

Consultation on the Review of Directive 2018/2001/EU on the promotion of the use of energy from renewable sources

Fields marked with * are mandatory.

Introduction

This consultation aims to collect views and suggestions from stakeholders and citizens in view of the possible proposal for a revision of Directive 2018/2001/EU on the promotion of the use of renewable energy (RED II), planned for 2021.

Renewable energy is produced using the earth's natural resources, like sunlight, wind, water resources (rivers, tides and waves), heat from the earth's surface, or biomass. Using renewable energy, instead of fossil fuels, substantially reduces the emission of greenhouse gases, which is why renewable energy is also referred to as 'clean energy'.

Today, the energy sector is responsible for more than 75% of the EU GHG emissions, so increased uptake of renewable energy alongside energy efficiency has a key role to play in reducing GHG emissions in a cost-effective way. More energy from renewable sources also enhances energy security, creates growth and jobs, reduces air pollution when not based in combustion and strengthens the EU's industrial and technological leadership.

The review of RED II is carried out in the context of the European Green Deal[1] in which the Commission committed itself to review and propose to revise, where necessary, "the relevant energy legislation by 2021.

In the European Green Deal the Commission proposed to increase the Union's 2030 greenhouse gas (GHG) reduction target from 40% to at least 50% to 55%, with the objective of climate-neutrality by 2050.

On 17 September 2020, the Commission published its 2030 Climate Target Plan, which presents a new 2030 target of at least 55% net GHG emission reductions compared with 1990 levels on basis of a comprehensive impact assessment. Achieving at least 55% net GHG emissions reductions would require an accelerated clean energy transition with renewable energy seeing its share reaching 38% to 40% of gross final energy consumption by 2030.

This range of 38% to 40% is higher than the binding Union level target for 2030 of at least 32% of energy from renewable energy sources introduced by RED II. It is also higher than the share of renewables, between 33.1% and 33.7%, that would be achieved if Member States complied with the national contributions set in their integrated National Energy and Climate Plans (NECPs) for 2030.

In addition, the Commission has adopted, or will adopt, other strategies containing a number of key actions supporting the increased climate ambition, which could be followed through in the review of REDII. This is the case, for instance, of the Energy System Integration[2] and the Hydrogen Strategies[3], adopted on 8 July 2020, the Renovation Wave Strategy[4], adopted on 14 October 2020, and the Offshore Renewable Energy Strategy, planned for 19 November. In addition, the European Green Deal includes a "Green Oath

to do no harm”, in particular by preserving biodiversity and reducing air pollution. To this end, the Commission adopted on 20 May 2020 an EU Biodiversity Strategy for 2030, which also contains commitments of relevance for the REDII review.

The answers to this questionnaire will feed into the review process of RED II, and more in particular into the impact assessment that the Commission will carry out to assess whether a revision is needed and what revision would be the most appropriate. No evaluation of RED II will be done, since this Directive, adopted in December 2018, has not yet been transposed and implemented by Member States (its transposition deadline is on 30 June 2021), and a full-fledged evaluation of Directive 2009/28/EC (RED I) was done in 2016 when preparing the proposal for RED II.

The questions are formulated to respect the requirements of the Better Regulation rules[5]. The questions are divided into different sections: questions about the identity of respondents, general questions on revising RED II, questions on transversal elements derived from the Energy System Integration and Hydrogen Strategies, and technical questions on specific aspects of RED II, including questions on buildings and offshore renewables, in line with the Renovation Wave and the Offshore Renewable Energy Strategy. If you don't have an opinion on a question, do not reply.

[1] COM(2019) 640 final

[2] https://ec.europa.eu/energy/sites/ener/files/energy_system_integration_strategy_.pdf

[3] https://ec.europa.eu/energy/sites/ener/files/hydrogen_strategy.pdf

[4] https://ec.europa.eu/energy/topics/energy-efficiency/energy-efficient-buildings/renovation-wave_en#documents

[5] https://ec.europa.eu/info/law/law-making-process/planning-and-proposing-law/better-regulation-why-and-how_en

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Please note that this questionnaire will be available in all EU-languages as from 09/12/2020.

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Jeremy

* Surname

Nicholson

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* Organisation name

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IFIEC Europe

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1. General questions on the review and possible revision of the Renewable Energy Directive

REDII provides a general framework for the promotion of energy from renewable within the Union in order to ensure the achievement of the binding EU renewable energy target of at least 32% by 2030. It sets out rules on support schemes for renewable energy, on guarantees of origin for energy from renewable sources, on administrative procedures, on the integration of renewable sources in buildings, on selfconsumption and renewable energy communities, and on renewable energy in heating and cooling and in transport. It also sets out sustainability and GHG emissions criteria for bioenergy.

On 17 September 2020, the Commission published its 2030 Climate Target Plan, where it presents an at least 55% net target for GHG emissions reduction in 2030. As result of this increased ambition, the plan indicates that renewables should represent from 38% to 40% of the gross final energy consumption in 2030.

1.1 How important do you think renewable energy will be in delivering the EU's higher climate ambition for 2030 and carbon neutrality by 2050?

- Very important
- Important
- Not very important
- Not important

1.2 Do you think REDII needs to be modified? (multiple answers possible)

- Yes, it needs to be more ambitious as result of the higher climate ambition in the European Green Deal and Climate Target Plan
- Yes, it needs to be more prescriptive to ensure that the EU renewable energy objectives are reached
- Yes, it needs to be less prescriptive, giving Member States more freedom on how to achieve their renewable energy objectives

- Yes, but only those adjustments required to reflect the European Green Deal objectives
- No, it strikes the right balance as it is
- No, even if there could be areas of improvement, legislation should not be modified so shortly after its adoption
- Other

Please specify

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Yes, the REDII needs to be modified. To reduce GHG emissions industry needs to implement new low carbon technologies which still require large amounts of low carbon energy. The challenge of the decarbonization of energy demand remains however huge. In 2017 only 13,9% of the energy consumption is renewable. It should be avoided that a sole focus on increase of the share of renewable energy would result in an increase of energy prices. Production of renewable energy should be stimulated in areas where this is most cost-efficient, in or outside Europe. As the main goal is to reduce GHG emissions and the enormous challenge Europe faces not only the share of renewable energy needs to increase but the GHG reduction potential of all forms of low carbon energy sources (e.g. nuclear energy and synthetic fuels like H₂) should be fully exploited. Therefore the definition of renewable energy and/or the scope of article 3 and 5, the binding overall union target, should be extended so all forms of low carbon energy sources (e.g. synthetic fuels and nuclear) produced in or imported in Europe are included.

