

Preparation of a new Renewable Energy Directive for the period after 2020

Fields marked with * are mandatory.

Introduction

In its Energy Union Framework Strategy, the Commission announced a new renewable energy package for the period after 2020,[1] to include a new renewable energy directive (REDII) for the period 2020-2030 and an updated EU bioenergy sustainability policy. This consultation covers the REDII aspects. The bioenergy sustainability policy will be covered by a separate public consultation.

The results of this consultation, together with the results of the separate public consultation launched by the Commission in July 2015 concerning market design (available at <https://ec.europa.eu/energy/en/news/redesigning-europes-electricity-market-%E2%80%93-give-your-feedback>), will inform the impact assessment for REDII.

Please, submit your response to this public consultation by 10 February 2016 at the latest. You are invited to reply to the questions in the questionnaire by using the link to the survey on DG ENER's consultation webpage or via EU Survey. Always use this questionnaire even if also other documents are submitted. In order to facilitate the Commission's processing of responses, please respond in English as far as possible.

Received contributions will be published on the Internet, unless a confidentiality claim has been made on reasonable grounds. Responses from non-registered organisations will be published separately. The Commission also intends to publish a document summarizing the main outcomes of this consultation.

[1] Commission Communication: A Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy (COM/2015/080 final) of 25 February 2015

Evaluation of current policies

As part of the Commission's better regulation agenda, the current renewable energy directive[1] (RED) was included in the Commission's 2013 REFIT programme and a comprehensive evaluation study of the RED was carried out in 2014 for the purpose of assessing its effectiveness, efficiency, relevance, coherence and EU added value and to obtain stakeholders' views on the impacts and benefits of the Directive.[2] The main findings were included in the 2015 Renewable Energy Progress Report.[3] This public consultation builds on the REFIT evaluation and aims at obtaining additional information on impacts and benefits of the RED. Where appropriate, some of the questions in this questionnaire therefore also address evaluation of current policies.

[1] Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC

[2] REFIT Evaluation of the Renewable Energy Directive (CE DELFT, 2014) available on:

https://ec.europa.eu/energy/sites/ener/files/documents/CE_Delft_3D59_Mid_term_evaluation_of_The_RED_DEF.PDF

[3] COM (2015) 293, available at: <https://ec.europa.eu/energy/en/topics/renewable-energy/progress-reports>

Context and challenges

In its Energy Union Framework Strategy, the Commission announced a new renewable energy package for the period after 2020,[1] to include a new renewable energy directive (REDII) for the period 2020-2030 and an updated EU bioenergy sustainability policy. This consultation covers the REDII aspects. The bioenergy sustainability policy will be covered by a separate public consultation.

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[1] Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC

The core objectives of the EU Energy Union Framework Strategy[1] are to develop a long-term, secure, sustainable and competitive energy system in the EU. Europe should also be a leader in renewable energy. For this, it is important to continue to increase the share of renewable energy sources in the EU.[2] The RED ensures that all Member States will contribute to reaching 20% renewables at EU-level by 2020. In October 2014, the European Council agreed that **at least 27%** share of renewables by 2030 would reflect a cost-optimal way of building a secure, sustainable and competitive energy system (alongside an at least 40% domestic GHG emissions reduction target and the at least 27% energy efficiency target, which is to be reviewed by 2020, having in mind an EU level of 30%).

As the current legislation will not be sufficient for this purpose[3], there is a need to modify the legislative framework to ensure a timely and cost effective achievement of the EU level binding target on renewables by 2030. A combination of different factors will need to be addressed, including:

- **General approach:** The existing policy framework does not address uncertainties with regard to national policies, governance and regional cooperation to ensure a timely and cost effective target achievement for the period after 2020.
- **Empowering consumers:** A lack of consumer empowerment and incomplete information on renewable energy solutions can hinder cost-optimal deployment of renewable energy at city and community level.
- **Decarbonising the heating and cooling sector:** In the heating and cooling sector, which represents almost half of the EU energy consumption, the current regulatory environment in combination with a lack of information does not incentivise cost-optimal deployment of renewables in heating, cooling and hot water use. The sector remains dominated by fossil fuels and therefore dependent on imports.
- **Adapting the market design and removing barriers:** The current regulatory environment does not properly reflect externalities of energy production in market prices, including environmental, social, innovation and economic externalities. Together with persistent and distortive fossil fuel subsidies,[4] this is one of the

reasons leading to high capital costs that hinder cost-optimal renewable energy deployment. In addition, a lack of market integration, infrastructures (storage, interconnections) and smart solutions, including demand-response, also hinder cost-optimal deployment of renewable energy. Finally, complex administrative procedures for renewable energy deployment at national and local level have not yet been eliminated. This covers, inter alia, permitting and grid connection procedures[5].

- **Enhancing renewable energy use in the transport sector:** A policy fostering the use of sustainable alternative renewable fuels would contribute to decarbonising the transport sector and reducing risks related to its fossil fuel dependency and could remove current market distortions and fragmentations observed in particular in the internal market for biofuels. Despite the progress made with regard to the development of alternative renewable fuels such as advanced biofuels and renewable fuels of non-organic origin, commercial deployment of such products in the EU is lagging behind. The main reason is the perceived uncertainty about the policy framework after 2020. Only a few Member States have adopted dedicated support measures for advanced biofuels, while most have focussed on more traditional biofuels. The potential for electric transport using renewable electricity deployment is still untapped, due to still high technology costs of deployment and lack of necessary infrastructure.

[1] Commission Communication: A Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy (COM/2015/080 final) of 25 February 2015

[2] As highlighted in the 2030 climate and energy framework (COM(2014) 15 final)

[3] As highlighted in the baseline scenario of the 2030 climate and energy framework (COM(2014) 15 final)

[4] Estimated by IMF to be 330 Billion Euro in 2015, source:
<http://www.imf.org/external/pubs/ft/survey/so/2015/new070215a.htm>

[5] Without prejudice to international and Union law, including provisions to protect environment and human health.

Part 1: Information about the respondent

* Are you responding to this questionnaire on behalf of/as:

- Individual
- Organisation
- Company
- Public Authority
- Other

* Name of the company/organisation

European Environmental Bureau

* Please describe briefly the activities of your company/organisation and the interests you represent

Environmental protection, sustainable development, environmental justice

* Please enter your email address

@ roland.joebstl@eeb.org

* Are you registered with the EC transparency register?

Yes

No

* Which countries are you most active in?

Austria

Belgium

Bulgaria

Croatia

Cyprus

Czech Republic

Denmark

Estonia

Finland

France

Germany

Greece

Hungary

Ireland

Italy

Latvia

Lithuania

Luxembourg

Malta

Netherlands

Poland

Portugal

Romania

Slovakia

Slovenia

Spain

Sweden

United Kingdom

Other

* Please specify 'Other':

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* Can we publish your answers on the Commission website?

