

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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Lea

* Surname

Weisbrod

* Email (this won't be published)

lea.weisbrod@shell.com

* Organisation name

255 character(s) maximum

Shell*

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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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Increased production and use of renewable energy are critical for the EU to become climate neutral by 2050 and to meet the updated greenhouse gas emissions (GHG) reduction target of 55% in 2030 vs 1990 levels. The overall EU renewable (RES) target should be increased to be in line with meeting the 55% GHG reduction target in 2030. Member States should be required to prepare a plan that fully lays out their "trajectories" for the shares of renewable energy in each sector to meet the overall target.

A targeted and coherent mix of policies in sectors can help stimulate demand and encourage supply, thereby accelerating GHG reductions and encourage the uptake of renewables across all economic sectors simultaneously. The upcoming review of the RED can provide the supplementary incentives, including targets, needed to accelerate investments and the creation of sectoral markets for renewable and low carbon energy, especially in hard to abate sectors such as industry and transport. The revision of RED should:

- provide support to increase renewable electricity production, especially offshore wind;
- increase the use of renewables and low carbon fuels in heating and cooling and district heating;
- create an emerging market for use of renewables in industry as a priority and provide for an extension to low carbon fuels, including low carbon hydrogen and hydrogen-derived synthetic fuels made with "waste CO/CO2". Allow Member States to provide fiscal support;
- continue to support use of renewables in transport and extend compliance to low carbon fuels.

Any increase in renewable energy targets that overlaps with the scope of the EU ETS (power, industry and intra-EU aviation, and potentially maritime) must be accompanied by parallel measures to ensure that all policy mechanisms interact and complement each other. The increase in renewable energy targets should also recognise potential industrial competitiveness impacts. Additional rules that protect these sub sectors from carbon leakage risk should be implemented simultaneously to avoid loss of competitiveness.

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

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RED can provide the supplementary incentives, including targets, to accelerate investments and creation of sectoral markets for renewable and low carbon energy.

- The overall target should be increased to meet the -55% GHG target in 2030.
- The revision of RED should not undermine a robust carbon price incentive and the EU ETS.
- While RED should continue to support renewables as a priority, a limited extension of its scope to include low carbon fuels, such as low carbon hydrogen and hydrogen-derived synthetic fuel made with waste CO₂ /CO₂ as valid compliance options provided that they deliver a minimum threshold of GHG savings. This would enable additional decarbonisation levers to implement the 2030 targets.
- If an industry target is introduced, it can be set either as: 1) a minimum share of renewable and low carbon energy, 2) a minimum GHG emission savings target, or 3) a renewable and low carbon hydrogen target. The obligated party should be the same industrial consumers as the EU ETS.
- Member States should be allowed to provide fiscal and financial policy instruments to stimulate investment in renewable and low carbon products production facilities. RED should also include other bankable policies such as a durable purchase agreement, eg Carbon Contracts for Difference (CCfD) or a performance-oriented production tax credit.
- There should be a gradual convergence of national Guarantee of Origin (GoO) schemes towards an EU wide market with full cross border trading. GoOs should be extended to cover low carbon hydrogen produced from either natural gas combined with CCUS or catalytic transformation of methane. There should be an integrated system of tradable credits for all gases, low carbon and renewable, rather than separate systems for low carbon gases and hydrogen.
- The target for heating and cooling and district heating should be binding at Member State level and increased in line with a higher 2030 RES target.
- The existing criteria and thresholds regulating operation and access to district heating networks should be revisited to provide easier access for suppliers and support greater independence of networks from heat sources and trade & supply.
- Commercial and industrial sites should be encouraged to decarbonise through on-site renewable or low carbon self-consumption. Barriers for self-consumption and disproportionate administrative procedures for self-consumers should be removed.
- The transport target should be increased to up to 26% to meet the 55% GHG reduction target in 2030 and can be set as either an energy or a carbon intensity savings target. It should be part of a wider fiscal and financial policy framework.
- Feedstock availability is critical for investments in biofuels. The revision to RED II must provide long term certainty with regards to acceptable feedstocks. Feedstock choices must not be overly constrained; feedstock flexibility is needed at the outset to de-risk technology pathways.