1.3 If you answered ‘yes’ to the previous question, which parts of RED II do you think should be amended? (multiple answers possible)

- Overall Union target of at least 32% for renewable energy for 2030
- Target of at least 14% for renewable energy in transport by 2030.
- Indicative target of an annual increase of 1.3% point for renewable energy used in heating and cooling
- Indicative target of an annual increase of 1% point for renewable energy used in district heating and cooling and provisions on access to district heating networks
- Provisions on how to design support schemes for electricity from renewable sources
- Provisions on cooperation mechanisms between Member States
- Provisions on how to promote renewable energy in buildings
- Provisions simplifying administrative procedures for renewables project developers
- Requirements on guarantees of origin for energy from renewable sources
- Provisions on self-consumption and renewable energy communities

- Sustainability and GHG emission saving criteria for energy produced from biomass
- Provisions on sustainable low carbon fuels such as low-carbon hydrogen and synthetic fuels with significantly reduced full life-cycle greenhouse gas emissions compared to existing production
- Other

Please specify

3000 character(s) maximum

The overall Union target of at least 32% for renewable energy, and transport target for 2030 should be amended to include all low carbon energy carriers, self-produced or imported. For example, nuclear power plants are able to provide low carbon electricity energy on base load, at an affordable price. Nuclear energy is the low carbon electricity that best fits with the consumption profile of industry. The energy shall be included in the European road map to low carbon energy.

In order to ensure the origin (renewable, low carbon) of the energy carriers a framework is needed. This framework should be design in a way that avoids double counting of the same amount of renewable or low carbon energy and that does not lead to green washing. The option to extend article 11 “Joint projects between Member States and third countries” to low carbon energy carriers should also be considered. Introduction of new low carbon fuels like low carbon hydrogen and synthetic fuels should be supported. It is however important to differentiate between the support of the production and the use of low carbon fuels as these low carbon fuels are not yet available and are not yet competitive compared to existing fuels.

Innovation in the production of low carbon fuels is crucial in order to develop new production technologies and energy carriers, to optimize production processes and to lower the production costs. At the same time the demand side needs to be supported. New innovation projects need to be stimulated including the use of hydrogen as an energy carrier or as feedstock for example in CCU. These new technologies have high investment and operating costs, and will have to compete with existing technologies. Therefore development of new applications for new energy carriers should not be delayed by extra criteria on e.g. the origin of hydrogen. Extra criteria on the origin of hydrogen would increase the costs of these technologies thereby hampering the further development of the hydrogen market in comparison with electrification where no conditions are required in support for new applications like heat pumps.

The RED sets Sustainability and greenhouse gas emissions saving criteria for members states when implementing financial support schemes to stimulate biofuels, bioliquids and biomass. Where sustainability criteria can be generally applied as normative framework for the use of biomass, It should be stipulated in the RED article 29 that GHG emission saving criteria should be limited to support schemes under the RED and cannot apply to accounting systems that are not financed by the member states (Crediting systems) like the MRR of the ETS which follow international IPCC guidelines of GHG accounting.

Please explain your answer

3000 character(s) maximum

1.4 In which sectors do you think additional efforts to increase the use of renewable energy are most needed for a potentially higher renewables target

for 2030? (multiple answers possible)

- Electricity
- Gas
- Heating and cooling
- District heating and cooling
- Buildings
- Services (including ICT)
- Industry
- Transport
- Agriculture
- Other

Please specify

3000 character(s) maximum

The overall share of consumption of renewable and low carbon energy needs to increase, and this energy should be made available at competitive prices. An assessment is needed what the cumulated energy demand profile of the different sectors (buildings, industry, ...) by 2030 and 2050 could be and how a certain percentage of this demand can be fulfilled by production or import of low carbon energy while ensuring competitive prices. The assessment should include all energy sources and carriers and should not discriminate energy vectors by import restrictions. The main target is to reduce GHG emissions, the way forward must be technology neutral as all technologies are not yet fully developed. The additional effort should therefore not be sector specific but should be based on a holistic view on energy system taken into account GHG reduction options of the different sectors and the global context. The focus should shift from sector specific technology/energy targets to measures to remove barriers to implement already existing technologies while at the same time supporting innovation in new technologies.

1.5 Do you see scope for simplifying RED II or reducing regulatory burdens, including administrative burdens?

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An efficient European scheme should be implemented to provide evidence that a consumer has consumed a certain amount of renewable or low carbon energy, that there is no double counting of the same quantity of energy, that this energy complies with sustainability criteria set in RED II. This wide-European scheme should manage all kind of energies (electricity, biogas, hydrogen...) from wherever they come. Such tool will avoid the risk of frauds, ensure that there is no double counting and prevent green washing..

The review of the REDII offers the perfect opportunity to align this regulation with the main European ambition: reaching climate neutrality by 2050. To reach climate neutrality the European energy networks and the production system need to move to a low carbon energy system that can provide abundant, reliable and competitive low carbon energy for their users. All sectors will have to implement new technologies in order to reduce their GHG emissions. However these new technologies will need low carbon energy. The challenge for the energy sector is therefore huge. Although the development of renewable energy seems promising, the fluctuating production profiles of the locally generated renewable electricity create new challenges as the end-users consumptions profiles are completely different. Renewable energy – let alone electricity – will not be sufficient to provide all sectors with the required amounts of low carbon energy at competitive prices. The main target of the RED II should therefore be aligned to the green deal and should be a low carbon energy target based on the GHG intensity of the energy transport and production system without disturbing the global competitive level playing field. This target should be built on a robust GHG accounting system without extra exemptions or multipliers for specific energy carriers or sectors and should be harmonised across Europe. This green deal target should be pursued on European level and should make use of all the EU low carbon energy production and import opportunities in order to ensure low carbon energy at the most competitive prices. A European budget is needed to support low carbon energy production in Europe where it is most cost-efficient.

1.6 Do you think the level of the 2030 Union target for renewable energy should be raised within the range indicated in the 2030 Climate Target Plan (38 - 40%)?

