto,** in each year is open to installations located in other Member States.

Member States are encouraged to ~~consider~~ aim for this share to be, in each year, at least 10% between 2021 and 2025 and at least 15% between 2026 and 2030, but may also deviate from these shares due to, inter alia, a lower level of electricity interconnectivity of a Member State in any given year.

2bis. Member States may ask for the proof of physical import. However, they shall not change, alter or otherwise impact cross-zonal schedules and capacity allocation due to generators participating in cross-border support schemes. Cross-border electricity transfers shall be determined solely by the outcome of capacity allocation pursuant to [Article 14 of the Electricity Market Regulation].

3. **If a Member State decides to open support to generators located in other Member States, those participating Member States shall agree on the principles of participating in the cross-border support schemes for renewable energy. Such agreements shall cover at least the principles of** allocation of renewable electricity **that is** benefiting from **crossborder** support .

4. The Commission shall assess by 2025 the **costs and** benefits on the deployment of renewable electricity in the Union of provisions set out in this Article. .

Article 6

Stability of financial support

Without prejudice to adaptations necessary to comply with **Articles 107 and 108 of the Treaty on the Functioning of the European Union []**, Member States shall ensure that the level of, and the conditions attached to, the support **that has been** granted to renewable energy projects are not revised in a way that **[] restricts** the rights conferred thereunder and **undermines** the economic **viability** of supported projects.²⁴ **This provision shall not affect the possibility for Member States to adjust the level of support according to objective criteria [~~dynamic elements or mechanisms in the support schemes themselves that are foreseen to adapt support to market conditions~~], provided that such criteria [~~elements or mechanisms~~] are established in the original design of the support scheme [~~mechanisms~~].**

Article 7

Calculation of the share of energy from renewable sources

1. The gross final consumption of energy from renewable sources in each Member State shall be calculated as the sum of:

- (a) gross final consumption of electricity from renewable energy sources;
- (b) gross final consumption of energy from renewable sources for heating and cooling; and
- (c) final consumption of energy from renewable sources in transport.

Gas, electricity and hydrogen from renewable energy sources shall be considered only once in point (a), (b), or (c) of the first subparagraph, for calculating the share of gross final consumption of energy from renewable sources.

²⁴ **Note: see text added to recital 18.**

Subject to the second subparagraph of Article 26 (1), biofuels, bioliquids and biomass fuels that do not fulfil the sustainability and greenhouse gas emissions saving criteria set out in Article 26 (2) to (7) shall not be taken into account.

[]²⁵

2. For the purposes of paragraph 1(a), gross final consumption of electricity from renewable energy sources shall be calculated as the quantity of electricity produced in a Member State from renewable energy sources, including the production of electricity from renewable self-consumers and energy communities and excluding the production of electricity in pumped storage units from water that has previously been pumped uphill.

In multi-fuel plants using renewable and conventional sources, only the part of electricity produced from renewable energy sources shall be taken into account. For the purposes of this calculation, the contribution of each energy source shall be calculated on the basis of its energy content.

The electricity generated by hydropower and wind power shall be accounted for in accordance with the normalisation rules set out in Annex II.

3. For the purposes of paragraph 1(b), the gross final consumption of energy from renewable sources for heating and cooling shall be calculated as the quantity of district heating and cooling produced in a Member State from renewable sources, plus the consumption of other energy from renewable sources in industry, households, services, agriculture, forestry and fisheries, for heating, cooling and processing purposes.

In multi-fuel plants using renewable and conventional sources, only the part of heating and cooling produced from renewable energy sources shall be taken into account. For the purposes of this calculation, the contribution of each energy source shall be calculated on the basis of its energy content.

²⁵ **Note: this subparagraph has been moved to Article 25 on mainstreaming renewable energy in the transport sector.**

Ambient **[] and geothermal** energy captured by heat pumps shall be taken into account for the purposes of paragraph 1(b) provided that the final energy output significantly exceeds the primary energy input required to drive the heat pumps. The quantity of heat **or cold** to be considered as energy from renewable sources for the purposes of this Directive shall be calculated in accordance with the methodology laid down in Annex VII.

Thermal energy generated by passive energy systems, under which lower energy consumption is achieved passively through building design or from heat generated by energy from non-renewable sources, shall not be taken into account for the purposes of paragraph 1(b).

The Commission is empowered until 31 December 2021 to adopt [delegated] implementing acts with temporary effect in accordance with Article 31[2] in order to establish on an interim basis a methodology for calculating the quantity of renewable energy used for [heating and] cooling and district [heating and] cooling and to revise Annex VII on calculation of energy from heat pumps used for cooling. The temporary effect of the delegated act will end once a corresponding revision of Annex VII and the Regulation (EC) No 1099/2008 on energy statistics enters into force that further develops and defines the methodology for cooling. A first draft for the calculation of renewable district cooling should be established by 31 December 2020.

4. For the purposes of paragraph 1(c), **[]** the gross final consumption of energy from renewable sources in transport shall be calculated as the sum of all biofuels, biomass fuels and renewable liquid and gaseous transport fuels of non-biological origin consumed in the transport sector. However, renewable liquid and gaseous transport fuels of non-biological origin that are produced from renewable electricity shall only be considered to be part of the calculation pursuant to paragraph 1(a) when calculating the quantity of electricity produced in a Member State from renewable energy sources.

[]²⁶

²⁶ **Note: This removed text relating to the transport sector has been now incorporated into Article 25.**

7. The share of energy from renewable sources shall be calculated as the gross final consumption of energy from renewable sources divided by the gross final consumption of energy from all energy sources, expressed as a percentage.

For the purposes of the first subparagraph, the sum referred to in paragraph 1 shall be adjusted in accordance with Articles 5, 8, 10, 12 and 13.

In calculating a Member State's gross final energy consumption for the purpose of measuring its compliance with the targets and indicative trajectory laid down in this Directive, the amount of energy consumed in aviation shall, as a proportion of that Member State's gross final consumption of energy, be considered to be no more than 6,18 %. For Cyprus and Malta the amount of energy consumed in aviation shall, as a proportion of those Member States' gross final consumption of energy, be considered to be no more than 4,12 %.

8. The methodology and definitions used in the calculation of the share of energy from renewable sources shall be those of Regulation (EC) No 1099/2008.

Member States shall ensure coherence of statistical information used in calculating those sectoral and overall shares and statistical information reported to the Commission under Regulation (EC) No 1099/2008.

Article 8

European Union Renewable Development Platform and statistical transfers between Member States

1. Member States may agree on the statistical transfer of a specified amount of energy from renewable sources from one Member State to another Member State. The transferred quantity shall be:

(a) deducted from the amount of energy from renewable sources that is taken into account in measuring the renewable energy share of the Member State making the transfer for the purposes of this Directive ; and

(b) added to the amount of energy from renewable sources that is taken into account in measuring the renewable energy share of the Member State accepting the transfer for the purposes of this Directive.

Ibis. In order to facilitate the achievement of the Union binding target, Member States' respective contributions to this target as set out in Article 3 of this Directive and statistical transfers in accordance with paragraph 1 of this Article, the Commission shall establish a European Union Renewable Development Platform ("ERDP"). Member States may submit to this platform on a voluntary basis yearly data on their contributions to the EU binding target for 2030 or any benchmark set for monitoring the progress in Regulation [Governance], including the expected shortfall or overachievement thereof, and an indication of price on which they would accept to transfer any excess production of energy from renewable sources from or to another Member State. The actual price of these transfers will be set on a case by case basis based on the ERDP demand and offer matching mechanism.

Iter. The Commission shall ensure that the ERDP is able to match the demand and offer for amounts of energy from renewable energy sources that is taken into account in measuring the renewable energy share of Member State based on prices or any other additional criteria specified by the Member State that the energy is transferred to.

The Commission is empowered to adopt delegated acts in accordance with Article 32 for the establishment of the ERDP and setting the conditions of finalising transactions as referred to in paragraph 3 of this Article.

2. The arrangements referred to in paragraph 1 **and 1bis** may have a duration of one or more years. **[] Such arrangements between Member States** shall be notified to the Commission **or finalised on the ERDP** not later than 12 months after the end of each year in which they have effect. The information sent to the Commission shall include the quantity and price of the energy involved. **For transfers finalised on the ERDP, the parties involved in any particular transfer and any other parameters of those transactions shall be disclosed only when Member States involved request to do so.**
3. Transfers shall become effective **after clearing conditions are met on the ERDP or []** after all Member States involved in the transfer have notified the transfer to the Commission.

Article 9

Joint projects between Member States

1. Two or more Member States may cooperate on all types of joint projects relating to the production of electricity, heating or cooling from renewable energy sources. That cooperation may involve private operators.
2. Member States shall notify the Commission of the proportion or amount of electricity, heating or cooling from renewable energy sources produced by any joint project in their territory, that became operational after 25 June 2009, or by the increased capacity of an installation that was refurbished after that date, which is to be regarded as counting towards the national overall **renewable energy share** of another Member State for the purposes of this Directive.
3. The notification referred to in paragraph 2 shall:
- (a) describe the proposed installation or identify the refurbished installation;
 - (b) specify the proportion or amount of electricity or heating or cooling produced from the installation which is to be regarded as counting towards the national overall **renewable energy share** of another Member State;

- (c) identify the Member State in whose favour the notification is being made; and
- (d) specify the period, in whole calendar years, during which the electricity or heating or cooling produced by the installation from renewable energy sources is to be regarded as counting towards the national overall renewable energy share of the other Member State.

4. The duration of a joint project may extend beyond 2030 .

5. A notification made under this Article shall not be varied or withdrawn without the joint agreement of the Member State making the notification and the Member State identified in accordance with paragraph 3(c).