YES - under my name (I consent to all of my answers/personal data being published under my name and I declare that none of the information I have provided is subject to copyright restrictions).

YES - anonymously (I consent to all of my answers/personal data being published anonymously and I declare that none of the information I have provided is subject to copyright restrictions).

- NO - please keep my answers confidential (my answers/personal data will not be published, but will be used internally within the Commission)

Part 2: General approach

The RED sets an EU target for renewable energy in gross final energy consumption of 20% by 2020 and 10% of the final energy consumption in transport. In order to achieve the overall 20% target, mandatory national targets for 2020 are fixed for each Member State. The RED also obliges Member States to prepare National Renewable Energy Action Plans (NREAPs) and biannual progress reports to create transparency and predictability for investors and facilitate monitoring of progress towards target achievement. The European Council has reiterated several times that the 2020 targets need to be fully met[1].

For the period after 2020, binding national targets are replaced by a binding EU-level target of at least 27% renewable energy in final energy consumption by 2030 without sectorial targets or binding targets at national level. A new approach to target achievement therefore needs to be developed, building on the Energy Union Governance and Member States' national energy and climate plans for the period up to 2030, which are expected to include national contributions towards the EU-level renewable energy target.

Without putting into question Member States' flexibility with regard to meeting their greenhouse gas reduction targets in the most cost-effective manner in accordance with their specific national circumstances, energy mixes and capacities to produce renewable energy, the new Energy Union Governance will need to provide sufficient transparency and reliability, predictability and stability to spur renewable energy investments and allow access to low-cost capital. It will also need to enable the EU to compare and monitor progress towards the renewables target. Within the broader context of the development of the Energy Union Governance, it will need to be considered what type of governance system will be able to deliver on these renewable energy objectives.

Given that the renewable energy target for 2030 is binding on the EU as a whole, the European Commission will need to have means to ensure that this target is met in a sustainable and cost-effective way. For this purpose, EU measures could be put in place and be designed to deliver on a number of objectives of the Energy Union:

1. create a market-based environment in which renewables can attract the required investments cost-efficiently;
2. foster regional cooperation and regional projects;
3. empower consumers to deploy cost-optimal renewable energy solutions;
4. incentivise the roll-out of new and innovative technologies; and
5. ensure that any potential gap arising in reaching the at least 27% renewable energy target, in terms of either ambition or delivery, is filled.

A number of questions would arise in this respect, including under what circumstances EU measures could be used or activated, how to share potential costs in a fair and equitable way and how to ensure participation by all Member States.

The experience gained with support schemes so far has allowed developing more cost-effective and market-based support schemes. Some Member State support schemes did not respond sufficiently rapidly to falling technology cost development, which resulted in some cases in unnecessary increasing costs for consumers. The EU Energy and Environment State Aid Guidelines build on this experience and puts down conditions for the approval of State Aid. In this context an improved functioning energy market, with improved price signals, as well as a strengthened EU ETS shall improve the investment signal. At the same time it is reasonable to expect that support schemes and other incentives (financial and regulatory) will still be the main policy tools that Member States will use to implement their renewable energy objectives with respect to renewable technologies that are not yet able to be fully financed by the internal energy market.

For new and innovative technologies, it can be important to ensure that regulatory and market risks are reduced to allow that project promoters can bring down costs through technology learning and industrialisation of manufacturing and installation, in particular if the EU is to become a world leader in renewable energy. However, where possible, some degree of market integration should remain if this goes beyond mere initial technology deployment of innovative technologies, to ensure their development takes into account market needs, does not

lead to overcompensation and prepares these technologies for further market integration.

Finally, in line with the broader objectives of the Energy Union, a new regional approach to renewable energy policy cooperation and incentives should be considered.

In this context, it is important to examine the optimal geographical scope and design of any support schemes in order to drive the achievement of the 2030 target in a cost-effective way, which does not lead to fragmentation and distortion of the internal energy market.

It also needs to be assessed how regional cooperation agreements similar to those developed under RED can be improved and could play a role and to what extent support at EU-level could become relevant.

[1] The latest Renewable Energy Progress Report issued in June 2015 concluded that the majority of Member States are currently on track to meeting their 2020 renewables target. In 2013, the combined EU share of renewable energy reached 15% and the estimate for 2014 indicates a 15.3% share, which is above the trajectory for the EU as a whole. 26 Member States met their first 2011/2012 interim target and 25 Member States are expected to meet their 2013/2014 target. Some Member States have already reached their 2020 targets. However, as the trajectory towards the 2020 target becomes steeper over the coming years up to 2020, some Member States may need to intensify their efforts to keep on track (COM(2015)293 final and SWD(2015)117 final). Available here: <https://ec.europa.eu/energy/en/topics/renewable-energy/progress-reports>).

1. To what extent has the RED been successful in helping to achieve the EU energy and climate change objectives?

- Very successful
- Successful
- Not very successful
- Not successful
- No opinion

To what extent did implementation measures for the RED as well as external factors (technological development, financial crisis, security of supply concerns and related market interventions) affect the effectiveness and efficiency of achieving the objectives?

Please identify and ideally also quantify the direct and indirect costs and benefits such as macroeconomic effects, competitiveness effects, innovation, cost and cost reductions, environmental and health effects of the Renewable Energy Directive.

3,600 character(s) maximum

The RED has had a critical impact on ensuring that the EU is achieving its energy and climate policy objectives and on the market volumes, and therefore cost reductions, of renewable energy in the European Union. Key success factors include:

- binding targets for RES, broken down for each Member State;
- stable, reliable, predictable policy framework for renewable energy development for each MS;
- interlinks with overall climate mitigation targets;
- flexibility and opportunities for national 'adaptation'.

In particular, national, binding targets have had a significant impact on renewable energy development, significantly accelerating the annual growth of renewable energy consumption. They have also been crucial in avoiding 'free riding' by national governments that have been less motivated to act in the field of energy and climate policies which would harm the possibilities of the EU to make collective progress towards the needed energy transition.

However, with over 60% of the EU's renewable energy coming from bioenergy, which is only in part subject to sustainability criteria and GHG accounting, the RED has only partially helped achieving the EU's energy and climate goals. Most forms of bioenergy have had no sustainability requirements which has led to for example increased harvest in biodiversity rich land areas, without assurance that GHG emissions are really reduced. For further examples of negative environmental impacts linked to bioenergy see: <http://eubioenergy.com/category/case-studies/> .

As far as biofuels are concerned, the 10% target in the transport sector has almost exclusively incentivised the use of unsustainable crop-based biofuels, causing direct negative environmental impacts and undermining GHG emissions reductions with very large amounts of CO2 emissions caused by ILUC. A sectorial target in transport based only on volumes of biofuels has not been a successful tool to drive real decarbonisation.