- Yes
- No, it should be higher than 40%
- Other

Please specify

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Although we agree that the share of renewable and low carbon energy needs to be increased, the main goal remains to reduce GHG emissions. The RED target needs to be made indicative and should include all forms of low carbon energy consumption, without discriminating energy carriers by import restrictions. Any decision to increase the renewable energy target should be based on an assessment of the potential to development the use or the production of renewable energy. The target should not go beyond the assessed potential.

1.7 Should the overall renewable target be binding at EU level or at national level?

- At both levels

- Only at EU level
- Only at national level
- At neither of the levels

2. Technical questions on Transversal Energy System Integration Enablers

In order to achieve climate neutrality cost-effectively the energy system needs to operate in a more integrated manner, across multiple energy carriers, infrastructures and consumption sectors. The Energy System Integration and Hydrogen Strategies published by the Commission in July set the vision to build an integrated energy system fit for climate-neutrality and turn hydrogen into a viable solution. This vision is established around three main pillars: 1) a more circular energy system, with 'energy-efficiency-first' at its core; 2) accelerating the electrification of energy demand, building on a largely renewables-based energy system; 3) promote renewable and low-carbon fuels, including hydrogen, for hard-to decarbonise sectors.

2.1 How important do you consider the following measures to build a more integrated energy system?

	Very important	Important	Not very important	Not important
Apply the Energy-Efficiency-First principle across the whole energy system	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Increase the mobilisation of waste heat, for instance from industry or data centres	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Accelerate the deployment of smart district heating and cooling networks that use renewable energy and thermal storage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Accelerate the use of renewable energy in buildings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Accelerate the use of renewable electricity in industry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Accelerate the use of renewable electricity in the transport sector	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Accelerate the production of renewable liquid fuels	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Accelerate the production of sustainable biogas and biomethane	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increase the production and use of renewable hydrogen	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Accelerate the digitalisation of the energy system	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

Any other view or ideas related to the use of renewables that could contribute to building a more integrated energy system? Please specify.

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The reduction of GHG emissions should prime on the energy efficiency first principle. The electrification of processes reduces the GHG emissions but usually increases the primary energy consumption. The use of renewable fuels reduces GHG emissions but increases the energy consumption when we compared to fossil fuel (e.g. the switch from natural gas fired boiler to biomass fired boiler deteriorates energy efficiency).

The Energy System Integration Strategy recommends to advance towards a more circular energy system, with 'energy-efficiency-first' at its core.

2.2 How do you think the energy efficiency first principle should be reflected in the Renewable Energy Directive?

	Very appropriate	Appropriate	Not very appropriate	Not appropriate
Promote the use of renewables in low-temperature efficient heating systems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Promote the production of heat directly from renewable energy or waste heat with minimal energy transformation	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Promote the installation of thermal energy storage together with the renewable heat generator	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Promote self-consumption of renewable thermal heat	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Promote the reuse of waste heat from industrial sites, data centres, or other sources	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Promote the use of renewable electricity in end-uses across all sectors where this is cost-efficient	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Prioritise the efficient use of renewable electricity by taking into account conversion efficiencies of renewable electricity in different end uses (eg. heat pumps have better efficiency than using hydrogen for space heating)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Provide information to consumers about the energy content of the energy they are purchasing, across carriers and sectors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Prioritise the use of available renewable energy carriers in those end use sectors where they have the greatest decarbonisation impact for each unit of energy consumed	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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Other? Please specify

3000 character(s) maximum

2.3 How appropriate do you think the following measures would be in supporting the electrification of energy consumption?

	Very appropriate	Appropriate	Not very appropriate	Not appropriate
Sectorial targets for electrification of end-use sectors	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Further specific measures for electrification of buildings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Further specific measures for electrification of transport	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Further specific measures for electrification of industry	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Further specific measures for consumer empowerment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Guidance to Member States to address the high charges and levies borne by electricity and ensure the consistency of non-energy price components across energy carriers	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Align taxation of energy products and electricity with EU Climate and Energy Policy goals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Further measures to foster digitalisation	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Further development of interconnections	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Further development of transmission and distribution networks	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other? Please specify

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IFIEC is not in favour of sectorial targets for electrification. However, if sectorial targets for electrification are fixed, it should be done based on the electrification potential of each sector. Financial measures for decarbonizing the energy system are needed to ensure to energy intensive industry a affordable price of low carbon energy. The scheme for financial compensation of indirect CO2 costs passed on in electricity prices shall be extended to all sectors exposed to a risk of carbon leakage. Charges and levies borne by electricity can be tremendous. For industry in international competition those costs shall be capped at an appropriate level that safeguards European industry competitiveness.

Going beyond and building on the existing certification and traceability framework, the Energy System Integration Strategy and the Hydrogen Strategy state that the Commission will consider additional measures to support renewable and low-carbon fuels, possibly through minimum shares or quotas in specific end-use sectors (including aviation and maritime), through the revision of REDII and building on its sectoral targets. Renewable fuels cover sustainable biofuels, bioliquids and biomass fuels, as well as renewable hydrogen and renewable synthetic fuels. Low carbon fuels cover hydrogen and synthetic fuels produced through a variety of processes, but with significantly reduced full life-cycle greenhouse gas emissions compared to existing production. According to the Strategies, the support regime for hydrogen will be more targeted, allowing shares or quota only for renewable hydrogen. They also state that the Commission will propose a comprehensive terminology for all renewable and low-carbon fuels and a European system of certification of such fuels, based notably on full life cycle greenhouse gas emission savings and sustainability criteria, building on existing provisions including in the Renewable Energy Directive.

2.4 How do you consider that “low carbon” fuels that are not renewable but provide significant GHG emissions reduction compared to fossil fuels, such as non renewable hydrogen and synthetic fuels with significantly reduced full life-cycle greenhouse gas emissions compared to existing production, should be treated?

- They should be promoted equally to renewable fuels and thus be mandatorily integrated in any end-use target or quota
- They should be promoted but less than renewable fuels
- Member States should have the freedom to decide whether to promote them alongside renewable fuels in any end-use target or quota
- They should not be promoted

2.5 Do you think the use of hydrogen and e-fuels produced from hydrogen should be encouraged (multiple answers possible)?