Article 10

Effects of joint projects between Member States

1. Within three months of the end of each year falling within the period specified under Article 9 (3)(d), the Member State that made the notification under Article 9 shall issue a letter of notification stating:

- (a) the total amount of electricity or heating or cooling produced during the year from renewable energy sources by the installation which was the subject of the notification under Article 9; and

- (b) the amount of electricity or heating or cooling produced during the year from renewable energy sources by that installation which is to count towards the national overall renewable energy share of another Member State in accordance with the terms of the notification.

2. The notifying Member State shall send the letter of notification to the Member State in whose favour the notification was made and to the Commission.

3. For the purposes of this Directive, the amount of electricity or heating or cooling from renewable energy sources notified in accordance with paragraph 1(b) shall be:

(a) deducted from the amount of electricity or heating or cooling from renewable energy sources that is taken into account, in measuring the renewable energy share of the Member State issuing the letter of notification under paragraph 1; and

(b) added to the amount of electricity or heating or cooling from renewable energy sources that is taken into account in measuring the renewable energy share of the Member State receiving the letter of notification in accordance with paragraph 2.

Article 11

Joint projects between Member States and third countries

1. One or more Member States may cooperate with one or more third countries on all types of joint projects regarding the production of electricity from renewable energy sources. Such cooperation may involve private operators.

2. Electricity from renewable energy sources produced in a third country shall be taken into account only for the purposes of measuring Member States' renewable energy shares if the following conditions are met:

(a) the electricity is consumed in the Union. This requirement is deemed to be met where:

(i) an equivalent amount of electricity to the electricity accounted for has been firmly nominated to the allocated interconnection capacity by all responsible transmission system operators in the country of origin, the country of destination and, if relevant, each third country of transit;

(ii) an equivalent amount of electricity to the electricity accounted for has been firmly registered in the schedule of balance by the responsible transmission system operator on the Union side of an interconnector; and

(iii) the nominated capacity and the production of electricity from renewable energy sources by the installation referred to in paragraph 2(b) refer to the same period of time;

(b) the electricity is produced by a newly constructed installation that became operational after 25 June 2009 or by the increased capacity of an installation that was refurbished after that date, under a joint project as referred to in paragraph 1; and

(c) the amount of electricity produced and exported has not received support from a support scheme of a third country other than investment aid granted to the installation.

3. Member States may apply to the Commission, for the purposes of Article 7, for account to be taken of electricity from renewable energy sources produced and consumed in a third country, in the context of the construction of an interconnector with a very long lead-time between a Member State and a third country if the following conditions are met:

(a) construction of the interconnector started by 31 December 2026 ;

(b) it is not possible for the interconnector to become operational by 31 December 2030;

(c) it is possible for the interconnector to become operational by 31 December 2032;

(d) after it becomes operational, the interconnector will be used for the export to the Union, in accordance with paragraph 2, of electricity generated from renewable energy sources;

(e) the application relates to a joint project that fulfils the criteria in points (b) and (c) of paragraph 2 and that will use the interconnector after it becomes operational, and to a quantity of electricity that is no greater than the quantity that will be exported to the Union after the interconnector becomes operational.

4. The proportion or amount of electricity produced by any installation in the territory of a third country, which is to be regarded as counting towards the national overall **energy share** of one or more Member States for the purposes of **this Directive** , shall be notified to the Commission. When more than one Member State is concerned, the distribution between Member States of this proportion or amount shall be notified to the Commission. This proportion or amount shall not exceed the proportion or amount actually exported to, and consumed in, the Union , corresponding to the amount referred to in paragraph 2(a)(i) and (ii) of this Article and meeting the conditions as set out in its paragraph (2)(a). The notification shall be made by each Member State towards whose overall national target the proportion or amount of electricity is to count.

5. The notification referred to in paragraph 4 shall:

(a) describe the proposed installation or identify the refurbished installation;

(b) specify the proportion or amount of electricity produced from the installation which is to be regarded as counting towards the national **renewable energy share** of a Member State as well as, subject to confidentiality requirements, the corresponding financial arrangements;

(c) specify the period, in whole calendar years, during which the electricity is to be regarded as counting towards the national overall **renewable energy share** of the Member State; and

(d) include a written acknowledgement of points (b) and (c) by the third country in whose territory the installation is to become operational and the proportion or amount of electricity produced by the installation which will be used domestically by that third country.

6. The duration of a joint project may extend beyond **2030**.

7. A notification made under this Article may not be varied or withdrawn without the joint agreement of the Member State making the notification and the third country that has acknowledged the joint project in accordance with paragraph 5(d).

8. Member States and the Union shall encourage the relevant bodies of the Energy Community Treaty to take, in conformity with the Energy Community Treaty, the measures which are necessary so that the Contracting Parties to that Treaty can apply the provisions on cooperation laid down in this Directive between Member States.

Article 12

Effects of joint projects between Member States and third countries

1. Within 12 months of the end of each year falling within the period specified under Article 11 (5)(c), the Member State having made the notification under Article 11 shall issue a letter of notification stating:

(a) the total amount of electricity produced during that year from renewable energy sources by the installation which was the subject of the notification under Article 11;

(b) the amount of electricity produced during the year from renewable energy sources by that installation which is to count towards its national overall renewable energy share in accordance with the terms of the notification under Article 11; and

(c) proof of compliance with the conditions set out in Article 11 (2).

2. The Member State shall send the letter of notification to the third country which has acknowledged the project in accordance with Article 11 (5)(d) and to the Commission.

3. For the purposes of calculating the national overall renewable energy shares under this Directive, the amount of electricity produced from renewable energy sources notified in accordance with paragraph 1(b) shall be added to the amount of energy from renewable sources that is taken into account, in measuring the renewable energy shares of the Member State issuing the letter of notification.

Article 13

Joint support schemes

1. Without prejudice to the obligations of Member States under Article 5, two or more Member States may decide, on a voluntary basis, to join or partly coordinate their national support schemes. In such cases, a certain amount of energy from renewable sources produced in the territory of one participating Member State may count towards the national renewable energy share of another participating Member State if the Member States concerned:

- (a) make a statistical transfer of specified amounts of energy from renewable sources from one Member State to another Member State in accordance with Article 8; or
- (b) set up a distribution rule agreed by participating Member States that allocates amounts of energy from renewable sources between the participating Member States. Such a rule shall be notified to the Commission no later than three months after the end of the first year in which it takes effect.

2. Within three months of the end of each year each Member State having made a notification under paragraph 1(b) shall issue a letter of notification stating the total amount of electricity or heating or cooling from renewable energy sources produced during the year which is to be the subject of the distribution rule.

3. For the purposes of calculating the national overall renewable energy shares under this Directive, the amount of electricity or heating or cooling from renewable energy sources notified in accordance with paragraph 2 shall be reallocated between the concerned Member States in accordance with the notified distribution rule.

Article 14

Capacity increases

For the purpose of Article 9 (2) and Article 11 (2)(b), units of energy from renewable sources imputable to an increase in the capacity of an installation shall be treated as if they were produced by a separate installation becoming operational at the moment at which the increase of capacity occurred.

Article 15

Administrative procedures, regulations and codes

1. Member States shall ensure that any national rules concerning the authorisation, certification and licensing procedures that are applied to plants and associated transmission and distribution network infrastructures for the production of electricity, heating or cooling from renewable energy sources, and to the process of transformation of biomass into biofuels or other energy products, are proportionate and necessary.

Member States shall, in particular, take the appropriate steps to ensure that:

(a) administrative procedures are streamlined and expedited at the appropriate administrative level;

(b) rules governing authorisation, certification and licensing are objective, transparent, proportionate, do not discriminate between applicants and take fully into account the particularities of individual renewable energy technologies;

(c) administrative charges paid by consumers, planners, architects, builders and equipment and system installers and suppliers are transparent and cost-related; and

(d) simplified and less burdensome authorisation procedures, including through simple notification if allowed by the applicable regulatory framework, are established for decentralised devices for producing energy from renewable sources.

2. Member States shall clearly define any technical specifications which must be met by renewable energy equipment and systems in order to benefit from support schemes. Where European standards exist, including eco-labels, energy labels and other technical reference systems established by the European standardisation bodies, such technical specifications shall be expressed in terms of those standards. Such technical specifications shall not prescribe where the equipment and systems are to be certified and should not impede the operation of the internal market.

3. Member States shall ensure that investors have sufficient predictability of the planned support for energy from renewable sources. To this aim, Member States shall define and publish a schedule **foreseeing the** expected allocation for support, covering at least the following three years and including for each scheme the indicative timing **and** capacity, the **expected** budget as well as **principles for the** consultation of stakeholders on the design of the support.

For market based support and tax schemes where no capacity or budget is allocated Member States should report on the main parameters for the support.

4. Member States shall ensure that their competent authorities at national, regional and local level include provisions for the integration and deployment of renewable energy and the use of unavoidable waste heat or cold when planning, designing, building and renovating urban infrastructure, industrial or residential areas and energy infrastructure, including electricity, district heating and cooling, natural gas and alternative fuel networks .

5. Member States shall introduce in their building regulations and codes appropriate measures in order to increase the share of all kinds of energy from renewable sources in the building sector.

In establishing such measures or in their support schemes, Member States may take into account national measures relating to substantial increases in energy efficiency and relating to cogeneration and to passive, low or zero-energy buildings.

Member States shall, in their building regulations and codes or by other means with equivalent effect, require the use of minimum levels of energy from renewable sources in new buildings and in existing buildings that are subject to major renovation **in so far as this is technically, functionally and economically feasible and does not affect negatively indoor air []**. Member States shall permit those minimum levels to be fulfilled, inter alia, **through efficient district heating and cooling []** using a significant proportion of renewable energy sources.

The requirements of the first subparagraph shall apply to 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 and with the exception of material used exclusively for military purposes.

6. Member States shall ensure that new public buildings, and existing public buildings that are subject to major renovation, at national, regional and local level fulfil an exemplary role in the context of this Directive from 1 January 2012 onwards. Member States may, inter alia, allow that obligation to be fulfilled by providing that the roofs of public or mixed private-public buildings are used by third parties for installations that produce energy from renewable sources.