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

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

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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

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 checked="" type="radio"/>	<input type="radio"/>	<input 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 checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Accelerate the use of renewable energy in buildings	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Accelerate the use of renewable electricity in industry	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Accelerate the use of renewable electricity in the transport sector	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Accelerate the production of renewable liquid fuels	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Accelerate the production of sustainable biogas and biomethane	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increase the production and use of renewable hydrogen	<input checked="" type="radio"/>	<input 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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Shell supports a sectoral approach as a guiding principle for the implementation of the EU Green Deal, particularly for the hard to abate sectors in transport, energy-intensive industry and buildings. A sectoral approach should consist of policy measures to accelerate and synchronise demand and supply for low carbon energies, such as renewable power, clean hydrogen, and biofuels. Policies should incorporate support for infrastructure to transport and deliver low carbon energies at scale. A sectoral approach can

accelerate and enable a pathway to Net Zero Emissions*. Within this, the RED has an important role to play to kick start emerging markets, alongside other measures such as energy efficiency, carbon pricing and infrastructure support.

*It is important to note that, while Shell is supportive of the EU target of net-zero greenhouse gas emissions by 2050, its current business plans are not consistent with the proposed EU target. Shell's aim is that, in the future, its operating plans and budgets will change to reflect this movement towards its Net-Zero Emissions ambition, in step with the movement towards a Net Zero Emissions economy within society and among Shell's customers.

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 checked="" 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 type="radio"/>	<input checked="" 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 checked="" type="radio"/>	<input 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 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 type="radio"/>	<input checked="" 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 checked="" 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 type="radio"/>	<input type="radio"/>
Further specific measures for electrification of buildings	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Further specific measures for electrification of transport	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Further specific measures for electrification of industry	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Further specific measures for consumer empowerment	<input type="radio"/>	<input checked="" 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 checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Further measures to foster digitalisation	<input type="radio"/>	<input checked="" 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 checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other? Please specify

3000 character(s) maximum

Renewable electricity should continue to be a compliance option under RED II and its sectoral targets. The scope of the revised RED II could be extended to cover the use of renewables on industrial sites. A target for industry should be considered as a supplementary incentive to the EU ETS and a continuous rising carbon price. If an industry target is introduced it can be set as either as:

- 1) a minimum share of renewable and low carbon energy;
- 2) a minimum GHG emission saving;

Options for compliance should include renewable electricity, renewable gas such as biomethane and low carbon fuels such as hydrogen.

- 3) a target for renewable and low carbon hydrogen.

The obligated party should be the same industrial consumers obligated to participate in the EU ETS.

Further, industrial sites should be encouraged to decarbonise through on-site renewable or low carbon self-consumption. Member States should remove barriers for self-consumption and not apply disproportionate administrative procedures for self-consumers. For instance:

- the definition of self-consumers could extend beyond individual multi-tenanted buildings and multi-apartment blocks to multi building/company industrial areas, building parks or separate buildings that are placed on the same premises or on premises that are otherwise linked;
- measures to facilitate the development of “medium” sized renewable or low carbon installations should be clarified. Such installations fall under a regulatory “grey area” in the current European framework, which defines specific provisions for installations under 30kW and above 1MW but do not address the characteristics of C&I self-consumption installations, which are commonly medium-sized.