- Yes, regardless of the source used to produce them
- Yes, but only if produced from renewable energy
- Yes, but under a certain level of conversion losses

- Yes, but only if produced and used in a way that leads to no or low GHG emissions along their life cycle, compared to the fossil fuel they are replacing
- Yes, but only when its whole value chain is more energy efficient in comparison to alternative energy sources and carriers
- Yes, but only for limited uses where no other alternatives are feasible
- No
- Other

Please specify

3000 character(s) maximum

The use of hydrogen and e-fuels produced from hydrogen offer potential for industry or other sector to reduce their GHG emissions either as energy and for the chemical sector hydrogen will also be important as feedstock. However the market of hydrogen and e-fuels is not developed yet and should be stimulated on production side as well as on the consumption side.

Innovation in the production of low hydrogen and e-fuels is highly needed in order to develop new production technologies and energy carriers, to optimize production processes and to lower the production costs. At the same time the demand side needs to be supported. New innovation projects need to be stimulated including the use of hydrogen as an energy carrier or as feedstock for example in CCU. These new technologies have high investment and operating costs, and will have to compete with existing technologies.

2.6 How effective do you think the following measures would be in supporting the uptake of RES and low-carbon fuels?

	Very appropriate	Appropriate	Not very appropriate	Not appropriate
Minimum shares or quotas of renewable and low carbon fuels, including renewable hydrogen, in specific end-use sectors	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Carbon Contracts for difference[1]	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Supply-side quotas	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Market based support schemes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Supply-side GHG-based targets	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

[1] Carbon contracts for difference are long term contract with a public counterpart that would remunerate the investor by paying the difference between the CO2 strike price and the actual CO2 price in the ETS in an explicit way, bridging the cost gap compared to conventional fossil-based production.

Other? Please specify

3000 character(s) maximum

Competitiveness remains key. We do not support targets or quotas that do not take into account global competitiveness of industrial consumers.

For each support scheme it is important to note that the financing needs to be fixed before the start of the scheme. Any support must be limited in time and budget, digressive and transparently communicated upfront to those financing it.

2.7 How important do you think the following principles are for a robust and comprehensive certification and verification system covering all renewable and low carbon fuels? (Multiple answers possible)

	Very important	Important	Not very important	Not important
The certification and verification system should cover all end-use sectors	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
The certification and verification system should cover all renewable and low carbon fuels	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
The certification and verification system should demonstrate that renewable hydrogen and renewable synthetic fuels are produced from additional renewable electricity	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
The certification and verification system should follow as closely as possible the real energy flows and ensure that consumption of renewable and low carbon fuels takes place in certain target sectors (e. g. transport) in the Union, for instance by using a mass balance system.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
The certification and verification system does not need to follow the real energy flows as it is sufficient to incentivise the promotion of renewable and low carbon fuels independently of where they are consumed in the Union, for instance by using a book-and-claim approach such as for Guarantees of Origin.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The certification and verification system should follow as closely as possible the real energy flows only for liquid renewable and low carbon fuels, but allowing a book-and-claim approach such as for Guarantees of Origin is more appropriate for gaseous renewable and low carbon fuels injected into the natural gas grid	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
The certification and verification system should ensure that the GHG impact of energy conversions along the value chain (e.g. renewable electricity				

used to produce renewable hydrogen) are fully taken into consideration, while avoiding double counting	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Where CO2 is used in the production of a fuel, the certification system should distinguish between fuels using CO2 of fossil origin and CO2 of non-fossil origin	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other principles? Please explain

3000 character(s) maximum

2.8 In the current system, only electricity suppliers are required to certify to consumers the share of energy from renewable sources by guarantees of origin. Do you think that this obligation shall be extended to suppliers of renewable fuels (such as biogas, biomethane or renewable hydrogen) as well, and possibly of “low carbon” fuels?

- Yes, for renewable fuels
- Yes, for renewable fuels and low carbon fuels
- No

2.9 Do you think the cooperation mechanisms set out in RED II should be extended to cover renewable hydrogen regardless of its end use, so that Member States can support renewable hydrogen projects in other Member States and in third countries while counting the energy produced as their own?

- Yes
- No

Please explain your reply

3000 character(s) maximum

To reduce GHG emissions industry needs to implement new low carbon technologies which still require large amounts of low carbon energy. The challenge of the decarbonization of energy demand remains however huge. In 2017 only 13,9% of the energy consumption is renewable. It should be avoided that a sole focus on increase of the share of renewable energy would result in an increase of energy prices. Production of renewable energy should be stimulated in areas where this is most cost-efficient, in or outside Europe. As the main goal is to reduce GHG emissions and the enormous challenge Europe faces not only the share of

renewable energy needs to increase but the GHG reduction potential of all forms of low carbon energy sources (e.g. nuclear energy and synthetic fuels like H₂) should be fully exploited.

The EU's 2050 decarbonisation scenarios and other international reports suggest that renewables, energy efficiency and electrification will have to deliver most of the required emission reductions. However, carbon capture technologies will potentially be needed to create the negative emissions required to reach climate neutrality and address emissions from hard-to-abate sectors.

2.10 Carbon-capture and storage/usage in the EU should play a prominent role in...

	Strongly agree	Agree	Disagree	Strongly disagree
Decarbonising the power sector	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Decarbonising energy intensive industries (e.g. chemicals, cement, steel)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Production of hydrogen (i.e. based on natural gas with CCS)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Creating negative emission / carbon removal, e.g. via CCS applied to bioenergy[1] (BECCS) or direct air capture and storage	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Providing captured CO ₂ as a feedstock for other industries	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2.11 In addition to how CCS and CCU are treated in other EU legislation, do you think REDII should be revised to encourage the uptake of CCS and CCU?

- Yes
- No

Please specify

3000 character(s) maximum

CCU and CCS are technologies that can play an important role in lowering the GHG intensity of the energy system. In addition CCU and CCS should be addressed in other regulations. In particular, under ETS regulation, the rules for monitoring and reporting of emissions should be amended to consider the removal of emissions thanks to CCS and CCU as negative emissions.

3. Technical questions on specific sectors

This section covers specific sectors covered by REDII and asks for your opinion on whether they should be changed/strengthened in order to improve the chances of achieving the EU's 2030 climate ambitions.