7. With respect to their building regulations and codes, Member States shall promote the use of renewable energy heating and cooling systems and equipment that achieve a significant reduction of energy consumption. Member States shall use energy or eco-labels or other appropriate certificates or standards developed at national or Union level, where these exist, as the basis for encouraging such systems and equipment.

8. Member States shall carry out an assessment of their potential of renewable energy sources and of the use of waste heat and cold for heating and cooling. That assessment shall be included in the second comprehensive assessment required pursuant to Article 14(1) of Directive 2012/27/EU for the first time by 31 December 2020 and in the updates of the comprehensive assessments thereafter.

9. Member States shall remove administrative barriers to corporate long-term power purchase agreements to finance renewables and facilitate their uptake.

Article 16

Organisation and duration of the permit granting process

1. By 1 January 2021 Member States shall set up **or designate one or more []** contact points **[] that, on request by the applicant, shall provide guidance throughout []** the entire **administrative permit application and** granting process **[]**. **[] An applicant shall only have to contact one contact point for the entire administrative process. The permit granting process shall cover relevant administrative permits to build and operate plants and assets necessary for its connection to the grid []** for the production of energy from renewable energy sources **as well as repowering applications. The permit granting process shall comprise all procedures from the acknowledgment of the receipt of the application to transmitting the outcome of the procedure as referred to in paragraph 2 of this Article.**

2. The **[]** contact point shall guide the applicant through the application process in a transparent manner, provide the applicant with all necessary information **[]** and involve, where appropriate, other **administrative** authorities **[]**.

3. The **[]** contact point **[]** shall **make available []** a manual of procedures for renewable **energy production** project developers, **addressing distinctly also []** small scale projects and renewable self-consumers projects.

4. The permit granting process referred to in paragraph 1 shall not exceed a period of three years [].
However, the period of three years may be extended if the applicant has not provided all of the required information to enable the relevant authority to assess the application and may also be extended with the mutual agreement of the relevant consenting authority and the applicant. This period is without prejudice to judicial appeals, remedies and other proceedings before a court or tribunal and may be extended at most by the duration of such procedures

5. **Without prejudice to applicable environmental obligations, as well as obligations concerning planning and safety of buildings,** Member States shall facilitate the repowering of existing renewable energy plants by, inter alia, ensuring a simplified and swift permit granting process, **with timeframes of three years. [] The timeframe may be extended with the mutual agreement of the relevant consenting authority and the applicant.**

Article 17

Simple notification procedures for grid connection

1. [] **Member States shall establish a simple notification procedure whereby installations or aggregated production units of renewable self-consumers and demonstration projects with an electrical capacity of equal or less than [] 10.8 kW for a three phase connection (3.6 kW per phase) shall be [] connected to the grid following a notification to the distribution system operator, unless the safety or technical requirements of the grid are not met.**

The distribution system operator may decide to reject or propose an alternative grid connection point on grounds of safety concerns or technical incompatibility of the system components within one month following the notification. In case of a positive decision by the distribution system operator, or in the absence of a decision by the distribution system operator within one month following the notification, the installation or aggregated production unit may be connected, unless the connection fees or charges, if any, have not been paid.

Member States may allow simple notification procedures for installations or aggregated production units with a higher electrical capacity than set in paragraph 1, provided that grid stability, reliability and safety is maintained.

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Article 18

Information and training

1. Member States shall ensure that information on support measures is made available to all relevant actors, such as consumers, builders, installers, architects, and suppliers of heating, cooling and electricity equipment and systems and of vehicles compatible with the use of energy from renewable sources.
2. Member States shall ensure that information on the net benefits, cost and energy efficiency of equipment and systems for the use of heating, cooling and electricity from renewable energy sources is made available either by the supplier of the equipment or system or by the national competent authorities.

3. Member States shall ensure that certification schemes or equivalent qualification schemes are available for installers of small-scale biomass boilers and stoves, solar photovoltaic and solar thermal systems, shallow geothermal systems and heat pumps. Those schemes may take into account existing schemes and structures as appropriate, and shall be based on the criteria laid down in Annex IV. Each Member State shall recognise certification awarded by other Member States in accordance with those criteria.

4. Member States shall make available to the public information on certification schemes or equivalent qualification schemes as referred to in paragraph 3. Member States may also make available the list of installers who are qualified or certified in accordance with the provisions referred to in paragraph 3.

5. Member States shall ensure that guidance is made available to all relevant actors, notably for planners and architects so that they are able properly to consider the optimal combination of renewable energy sources, of high-efficiency technologies and of district heating and cooling when planning, designing, building and renovating industrial, commercial or residential areas.

6. Member States, with the participation of local and regional authorities, shall develop suitable information, awareness-raising, guidance or training programmes in order to inform citizens of the benefits and practicalities of developing and using energy from renewable sources.

Article 19

Guarantees of origin of electricity, heating and cooling produced from renewable energy sources

1. For the purposes of proving to final customers the share or quantity of energy from renewable sources in an energy supplier's energy mix and in the energy supplied to consumers under contracts marketed with reference to the consumption of energy from renewable sources, Member States shall ensure that the origin of [] electricity and gas produced from renewable energy sources can be guaranteed as such within the meaning of this Directive, in accordance with objective, transparent and non-discriminatory criteria.

2. To that end, Member States shall ensure that a guarantee of origin is issued in response to a request from a producer of [] electricity and gas from renewable sources, **unless for the purposes of accounting for the market of the guarantee of origin Member States decide not to issue one to a producer that receives financial support from a support scheme**. Member States may arrange for guarantees of origin to be issued for **heating and cooling from renewable sources as well as for electricity, gas or heating and cooling from** non-renewable energy sources. Issuance of guarantees of origin may be made subject to a minimum capacity limit. A guarantee of origin shall be of the standard size of 1 MWh. No more than one guarantee of origin shall be issued in respect of each unit of energy produced.

Member States shall ensure that the same unit of energy from renewable sources is taken into account only once.

Member States shall ensure that when guarantees of origin are issued **and transferred** to a producer that receives financial support from a support scheme for the same production of energy from renewable sources, **the market value of the guarantee of origin is appropriately taken into account in the relevant support scheme.** ~~[To that end,]~~ **To take into account the market value of the guarantee of origin** Member States may, inter alia, **decide to issue a guarantee of origin to the producer and cancel it immediately or to** issue such guarantees of origin and transfer them to the market by auctioning them. The revenues raised as a result of the auctioning shall be used to offset the costs of renewables support.

The guarantee of origin shall have no function in terms of a Member State's compliance with Article 3. Transfers of guarantees of origin, separately or together with the physical transfer of energy, shall have no effect on the decision of Member States to use statistical transfers, joint projects or joint support schemes for target compliance or on the calculation of the gross final consumption of energy from renewable sources in accordance with Article 7.

3. For the purposes of paragraph 1, guarantees of origin shall be valid **for twelve months after the production of the relevant energy unit .** Member States shall ensure that all guarantees of origin that have not been cancelled shall expire. Expired guarantees of origin shall be included by Member States in the calculation of the residual energy mix.

4. For the purposes of disclosure referred to in paragraphs 8 and 13, Member States shall ensure that guarantees of origin are cancelled by energy companies **within the period of validity .**

5. Member States or designated competent bodies shall supervise the issuance, transfer and cancellation of guarantees of origin. The designated competent bodies shall have non-overlapping geographical responsibilities, and be independent of production, trade and supply activities.

6. Member States or the designated competent bodies shall put in place appropriate mechanisms to ensure that guarantees of origin shall be issued, transferred and cancelled electronically and are accurate, reliable and fraud-resistant. [1]

7. A guarantee of origin shall specify at least:

(a) the energy source from which the energy was produced and the start and end dates of production;

(b) whether it relates to:

(i) electricity; or

(ii) gas, or

(iii) heating or cooling;

(c) the identity, location, type and capacity of the installation where the energy was produced;

(d) whether the installation has benefited from investment support and whether the unit of energy has benefited in any other way from a national support scheme, and the type of support scheme;

(e) the date on which the installation became operational; and

(f) the date and country of issue and a unique identification number.

Simplified information may be specified on guarantees of origin from installations of less than 50 kW.

8. Where an electricity supplier is required to prove the share or quantity of energy from renewable sources in its energy mix for the purposes of Article 3 of Directive 2009/72/EC, it **[] may** do so by using guarantees of origin. **Where Member States have arranged to have guarantees of origin for other types of energy, suppliers shall always use for disclosure the same type of guarantees of origin as the energy supplied.** Likewise, guarantees of origin created pursuant to Article 14(10) of Directive 2012/27/EC **[] may** be used to substantiate any requirement to prove the quantity of electricity produced from high-efficiency cogeneration. **For the purposes of paragraph 2, where electricity is generated from high efficiency cogeneration using renewable sources only one guarantee of origin may be issued specifying both characteristics. []**

9. Member States shall recognise guarantees of origin issued by other Member States in accordance with this Directive exclusively as proof of the elements referred to in paragraph 1 and paragraph 7 (a) to (f). A Member State may refuse to recognise a guarantee of origin only when it has well-founded doubts about its accuracy, reliability or veracity. The Member State shall notify the Commission of such a refusal and its justification.

10. If the Commission finds that a refusal to recognise a guarantee of origin is unfounded, the Commission may adopt a decision requiring the Member State in question to recognise it.

11. Member States shall not recognise guarantees of origins issued by a third country except where the Commission has signed an agreement with that third country on mutual recognition of guarantees of origin issued in the Union and compatible guarantees of origin systems established in that country, **and only** where there is direct import or export of energy. The Commission is empowered to adopt **[] implementing** acts in accordance with Article 32 to enforce these agreements.

12. A Member State may introduce, in conformity with Union law, objective, transparent and non-discriminatory criteria for the use of guarantees of origin in complying with the obligations laid down in Article 3(9) of Directive 2009/72/EC.