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

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 checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Carbon Contracts for difference[1]	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Supply-side quotas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Market based support schemes	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Supply-side GHG-based targets	<input type="radio"/>	<input type="radio"/>	<input 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

Shell believes that a robust carbon price from an effective emissions trading system provide the most cost-efficient option to reduce emissions across the power and industrial sectors. However, the carbon price incentive delivered by the EU ETS is insufficient to drive investment at the pace needed to meet the EU's 2030 climate targets as well as EU Hydrogen Strategy's ambitions, particularly for some of the technologies such as low carbon and renewable hydrogen or Sustainable Aviation Fuels (SAF) needed to decarbonise hard to abate sectors. Therefore, Shell believes that sectoral, targeted and a coherent mix of policies can help stimulate demand and encourage supply, and so accelerate GHG reductions across all economic sectors simultaneously. The RED II revision can provide the supplementary incentives, including targets, needed to accelerate investments and the creation of sectoral markets for renewable and low-carbon energy, especially in hard to abate sectors such as industry and transport. In addition to sectoral targets, it is crucial that Member States are allowed to provide fiscal and financial policy instruments such as loan guarantees, accelerated depreciation or other investment tax credits, and award grants to renewable and low carbon fuel/product production facilities. RED should also include other bankable policies for the products such as a durable purchase agreement, e.g. Carbon Contracts for Difference (CCfD) or a performance-oriented production tax credit of sufficient duration to cover the project's lifetime. If Member States use CCfD, they should be based on the volumes of low carbon material produced and awarded via auctions. See also our answer to Question 1.3

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 checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The certification and verification system should cover all renewable and low carbon fuels	<input checked="" type="radio"/>	<input 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 checked="" type="radio"/>	<input 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 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 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 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 type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other principles? Please explain

3000 character(s) maximum

Guarantees of Origins (GoOs) are essential to demonstrate the renewable/low-carbon/decarbonized nature of gases and renewable power injected into the system as well as providing an additional revenue stream to producers. The current GoO scheme should be amended to allow:

- The gradual convergence of the fragmented national GoOs and certificates markets towards an EU-wide market with full cross border trading. GoOs both for gases, including hydrogen, and power need to be freely tradable across countries and fully transferrable from one holder to the other. Certificates should be traded separately from gas/power as already allowed.
- GoOs should be extended to cover low carbon hydrogen produced from natural gas combined with CCS/CCU. There should be an integrated system for all gases rather than separate systems for gases and hydrogen. Each GoO certificate should provide source of gas to distinguish between renewable (green) hydrogen, low carbon hydrogen, biogas etc.
- The inclusion of carbon footprint in GoOs (a GHG field based on life cycle analysis) to enable the comparison of the environmental impact of different sources of energy.
- Gas GoOs should include, as a minimum, all the requirements of RED II Article 19.7.
- Acceptance of extra revenues from GoOs/certificates to finance green investment. Shell supports allocation of GoOs to producers as an additional revenue stream driven by consumers' appetite demand for clean energy. In case of support schemes, double counting can be best addressed through the allocation of support via a tendering process. As already established in REDII, the value of GoOs is implicitly taken into account in a tendering process, so the double counting is avoided.
- Extend the validity period of gas GoOs beyond the 12 to 18 months foreseen in RED II Article 19.3. Gas is storable commodity; its consumption can be delayed beyond 12 to 18 months.

- Recognition of GoOs in the ETS. Currently, use of sustainability certificates for biomethane is already allowed in the EU ETS for a limited amount of compliance and the EU ETS Monitoring & Reporting Regulation. This however falls short of the Monitoring Regulation's ambition, which already calls for direct use of GoOs in the EU ETS. The revision of RED II should explicitly allow use of GoOs in the EU ETS and thereby establish a direct link between the systems.
- The revision of RED II should make it clear that GoOs need to be cancelled to demonstrate renewable properties of power used in RFNBO production. This is currently not fully clear in RED II Article 27.
- It should be possible to demonstrate compliance for a potential target for industrial consumers through tradable GoOs which include GHG information. With regards to the development of robust and comprehensive certification and verification system covering all renewable and low carbon fuels, Shell supports a book and claim methodology where GoOs could be a way to prove compliance.