3.1 RENEWABLES IN ELECTRICITY

Mobilising private investment for the development in renewables is essential in the context of increased ambition. In REDII, there are new several provisions aiming to promote the use of renewable power purchase agreements (contract under which a natural or legal person agrees to purchase renewable electricity directly from an electricity producer "PPAs").

3.1.1 How would you rank the appropriateness of the following measures in tackling the remaining barriers for the uptake of renewable electricity that matches the expected growth in demand for end- use sectors?

	Very appropriate	Appropriate	Not very appropriate	Not appropriate
Further foster regional cooperation in the deployment of renewable electricity	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Further streamline permitting procedures	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Further support the uptake of private renewable PPAs	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Establish minimum mandatory green public procurement (GPP) criteria and targets in relation to renewable electricity	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Further support the uptake of energy communities and self-consumption	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other? Please specify

3000 character(s) maximum

For long term PPAs, guarantee mechanisms should be foreseen to address the risks of the loss of electricity consumers during the contract.

3.1.2 How do you think regional cooperation in deploying renewables electricity could be further promoted?

3000 character(s) maximum

3.1.3 How appropriate do you think the following measure would be in promoting the use of private renewable power purchase agreements?

	Very appropriate	Appropriate	Not very appropriate	Not appropriate
Financial solutions/instruments	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Removing administrative/legal barriers	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Creating green labels for buyers of renewables-based products	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
None, market participants are already actively engaging	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

Other? Please specify

3000 character(s) maximum

It is not necessary to create a new scheme for green labels because it already exists today a scheme for guarantee of origin for renewable electricity. This scheme should be extended to all kind of energies in a full harmonized European registry.

Public authorities, thanks to their purchasing power and often high electricity consumption, can be real drivers for change. RED II does not contain any provisions on renewable energy obligations in public procurement.

3.1.4 Should there be specific obligations for public authorities to contribute to achieving a high level of renewable energy (multiple answers possible)?

- Yes, all public authorities should be obliged to buy green energy
- Yes, but only larger public authorities should be obliged to buy green energy
- Yes, but only if it does not cost more
- Yes, but only if the green tender is likely to trigger investment in additional green energy generation
- No

Please explain your reply

3000 character(s) maximum

3.1.5 Do you think modifying REDII would be appropriate in order to further promote offshore renewable energy, following the adoption of the EU

Offshore Renewable Strategy?

3000 character(s) maximum

RED II should foresee some provisions to finance the connection costs of offshore renewable energy to the electricity grid. Connection costs shall not be bare by Transmission System Operators and Distribution System Operators but by developer of the project.

3.2 RENEWABLES IN HEATING AND COOLING

Under REDII, Member States must endeavour to increase the share of renewable energy in heating and cooling by an indicative 1.3 percentage point (ppt) per year up to 2030. Sources of waste heat and cold can be counted towards the 1.3 ppt up to 40%, and in Member States where waste heat or cold is not used, the yearly increase that the Member States must endeavour to achieve is 1.1 ppt.

The impact assessment accompanying the 2030 Climate Target Plan indicates that the share of renewable energy in heating and cooling would constitute around 40% in 2030. This would require an increase of the share of renewable energy in heating and cooling in Member States significantly higher than the yearly increase of 1.3 ppt.

3.2.1 How appropriate do you consider the following options for increasing the uptake of renewable energy in heating and cooling?

	Very appropriate	Appropriate	Not very appropriate	Not appropriate
Increased energy efficiency	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Direct renewable heat use (from sustainable biomass, geothermal, solar thermal...)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Direct renewable electricity use (in electric heat pumps using ambient energy)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Use of renewable gases	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Use of district heating and cooling networks that can supply in the same system waste heat and renewable heat	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other? Please explain

3000 character(s) maximum

Direct renewable heat use like geothermal, sustainable biomass cannot be implemented everywhere in Europe. It depends on the type of heat needed (low, medium or high temperature), on the sector (industry or buildings) and on the place where the heat consumers is located and the geological characteristic of the geographical location. It must be implemented only where the conditions are met (for example close to geothermal sources or forests...)

3.2.2 Should the current indicative target of 1.3 ppt (or 1.1 ppt, if waste heat and cold is not used), annual average increase of renewable energy in heating and cooling set for the period of 2021-2030 in Article 23 become a binding target for Member States?

- Yes
- No

3.2.3 Should the annual average target of 1.3 ppt be increased?

- Yes, to the level leading to the 40% share of renewable energy in heating and cooling indicated in the Climate Target Plan
- Yes, to a lower level than that leading to the 40% share of renewable energy in heating and cooling indicated in the Climate Target Plan
- Yes, to a more ambitious level than that leading to the 40% share of renewable energy in heating and cooling indicated in the Climate Target Plan
- No

Under REDII, neither renewable electricity nor hydrogen and synthetic fuels produced from renewable electricity that is used for heating and cooling can be counted towards the target for heating and cooling, only thermal heating produced from renewable energy sources.

3.2.4 Do you think renewable electricity used for heating and cooling should be counted towards the target for heating and cooling?

- Yes
- No

3.2.5 Do you think that renewable hydrogen and synthetic fuels produced using renewable electricity and used in heating and cooling should be counted towards the target for heating and cooling?

- Yes
- No

The current Article 23 of REDII provides a list of measures that Member States can use to increase the share of renewables in heating and cooling. These are physical incorporation of renewables in energy fuels supplied, direct and indirect mitigation measures (e.g. installation of renewable heating systems), and other policy measures, e.g. fiscal measures and financial incentives.

3.2.6 Do you think the list of measures provided in the Directive that Member States can use to increase the share of renewables in heating and cooling should be expanded or made more detailed?

- Yes
- No

3.2.7 Do you think these measures should be made binding?

- Yes
- Only some of them
- No

3.2.8 How would you rank the appropriateness of the following measures in increasing the share of renewable energy in heating and cooling?

	Very appropriate	Appropriate	Not very appropriate	Not appropriate
Pricing instruments (taxes, levies and charges)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
EU guidance on support schemes for renewable heating and cooling	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Renewable heating and cooling obligation on energy suppliers	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Stricter product regulation for heating and cooling appliances to ensure that gradually only renewable and climate neutral heating technologies can be placed on the market	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Binding regulations on technical building systems for heating and cooling	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mandatory heat planning and implementation at the appropriate level (local, municipal, regional) to ensure fulfilling the renewable heating and cooling target	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

Strengthen corporate energy purchase agreements for heating and cooling



Other? Please specify

3000 character(s) maximum

3.2.9 Which of the following measures do you think could be appropriate to encourage public authorities to identify renewable heating and cooling potentials and plan their exploitation?