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Article 20

Access to and operation of the grids

1. Where relevant, Member States shall assess the need to extend existing gas network infrastructure to facilitate the integration of gas from renewable energy sources.
2. Where relevant, Member States shall require transmission system operators and distribution system operators in their territory to publish technical rules in line with Article 6 of Directive 2003/55/EC of the European Parliament and of the Council²⁷, in particular regarding network connection rules that include gas quality, gas odoration and gas pressure requirements. Member States shall also require transmission and distribution system operators to publish the connection tariffs to connect renewable gas sources based on transparent and non-discriminatory criteria.
3. Subject to their assessment included in the integrated national energy and climate plans in accordance with Annex I of Regulation [Governance], on the necessity to build new infrastructure for district heating and cooling produced from renewable energy sources in order to achieve the Union target referred to in Article 3(1) of this Directive, Member States shall, where relevant, take steps with a view to developing a district heating infrastructure to accommodate the development of heating and cooling production from large biomass, solar and [] ambient energy facilities and waste heat or cold.

²⁷ Directive 2003/55/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in natural gas and repealing Directive 98/30/EC (OJ L 176, 15.7.2003, p. 57).

Article 21

Renewable self-consumers

1. Member States shall ensure that renewable self-consumers :

(a) are entitled to: **generate renewable energy, including for their own consumption** ; store and sell, including through power purchase agreements, **aggregators and electricity suppliers**, their excess production of renewable electricity without being subject to disproportionate procedures and **~~disproportionate non-taxation~~ network** charges **that are not cost reflective, ensuring they contribute in an adequate and balanced way to the overall cost sharing of the system** ²⁸;

(b) maintain their rights **and obligations** as consumers;

(c) are not considered as **energy** **electricity** suppliers according to **Directive [MDI Directive]** **~~Union or national legislation~~** in relation to the renewable electricity they **have produced and consumed themselves** ; and

(d) **are able to be** remunerated **appropriately** for the self-generated renewable electricity they feed into the grid, **reflecting** the market value of the electricity fed in **and the relevant support schemes, if any in place; and**

(e) are subject to a non-discriminatory treatment with regard to their activities, rights and obligations as final customers, generators, suppliers, or as other market participants as relevant.

²⁸ **Note: see added text in recital 53 on proportionality of charges and the proposal for Electricity Regulation Art. 16 about network tariffs (no changes).**

2. Member States shall ensure that renewable self-consumers living in the same multi-apartment block, or located in the same commercial, or shared services, site or closed distribution system, are, **without prejudice to applicable grid costs and other relevant charges, levies and taxes applicable ~~for final consumers~~**, allowed to **arrange sharing of renewable energy that is produced on their site or sites between themselves.** [] Member States may have different governing provisions for individual and jointly acting renewable self-consumers in their national legislation.

3. The renewable self-consumer's installation may be managed by a third party for installation, operation, including metering, and maintenance.

Article 22

Renewable energy communities

1. Member States shall **provide an enabling regulatory framework for renewable energy communities ensuring that:**

(a) **renewable energy communities are entitled to generate, consume, store and sell renewable energy;**

(b) **their shareholders or members are natural persons, local authorities, including municipalities, or SMEs;**

(c) **participation in a renewable energy community is voluntary;**

(d) **their shareholders or members are allowed to leave a renewable energy community;**

- (e) renewable energy communities that supply energy, provide aggregation or other commercial energy services are subject to the provisions relevant for such activities;**
 - (f) renewable energy communities are entitled to arrange sharing of renewable energy within the community that is produced by the production units owned by the community, subject to the provisions of this article and retaining community members' rights and obligations as consumers;**
 - (g) the relevant distribution system operator cooperates with renewable energy communities to facilitate energy transfers within renewable energy communities, which shall not impact the obligations of renewable energy communities or their members may have as balance responsible parties and in particular their financial responsibility for the imbalances they cause in the system;**
 - (h) renewable energy communities are subject to fair, proportionate and transparent procedures, including registration and licensing, and cost reflective network charges, as well as relevant levies and taxes, ensuring they contribute in an adequate and balanced way to the overall cost sharing of the system;**
 - (i) renewable energy communities are allowed to access all energy markets either directly or through aggregation in a non-discriminatory manner;**
 - (j) renewable energy communities are subject to a non-discriminatory treatment with regard to their activities, rights and obligations as final customers, generators, suppliers, distribution system operators, or as other market participants;**
- 2. Member States may provide in the enabling regulatory framework referred to in paragraph 1 that renewable energy communities are open to cross-border participation.**
- 3. Without prejudice to State aid rules, Member States shall take into account the specificities of renewable energy communities when designing support schemes, in order to allow them to compete for support on an equal footing with other producers.**

Article 23

Mainstreaming renewable energy in the heating and cooling installations

1. In order to facilitate the penetration of renewable energy in the heating and cooling sector, each Member State shall endeavour to increase the share of renewable energy supplied for heating and cooling [] every year **starting from the level achieved in 2020, the indicative reference value for the yearly increase shall be 1 percentage point (pp)**, expressed in terms of national share of final energy consumption and calculated according to the methodology set out in Article 7.

Member States may also decide to take into account a contribution from waste heat and cold to further incentivise efficiency in their systems.

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2. Member States may designate and make public, on the basis of objective and non-discriminatory criteria, a list of measures and the implementing entities, such as fuel suppliers, **public or professional bodies**, which shall contribute to the increase set out in paragraph 1.

3. The increase set out in paragraph 1 may be implemented through, *inter alia*, one or more of the following options:

(a) physical incorporation of renewable energy in the energy and energy fuel supplied for heating and cooling;

(b) direct mitigation measures such as installation of highly efficient renewable heating and cooling systems in buildings or renewable energy use for industrial heating and cooling processes;

(c) indirect mitigation measures covered by tradable certificates proving compliance with the obligation through support to indirect mitigation measures, carried out by another economic operator such as an independent renewable technology installer or energy service company - ESCO providing renewable installation services.

(d) other policy measures, including fiscal measures or other financial incentives.

4. Member States may use the established structures under the national energy efficiency obligation schemes set out in Article 7 of Directive 2012/27/EU to implement and monitor the measures referred to in paragraph 2.

5. **Where [] entities are** designated under paragraph 2 **Member States** shall ensure that their contribution is measurable and verifiable and **that the designated entities []** report annually **[]** on:(a) the total amount of energy supplied for heating and cooling;

(b) the total amount of renewable energy supplied for heating and cooling;

(c) the share of renewable energy in the total amount of energy supplied for heating and cooling;
and

(d) the type of renewable energy source.

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Article 24

District Heating and Cooling

1. Member States shall ensure that district heating and cooling suppliers provide information to **[]** **final customers [users]** on their energy performance and the share of renewable energy in their systems **in an easy to access manner, such as on suppliers' websites or bills in accordance with point (3)(b) of Annex VIIa of [amending Directive 2012/27/EU, COM(2016) 761]. []**

2. Member States shall lay down the necessary measures **and conditions** to allow customers of those district heating or cooling systems which are not 'efficient district heating and cooling' within the meaning of Article 2(41) of Directive 2012/27/EU to:

[a)] [] terminate their contract in order to produce heating or cooling from renewable energy sources themselves **[; or]**

b) when the option in paragraph 4(b) is implemented, upon request, to be provided with supply from renewable energy sources and waste heat or cold through the system for which they are connected to].

Termination of the contract [~~under point a)~~] may be made conditional on the compensation for cost directly caused by disconnection and the undepreciated portion of assets needed to provide heat and cold to that customer.

3. Member States may restrict the right to **[disconnect] terminate their contract []** to customers who can prove that the planned alternative supply solution for heating or cooling results in a significantly better energy performance. The performance assessment of the alternative supply solution may be based on the Energy Performance Certificate as defined in Directive 2010/31/EU.

4. Member States shall lay down the necessary measures to ensure **that district heating or cooling systems contribute to the increase referred to in Article 23 paragraph 1 by implementing at least one of the two following options:**

a) Endeavour to increase the share of renewable energy sources and from waste heat and cold sources in district heating and cooling by at least 1 percentage point (pp) every year starting from the level achieved in 2020, expressed in terms of share of final energy consumption for district heating and cooling, by implementing measures that can be expected to trigger this yearly increase in years with normal climatic conditions

Member States with a share of renewable energy and waste heat and cold in district heating and cooling above 60% may count any such share as fulfilling the yearly increase referred to in the first subparagraph.

Member States shall lay down the necessary measures to implement the increase set out in paragraph 4 (a) in their national energy and climate plans.

b) Ensure that operators of district heating or cooling systems are obliged to connect suppliers of energy from renewable energy sources and waste heat and cold or have to offer to connect and purchase heat and cold produced from renewable energy sources and waste heat and cold from third party suppliers when they need to:

i) meet demand from new customers and respond to requests from customers made under paragraph 2(b);

ii) replace existing heat and cold generation capacities; and

iii) expand existing heat and cold generation capacities.

5. When the option in paragraph 4 (b) is implemented, an operator of a district heating or cooling system may refuse **to connect and buy heat or cold from third party** suppliers where:

(a) the system lacks the necessary capacity due to other supplies of waste heat or cold, of heat or cold from renewable energy sources or of heat or cold produced by high-efficiency cogeneration;

(b) the heat or cold supplied from the third party does not meet the technical parameters necessary to connect and ensure the reliable and safe operation of the district heating and cooling system; or

(c) it can demonstrate that the total cost of the heat or cold supply ~~[bought from the third party supplier]~~ to final customers would increase ~~[be significantly higher]~~ compared to the situation without heat or cold supplied from the third party added to the system ~~[main local heat or cold supply source with which the renewable source or the waste heat and cold would compete].~~

Member States shall ensure that when the operator of the district heating or cooling system **refuses to connect a supplier of heating or cooling information is provided by the operator** to the competent authority according to paragraph 9 on **the reasons for the refusal, as well as the conditions and** measures that would **need to be taken in** the system **in order to enable the connection.**

6. When the option in paragraph 4 (b) is implemented, Member States may exempt from the application of paragraph 4 (b):

a) district heating or cooling systems that constitute 'efficient district heating and cooling' within the meaning of Article 2(41) of Directive 2012/27/EU;

b) existing district heating or cooling systems that become efficient in the sense of Article 2(41) of Directive 2012/27/EU by 2025 based on a plan approved by the competent authority;

c) district heating and cooling systems with a total rated thermal input below 20 MW [in operation before the [entry into force of this Directive] with less than 5,000 end-consumers or less than 100 customers].