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

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 checked="" type="radio"/>	<input 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 CO2 as a feedstock for other industries	<input type="radio"/>	<input checked="" 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

By providing an integrated and transparent regulatory framework that recognises and rewards both renewable hydrogen and hydrogen produced with CCUS, RED II could enable greater uptake of CCS and CCU – which are vital technologies on the pathway to net-zero emissions. In particular, RED II can play an important role in stimulating deployment of CCUS technologies by providing a robust and transparent policy framework. The framework should include natural gas-derived hydrogen with CCUS (low carbon hydrogen) and catalytic hydrogen production from methane. The framework also should include a comprehensive terminology and certification system based on lifecycle (LCA) GHG performance and sustainability criteria of low carbon fuels. Standardized LCA methodologies that integrate and reward CCUS technologies can drive wider deployment of low carbon hydrogen, including retrofitting of existing steam methane reformers, by creating transparency and confidence in the information on Guarantees of Origin (GoOs), while supporting a robust verification and certification framework that enables the potential trading of GoOs among market participants.

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 checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Further streamline permitting procedures	<input checked="" type="radio"/>	<input 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 checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other? Please specify

3000 character(s) maximum

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

3000 character(s) maximum

Increased cross border cooperation as well as clearer long term (5-10 year+) planning will be needed to increase the renewable power share cost efficiently and in line with the EU climate neutrality ambitions. Increased cross-border and regional cooperation are particularly key for Marine Spatial Planning and the planning and execution of hybrid projects (interconnected projects as well as multi-technology projects). As many of the policies addressing those issues fall outside of the RED, there needs to be close alignment, in

particular with the policy actions mentioned in the Offshore Renewable Energy Strategy.

In addition, National Recovery and Resilience Plans prepared by Member States as part of the EU Recovery Package should clearly identify ambitions and initiatives that will further encourage electrification of end uses while also increasing overall system energy efficiency and synchronous supply of renewable power and low carbon gases. Plans should consider the potential electricity demand resulting from the outcomes of the RED II revision, such as green hydrogen production and increased heating and cooling demand, to ensure adequate renewable buildout in the future. This information could also help to develop improved Member States auction plans that are aligned with the supply chain, workforce growth, and infrastructure buildout.

A long-term and integrated offshore grid masterplan, including the identification of landing points for offshore connections and onshore grid upgrades should be developed to reflect the offshore wind growth ambition. This should include the onshore and offshore grid planning within the Trans-European Networks Regulation for Energy (TEN-E) and Transport (TEN-T), which should be revised to support the development and roll out of hydrogen infrastructure along core network corridors and offshore wind centres (e.g offshore hubs/islands for loading carriers/vessels) and High Voltage Direct Current (HVDC) terminals.

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 type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Removing administrative/legal barriers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Creating green labels for buyers of renewables-based products	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
None, market participants are already actively engaging	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other? Please specify

3000 character(s) maximum

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

It is important that the existing RED II provisions that support the buildout of renewables electricity, including offshore renewables and offshore wind are also implemented at a Member State level. This includes, for instance, removal of administrative barriers for renewable power purchase agreements, the simplification of permitting processes and ensuring cross-border coordination.

Beyond the current RED II provisions, long term and assured demand for renewable electricity via measures spelled out in our responses to Section 2 of this questionnaire are essential for large scale offshore renewables, such as offshore wind. Demand-side incentives for renewable energy combined with renewable power supply agreements can provide stabilized long-term revenues for offshore wind. While new technologies such as Floating Offshore Wind will continue to require time-limited support for development such as contracts for difference (CfD), in Europe, Shell supports the eventual move to merchant market offshore wind projects with government support focused on electrification of demand, investments in facilities and infrastructure in new markets and offshore wind hubs (e.g. ports and supply chain) and new technology projects. Revisions to the RED II should maintain flexibility in support schemes and other forms of revenue support such as CfD and continue to encourage support for power supply agreements such as PPAs.