Also other large scale renewable energy deployment without appropriate planning (including spatial planning) and safeguards has also caused negative environmental impacts such as the case of wind power plants located in important bird areas highlighting the need for more careful planning as renewable energy deployment expands. Environmental conflicts have also been linked to hydro power development (Similar problems emerged with other technologies such as hydropower, see for example <http://goo.gl/SJ1y5i>).

The EEB also emphasizes that the starting point of the 2030 targets should be the full implementation of the 2020 targets.

The RED for the period 2020-2030 should build upon the successful provisions of the current RED. Therefore, revising the current directive should be the preferred option (as opposed to a new directive, which require to (re-) negotiate every single article of the (new) directive). This would increase the risks that some of the provisions of the current directive that need to be carried forward get weakened in the co-decision process. Crucially the option to introduce national level binding targets to achieve an EU wide target of at least 45% by 2030 needs to remain on the table.

Without a strong legal framework in the form of a (revised) RED, the Commission would not be able to resort to infringement proceedings, while the number of procedures launched under the RED precisely showed their importance. The RED should also enable the Commission to intervene when Member States make counter-productive changes to their regulatory framework.

2. How should stability, transparency and predictability for investors be ensured with a view to achieving the at least 27% renewable energy target at EU level? Please indicate the importance of the following elements:

	Very important	Important	Not very important	Not important	No opinion
Forward looking strategic planning of RES development is required by EU legislation	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Best practice is derived from the implementation of the existing Renewable Energy Directive	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Regional consultations on renewable energy					

policy and measures are required	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Member States consult on and adopt renewable energy strategies that serve as the agreed reference for national renewable energy policies and projects	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The Commission provides guidance on national renewable energy strategies	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Any other view or ideas? Please specify. What are the lessons from the RED (mandatory national targets, national plans, progress reports etc.)?

3,600 character(s) maximum

National binding targets remain the most stable, predictable and transparent option for delivering the 2030 targets. Given the importance of capital costs for renewables, clear and binding targets will provide visibility for investors and therefore act as a de-risking lever, which will at the end make the energy transition cheaper. Higher ambition and binding national targets for both renewable energy and efficiency have also been repeatedly called for by the European Parliament. The EU needs to live up to the Paris agreement and increase its climate, renewable energy and energy savings targets for 2030. Binding national targets for both renewable energy and efficiency have also been repeatedly called for by the European Parliament.

Current RED has shown the importance of providing a detailed template for planning and reporting, facilitating the monitoring of the Member State actions and increased transparency for investors. Future plans should continue to present a detailed account of planned renewable energy progress up until 2030 but should also include requirements for spatial planning and ecological constraints of RES development. The plans should also be seen as live documents developed in dialogue with other regional MS and the Commission.

The future plans should be improved especially by covering the following aspects: support measures for the heating and cooling sectors; grid connection, operation and development; broad locations suitable for RES technologies and their target capacities; and a Strategic Environmental Assessment to make the plans environmentally sound and legitimate.

It is also important for the Commission to continue to regularly report on progress made by MS. In the future, such reports should cover the sustainability aspects of all bioenergy, including the reporting on ILUC emissions, progress of advanced biofuels etc. as requested in the ILUC revision of the RED.

The national support schemes adopted by EU Member States have been instrumental in the substantial deployment of renewable energy in recent years. They will continue to play an important role in ensuring the required investments for reaching the 2030 targets. Provisions mandating the adoption of support schemes should be maintained in a reviewed RED.

A new bioenergy sustainability policy will be a crucial part of the renewable energy package and it should be implemented together and in coherence with the other pieces of legislation of the climate and energy framework since the beginning of the period to which these policies apply. This will help to guide the right kinds of investments, avoid changing market signals and ensure that policy incentives are aligned. The sustainability policy needs to be robust, addressing both the quantity and quality of

f biomass used for energy; limiting the overall volume of biomass use for energy, ensuring resource efficient use of biomass resources in line with the cascading use principle, consider the full carbon balance of bioenergy including emissions from direct and indirect land use change and changes in the carbon stocks of forests and land and mitigate negative impacts on biodiversity, soil and water.

3. Please rate the importance of the following elements being included in Member States' national energy and climate plans with respect to renewable energy in ensuring that the plans contribute to reaching the objectives of at least 27% in 2030.

	Very important	Important	Not very important	Not important	No opinion
Long term priorities and visions for decarbonisation and renewable energy up to 2050	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In relation to national/regional natural resources, specific technology relevant trajectories for renewable energy up to 2030	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Overview of policies and measures in place and planned new ones	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Overview of renewable energy trajectories and policies to 2050 to ensure that 2030 policies lie on the path to 2050 objectives	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Qualitative analysis	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Trajectories for electricity demand including both installed capacity (GW) and produced energy (TWh)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Measures to be taken for increasing the flexibility of the energy system with regard to renewable energy production	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Plans for achieving electricity market coupling and integration, regional measures for balancing and reserves and how system adequacy is calculated in the context of renewable energy	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please explain.

3,600 character(s) maximum

All the above-mentioned elements are crucial for the energy transition to succeed. In addition important elements are:

A long-term perspective: It is vital to ensure that measures implemented to achieve the 2020 and 2030 targets increase the likelihood of delivering the 2050 goals. Such a long-term view is also needed to ensure that the energy system, particularly electricity transmission and distribution infrastructure and market design, are designed to enable increasing volumes of variable renewable energy use.

Inclusiveness: The energy and climate plans should include all policies that are dir

ectly relevant to renewable energy deployment and integration and include also potential barriers of market penetration of renewables and market incentives in place for competing energy sources. The plans should also include the support schemes, policies and budgetary measures to support them and which are foreseen to ensure that the overall goals are met. Progress in the implementation of the plans and measures and their results should be reported and monitored. To be successful, the energy transition needs to be supported by various categories of actors (businesses, local authorities, citizens, unions...), which have to be involved in the design and follow-up of national plans.

National Renewable Energy Action Plans (NREAP): The NREAPs have been a useful but non-spatial and non-binding tool, which has decreased their potential influence and importance and ability to provide assurance to investors. They also did not consider environmental sustainability and impacts of the plans and failed to identify what kind of biomass, from where and with what kind of environmental and climate consequences will be used, while also largely underestimating the impacts of imports. See: <http://www.fern.org/flowsofbiomass>

Renewable Energy Progress Reports: Accompanying report of the Renewable Energy Progress Reports on biofuel sustainability have been useful sources of more precise information on the kind of biofuels used and their origin. In the future, such reports should cover the sustainability aspects of all bioenergy, including the reporting on ILUC emissions, progress with advanced biofuels etc. as requested in the ILUC revision of the RED.

Coherence between renewable energy and other climate policies: The EU needs to live up to the Paris agreement and put the EU firmly on a cost-effective path to achieving the necessary emission reductions in the longer-term. The EU climate policy should be based on three ambitious binding targets for 2030: at least 60% domestic GHG reductions; 45% of energy coming from renewables; 40% end-use energy savings. Furthermore, it is crucial to have the sustainability policy for all bioenergy implemented together and in coherence with the other pieces of legislation of the climate and energy framework and since the beginning of the period to which these policies apply. This will help to guide the right kinds of investments, provide a stable investment framework and ensure that policy incentives are aligned.