7. The right to **terminate their contract [disconnect or request to change the supply source within the district heating and cooling systems] []** may be exercised by individual customers, by joint undertakings formed by customers or by parties acting on the behalf of customers. For multi-apartment blocks, such **termination of their contract [disconnection]** may only be exercised at whole building level **in accordance with the applicable dwelling law**.

8. Member States shall require electricity distribution system operators to assess at least **every four years []**, in cooperation with the operators of district heating or cooling systems in their respective area, the potential of district heating or cooling systems to provide balancing and other system services, including demand response and storing of excess electricity produced from renewable sources and if the use of the identified potential would be more resource- and cost-efficient than alternative solutions.

9. Member States shall [] ensure that the rights of consumers and the rules for operating district heating and cooling systems in accordance with this Article are clearly defined and enforced.

10. Member States may decide not to apply paragraphs 2 to 9 of this Article if:

a) their share of district heating and cooling is less than 2% of the overall consumption of energy for heating and cooling at [the entry into force of this Directive]; or

b) if they are increasing the share in point (a) of this paragraph beyond 2% by developing new efficient district heating and cooling systems as referred to in Article 2(41) of Directive 2012/27/EU based on their integrated national energy and climate plans or the assessment referred to in Article 15(8); or

c) the share of systems referred in the paragraph 6 of this article constitute over 90 % of total sales of district heating and cooling in a member state.

Article 25

Mainstreaming renewable energy in the transport sector

1. In order to mainstream renewable energy use in the transport sector, each Member State shall set an obligation on fuel suppliers to ensure the share of renewable energy supplied for final consumption in the transport sector is at least 12% by 2030, following an indicative trajectory set by the Member State and calculated in accordance to the methodology set out in this article. Member States may decide to include in such a minimum share also the contribution from recycled carbon fuels. Member States may exempt or distinguish between different fuel suppliers and energy carriers when setting this obligation, ensuring varied maturity and cost of technologies is taken into account.

Within this total share, the contribution of biofuels and biogas produced from feedstock listed in part A of Annex IX shall **observe an indicative trajectory set by the Member State starting from the level set [under Article 3(4)e of Directive 2009/28] []**, increasing up to at least **a binding 3%** by 2030 .

When setting the obligation under the first and second sub-paragraphs to ensure the achievement of the share set out therein, Member States may do so, inter alia, by renewable energy obligations or other measures targeting volumes, energy content or greenhouse gas emission savings provided that it is demonstrated that the shares set out in the first and second sub-paragraph are achieved.

For the purpose of demonstrating compliance with the obligation under the first and second sub-paragraphs, Cyprus and Malta may consider the contribution of biofuels and biogas produced from feedstock listed in Annex IX to be twice their energy content.

The greenhouse gas emission savings from the use of renewable liquid and gaseous transport fuels of non-biological origin and recycled carbon fuels shall be at least 70% as of 1 January 2021.

For the calculation of a Member State's gross final consumption of energy from renewable energy sources set out in Article 7 and the share set out in the first sub-paragraph of this Article, each Member State shall ensure that the share of energy from renewable fuels produced from food or feed crops shall be no more than 7% of energy consumption in road and rail transport. This restriction does not include low indirect land-use change-risk biofuels and bioliquids. Member States may set a lower limit and may distinguish for the purposes of Article 26(1) between types of biofuels, bioliquids and biomass fuels produced from food and feed crops, based on categories set out in Annex VIII, for instance by setting a lower limit for the contribution from food or feed crop based biofuels produced from oil crops, taking into account indirect land use change impact.

For the calculation of the shares referred to in the [] **first and second** [] sub-paragraph, the following provisions shall apply:

- a) for the calculation of the denominator, that is the energy content of road and rail transport fuels supplied for consumption or use on the market, petrol, diesel, natural gas, biofuels, biogas, **liquefied petrol gas, hydrogen**, renewable liquid and gaseous transport fuels of non-biological origin, **recycled carbon fuels** [] and electricity **supplied to road and rail transport** [], shall be taken into account;
- b) for the calculation of the numerator, **that is the amount of energy from renewable sources consumed in transport for the purposes of the first subparagraph**, the energy content of **all types of energy from renewable sources** [] supplied to all transport sectors, and renewable electricity supplied to road **and rail transport** [], shall be taken into account. **Recycled carbon fuels shall be taken into account if a Member State decides to do so.**

For the calculation of the numerator, **Member States may limit** the contribution from biofuels and biogas produced from feedstock included in part B of Annex IX, **[] taking into account the availability of feedstock included in part B of Annex IX []**. The contribution of fuels supplied in the aviation and maritime sector shall be considered to be 1.2 times their energy content.

The contribution of renewable electricity shall be considered to be 5 times its energy content when supplied to road vehicles and 2,5 times its energy content when supplied to electrified rail.²⁹

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- c) For the calculation of both numerator and denominator, the values regarding the energy content of transport fuels, as set out in Annex III, shall be used. For the determination of the energy content of transport fuels not included in Annex III, the Member States shall use the respective ESOs standards for determination of calorific values of fuels. Where no ESOs standard has been adopted for this purpose, the respective ISO standards shall be used.

The Commission is empowered to adopt delegated acts in accordance with Article 32 concerning the adaptation of the energy content of transport fuels, as set out in Annex III, to scientific and technical progress.

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3. To determine the share of renewable electricity for the purposes of paragraph 1 either the average share of electricity from renewable energy sources in the Union or the share of electricity from renewable energy sources in the Member State where the electricity is supplied, as measured two years before the year in question may be used. **[]**

²⁹ **Note: please see also new recital 64bis.**

The share of renewable energy in liquid and gaseous transport fuels shall be determined on the basis of the share of renewable energy in the total energy input used for the production of the fuel.

For the purposes of this paragraph, the following provisions shall apply:

(a) When electricity is used for the production of renewable liquid and gaseous transport fuels of non-biological origin, either directly or for the production of intermediate products, either the average share of electricity from renewable energy sources in the Union or the share of electricity from renewable energy sources in the country of production, as measured two years before the year in question, may be used to determine the share of renewable energy. []

However, electricity obtained from direct connection to an installation generating renewable electricity (i) that comes into operation after or at the same time as the installation producing the renewable liquid and gaseous transport fuel of non-biological origin and [] (ii) is not connected to the grid [] or is connected to the grid but can provide evidence that the respective electricity has been provided without importing electricity from the grid, can be fully counted as renewable electricity for the production of that renewable liquid and gaseous transport fuel of non-biological origin.

In addition, Member States may allow for electricity that has been imported from the grid to be counted as fully renewable if the electricity is produced exclusively from renewable energy sources in installations compliant to point (i) in the previous subparagraph and:

(a) the renewable electricity generation would have been curtailed if not consumed by the plant or

(b) the renewable properties and the additionality of the electricity have been demonstrated, ensuring that the renewable properties of this electricity are claimed only once and only in one end-use sector.

The Commission shall adopt an implementing act in accordance with Article 31 to establish a common European methodology, setting out detailed rules for economic operators to comply with the requirements set out in this sub-paragraph by December 2021.

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3bis. With a view to minimising the risk of single consignments being claimed more than once in the Union, Member States and the Commission shall strengthen cooperation among national systems and between national systems and voluntary schemes and verifiers established pursuant to Article 27, including, where appropriate, the exchange of data. Where an authority suspects or detects a fraud it shall, where appropriate, inform other Member States of the issue.

4. **The Commission [] shall ensure that [] a database is put in place enabling tracing of liquid and gaseous transport fuels that are eligible for counting towards the numerator set out in paragraph 1(b) or taken into account for the purposes referred to in points (a), (b), and (c) of Article 26(1), and Member States shall** require the relevant economic operators to enter information on the transactions made and the sustainability characteristics of these [] fuels, including their life cycle greenhouse gas emissions, starting from their point of production to the fuel supplier that places the fuel on the market. **Member States may set up a national database that is linked to the one put in place by the Commission ensuring that information entered is instantly transferred.**

The fuel suppliers shall enter the information necessary to verify compliance with the requirements set out in paragraph 1, first subparagraph.

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5. **Member States shall have access to the database and take measures to ensure that within each Member States economic operators enter the correct information. The Commission shall require the schemes that are the subject of a decision pursuant to paragraph 4 of Article 27 to verify compliance with this requirement when checking compliance with the sustainability criteria for biofuels, bioliquids and biomass fuels.**

The Commission shall set out detailed rules for economic operators to comply with the requirement set out in paragraph 4 and this paragraph, including independent auditing and technical specifications for transfers of information from national databases to the Commission database set out in paragraph 4, by means of implementing acts adopted in accordance with the examination procedure referred to in Article 31.

6. The Commission is empowered to adopt [] **implementing** acts in accordance with Article 31 [] to [] specify the methodology [] to determine the share of biofuel resulting from biomass being processed with fossil fuels in a common process, **and** to specify the methodology for assessing greenhouse gas emission savings from renewable liquid and gaseous transport fuels of non-biological origin [] **and recycled carbon fuels. The Commission shall adopt such methodologies no later than December 2020.**

6bis. The Commission is empowered to amend the list of feedstocks in parts A and B of Annex IX in order to add feedstocks, but not to remove them. Feedstocks that can only be processed with advanced technologies shall be added to Annex IX part A while feedstocks that can be processed into biofuels with mature technologies shall be added to Annex IX Part B.