RED II currently identifies key aspects that must be included within MS National Energy Climate Plans (NECPs). To ensure the ambitions of RED II are met and that large-scale and coordinated renewable development occurs to achieve the 300GW of offshore wind envisioned in the Offshore Renewable Energy Strategy, NECPs should clearly identify how Member States will further encourage electrification of end uses, increase overall system energy efficiency, and increase synchronous supply of renewable power and low carbon gases. Plans should consider the potential electricity demand resulting from renewable hydrogen production to ensure adequate renewable buildout in the future.

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 checked="" type="radio"/>	<input type="radio"/>	<input 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 checked="" type="radio"/>	<input 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 checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other? Please explain

3000 character(s) maximum

At an EU level, the decarbonization of heating and cooling (H&C) should be advanced through a progressively stringent application of energy efficiency standards on existing and new buildings and H&C equipment, and by decarbonizing the energy supplied to buildings. The primary vehicles to achieve the latter are, depending on local circumstances, a combination of electrification, district heating and low carbon gas supply. Shell supports a higher annual target for renewables and low carbon gases in heating and cooling and a higher target for renewables in district heating in line with a higher 2030 RES target. However, an increased target can only be achieved with strong planning and policy support at local level. If the heating and cooling target is reinforced and would include industrial heat emissions, then any overlap with GHG emissions covered by the EU ETS will need to be assessed. If there is overlap, then additional measures will need to be put in place to preserve a robust EU ETS carbon price, enable renewable heating and cooling investment and protect the competitiveness of industry exposed to international competition.

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 checked="" type="radio"/>	<input 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 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 checked="" type="radio"/>	<input type="radio"/>	<input 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	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other? Please specify

3000 character(s) maximum

See also Answer to 3.2.1.

Renewable and low carbon gas targets in H&C should become binding for Member States. Municipalities struggle with system choices, tender procedures and societal support and so would benefit from a stronger mandate and strengthened support to prepare the necessary plans and policies to accelerate investment into renewable and low carbon heating. In addition to encouraging investments into greater energy

efficiency, the Renovation Wave for buildings should be utilised to invest in necessary technical changes to enable connection to renewable energy sources, such as lower temperature heat networks.

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 checked="" 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 checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other? Please specify

3000 character(s) maximum

A stronger mandate and strengthened support at local levels to prepare necessary plans and policies to decarbonize heating systems will provide greater investment certainty and help accelerate investment into renewable and low carbon heating.

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

Please explain by how much

600 character(s) maximum

Shell supports a higher target for renewables in district heating in line with a higher 2030 RES target. The actual increase of the RES target in district heating should be assessed holistically against the overall renewable in heating ambition for 2030. National Energy and Climate Plans will need to reflect the increased ambition in their planning and monitoring.

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 type="radio"/>	<input type="radio"/>
Requirement for the relevant competent authorities to encourage cooperation between industrial and service sector companies	<input type="radio"/>	<input 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 checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Specific target for waste heat and cold use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other? Please specify

3000 character(s) maximum

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

Strengthening third party access will increase competition and reduce consumer prices.

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 checked="" 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 checked="" 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)



[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 checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Removing barriers to renewable thermal energy storage	<input type="radio"/>	<input checked="" 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 checked="" 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 checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Better integration of variable renewable electricity and heat in urban planning	<input type="radio"/>	<input checked="" 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"/>

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

Please indicate which ones

For the hard to abate industrial sectors such as steel, aluminium, cement, chemicals and refining to decarbonise in line with the 2050 climate neutrality goals, the deployment of low carbon technologies needs to accelerate and clear goals and predictable policies need to provide the business case for investment. A sectoral policy framework to address these challenges should consist of a set of complementary measures to accelerate and synchronise demand and supply of lower carbon energies, provide the necessary infrastructure and CCUS.