4. What should be the geographical scope of support schemes, if and when needed, in order to drive the achievement of the 2030 target in a cost-effective way?

- Harmonised EU-wide level support schemes
- Regional level support schemes (group of Member States with joint support scheme)
- National support schemes fully or partially open to renewable energy producers in other Member States
- Gradual alignment of national support schemes through common EU rules
- National level support schemes that are only open to national renewable energy producers

Please explain.

3,600 character(s) maximum

None of the above choices are an optimal one per se.

The question of the geographical scope of support schemes should be envisaged in the context of the real drivers of investments in, and costs of, renewables. For solar and wind, the cost of capital is today playing as much an important role as the resource potential. In addition, "soft costs" such as administrative and grid connection

costs also have an increasing importance (and even more now that the relative importance of the cost of equipment is decreasing). Support schemes (and their geographical scope) should be designed so that they take the true costs and their structure into account when comparing different sources of renewable energy.

The RED must not per se harmonise EU-wide level support schemes, but help regional level support schemes to emerge as well as national support schemes, fully or partially open to renewable energy producers in other Member States to ensure coherence and use of synergies.

Regional support schemes are likely to be more stable than national ones. Regional support would also necessitate regional coordination, leading to more efficient and sustainable deployment (provided resource assessments take ecological limits into account).

A gradual and careful alignment of national support schemes through common EU rules could be useful if focussing on the following:

- i) best practices on dynamic design elements to avoid overcompensation, coupled with clear market monitoring mechanisms;
- ii) best practices for the design of tendering mechanisms.

In parallel to support mechanisms, minimum requirements for simplified administrative procedures and provisions to foster smart self-generation and consumption will be needed.

5. If EU-level harmonised /regional support schemes or other types of financial support to renewable energy projects would be introduced:

- What hinders the introduction at the EU wide and/or regional scale?
- How could such mechanism be activated and implemented? What would be their scope (what type of projects/technologies/support mechanisms could be covered)?
- Who would finance them?
- How could the costs of such measures be shared in a fair and equitable way?

3,600 character(s) maximum

An EU-wide support scheme should only be activated in case the EU is not on track to reach the RES target which will eventually be agreed. It should not be envisaged at the beginning of the period to close a potential gap stemming from national targets/pledges; This would lead to Member States having to arbitrate between national efforts and a potential EU-wide scheme, turning the whole governance upside down.

Moreover, an EU-wide scheme would in our view have a strong disincentive effect on regional cooperation mechanisms. It is indeed hard to foresee why Member States would engage in such mechanisms should the option of reverting to an EU-wide scheme become available at the very start of the post-2020 period.

In addition, with an EU-wide support scheme, the risk is that the financial support will see a race to the top because of profit shopping. The national focus and the resistance for national energy consumers or national taxpayers to see their money fund

ing renewable energy projects abroad might be a huge obstacle.

6. The current Renewable Energy Directive gives Member States the possibility to enter into various cooperation mechanisms (statistical transfers, joint projects and/or joint support schemes). Please expand on the possible new legislative and non-legislative measures that could be introduced to foster the development of cooperation mechanisms in the period beyond 2020.

3,600 character(s) maximum

7. The use of cooperation mechanisms has been limited to date. Which of the below factors do you consider important in explaining the limited recourse by Member States to cooperation mechanisms so far?

	Very important	Important	Not very important	Not important	No opinion
Unclear legal provisions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Administrative complexities	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of cost-effectiveness / uncertain benefit for individual Member States	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Government driven process, not market driven	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Member States reluctant to see their taxpayers/ consumers' money used for investments outside their country	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

Other? Please explain.

3,600 character(s) maximum

The EEB sees that further incentivizing of cooperation mechanisms such as joint projects or joint support schemes could benefit the development of renewable energy beyond 2020. The Commission could consider the following ways to foster their further use.

- define Member State accountability as clearly as possible;
- develop concrete funding opportunities for regional cooperation, e.g. use existing structures like the European Regional Development Fund & Cohesion Fund, INTERREG or the European Fund for Strategic Investment to ensure financial support for regional cooperation on renewable energy and energy efficiency;
- foresee regular assessments of cooperation opportunities by the European Commission;
- project support schemes across MS borders;
- enable renewable electricity producers be fully or partially eligible for support in another Member State, while ensuring local ownership and participation;
- ensure that part of revenue from renewable projects are channelled towards local development projects;
- enable new actors to enter energy cooperation projects;
- enable the design of local network tariffs;
- enable innovative mechanisms to determine electricity prices.

8. How could renewable electricity producers be fully or partially eligible for support in another Member State? Which elements would you include in a possible concrete framework for cross-border participation in support schemes? Any other consideration? Please explain.

3,600 character(s) maximum

9. Please assess what kind of complementary EU measures would be most important to ensure that the EU and its Member States collectively achieve the binding at least 27% EU renewable energy target by 2030:

	Very important	Important	Not very important	Not important	No opinion
EU-level incentives such as EU-level or regional auctioning of renewable energy capacities	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
EU-level requirements on market players to include a certain share of renewables in production, supply or consumption	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
EU-level financial support (e.g. a guarantee fund in support of renewable projects)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
EU-level support to research, innovation and industrialisation of novel renewable energy technologies	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enhanced EU level regulatory measures	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Any other ideas or comments, please explain.

3,600 character(s) maximum

Any EU-level action must not incentivise Member States to take inadequate measures domestically and then seek EU support to 'fill the gap'. Therefore, complementary EU actions should not prioritise incentives or financial support, but should be focused on the structural changes that can facilitate renewable energy deployment.

In order to ensure that the targets are reached in a sustainable way that contribute to the overall emission reduction targets of the EU, adequate sustainability safeguards for bioenergy are needed, in particular (i) introducing a cap to limit the use of biomass for energy production to levels that can be sustainably supplied; (ii) ensuring the efficient and optimal use of biomass resources, in line with the principle of cascading use; (iii) including correct carbon accounting for biomass and (iv) introducing binding environmental and social sustainability criteria.

Targeted innovation support is needed to bring forward technologies with low ecological impacts (e.g. geothermal, most kinds of micro-generation), for which the EU has a high ecological capacity (e.g. floating offshore wind) and that are needed to maintain electric system stability (grid interconnections, demand side response, distributed electricity storage). Complementary measures are also needed to ensure that investments in renewable energy development are steered towards the right locations, with good resources and low environmental impacts.

To ensure the energy transition is in harmony with nature and enjoys public support, EU environmental regulation needs to be implemented more fully. In particular much greater use should be made of Strategic Environmental Assessment to improve national and regional plans. Implementation of the Birds, Habitats and Water Framework Directives needs to be enhanced, for example through completion of the offshore Natura 2000 network and more proactive enforcement of site and species protection provisions.