	Very appropriate	Appropriate	Not very appropriate	Not appropriate
Strengthening the obligation to assess renewable potentials for heating and cooling in the frame of the comprehensive heating and cooling assessments under Article 14 (1) of EED and Article 15(4) of REDII	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A separate assessment obligation of renewable potentials for heating and cooling under RED II	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mandatory long-term strategies for decarbonising heating and cooling with binding milestones and measures taking into account synergies with other policy areas, such as the comprehensive heating and cooling assessments under Article 14 (1) of the EED and the longterm building renovation strategies under Article 2a of the directive amending the EPBD.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other? Please specify

3000 character(s) maximum

3.3 RENEWABLES IN DISTRICT HEATING AND COOLING

Efficient district heating and cooling can play an important role in mainstreaming renewable energy in heating and cooling. Under REDII Member States must endeavour to increase the share of renewable energy in district heating and cooling by an indicative 1 percent point per year up to 2030. Alternatively, Member States must ensure, subject to limited exceptions, that third party suppliers can connect and sell renewable energy and waste heat or cold to district energy networks. The 1 ppt target of

annual average increase in renewables can be fulfilled by waste heat and cold in district heating networks (waste heat flexibility).

3.3.1 Should the current indicative target of 1 ppt annual average increase of renewable energy in district heating and cooling set for the period of 2021-2030 become a binding target?

- Yes
- No

3.3.2 Should the level of the current indicative target of 1 ppt annual average increase of renewable energy in district heating and cooling be increased?

- Yes
- No

3.3.3 How would you rank the appropriateness of the following measures in encouraging the use of waste heat and cold by district heating and cooling networks?

	Very appropriate	Appropriate	Not very appropriate	Not appropriate
Obligation for district heating and cooling network operators to connect waste heat and cold suppliers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Obligation for industrial and service sector companies (e.g. data centres) producing significant waste heat and cold to make available their waste heat and cold to district heating and cooling companies	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Requirement for the relevant competent authorities to encourage cooperation between industrial and service sector companies	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Requirement for the relevant competent authorities to prepare the necessary plans (heat plans, energy plans, energy infrastructures plans, spatial plans, etc.), policies or regulations enabling the feeding of waste heat and cold into district networks	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Specific target for waste heat and cold use	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

Other? Please specify

3000 character(s) maximum

The recovery of waste industrial heat requires usually investments (heat exchangers, heat grid...), that are not profitable. Financial supports are needed to develop such projects. It could not be mandatory in case of excessive costs.

3.3.4 Do you consider that third party access to district heating networks by renewable heat suppliers should be strengthened?

- Yes
- No

Please explain your reply

3000 character(s) maximum

3.3.5 Which of the following measures do you think would be appropriate in strengthening the rights of consumers in district heating and cooling networks?

	Very appropriate	Appropriate	Not very appropriate	Not appropriate
Improve information to consumers on the energy performance and renewable shares of district heating and cooling, including to low-income and vulnerable consumers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increased transparency of heat and cold supply prices to consumers and their components (e.g. energy and, network costs, taxes, levies)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Strengthen disconnection [1] rules for consumers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Make it easier for consumers to switch to renewable supplies within a network via either a single buyer model or third party access or guarantees of origin	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Make it possible for consumers to feed renewable heat or waste heat and cold into the network (prosumer rights)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

[1] RED II allows customers to disconnect from those district heating or cooling systems that are not efficient or do not become efficient by 31 December 2025, in order to produce heating or cooling from renewable sources themselves.

Other? Please specify and/or explain your choice of the previous questions.

3.3.6 How appropriate do you think the following measures are in making district heating and cooling systems be better integrated within the overall energy system?

	Very appropriate	Appropriate	Not very appropriate	Not appropriate
Better coordination with electricity and gas TSOs and DSOs to plan network investment and integrate flexibility to maximise renewable integration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Removing barriers to renewable thermal energy storage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Promotion of the use of flexible renewable generation capacities (e.g. heat pumps, cogeneration, power to heat)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Better integration of district heating and cooling systems in EU, national and local energy infrastructure planning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Better integration of variable renewable electricity and heat in urban planning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3.4 RENEWABLE ENERGY IN BUILDINGS

Buildings account for 40% of energy use in the EU, and heating and cooling is responsible for around 50-80% of that energy consumption. Three quarters of heating and cooling in buildings is still supplied from fossil fuels. The EU building stock should be carbon-neutral by 2050. The Renovation Wave initiative aims to address the current low renovation rates across the EU and accelerate the transformation of the EU building stock into a highly energy efficient and decarbonised building stock by 2050. Contributing in this perspective, REDII requires Member States to introduce measures in their building regulations and codes to increase the share of energy from renewable sources in the building sector, but does not set any particular target or level for this. On average the percentage use of renewables in buildings is 23.5%.

3.4.1 Do you think that Member States should require a minimum percentage of renewable energy in the energy use of new buildings or buildings subject to major renovation?

- Yes
- Yes, only for new buildings
- Yes, only for buildings subject to major renovation
- No

3.4.2 If yes, what minimum percentage of energy consumed by a building do you think must come from renewable sources?

- 10%
- 20%
- 30%
- 40%
- 50%
- 100%
- Other

3.4.3 How would you rank the following measures in terms of their appropriateness in ensuring that buildings' heating and cooling systems are increasingly based on renewable energy while fossil fuels are gradually phased out?

	Very appropriate	Appropriate	Not very appropriate	Not appropriate
Set minimum renewable energy levels (see 3.4.1) in REDII and ensure conformity in building regulations and codes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Simplify permitting and administrative procedures for the integration of renewable energy solutions in buildings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Set minimum renewable energy shares for heating and cooling in national building stocks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Set specific renewable energy requirements at district or neighbourhood levels, i.e. nearly zero-energy districts.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Extend REDII provisions on selfconsumption, applicable to electricity, to heating and cooling	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Strengthen consumer information and accessibility of measures to deploy renewables in buildings' heating and cooling systems, in particular in low-income or vulnerable households	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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Other? Please specify

3000 character(s) maximum

Heating systems in building are generally replaced when they break down, usually during winter when it is urgent, leading to suboptimal decisions favouring replacement with the same, generally fossil fuel appliance. A planned replacement of heating systems would enable consumers to make informed choices and prepare the installation of renewable and more efficient heating.