If an industry target is introduced it can be set either as: 1) a minimum share of renewable and low carbon energy, 2) a minimum GHG emission savings target, or 3) a renewable and low carbon hydrogen target. Any target should be part of a wider policy framework that includes fiscal and financial policy instruments to allow for loan guarantees, accelerated depreciation or other investment tax credits, and grants for renewable and low carbon fuel/product production facilities. The framework should also include other bankable policies for the products such as a durable purchase agreement, e.g., contracts for difference or a performance-oriented production tax credit of sufficient duration to cover the project’s lifetime. Any target must also consider the infrastructure investments needed to make renewable energy consumption feasible for industry, including transmission and distribution system upgrades.

Before setting a target for industry the Commission should consider the impact of increased renewable energy target on the specific industrial sub-sector’s pathway to decarbonise cost-efficiently. When multiple options to achieve deep decarbonisation are available, society and industrial competitiveness will benefit by providing those sub-sectors flexibility to select those options that best meet their needs and avoid regret investments. If an industry target is introduced, the following design elements are needed:

- The obligated parties should be the same industrial energy consumers that are obligated to participate in the EU ETS.
- Options for compliance should include renewable electricity, renewable gas, low carbon fuels such as low carbon and renewable hydrogen. It should be possible to demonstrate compliance through tradeable GoOs, which should include GHG information.
- The target should be progressive and achievable so that assets can accommodate, for instance, a new supply of renewable energy, such as renewable hydrogen, without having to change the entire process in the short term.
- Measures are required for energy intensive, trade exposed sub-sectors to protect against carbon leakage and loss of international competitiveness.
- Any RED target for industry should complement the carbon price from the EU ETS and focus on creating emerging markets for those clean energies that need to be deployed at scale after 2030.

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 checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input 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 type="radio"/>	<input type="radio"/>	<input type="radio"/>

Specific innovation programmes to develop renewables- and electricity based production processes	<input checked="" type="radio"/>	<input 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 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 checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Contracts for difference for zero-carbon products and services	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other? Please specify

3000 character(s) maximum

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

Shell supports increasing the 2030 target for renewables in transport to between 22% - 26% to meet the 55% GHG reduction target as shown in the European Commission 2030 Climate Target Plan Impact Assessment. The future RED transport target should be part of a wider policy framework that also includes fiscal and financial policy instruments to allow for loan guarantees, accelerated depreciation or other investment tax credits, and grants to be awarded to renewable and low carbon fuel production facilities. It should also include other bankable policies for the products such as a durable purchase agreement, e.g. a Contract for Difference (CfD) or a performance-oriented production tax credit of sufficient duration to cover the project's lifetime. These revenue streams will help reduce the risk associated with taking on loan financing and the reliance on the price signal just from a mandate.

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

Please specify

3000 character(s) maximum

To incentivise advanced technology (e.g., advanced biofuels, renewable e-fuels/synthetic fuels, renewable hydrogen), additional policy mechanisms (e.g., sub-targets, multipliers and/or parallel fiscal incentives and grant programs) are required beyond a fuel suppliers' obligation to allow the advanced options to compete with the compliance options at the current marginal cost of supply. The sub target for advanced biofuels (Annex IXA) should be maintained and expanded to include RFNBO, e.g. renewable hydrogen and power-to-liquid/power-to-gas. The penalty price associated with the advanced sub-target should be set sufficiently high to set a price signal for investment, e.g., upwards of \$350/tCO_{2e}. Multipliers may be introduced to better account for engine efficiency.

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

Please specify

3000 character(s) maximum

While the RED should continue to support renewable energy as a priority, a limited extension of its scope to include low carbon fuels such as low-carbon hydrogen and hydrogen-derived synthetic fuel made with "waste CO/CO₂" as valid compliance options would enable additional decarbonisation levers to implement the 2030 targets.

A RED transport target in form of an obligation on the fuel supplier should cover all low-carbon fuels, e.g. renewables (biofuels [liquid and gas], renewable electricity, renewable fuels of non-biological origin (RFNBOs) (renewable hydrogen, e-fuels/synthetic fuels [power to liquids, power to gas]), recycled carbon

fuels (made from industrial CO/CO₂, or municipal solid waste containing non-recyclable plastics), and low-carbon fuels (including low-carbon hydrogen) that meet the RED sustainability criteria. The Directive should prescribe that all low-carbon fuels are compliance options and not leave the selection of qualifying fuels to Member State discretion.