10. The Energy Union Framework Strategy sets the ambition of making the European Union the global "number one in renewables". What legislative and non-legislative measures could be introduced to make/strengthen the EU as the number one in renewables? Has the RED been effective and efficient in improving renewable energy industrial development and EU competitiveness in this sector?

3,600 character(s) maximum

The RED has been an effective tool to drive an increasing share of renewable energy in the EU and has improved industrial development and EU competitiveness in the field of renewable energy. In addition, the efficiency first principle should be applied as part of the Energy Union framework. Reduced final energy demand makes it easier and more feasible to achieve higher shares of renewable energy.

The goal of making the EU 'number one in renewables' should never the less be considered with a wider perspective than just the percentage of renewable energy in the energy mix. It should also be measured in investor attractiveness, sustainability, public acceptance and renewable energy ownership by communities - a matrix of measures of leadership is therefore needed.

Qualitative measures are also important. Renewable energy's promise has always been its 'green' credentials - zero carbon, zero air pollution and not depleting what nature provides. The reputation of renewables shouldn't be tarnished by supporting technologies that don't meet these requirements. A clearer differentiation is required between renewable energy sources that are still based on burning carbon (i.e. bioenergy) and those that are not carbon based, between those that can cause large scale environmental damage (e.g. dams for hydropower) and that can be deployed in a more decentralised manner. The differentiation should also be reflected in the upcoming review of the State Aid Guidelines for Energy.

Enforced regional and national strategic RES planning is needed to build a stronger public support and to increase transparency. This requires also minimising impacts on the environment - in particular impacts on biodiversity. A key tool for this would also be using Strategic Environmental Assessments to minimise impacts and stay within ecological limits. Completing the Natura2000 network in offshore areas and improving the implementation of the Birds and Habitats Directives across the EU will provide the necessary regulatory clarity that allows environmentally friendly deployment of renewables where suitable.

Public support and acceptance can be further enhanced in numerous ways. Ways to achieve this include minimizing the need of new large scale infrastructure by ensuring significant energy savings as well as increasing transparency, consultations and access to justice.

It's also crucial to give people a stake in the energy transition as has been done in Germany for example. MS should offer stable economic incentives for small scale and community energy generation. The revised RED should therefore include an explicit reference to the benefits of local and community energy, as well as a principle that ensures the citizens' right to produce, store and consume their own renewable energy.

Part 3: Empowering consumers

The European Commission's Energy Union Strategy put the consumer at the centre stage. Consumers have a key role to play in energy markets and in driving the transition to a more sustainable energy system in the EU. On

15 July 2015, the Commission issued a Communication on delivering a new deal for energy consumers (COM/2015/339)[1] as well as a guidance document on best practices on renewable energy self-consumption (SWD/2015/ 141).[2] In this context, REDII provides opportunities to develop more targeted measures for empowering consumers, including communities and cooperatives[3].

As active participants in the energy market, consumers should be able to self-consume and store renewable energy in the EU.

Provisions on simplified and streamlined procedures on permitting and grid connection in case of projects for self-consumption of renewable energy could be further enhanced.

The wide-spread development of self-consumption may also require gradual adjustment of retail tariffs to promote consumers' flexibility, while supporting energy efficiency and the renewable energy objectives and at the same time minimise total system costs. The establishment of common principles at EU-level for network tariff design will thus need to be considered.

Renewable energy deployments need also to observe certain rights granted to the public, by international and EU law, such as, for instance, the right to access to information, public participation and consultation, as well as access to justice on environmental matters[4]. Thus, contributing to accountability, transparency and public awareness.

The REDII also offers opportunities to foster local ownership of renewable energy (e.g. community and citizen participation in renewable energy cooperatives). It seems particularly important to support local authorities in preparing strategies for the promotion of renewable energy, enable cooperation between relevant actors at the local or municipal level and facilitate access to finance.

Under the RED, a Guarantees of Origin (GO) system provides an EU wide mechanism to inform electricity consumers as to the renewable nature of the electricity that they use, enabling green tariffs to develop but also being criticised for not sufficiently linking these tariffs to real incentives for additional new green energy deployment. It should be assessed to what extent the current rules for electricity disclosure (incl. GO) can be improved to reflect best practice in Member States' implementation and help consumers choose a more sustainable energy consumption pattern.

[1] https://ec.europa.eu/energy/sites/ener/files/documents/1_EN_ACT_part1_v8.pdf

[2] http://ec.europa.eu/energy/sites/ener/files/documents/1_EN_autre_document_travail_service_part1_v6.pdf

[3] Without prejudice to the EU and international law on the right to access to information, public participation and consultation, as well as access to justice on environmental matters.

[4] UNECE Convention on access to information, public participation in decision-making and access to justice in environmental matters (Aarhus Convention), Directive 2011/92/EU, as amended by Directive 2014/52/EU (EIA Directive), Directive 2001/42/EC (SEA Directive).

11. How would you rate the importance of the following barriers for consumers to produce and self-consume their own renewable energy?

	Very important barrier	Important barrier	Not very important barrier	Not important barrier	No opinion
Self-consumption or storage of renewable electricity produced onsite is forbidden	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Surplus electricity that is not self-consumed onsite cannot be sold to the grid	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Surplus electricity that is not self-consumed onsite is not valued fairly	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Appliances or enabler for thermal and	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

electrical storage onsite are too expensive					
Complex and/or lengthy administrative procedures, particularly penalising small self-consumption systems	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of smart grids and smart metering systems at the consumer's premises	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
The design of local network tariffs	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The design of electricity tariffs	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other? Please explain.

3,600 character(s) maximum

Small scale renewable energy generation could make a very significant contribution to the renewable energy target but would still require evaluating the environmental impacts on case by case basis. On-site renewable generation enables consumers to control their energy costs, and to engage in and benefit from the energy transition. By deploying self-generation and consumption practices, consumers truly engage in the energy transition. All these considerations will contribute to the necessary public support for climate and energy policies.

For all the reasons mentioned above, the revised RED should create a clear framework for renewable self-consumption and generation, including the following elements.

A right to self-generate and consume renewable energy: the first pre-requisite to make sure European consumers can control their energy costs via self-generation and consumption is to make it legally possible everywhere in Europe. A clear right to self-generate and consume (and store energy) would therefore make discriminatory measures not possible anymore.

Energy market design should ensure fair access to the market for community energy projects and prosumers (people and communities that both consume and produce energy) in order to properly value the excess of electricity that is not self-consumed. The market design reform should also bring clarity on the definition and the role of storage;

Simplified administrative procedures and one-stop-shops for prosumers: building on existing provisions (Article 13 of the Directive), with simple notification procedures for smaller systems. By lowering administrative costs, the revised RED can make the energy transition cheaper given the increasing importance of such costs (in relative terms) over time.