3.4.4 How would you rank the appropriateness of the following measures in improving the replacement of heating systems, in particular to encourage the replacement of fossil fuel appliances by renewable heating systems?

	Very appropriate	Appropriate	Not very appropriate	Not appropriate
Heating system replacements should be coordinated with and be part of building renovation whenever there is major renovation of a building or at other trigger points in the life-cycle of a building for carrying out energy efficiency renovations [1].	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Building renovation programmes (at national, municipal and district levels) should specifically support the modernisation of heating systems by their replacement with renewable technologies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Energy Performance Certificates and heating system inspections should indicate recommended dates, steps and possible options for renewable heating systems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
National building renovation strategies should specifically address the transition from fossil fuel to renewable and climate neutral heating with related investment plans	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fossil fuel heating systems replacement with renewable and other climate neutral				

ones (like waste heat) should be part of neighbourhood and district approaches to building renovation and urban renewal programmes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Information campaigns should also target heating system replacement programmes with appropriate advice and information, including regarding financing and public support opportunities and solutions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Digitalization should give early warnings on the need for repair/maintenance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

[1] A trigger point could be: a transaction (e.g. the sale, rental or lease of a building, its refinancing, or a change in its use) a renovation (e.g. an already planned wider non-energy-related renovation).

Other? Please specify

3000 character(s) maximum

3.5 RENEWABLE ENERGY USE IN INDUSTRY

Industry is a big energy user being responsible for 25% of the final energy consumption. However currently there are no specific provisions or targets related to the use of renewable energy for the sector. The Commission’s Energy System Integration Strategy and Hydrogen Strategy have however identified industry as an economic sector where rapid progress is required to increase the use of renewable energy, be it through direct use of renewable heat, through electrification, or through the use of renewable and lowcarbon fuels to replace fossil fuels as feedstock and fuel.

3.5.1 Do you think there should be an obligation on industry or certain industrial sectors to use a minimum amount of renewable energy?

- Yes, on industry in general
- Yes, but for specific industries only
- No

3.5.2 How would you rank the appropriateness of the following additional measures to encourage the use of renewable energy in industry?

	Very appropriate	Appropriate	Not very appropriate	Not appropriate
Creation of renewables-based industrial parks/clusters	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

Technical support, including training and skills development, for uptake and integration of renewables in small- and medium-size enterprises	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Specific innovation programmes to develop renewables- and electricity based production processes	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Energy audits required under the Energy Efficiency Directive should cover renewable energy used by the enterprise	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Simplified permitting and administrative support for corporate sourcing of renewables, including for on-site and near-site generation as well as corporate renewable power purchase agreements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Contracts for difference for zero-carbon products and services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

Other? Please specify

3000 character(s) maximum

Contracts for difference offer potential as a new instrument that can help industry to implement new low carbon energy. It is however crucial to note that the EU is working towards climate neutrality and not towards a zero-carbon economy.

3.6 RENEWABLE ENERGY IN TRANSPORT

Under REDII, each Member State must set an obligation on fuel suppliers to ensure that renewable energy makes up at least 14%^[1] of the energy used in that Member State in the transport sector.

The achievement of the target is facilitated by **several multipliers on energy content**:

- a multiplier of 4 for renewable electricity consumed in **road transport**
- a multiplier of 1.5 for renewable electricity consumed in **rail transport**
- a multiplier of 1.2 for renewable fuels consumed in **maritime and aviation transport**
- a multiplier of 2 for advanced **biofuels and biogas**

The impact assessment accompanying the 2030 Climate Target Plan indicates that the share of renewable energy in transport would constitute around 24% in 2030, calculated according to the methodology described above. Both the aviation and maritime sectors will need to scale up efforts to increase the use of sustainably produced renewable and low-carbon fuels. This will be assessed in greater detail in the context of the ReFuelEU Aviation and FuelEU Maritime initiatives.

[1] Member States have the right to lower their target if they set limitations on food and feed-based biofuels going beyond RED II

3.6.1 Do you think that the level of the renewable target in transport should be increased?

- Yes, but less ambitious than indicated in the 2030 Climate Target Plan
- Yes, as ambitious as indicated in the 2030 Climate Target Plan (24%)
- Yes, but more ambitious than indicated in the 2030 Climate Target Plan (for instance 24% without multipliers)
- No

Please explain your reply

3000 character(s) maximum

3.6.2 Member States can count renewable electricity, sustainable biofuel and biogas, hydrogen produced from renewable electricity (except if such electricity comes from biomass) and recycled carbon fuels[1] towards the 14% target in transport. Do you think Member States should also be able to count other low carbon fuels which have fewer emissions than fossil fuels, such as low carbon hydrogen?

- Yes
- No

[1] 'recycled carbon fuels' means liquid and gaseous fuels that are produced from liquid or solid waste streams of non-renewable origin which are not suitable for material recovery in accordance with Article 4 of Directive 2008/98/EC, or from waste processing gas and exhaust gas of non-renewable origin which are produced as an unavoidable and unintentional consequence of the production process in industrial installations.

3.6.3 Do you think that some renewable and low carbon fuels should be specifically promoted in transport, beyond being part of the obligation on fuel suppliers ?

- Yes
- No

3.6.4 If you answered 'yes' to the previous question, which of the following types of renewable and low carbon fuels do you think should be specifically

promoted ? (Multiple answers possible)

- Advanced biofuels and other fuels produced from biological wastes and residues
- Renewable hydrogen and renewable synthetic fuels
- Low-carbon hydrogen and low carbon synthetic fuels (including through applying CCS techniques)
- Renewable electricity
- Recycled carbon fuels
- Other

3.6.5 Which types of renewable and low carbon fuels can be best promoted by an obligation on fuel suppliers, based either on energy content or GHG emissions, compared to other instruments?