Each implementing act amending the list of feedstocks in parts A and B shall be based on an analysis of the potential of the raw material as a feedstock for the production of biofuels taking into account:

i) the principles of the waste hierarchy established in Directive 2008/98/EC;

ii) the Union sustainability criteria set out in Article 27;

iii) ~~the risk of displacement effects and potential~~ significant distortive effects on markets for (by-) products, wastes or residues;

iv) the potential for delivering substantial greenhouse gas emission savings compared to fossil fuels; and

v) the risk of negative impacts on the environment and biodiversity.

Every 2 years, the Commission shall carry out an evaluation of the list of feedstocks in parts A and B of Annex IX in order to add feedstocks, in line with the principles set out in this paragraph. The first evaluation shall be carried out no later than 6 months after [date of entry into force of this Directive].

7. By 31 December 2025, in the context of the biennial assessment of progress made pursuant to Regulation [Governance], the Commission shall assess whether the obligation laid down in paragraph 1 effectively stimulates innovation and promotes greenhouse gas savings in the transport sector, and whether the applicable greenhouse gas savings requirements for biofuels and biogas are appropriate. The Commission shall, if appropriate, present a proposal to modify the obligation laid down in paragraph 1.

Article 26

Sustainability and greenhouse gas emissions saving criteria for biofuels, bioliquids and biomass fuels

1. Energy from biofuels, bioliquids and biomass fuels shall be taken into account for the purposes referred to in points (a), (b) and (c) of this paragraph only if they fulfil the sustainability criteria set out in paragraphs 2 to 6 and the greenhouse gas emissions saving criteria set out in paragraph 7:

- (a) contributing towards the Union target and Member States renewable energy share ;
- (b) measuring compliance with renewable energy obligations , including the obligation set out in Article 25 ;
- (c) eligibility for financial support for the consumption of biofuels, bioliquids and biomass fuels.

However, biofuels, bioliquids and biomass fuels produced from waste and residues, other than agricultural, aquaculture, fisheries and forestry residues, need only fulfil the greenhouse gas emissions saving criteria set out in paragraph 7 in order to be taken into account for the purposes referred to in points (a), (b) and (c) of this paragraph. This provision shall also apply to waste and residues that are first processed into a product before being further processed into biofuels, bioliquids and biomass fuels. **Electricity, heating and cooling produced from municipal solid waste shall not be subject to the greenhouse gas emissions savings criteria set out in paragraph 7.**

Biomass fuels shall have to fulfil the sustainability and greenhouse gas emissions saving criteria set out in paragraphs 2 to 7 **only** if used in installations producing electricity, heating and cooling or fuels with a **[] total rated thermal input** equal to or exceeding 20 MW in case of solid biomass fuels and with a **[] total rated thermal input** capacity equal to or exceeding **[] 2 MW** in case of gaseous biomass fuels. **[] Member States may apply the sustainability and greenhouse gas emission saving criteria to installations with lower fuel capacity.**

The sustainability criteria set out in paragraphs 2 to 6 and the greenhouse gas emissions saving criteria set out in paragraph 7 shall apply irrespectively of the geographical origin of the biomass.

2. Biofuels, bioliquids and biomass fuels produced from agricultural biomass taken into account for the purposes referred to in points (a), (b) and (c) of paragraph 1 shall not be made from raw material obtained from land with high biodiversity value, namely land that had one of the following statuses in or after January 2008, whether or not the land continues to have that status:

(a) primary forest and other wooded land, namely forest and other wooded land of native species, where there is no clearly visible indication of human activity and the ecological processes are not significantly disturbed;

(b) areas designated:

(i) by law or by the relevant competent authority for nature protection purposes; or

(ii) for the protection of rare, threatened or endangered ecosystems or species recognised by international agreements or included in lists drawn up by intergovernmental organisations or the International Union for the Conservation of Nature, subject to their recognition in accordance with the first subparagraph of Article 27(4);

unless evidence is provided that the production of that raw material did not interfere with those nature protection purposes;

(c) highly biodiverse grassland [] that is:

(i) natural, namely grassland that would remain grassland in the absence of human intervention and which maintains the natural species composition and ecological characteristics and processes; or

(ii) non-natural, namely grassland that would cease to be grassland in the absence of human intervention and which is species-rich and not degraded and has been identified as being highly biodiverse by the relevant competent authority, unless evidence is provided that the harvesting of the raw material is necessary to preserve its status as highly biodiverse grassland.

The Commission may further specify [] the criteria to determine which grassland shall be covered by point (c) by means of implementing acts adopted in accordance with the examination procedure referred to in Article 31(2).

3. Biofuels, bioliquids and biomass fuels produced from agricultural biomass taken into account for the purposes referred to in points (a), (b) and (c) of paragraph 1 shall not be made from raw material obtained from land with high carbon stock, namely land that had one of the following statuses in January 2008 and no longer has that status:

(a) wetlands, namely land that is covered with or saturated by water permanently or for a significant part of the year;

(b) continuously forested areas, namely land spanning more than one hectare with trees higher than five metres and a canopy cover of more than 30 %, or trees able to reach those thresholds in situ;

(c) land spanning more than one hectare with trees higher than five metres and a canopy cover of between 10 % and 30 %, or trees able to reach those thresholds in situ, unless evidence is provided that the carbon stock of the area before and after conversion is such that, when the methodology laid down in part C of Annex V is applied, the conditions laid down in paragraph 7 of this Article would be fulfilled.

The provisions of this paragraph shall not apply if, at the time the raw material was obtained, the land had the same status as it had in January 2008.

4. Biofuels, bioliquids and biomass fuels produced from agricultural biomass taken into account for the purposes referred to in points (a), (b) and (c) of paragraph 1 shall not be made from raw material obtained from land that was peatland in January 2008, **unless evidence is provided that the cultivation and harvesting of that raw material does not involve drainage of previously undrained soil.**

5. Biofuels, bioliquids and biomass fuels produced from forest biomass taken into account for the purposes referred to in points (a), (b) and (c) of paragraph 1 shall meet the following requirements to minimise the risk of using forest biomass **derived from unsustainable** production:

(a) the country in which forest biomass was harvested has national and/or sub-national laws applicable in the area of harvest as well as monitoring and enforcement systems in place ensuring:

i) **the legality of harvesting operations;**

ii) forest regeneration of harvested areas .

iii) areas **designated by law or by the relevant competent authority for nature protection purposes** , including wetlands and peatlands, are protected;

iv) the impacts of forest harvesting activities on soil quality and biodiversity are **taken into account. ~~minimised; and~~**

~~v) harvesting does not exceed the long-term production capacity of the forest;~~

(b) when evidence referred to in the first subparagraph is not available, the biofuels, bioliquids and biomass fuels produced from forest biomass shall be taken into account for the purposes referred to in points (a), (b) and (c) of paragraph 1 if management systems are in place at forest **sourcing area** level to ensure :

i) **the legality of harvesting operations;**

ii) forest regeneration of harvested areas .

iii) areas **designated by law or by the relevant competent authority for nature protection purposes** , including wetlands and peatlands, **unless evidence is provided that the harvesting of that raw material did not interfere with those nature protection purposes,** are protected;

(iv) impacts of forest harvesting activities on soil quality and biodiversity are **taken into account.** ~~minimised.;~~

~~**(v) harvesting does not exceed the long-term production capacity of the forest.**~~

6. Biofuels, bioliquids and biomass fuels produced from forest biomass taken into account for the purposes referred to in points (a), (b) and (c) of paragraph 1 **shall** meet the following LULUCF requirements:

a) the country or regional economic integration organisation of origin of the forest biomass:

(i) is a Party to, and has ratified, the Paris agreement;

(ii) has submitted a Nationally Determined Contribution (NDC) to the United Nations Framework Convention on Climate Change (UNFCCC), covering emissions and removals from agriculture, forestry and land use which ensures that either changes in carbon stock associated with biomass harvest are accounted towards the country's commitment to reduce or limit greenhouse gas emissions as specified in the NDC, or there are national or sub-national laws in place, in accordance with Article 5 of the Paris Agreement, applicable in the area of harvest, to conserve and enhance carbon stocks and sinks;

iii) has a national system in place for reporting greenhouse gas emissions and removals from land use including forestry and agriculture, which is in accordance with the requirements set out in decisions adopted under the United Nations Framework Convention on Climate Change (UNFCCC) and the Paris Agreement;

(b) when evidence referred to in **point (a) []** is not available, the biofuels, bioliquids and biomass fuels produced from forest biomass shall be taken into account for the purposes referred to in points (a), (b) and (c) of paragraph 1 if management systems are in place at forest **sourcing area []** level to ensure that carbon stocks and sinks levels in the forest are maintained **over the long term**.

The Commission may establish the operational **guidance on the []** evidence for demonstrating compliance with the requirements set out in paragraphs 5 and 6, by means of implementing acts adopted in accordance with the examination procedure referred to in Article 31(2).

By 31 December **2026 []**, the Commission shall assess whether the criteria set out in paragraphs 5 and 6 effectively minimise the risk of using **[]** forest biomass **derived from unsustainable production** and address LULUCF requirements, on the basis of available data. The Commission shall, if appropriate, present a proposal to modify the requirements laid down in paragraphs 5 and 6.

7. The greenhouse gas emission saving from the use of biofuels, bioliquids and biomass fuels taken into account for the purposes referred to in paragraph 1 shall be:

(a) at least 50 % for biofuels, **biogas consumed in transport** and bioliquids produced in installations in operation on or before 5 October 2015;

(b) at least 60 % for biofuels, **biogas consumed in transport** and bioliquids produced in installations starting operation from 5 October 2015;

(c) at least 70 % for biofuels, **biogas consumed in transport** and bioliquids produced in installations starting operation after 1 January 2021;

(d) at least **[] 70** % for electricity, heating and cooling production from biomass fuels used in installations starting operation after 1 January 2021 and **[] 75**% for installations starting operation after 1 January 2026.