Guidelines for the setting-up of distribution grid tariffs fit for the energy transition: the revised RED could provide some guiding principles and explore for instance mechanisms which give the prosumer the choice of freely contracting a given peak load capacity.

A framework for making self-generation and consumption accessible to a large number of consumers: third-party financing, joint purchasing programmes and cooperatives are all very concrete ways of making on-site generation more easily accessible to consumers. These should be recognised and encouraged by the revised RED.

The revision of the Energy Efficiency Directive should also further facilitate demand side flexibility and aggregation, which will be needed to develop new business models.

els at retail level.

12. In general, do you think that renewable energy potential at local level is:

- Highly under-exploited
- Under-exploited
- Efficiently / fully exploited
- Over-exploited (i.e. beyond cost-effectiveness)
- No opinion

Other? Please explain. Has the RED been effective and efficient in helping exploiting the renewable energy potential at local level?

3,600 character(s) maximum

It is highly underexploited in most member states. The RED provided a framework for prosumer renewable energy expansion in those Member States that chose so (DE, AT, D K), but did not protect consumers from detrimental national policies nor provided EU-wide measures to support/protect prosumers. In the case of e.g. Spain, the Commission was unable to stop discriminatory measures.

The RED had an effect on enabling renewable energy through the national binding targets. From these flowed the national support schemes, which in turn allowed much local renewables to flourish. Nationally binding targets are the still the most stable and reliable way to ensure the energy transition.

In the possible absence of nationally binding targets, the revised RED has to put in place other mechanisms. Otherwise there is a risk of a steep drop in the confidence of investors in (local) energy, who are often individuals or households investing their own money and need a level of certainty.

The primary way to do this is by embedding the principle that guarantees the citizens' right to presume, store and access the grid with their own energy. This principle would give certainty required to ensure that investment continues in local renewable energy, even though still not delivering the same level of effectiveness as binding national targets have until now.

13. How would you rate the importance of the following barriers that may be specifically hampering the further deployment of renewable energy projects at the local level (municipalities and energy cooperatives):

	Very important barrier	Important barrier	Not very important barrier	Not important barrier	Not important barrier	No opinion
Lack of support from Member State authorities	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of administrative capacity and/or expertise/ knowledge/information at the local level	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of energy strategy and planning at local level	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of eligible land for projects and private property conflicts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

Difficulties in clustering projects to reach a critical mass at local level	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of targeted financial resources (including support schemes)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Negative public perception	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

Other? Please explain.

3,600 character(s) maximum

Support schemes have tended to be tailored mostly for large scale operations or individual households. The 'community scale' in between, such as schemes run by local authorities, schools, cooperatives and community groups, have been overlooked. Community groups and local municipalities need tailored financial and technical support, and less complicated administrative procedures at the local level.

Given the nature of cooperative players who may have a more limited technical and financial expertise, specific mechanisms (such as power purchase agreements with local actors for instance) should be developed for the valorisation of the renewable electricity.

Gaining fair access to the grid also continues to be a barrier to local energy production. Fair and equitable grid access needs to be ensured for projects that have a specific social benefit as mentioned above. For example many local renewables projects put their profits into local community development funds or into efficiency measures for those in energy poverty.

14. Please rate the appropriateness of stronger EU rules in the following areas to remove barriers that may be specifically hampering the further deployment of renewable energy projects at the local level:

	Very appropriate	Appropriate	Not very appropriate	Not appropriate	No opinion
Promoting the integration of renewable energy in local infrastructure and public services	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Supporting local authorities in preparing strategies and plans for the promotion of renewable energy	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Facilitating cooperation between relevant actors at the local or municipal level	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Facilitating access to targeted financing	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
EU-wide right to generate, self-consume and store renewable electricity	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Measures to ensure that surplus self-generated electricity is fairly valued	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Harmonized principles for network tariffs that promote consumers' flexibility and minimise system costs	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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Other? Please explain.

3,600 character(s) maximum

An EU-wide right to self-generate, self-consume and store is a pre-requisite in order to develop renewable energy at the local level. The revised RED should play a key role by facilitating access to finance, ensure a proper remuneration of the non-self-consumed electricity and by ensuring that network tariffs do not hamper the transition to a more prosumer-centric system. Collective prosumers (cooperatives, social enterprises etc.) particularly have great, untapped potential which should be taken into consideration in the RED revision.

Besides guaranteeing and supporting the right of prosumers to contribute in renewable energy production (roof top solar PV and wind project developments particularly), prosumers can and should also play a role in the demand side of the energy market by contributing to energy efficiency and storage.

In some countries the claimed grid costs have become an obstacle for prosumers that the Commission should address. The Commission should propose guidelines or best practice on rate design. This should include transparency requirements for grid charges/rate design as well as a rate model that includes (i) low fixed charges to recover the cost of keeping a customer connected to the grid, such as metering, billing etc. (fixed charges should be as low as possible because they limit consumer options and they run counter to energy savings) and (ii) time-varying rates for energy supply to reduce overall generation costs and give consumers the option to save money by taking advantage of low-cost hours (DSM).

15. Should the current system for providing consumers with information on the sources of electricity that they consume be further developed and improved?

If not, why? If yes, how?

Should the current Guarantees of Origin (GO) system be made the mandatory form of information disclosure to consumers?

Should other information, such as e.g. CO2 emissions be included?

Should it be extended to the whole energy system and include also non-renewable sources? Other ideas?

To what extent has the current GO system been successful in providing consumers with information on the sources of electricity that they consume?

3,600 character(s) maximum

Very few consumers are aware of GOs and not all countries are part of GO systems, but in general maximising info available on all energy sources is a good idea.

A main problem is that Guarantees of Origin do not guarantee the final consumer that by going for a green offer, (s)he contributes to the development of new renewable energy capacities. In order to address this "lack of additionality", a new specific, additional "layer" should be added to the GO system which would allow to differentiate between offers relying on renewable energy coming from already written-off investments and offers which do rely on more recent investments.

The guarantees of origin system could be used beyond just tracing general types of renewables. More information on bioenergy feedstock and potential ecological impacts of renewable energy could be added so that it could also help the transparency needs

in terms of the sustainability demands and provide consumers with relevant information. For example EKOenergy, a European label for green electricity, uses GO information to sell biodiversity friendly renewable energy.

Part 4: Decarbonising the heating and cooling sector

Renewable heating and cooling can make a real difference for the decarbonisation of the EU economy and enhance EU security of supply. While cost-effective renewable energy equipment is available, 80-90% of the EU heat and hot water production is still using largely imported gas and oil. The RED includes limited provisions for the promotion of renewable heating and cooling. In REDII, more targeted measures could be considered to further increase renewables deployment in the heating and cooling sector, building on and interacting with energy efficiency and security of energy supply legislation. A comprehensive approach could be developed targeting buildings, individual energy use for heating and cooling, and the share of renewable energy in district heating and CHP units.