- Liquid renewable fuels
- Liquid low carbon fuel
- Gaseous renewable fuels such as hydrogen
- Gaseous low carbon fuels such as hydrogen
- Renewable electricity
- Other

3.6.6 How would you rate the appropriateness of the following measures regarding the use of renewable and low carbon fuels in transport?

	Very appropriate	Appropriate	Not very appropriate	Not appropriate
The scope of fuels that can be counted should be harmonised to ensure that all fuels that are eligible for counting towards the renewable energy target are supported in all Member States	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Member States should have flexibility to design the supply obligation using one of the following approaches: in terms of volume, energetic value or GHG emission intensity.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The fuels supply obligation should be based on GHG emissions targets to				

stimulate the uptake of best performing fuel options on the fuel market	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The level of ambition should be fixed at the same level for all Member	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
States to create a level playing field and avoid market fragmentation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The multiplication factors for different types of renewable energy sources should be abolished to simplify the legislation and to increase the ambition level (limitations and sub targets would remain)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Set out specific measures to promote the use of renewable and low carbon fuels in aviation and maritime transport such as dedicated supply obligations, sub-targets or other incentives.[1]	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

[1] In parallel, the ReFuelEU Aviation and FuelEU Maritime initiatives are assessing legislative options to boost the production and uptake of sustainable fuels in the aviation and maritime sectors.

Other? Please specify

3000 character(s) maximum

3.6.7 How appropriate do you think the following measures would be in encouraging the use of hydrogen and hydrogen-derived synthetic fuels in transport modes that are difficult to decarbonise?

	Very appropriate	Appropriate	Not very appropriate	Not appropriate
Include hydrogen and hydrogen-derived synthetic fuels in a dedicated sub-target together with advanced biofuels	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Set an additional dedicated sub-target for hydrogen and hydrogen-derived synthetic fuels	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Allow double counting of the contribution of hydrogen and hydrogen-derived synthetic fuels towards the transport target or the fuel supplier obligation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other? Please specify

3000 character(s) maximum

3.6.8 How would you rank the effectiveness of the following measures in encouraging the use of renewable electricity in the transport sector?

	Very appropriate	Appropriate	Not very appropriate	Not appropriate
Support the purchase of electric vehicles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Support the installation of electric vehicle chargers in households and enterprises	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Set stricter CO2 standards for cars	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ensure the availability and interoperability of public recharging infrastructure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Establish a minimum level of renewable electricity as a part of the target for renewable energy in transport	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Giving consumers information on whether they are recharging their electric vehicle with renewable energy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other? Please specify

3000 character(s) maximum

3.7 BIOENERGY SUSTAINABILITY

The Biodiversity Strategy[1] acknowledges that, to mitigate climate and environmental risks created by the increasing use of certain sources for bioenergy, REDII already includes strengthened sustainability criteria (to be implemented on the ground starting 1 July 2021 at the latest) and promotes the shift to advanced biofuels. According to the Strategy, the use of whole trees and food and feed crops for energy production should be minimised. Moreover, the Farm to Fork Strategy for a fair, healthy and environmentally-friendly food system[2] contains concrete measures for a sustainable use of biomass. The Commission is continuously assessing the EU and global biomass supply and demand and related sustainability. An ongoing study on the use of forest biomass for energy production is expected to be finalised and published by the end of 2020. This will inform the Commission's policy-making, including the review and revision, where necessary, of the level of ambition of the Renewable Energy Directive. In order for Member States to count energy from forest biomass towards their renewable energy targets, Article 29 paragraphs 6-7 of REDII requires that the country of origin has laws in place to ensure the legality of harvesting and forest regeneration. If that cannot be shown, sustainability compliance must be shown at the level of the biomass sourcing area (e.g. through forest management certification or equivalent tools)

3.7.1 Do you think the sustainability criteria for the production of bioenergy from forest biomass in RED II should be modified? (only one reply possible)

- Yes, they should be made stricter
- No, they should not be modified

Please explain your reply

3000 character(s) maximum

The sustainability criteria should be applicable to all biomass, regardless of their use. The RED sets Sustainability and greenhouse gas emissions saving criteria for members states when implementing financial support schemes to stimulate biofuels, bioliquids and biomass. It should be stipulated in the RED article 29 that GHG criteria cannot apply in accounting systems that are not financed by the member states (Crediting systems) like the MRR of the ETS which follow international IPCC guidelines for GHG accounting.

3.7.2 The obligation to fulfil sustainability criteria for biomass and biogas in heat and power applies to bioenergy installations of at least 20 MW for solid biomass and 2 MW for biogas. Should these thresholds be lowered to include smaller installations?

- Yes
- No

3.7.3 Do you think that there should be limits on the type of feedstock to be used for bioenergy production under REDII?

- Yes, it should only be possible to use feedstock listed in Part A) of Annex IX of REDII[1] (therefore excluding used cooking oil and animal fats)
- Yes, it should only be possible to use the feedstock listed in Part A) and Part B) of Annex IX of REDII
- Yes, it should only be possible to use wastes and residues
- Yes, it should only be possible to use feedstock that does not have higher added-value in nonenergy sectors
- Yes, in some other way
- No

Please explain your answer

3000 character(s) maximum

Yes, it should only be possible to use feedstock that does not have higher added-value in nonenergy sectors. If the Commission wants to limit the type of feedstock to be used for bioenergy production, an assessment is needed on the impact of this decision on the feasibility of the RED II target - and if needed, a revision of this target.

3.7.4 Do you think that the minimum GHG emission saving thresholds for biomass in heat and power, currently at 70% for installations starting operation from 2021 and at 80% for installations starting operation from 2026, should be extended and/or made stricter? (multiple answers possible)

- Yes, by extending them to heat and power installations that started operation before January 2021
- Yes, by increasing the threshold for GHG emission savings
- No
- Other

3.7.5 Do you think that the energy efficiency requirements applying to bio electricity-only installations (article 29, paragraph 11) should be made more stringent (multiple answers possible)?

- Yes, they should be extended to plants of less than 50 MW total rated thermal input
- Yes, the energy efficiency requirements should be higher
- No
- Other

Please specify

3000 character(s) maximum

Primary energy shall be used in the most efficient way. For the generation of electricity from fuels, the most efficient process is cogeneration and not electricity-only installations. It is the reason why for those installations that generate only electricity, the requirements of energy efficiency directive shall be applied whatever the generation capacity.