By allowing waste carbon (eg CO and unrecyclable plastics) and low carbon hydrogen as compliance feedstock, RED would provide important incentives for the development of synthetic kerosene production facilities in the 2020s. Facilities using these feedstocks could have capacities between 100kt/a to 1000 kt/a, depending on the type of feedstock used. The synthesis unit would then provide the platform to switch the feedstock from CO to CO₂ (point source for direct air capture or bio feedstock), and to ramp up the percentage of green hydrogen when the capacity becomes available

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 checked="" 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 checked="" 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 checked="" 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 checked="" 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 checked="" 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

The transport target should be part of a wider policy framework that includes fiscal and financial policy instruments (see question 3.6.1). The transport target can be set as either an energy or a GHG savings target. The design of the mandate, rather than the form of the target, is critical to deliver both investment certainty and an ability to comply cost effectively. Mandates should cover all renewable and low carbon fuels that meet the RED sustainability requirements.

- The mandate should set out a clear multiyear obligation. The level of the mandate should be ambitious but consistent with pace of building out supply capabilities and infrastructure. It should be ramped up over time as production scales up and new technologies are able to compete. However, if alternative fuels are not being produced in the volumes expected, then the regulators, should be able to adjust the mandate to a level that both maintains a stretch target and still provides obligated parties with a feasible route to compliance.
- To incentivise advanced technology (e.g., advanced biofuels, renewable e-fuels/synthetic fuels, renewable hydrogen), there must be additional policy mechanisms (e.g., sub targets, multipliers and/or parallel fiscal incentives and grant programs) to allow them to compete with the compliance options at the current marginal cost of supply. The penalty price associated with the advanced sub target should be set sufficiently high to set a price signal for investment.
- The multipliers for EVs and hydrogen fuel cell vehicles should better reflect the efficiency of the engine.
- First movers should be protected by appropriate “grandfathering” clauses so that the fuel they produce that fully meets the requirements of the mandate continues to be considered compliant regardless of any subsequent changes .
- Feedstock choices must not be overly constrained; feedstock flexibility is needed at the outset to de-risk technology pathways and the more choices plants have, the more robust their overall product slate will be, and the better they can respond to future challenges. For instance,
 - o there should be no changes to the provision that Annex IX can be reviewed to add feedstocks but not to remove feedstocks.
 - o the food and feed cap set in RED II should not be changed until 2030.
 - o the 1.7% cap on Annex IXB feedstocks should be removed.
 - o all compliance fuels should be a prescribed compliance option within the Directive and not left to Member State discretion as it is the current case with recycled carbon fuels.
- Unless separate mandates are established for Aviation and Shipping, alternative fuels used in both these sectors should continue to be allowed for compliance against the road transport mandate. The multiplier for Aviation should be increased from 1.2 to at least 2.
- Credit trading should be allowed.
- Clarity must be provided on which entities can generate credits for renewable electricity used as a transportation fuel.

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 checked="" 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 checked="" 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 checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other? Please specify

3000 character(s) maximum

To incentivise advanced technology (e.g., advanced biofuels, e-fuels/synthetic fuels, renewable (green) hydrogen), there must be additional policy mechanisms (e.g., sub targets, multipliers and/or parallel fiscal incentives and grant programs) to allow them to compete with the compliance options at the current marginal cost of supply. The sub target for advanced biofuels (Annex IXA) should be maintained and expanded to include RFNBO, e.g. renewable (green) hydrogen and power to liquid/power to gas. The penalty price associated with the advanced sub target should be set sufficiently high to set a price signal for investment, e.g., upwards of \$350/tCO_{2e}.