Efficient ways need to be found to stimulate switching from fossil fuels to renewable heating and cooling and hot water generation in the large number of EU homes with individual heating equipment. The existing nearly-zero energy building (NZEB) standards (mandatory from 2021 for all new building) include obligations for minimum use of renewable energy. It appears however that this is insufficient to further encourage the use of renewables at the building level. It could therefore be considered whether the NZEB rules should be made more ambitious to also include an obligation to use renewable energy heating (including water heating) and cooling in the existing building stock, effective if and when the building is subject to major renovation or the heating system is replaced. Measures will also need to encourage a shift in consumer behaviour, perhaps through better information about renewable energy alternatives from heating equipment suppliers and installers, and encourage investment in energy storage and demand-shifting capacity.

Although district heating systems only cover 13% of the European heat market, in Nordic, Central and Eastern European Member States 50-80% of the heating is produced by district heating. Most of this heating is produced from imported natural gas, followed by coal, and renewables. In these Member States, measures to increase the share of renewable energy in heating and cooling supply could bring significant gains. For example, it could be assessed whether, based on comprehensive assessments of national heating and cooling potentials, energy suppliers could potentially be required to progressively increase the share of renewable energy in the overall energy that is placed on the market for heating and cooling purposes, taken into account the market incentives already available for this sector. It could also be assessed whether all new and significantly upgraded heating and cooling infrastructure should enable at least a certain share of all heating, cooling and hot water needs to be sourced from renewable energy sources produced on site or nearby (through local networks).

The potential for renewable energy in decarbonising the heating and cooling sector will also be addressed within the forthcoming Heating and Cooling Strategy and Security of Energy Supply proposals, while sustainability aspects will be addressed through the post-2020 EU bioenergy sustainability policy.

16. Please rate the importance of the following barriers in hampering the deployment of renewable heating and cooling in the EU:

	Very important barrier	Important barrier	Not very important barrier	Not important barrier	No opinion
Real or perceived incoherence in existing EU policies (such as RED, EED and EPBD)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of administrative capacity and/or expertise/ knowledge/information at the national and local level	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of energy strategy and planning at the national and local level	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Lack of physical space to develop renewable heating and cooling solutions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Lack of requirements in building codes and other national or local legislation and regulation to increase the share of energy from renewable sources in the building sector	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Heating and cooling equipment installers lack sufficient knowledge or information to offer renewable energy alternatives when asked to replace fossil fuel heating and cooling equipment	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of targeted financial resources and financing instruments	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of definition and recognition of renewable cooling	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of electricity market design supporting demand response, decentralised energy and self-consumption and thermal storage in buildings and district systems	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of mapping tools to identify the resources potential at regional scale with local renewable energy	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of tools and information to compare the lifecycle costs of the various alternative heating and cooling alternatives	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Negative public perception	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

Other? Please specify and explain.

3,600 character(s) maximum

The "at least 27%" renewables target put forward by the Council, and which we believe needs to be revised upwards, would already mean that almost 50% of the EU's electricity would come from renewable sources, with an increasing share of them being variable. At the same time, we see an increasing trend towards decentralisation. In order to make the energy system more cost-efficient as whole, we definitely need to improve (compared to the current RED) the interactions between the electricity, heating and cooling and transport sectors. The reform of the EPBD and EED should ensure a better link between decentralised power generation, and demand shifting and thermal storage capacities in buildings and district systems.

Efficiency, energy savings and minimising the need for heating and cooling through building design should always be the first option in the heating and cooling sector. These options should never be overlooked or given less priority even when there is a renewable energy source for heating or cooling.

Currently, bioenergy is the most important renewable energy source in heating, but possibilities to increase the use of bioenergy in an environmentally sustainable way are limited in Europe. Therefore, renewable electricity, heat pumps etc. need to be promoted rather than relying solely on biomass. As the majority of bioenergy is cons

umed in the heating sector, a robust bioenergy sustainability policy is needed to ensure sustainable renewable energy use in this sector.

A significant proportion of European households still rely on household level heating relying on burning of wood (biomass) in individual boilers, often leading to inefficient use of woody biomass as well as to air quality to problems and health impacts. More efficient heating appliances limiting air pollution should be encouraged and incentives put in place to scale down inefficient small scale biomass use.

17. Please rate the most effective means of addressing these barriers and advancing the decarbonisation of EU heating and cooling supply:

	Very effective	Effective	Not very effective	Not effective	No opinion
Renewable heating and cooling obligation	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Requirement for energy suppliers and/or distributors to inform consumers of the costs of heating and cooling and to offer renewable heating and cooling solutions	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Requirement that all urban and municipal infrastructure upgrades (energy infrastructures, and other relevant infrastructure, such as sewage water, water and waste chains) make it possible and promote the distribution and use of renewable energy for heating and cooling and hot water generation	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Measures supporting best practices in urban planning, heat planning, energy master planning, and project development	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Criteria and benchmarks for promoting district heating and cooling taking into consideration the local and regional conditions	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nearly zero-energy building (NZEB) standards to include a mandatory minimum use of renewable energy	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Including systematically renewable energy production in buildings' energy performance certificates	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The promotion of green public procurement requirements for renewable heating & cooling in public buildings	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Heating and cooling equipment installers should present renewable energy alternatives when asked to replace fossil fuel heating and cooling equipment	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Develop best practices for enterprises, including SMEs, to integrate renewable heating and cooling into their supply chains and operations	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Requirement to consider renewable energy alternatives in subnational, national, regional or EU security of supply risk preparedness plans and emergency procedures	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Targeted financial measures	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other? Please specify and explain. How could such measures be designed? How could they build on existing EU rules?

3,600 character(s) maximum

A very effective option to enhance the amount of renewables in buildings would be to oblige Member States to set a minimum share of renewables to be generated on-site in buildings, both for new ones as well as for renovated ones, as in Switzerland. This option is preferable for energy systems with a very low share of renewable energy. In systems with a high share (more than 50%) of renewable energy this option risks leading to non-optimal renewable energy deployment.

Product standards should phase out fossil-fuel based heating.

Part 5: Adapting the market design and removing barriers

A separate public consultation, which was open during the period 15 July – 8 October 2015, gathered extensive input on a wide range of issues aimed inter alia at making the market design fit for renewables. This section includes complementary questions. Both public consultations will inform policy makers during the development of REDII.

Changes in the market provisions are of utmost importance in order to build a market which is fully fit for renewables. For example, the establishment of liquid and better integrated short-term intraday and balancing markets will help to increase flexibility and help renewable energy producers to integrate in the market and compete on an equal footing with conventional energy producers, while the strengthening of the EU ETS can contribute to reinforce the long term investment environment.

The RED includes obligations to ensure transparent and foreseeable grid development for renewable energy as well as predictable, transparent and non-discriminatory grid connection and access procedures and costs. REDII as well as the Commission's market design initiative offers opportunities to update and improve these rules to take account of market developments and experience gained. Consideration also needs to be given to dispatch provisions in close connection with the development of the market design initiative.