An installation shall be considered to be in operation once the physical production of biofuels or bioliquids and of heating and cooling, and electricity for biomass fuels has started.

The greenhouse gas emission saving from the use of biofuels, bioliquids and biomass fuels used in installations producing heating, cooling and electricity shall be calculated in accordance with Article 28(1).

8. Electricity from **cofiring** biomass fuels produced in installations with a **[] total rated thermal input** equal to or exceeding **75 [20]** MW shall be taken into account for the purposes referred to in points (a), (b) and (c) of paragraph 1 only if it is produced applying high efficient cogeneration technology as defined under Article 2(34) of Directive 2012/27/EU, **Biomass Carbon Capture and Storage or other efforts to develop negative emissions delivering substantial greenhouse gas emission savings**.

For the purposes of points (a) and (b) of paragraph 1, this provision shall only apply to installations starting operation after [3 years from date of adoption of this Directive]. For the purposes of point (c) of paragraph 1, this provision is without prejudice to public support provided under schemes approved by [3 years after date of adoption of this Directive].

The first sub-paragraph shall not apply to electricity from installations which are the object of a specific notification by a Member State to the Commission based on the duly substantiated existence of risks for the security of supply of electricity. Upon assessment of the notification, the Commission shall adopt a decision taking into account the elements included therein.

9. For the purposes referred to in points (a), (b) and (c) of paragraph 1, **and without prejudice to Article 25(1), Member States [] [] shall not refuse to take into account, on other sustainability grounds, biofuels, bioliquids and biomass fuels [] obtained in compliance with this Article. This provision is without prejudice to public support granted under schemes approved before [date of entry into force of this Directive].**

9bis. For the purpose referred to in point (c) of paragraph 1, Member States may derogate from the sustainability and greenhouse gas emission saving criteria set out in paragraphs 1 to 7 of this Article and from the energy efficiency requirements in paragraph 8 of this Article by adopting different sustainability, greenhouse gas emission saving criteria and energy efficiency requirements applying to:

(a) installations located in an outermost region as referred to in Article 349 TFEU to the extent that such facilities produce electricity or heating or cooling from biomass fuels; and

(b) biomass fuels used in the installations referred to in point (a), irrespective of the place of origin of that biomass,

provided that such criteria are objectively justified for reasons of ensuring, for this outermost region, a smooth phase-in of the sustainability, greenhouse gas emissions saving criteria and energy efficiency requirements set out in paragraphs 1 to 8 of this Article and thereby incentivise the transition from fossil fuels to sustainable biomass fuels.

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Article 27

Verification of compliance with the sustainability and greenhouse gas emissions saving criteria []

1. Where biofuels, bioliquids [] biomass fuels **and/or other fuels that are eligible for counting towards the numerator set out in Article 25(1)(b)** are to be taken into account for the purposes referred to in Articles 23 and 25 and in points (a), (b) and (c) of Article 26(1), Member States shall require economic operators to show that the sustainability and greenhouse gas emissions saving criteria set out in Article 26 (2) to (7) have been fulfilled. For those purposes they shall require economic operators to use a mass balance system which:

(a) allows consignments of raw material or [] fuels with differing sustainability and greenhouse gas emissions saving characteristics to be mixed for instance in a container, processing or logistical facility, transmission and distribution infrastructure or site;

(b) allows consignments of raw material with differing energy content to be mixed for the purpose of further processing, provided that the size of consignments is adjusted according to their energy content;

(c) requires information about the sustainability and greenhouse gas emissions saving characteristics and sizes of the consignments referred to in point (a) to remain assigned to the mixture; and

(d) provides for the sum of all consignments withdrawn from the mixture to be described as having the same sustainability characteristics, in the same quantities, as the sum of all consignments added to the mixture and requires that this balance be achieved over an appropriate period of time .

The mass balance system shall furthermore ensure that each consignment is ~~supported under one support scheme only and shall be~~ considered only once in point (a), (b) or (c) of the first subparagraph of article 7(1), for calculating the gross final consumption of energy from renewable sources and that information is given whether support has been provided to the production of that consignment, and the type of support scheme.

2. Where a consignment is processed, information on the sustainability and greenhouse gas emissions saving characteristics of the consignment shall be adjusted and assigned to the output in accordance with the following rules:

(a) when the processing of a consignment of raw material yields only one output that is intended for the production of biofuels, bioliquids biomass fuels, **renewable liquid and gaseous transport fuels of non-biological origin or recycled carbon fuels** the size of the consignment and the related quantities of sustainability and greenhouse gas emissions saving characteristics shall be adjusted applying a conversion factor representing the ratio between the mass of the output that is intended for the production of biofuels, bioliquids or biomass fuels and the mass of the raw material entering the process;

(b) when the processing of a consignment of raw material yields more than one output that is intended for the production of biofuels, bioliquids biomass fuels, **renewable liquid and gaseous transport fuels of non-biological origin or recycled carbon fuels** for each output a separate conversion factor shall be applied and a separate mass balance shall be used.

3. Member States shall take measures to ensure that economic operators submit reliable information regarding the compliance with the sustainability and greenhouse gas emissions saving criteria set out in **Article 25(6) and** Article 26(2) to (7) and make available to the Member State, on request, the data that were used to develop the information. Member States shall require economic operators to arrange for an adequate standard of independent auditing of the information submitted, and to provide evidence that this has been done. **For the compliance with articles 26(5)a and 26(6)a on forest biomass first or second party auditing may be used up to the first gathering point of the biomass.** The auditing shall verify that the systems used by economic operators are accurate, reliable and protected against fraud. It shall evaluate the frequency and methodology of sampling and the robustness of the data.

The obligations laid down in this paragraph shall apply whether the biofuels, bioliquids, biomass fuels, **renewable liquid and gaseous transport fuels of non-biological origin and recycled carbon fuels** are produced within the Union or imported.

Member States shall submit to the Commission, in aggregated form, the information referred to in the first subparagraph of this paragraph. The Commission shall publish that information on **the e-reporting platform** referred to in Article 24 of Regulation [Governance] in summary form preserving the confidentiality of commercially sensitive information.

4. The Commission may decide that voluntary national or international schemes setting standards for the production of **[] biofuels, bioliquids, biomass fuels and/or other fuels that are eligible for counting towards the numerator set out in Article 25(1)(b) provide** accurate data **on greenhouse gas emission savings** for the purposes of **Article 25 and** Article 26(7), **and/or demonstrate that the provisions set out in Article 25(3), (4) and (5) have been respected** and/or demonstrate that consignments of biofuels, bioliquids **or biomass fuels** comply with the sustainability criteria set out in Article 26(2), (3), (4), (5) and (6), **[]**. When demonstrating that requirements set out in Article 26(5) and (6) for forest biomass are met, the operators may decide to directly provide the required evidence at the **sourcing area []** level. The Commission may also recognise areas for the protection of rare, threatened or endangered ecosystems or species recognised by international agreements or included in lists drawn up by intergovernmental organisations or the International Union for the Conservation of Nature for the purposes of Article 26(2)(b)(ii).

The Commission may decide that **those** schemes contain accurate **information on measures taken** for **soil, water and air protection, the restoration of degraded land, the avoidance of excessive water consumption in areas where water is scarce, and for certification of biofuels and bioliquids with low indirect land-use change-risk**.

5. The Commission shall adopt decisions under paragraph 4 only if the scheme in question meets adequate standards of reliability, transparency and independent auditing **and provides adequate assurances that no materials have been intentionally modified or discarded so that the consignment or part thereof would fall under Annex IX**. In the case of schemes to measure greenhouse gas emission saving, such schemes shall also comply with the methodological requirements in Annex V **or Annex VI**. Lists of areas of high biodiversity value as referred to in Article 26 (2)(b)(ii) shall meet adequate standards of objectivity and coherence with internationally recognised standards and provide for appropriate appeal procedures.

The voluntary schemes referred to in paragraph 4 shall regularly, and at least once per year, publish a list of their certification bodies used for independent auditing, indicating for each certification body by which entity or national public authority it was recognised and which entity or national public authority is monitoring it.

In order to ensure that compliance with the sustainability and greenhouse gas emissions saving criteria is verified in an efficient and harmonised manner and in particular to prevent fraud, the Commission may specify detailed implementing rules, including adequate standards of reliability, transparency and independent auditing and require all voluntary schemes to apply those standards. When specifying these standards, the Commission shall pay special attention to the need to minimize administrative burden. This shall be done by means of implementing acts adopted in accordance with the examination procedure referred to in Article 31 (2). Such acts shall set a time frame by which voluntary schemes need to implement the standards. The Commission may repeal decisions recognising voluntary schemes in the event that those schemes fail to implement such standards in the time frame provided for. **Should a Member State raise concerns that a scheme is not operating according to the standards of reliability, transparency and independent auditing that constitute the basis for the Decision under paragraph 4, the Commission shall investigate the matter and take appropriate action.**

6. Decisions under paragraph 4 of this Article shall be adopted in accordance with the examination procedure referred to in Article 31(2). Such decisions shall be valid for a period of no more than five years.

The Commission shall require that each voluntary scheme on which a decision has been adopted under paragraph 4 submit [] annually [] by 30 April [] a report to the Commission covering each of the points set out in **Annex IX of Regulation [Governance] []**. [] The report shall cover the preceding calendar year. [] The requirement to submit a report shall apply only to voluntary schemes that have operated for at least 12 months.

The Commission shall make the reports drawn up by the voluntary schemes available, in an aggregated form or in full if appropriate, on the e-reporting platform referred to in Article 24 of Regulation [Governance].

Member States may set up national schemes where compliance with the sustainability and greenhouse gas emissions saving criteria set out in Article 26(2) to (7) is verified throughout the entire chain of custody involving competent national authorities.