The multipliers for EVs and hydrogen fuel cell vehicles should reflect better efficiency of the engine. In case of an energy target, the multipliers for EVs and hydrogen fuel cell vehicles should be set at x2.5 to account for the better power train efficiencies of these power trains. For a carbon intensity reduction target, the calculation methodology should include for an adjustment factor for power train efficiencies as follows: ICE = 1; Battery electric = 0.4; Hydrogen fuel cell = 0.4.

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 checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Support the installation of electric vehicle chargers in households and enterprises	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Set stricter CO ₂ standards for cars	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ensure the availability and interoperability of public recharging infrastructure	<input type="radio"/>	<input checked="" 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 checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other? Please specify

3000 character(s) maximum

To decarbonise road transport in line with the EU's ambitions of climate neutrality by 2050, there needs to be close coordination and integration between policies that impact vehicles, fuels, infrastructure and customer choice. Industry needs clear goals and predictable policies to provide the business case for investment. No single policy will be sufficient to create momentum for change throughout a sectoral value-chain.

Shell believes that a sectoral policy framework can provide the clear goals and obligations for different actors in each sector. Each transport sector will need to find its own way to achieve net-zero emissions (NZE) and in each sector a broad coalition of businesses, governments and other parties will be needed to identify and enable decarbonisation pathways to achieve a net-zero emissions future. The sectoral policy framework will need to consist of a set of complementary measures to accelerate demand and supply of lower carbon energies, provide the necessary infrastructure, and incentivise the right consumer behaviours.

The rate of supply of zero emission vehicles (ZEVs) should be increased. To date, vehicle efficiency standards have demonstrated the greatest impact on changing the fleet from ICEs to alternative fueled low emission and zero emission vehicles. The supply-side measures for ZEVs should be complemented by demand side measures for consumers, e.g. time limited tax credits or rebates on purchases, changes to vehicle tax regimes for both vehicle registration taxes and/or annual vehicle taxes to account for the vehicle CO2 emissions, reduction in tolls etc.

The increase in ZEVs will create the demand for infrastructure and alternative fuel production, e.g. BEV charging infrastructure, renewable hydrogen (green), hydrogen produced in combination with carbon capture and storage (low carbon hydrogen), and the relevant distribution networks for these low carbon gases.

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)

[1] COM/2020/380 final

[2] COM/2020/381 final

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

RED II extended the sustainability criteria to biofuels, bioliquids and biomass fuels so that they were consistent across both transport and power generation. The sustainability criteria within any revised RED should be harmonised across wider industrial and agricultural uses. To encourage societal acceptance of biofuels, bioliquids and biomass fuels the sustainability criteria should be extended to include impact to soil, water, and air as well as social impacts. The revision to RED II should direct Member States to use existing multi-stakeholder criteria from the Roundtable on Sustainable Biomaterials (RSB EU) and International Sustainability & Carbon Certification (ISCC EU).

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

Feedstock selection and availability are critical for investments in biofuels plants. The revision of to RED II must provide long-term certainty with regards to what feedstocks are acceptable. Feedstock choices must not be overly constrained; feedstock flexibility is needed at the outset to de-risk technology pathways and the

more choices production facilities have, the more robust their overall product slate will be, and the better they can respond to future challenges.

- There should be no changes to the provision that Annex IX can be reviewed to add feedstocks but not to remove feedstocks.
- The food and feed cap set in RED II should not be changed until 2030.
- The 1.7% cap on Annex IXB feedstocks should be removed.
- Recycled carbon fuels should be a prescribed compliance option within the Directive and not left to Member State discretion.

Biomass planted between two main crops (or between crop rows), e.g. catch crops, cover crops, and intermediate crops, represent a material volume of advanced feedstock. The addition of specific catch and cover or intermediate crops to Annex IX in the 2020 review is welcomed. Rather than having to wait for the Annex IX reviews to be able to add feedstocks, the revision to RED II should establish within Annex IX, a set of agreed criteria for determining whether a feedstock qualifies as an intermediate or catch and cover crops.

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

Contact

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