A Member State may notify its national scheme to the Commission. The Commission shall give priority to the assessment of such a scheme. A decision on the compliance of such a notified national scheme with the conditions set out in this Directive shall be adopted in accordance with the examination procedure referred to in Article 31(2), in order to facilitate mutual bilateral and multilateral recognition of schemes for verification of compliance with the sustainability and greenhouse gas emissions saving criteria for biofuels, bioliquids and biomass fuels. Where the decision is positive, schemes established in accordance with this Article shall not refuse mutual recognition with that Member State's scheme, as regards the verification of compliance with the sustainability and greenhouse gas emissions saving criteria set out in Article 26(2) to (7).

7. When an economic operator provides proof or data obtained in accordance with a scheme that has been the subject of a decision pursuant to paragraph 4 or 6, to the extent covered by that decision, a Member State shall not require the supplier to provide further evidence of compliance with the sustainability and greenhouse gas emissions saving criteria set out in Article 26(2) to (7).

Competent authorities of the Member States shall supervise the operation of certification bodies that are conducting independent auditing under a voluntary scheme **in accordance with Regulation (EC) No 765/2008. Certification bodies shall upon request of competent authorities submit all relevant information necessary to supervise the operation including the exact date, time and location of audits. In case Member States find issues of non-conformity, they shall inform promptly the voluntary scheme and the accreditation body.**

7bis. At the request of a Member State, the Commission shall, on the basis of available evidence, examine whether the sustainability and greenhouse gas emissions saving criteria set out in Article 26 in relation to a source of biofuel, bioliquid or biomass fuel have been met. Within six months of receipt of such a request and in accordance with the examination procedure referred to in Article 31, the Commission shall decide whether the Member State concerned may take biofuel or bioliquid from that source into account for the purposes referred to in points (a), (b) and (c) of Article 25(1) or whether, as a derogation from paragraph 7, the Member State may require the supplier of the source of biofuel, bioliquid or biomass fuel to provide further evidence of compliance with the sustainability and greenhouse gas emissions saving criteria.

Article 28

Calculation of the greenhouse gas impact of biofuels, bioliquids and biomass fuels

1. For the purposes of Article 26 (7), the greenhouse gas emission saving from the use of biofuel, bioliquids and biomass fuels shall be calculated as follows:

(a) where a default value for greenhouse gas emission saving for the production pathway is laid down in part A or B of Annex V for biofuels and bioliquids and in part A of Annex VI for biomass fuels **and** where the e_l value for those biofuels or bioliquids calculated in accordance with point 7 of part C of Annex V and for those biomass fuels calculated in accordance with point 7 of part B of Annex VI is equal to or less than zero, by using that default value;

(b) by using an actual value calculated in accordance with the methodology laid down in part C of Annex V for biofuels and bioliquids and in part B of Annex VI for biomass fuels;

(c) by using a value calculated as the sum of the factors of the formulas referred to in point 1 of part C of Annex V, where disaggregated default values in part D or E of Annex V may be used for some factors, and actual values, calculated in accordance with the methodology laid down in part C of Annex V, for all other factors; or

(d) by using a value calculated as the sum of the factors of the formulas referred to in point 1 of part B of Annex VI, where disaggregated default values in part C of Annex VI may be used for some factors, and actual values, calculated in accordance with the methodology laid down in part B of Annex VI, for all other factors.

2. Member States may submit to the Commission reports including information on the typical greenhouse gas emissions from cultivation of agricultural raw materials of those areas on their territory classified as level 2 in the nomenclature of territorial units for statistics (NUTS) or as a more disaggregated NUTS level in accordance with Regulation (EC) No 1059/2003 of the European Parliament and of the Council³⁰ The reports shall be accompanied by a description of the method and data sources used to calculate the level of emissions. That method shall take into account soil characteristics, climate and expected raw material yields.

3. In the case of territories outside the Union, reports equivalent to those referred to in paragraph 2 and drawn up by competent bodies, may be reported to the Commission.

4. The Commission may decide, by means of an implementing act adopted in accordance with the examination procedure referred to in Article 31(2), that the reports referred to in paragraphs 2 and 3 of this Article contain accurate data for the purposes of measuring the greenhouse gas emissions associated with the cultivation of agriculture biomass feedstocks produced in the areas included in such reports for the purposes of Article 26(7). These data may therefore be used instead of the disaggregated default values for cultivation laid down in part D or E of Annex V for biofuels and bioliquids and in Part C of Annex VI for biomass fuels.

³⁰ Regulation (EC) No 1059/2003 of the European Parliament and of the Council of 26 May 2003 on the establishment of a common classification of territorial units for statistics (NUTS) (OJ L 154, 21.6.2003, p. 1).

5. The Commission shall keep Annex V and Annex VI under review, with a view, where justified, to adding or revising values for biofuel, bioliquid and biomass fuel production pathways. That review shall also consider the modification of the methodology laid down in part C of Annex V and in part B of Annex VI.

In the event that the Commission's review concludes that changes to Annex V or Annex VI should be made, the Commission is empowered to adopt delegated acts pursuant to Article 32.

In the case of any adaptation of or addition to the list of default values in Annex V and Annex VI:

(a) where the contribution of a factor to overall emissions is small, or where there is limited variation, or where the cost or difficulty of establishing actual values is high, default values shall be typical of normal production processes.

(b) in all other cases default values must be conservative compared to normal production processes.

6. Where necessary in order to ensure the uniform application of Part C of Annex V and Part B of Annex VI, the Commission may adopt implementing acts setting out detailed technical specifications including definitions, conversion factors, calculation of annual cultivation emissions and/ or emission savings caused by changes above and below-ground carbon stocks on already cultivated land, calculation of emission savings from carbon capture, carbon replacement and carbon geological storage. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 31 (2).

Article 29

Implementing measures

The implementing measures referred to in the second subparagraph of Article 26(2) and (6), Article 27 (6), the first subparagraph of Article 28(5) and Article 28(6), shall also take full account of the purposes of Article 7a of Directive 98/70/EC³¹.

Article 30

Monitoring by the Commission

1. The Commission shall monitor the origin of biofuels, bioliquids and biomass fuels consumed in the Union and the impact of their production, including impact as a result of displacement, on land use in the Union and the main third countries of supply. Such monitoring shall be based on Member States' integrated national energy and climate plans and corresponding progress reports required in Articles 3, 15 and 18 of Regulation [Governance], and those of relevant third countries, intergovernmental organisations, scientific studies and any other relevant pieces of information. The Commission shall also monitor the commodity price changes associated with the use of biomass for energy and any associated positive and negative effects on food security.
2. The Commission shall maintain a dialogue and exchange information with third countries and biofuel, bioliquid and biomass fuel producers, consumer organisations and civil society concerning the general implementation of the measures in this Directive relating to biofuels, bioliquids and biomass fuels. It shall, within that framework, pay particular attention to the impact that biofuel and bioliquid production may have on food prices.

³¹ Directive 98/70/EC of the European Parliament and of the Council of 13 October 1998 relating to the quality of petrol and diesel fuels and amending Council Directive 93/12/EEC (OJ L 350, 28.12.1998, p. 58).

3. In 2026 , the Commission shall present a legislative proposal on the regulatory framework for the promotion of renewable energy for the post-2030 period.

This proposal shall take into account the experience of the implementation of this Directive, including its sustainability and greenhouse gas saving criteria, and technological developments in energy from renewable sources.

4. In 2032 , the Commission shall present a report reviewing the application of this Directive.

Article 31

Committee procedure

1. The Commission shall be assisted by the Energy Union Committee . That committee shall be a committee within the meaning of Regulation (EU) No 182/2011 and work in the respective sectorial formations relevant for this Regulation.

Ibis. For matters relating to the sustainability of biofuels and bioliquids, the Commission shall be assisted by the Committee on the Sustainability of Biofuels, Bioliquids and Biomass fuels. That committee shall be a committee within the meaning of Regulation (EU) No 182/2011.

2. Where reference is made to this paragraph, Article 5 of Regulation (EU) No 182/2011 shall apply.

Where the Committee delivers no opinion, the Commission shall not adopt the draft implementing act and the third subparagraph of Article 5(4) of Regulation (EU) No 182/2011 shall apply.

Article 32

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.
2. The power to adopt delegated acts referred to in Articles 7(5), 7(6); 19(11), 19(14), 25(6) and 28(5) shall be conferred on the Commission for a period of five years from 1st January 2021.
3. The delegation of power referred to in Articles 7(5) , 7(6); 19(11), 19(14), 25(6) and 28(5) may be revoked at any time by the European Parliament or by the Council. A decision of revocation 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.
4. Before adopting a delegated act, the Commission shall consult experts designated by each Member State in accordance with the principles laid down in the Interinstitutional Agreement of 13 April 2016 on Better Law-Making.
5. As soon as it adopts a delegated act, the Commission shall notify it simultaneously to the European Parliament and to the Council.
6. A delegated act adopted pursuant to Articles 7(5), 7(6); 19(11), 19(14), 25(6) and 28(5) 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

Transposition

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive by 30 June 2021, at the latest. They shall immediately communicate the text of those measures to the Commission.

When Member States adopt those measures, they shall contain a reference to this Directive or shall 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 Directives 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 34

Repeal

Directive 2009/28/EC, as amended by the Directives listed in Annex XI, Part A is repealed with effect from 1 January 2021, without prejudice to the obligations of the Member States relating to the time-limits for the transposition into national law of the Directives set out in Annex XI, Part B **and without prejudice to the obligations of Member States in 2020 as set out in Article 3(1) and Part A of Annex I of Directive 2009/28/EC.**

References to the repealed Directive shall be construed as references to this Directive and shall be read in accordance with the correlation table in Annex XII.

Article 35

Entry into force

This Directive shall enter into force on 1 January 2021 .

Article 36

Addressees

This Directive is addressed to the Member States.

Done at Brussels,

For the European Parliament

The President

For the Council

The President