The on-going evaluation of the Renewable Energy Directive (REFIT) shows that overall progress in removing non-financial barriers to renewable energy deployment in EU Member States is still limited and slow across the EU despite the specific provisions on administrative procedures, regulations and codes for renewable energy projects, requirements to share information and ensure quality of renewable energy training enshrined in the RED. Other studies point towards the same conclusion. It is reasonable to assume that there is therefore a need for more harmonized EU rules in a number of areas, including permitting procedures, spatial and environmental planning and vocational and professional training.

Note should be taken of already existing legal provisions and practice for streamlining and improving permit granting processes, in particular the provisions laid down in Regulation 347/2013 (TEN-E Regulation) and Directive 2011/92/EU (EIA Directive). Given the existing internal energy market, it is important to ensure that streamlining and improving the permitting granting processes is performed in accordance with existing internal EU legislation, as well as with due regard to the principle of subsidiarity and the national competences and procedures enabling renewable energy deployment. More effective and efficient administrative procedures should

not compromise the high standards for protection of the environment and public participation. The establishment of a competent authority or authorities integrating or coordinating all permit granting processes ('one-stop-shop') should reduce complexity, increase efficiency and transparency and help enhance coordination among Member States.

18. In your view, which specific evolutions of the market rules would facilitate the integration of renewables into the market and allow for the creation of a level playing field across generation technologies? Please indicate the importance of the following elements to facilitate renewable integration:

	Very important	Important	Not very important	Not important	No opinion
A fully harmonised gate closure time for intraday throughout the EU	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Shorter trading intervals (e.g. 15 min)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lower thresholds for bid sizes	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Risk hedging products to hedge renewable energy volatility	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cross border capacity allocation for short-term markets (i.e., some capacity being reserved for intraday and balancing)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Introduction of longer-term transmission rights (> 3 years)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Regulatory measures to enable thermal, electrical and chemical storage	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Introduction of time-of-use retail prices	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enshrine the right of consumers to participate in the market through demand response	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Any other view or ideas? Please specify.

3,600 character(s) maximum

Prices reflecting actual scarcity and rewarding flexible production/consumption are key ingredients of the market design. This also includes the need to reflect scarcity of available transmission capacity, to better manage transmission congestion and better identify the needs for investment.

Inadequate pricing, mostly due to the current over-capacity (and supply) of old, written-off base-load power plants, currently hinders the investment needed to scale up renewables, as well as demand response and distributed generation during critical periods.

Harmonised gate-closure time across the EU with shorter trading intervals should get the highest priority.

Ensuring a fair market access for all players is also important: in some markets, decentralised renewable energy generators still have to struggle with market access fees that effectively discriminate against smaller players.

Making sure that small players will be able to participate in the market also means that aggregators should be able to rely on a clear and stable regulatory framework.

Finally and as mentioned previously, the market reform should also be the occasion to clarify and enhance the role of storage for electricity (under various forms).

19. Currently, some exceptions from the standard balancing responsibilities of generators exist for energy from renewable sources. In view of increasingly mature renewable generation technologies and a growing role of short-term markets, is time ready to in principle make all generation technologies subject to full balancing responsibilities?

- Yes, in principle everyone should have full balancing responsibilities
- No, we still need exemptions

Please specify: If exemptions remain necessary, please specify if and in which case and why exemptions would still remain necessary (e.g. small renewable producers, non-mature technologies)?

3,600 character(s) maximum

For balancing responsibilities variable renewable energy like solar or wind and non-variable renewables such as biomass should be differentiated. The latter can be subjected to standard balancing responsibilities where competitive intra-day-markets exist. For intermittent renewables this would establish a major barrier to market access.

For variable renewable energy sources, full balancing responsibilities on large variable renewable generators can be envisaged only once the following market reforms are completed (if not, we would put the cart before the horse as variable generators would not be able to properly and fully reduce their imbalances):

- short-term markets (with very short gate closure times) should fully develop;
- a greater granularity of products on the balancing markets is ensured.

For small-scale producers, it is not realistic to expect them to play on the market. Their balancing responsibility will therefore have to be borne by a third party which will most probably charge a lump sum to the prosumer whatever his/her real generation/load profile.

20. Please assess the importance of stronger EU rules in the following areas to remove grid regulation and infrastructure barriers for renewable electricity deployment:

	Very important	Important	Not very important	Not important	No opinion
Treatment of curtailment, including compensation for curtailment	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Transparent and foreseeable grid development, taking into account renewable development and integrating both TSO and DSO level and smart technologies	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Predictable transparent and non-discriminatory connection procedure	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Obligation/priority of connection for renewables	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cost of grid access, including cost structure	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Legal position of renewable energy developers to challenge grid access decisions by TSOs	●	●	●	●	●
Transparency on local grid congestion and/or market-based incentives to invest in uncongested areas	●	●	●	●	●

Comments and other ideas, including whether there are any consideration concerning gas from renewable energy sources, for instance expansion of gas infrastructure, publication of technical rules, please explain.

3,600 character(s) maximum

RES and grid planning should be better integrated at regional and national levels. A n obligation on Member States to make realistic, achievable plans for a sustainable energy transition would give greater certainty to all investors, make delivery more efficient, reducing overall costs and environmental impacts and make achievement of climate goals overall more certain.

21. Which obstacles, if any, would you see for the dispatching of energy from all generation sources including renewables on the basis of merit order principles? Should there be any exemptions in some specific cases?

- Yes, exemptions are necessary
- No, merit order is sufficient

Please specify: If yes, in which case and why? What are the lessons from the implementation of RED?

3,600 character(s) maximum

Renewable energy continues to face strong obstacles due to technical and institutional lock in to fossil and nuclear energy. Until distortions such as subsidies to fossil energy and unfair market design are removed, priority access and other supports will be needed to realise the potential of renewables.

It is of utmost importance that the principle of priority access and dispatch enshrined in the current RED should be maintained after 2020. Indeed, according to the merit order, in theory, electricity produced from non-carbon based renewable power plants should be the first one to be sold on the market and to be taken up by the grid. If network issues (i.e. grid constraints) arise, it however appears much cheaper and simpler to scale down renewable energy generation than inflexible nuclear or coal power plants. In a way, inflexible power plants benefit from a "de facto" priority dispatch.

It is also worth recalling that in some European countries coal-fired power plants benefit from a "legal" priority dispatch as much as renewable technologies do: this is allowed by article 25 of Directive 2009/72/EC. Similarly, co-generation can benefit from priority dispatch under the Energy Efficiency Directive.

The Trans-European Energy Networks (TEN-E) and Connecting Europe Facility currently still focus too heavily on gas infrastructure, based on inflated demand assumptions that are not in line with EU climate and energy objectives. In line with the Paris Agreement, it is time for the EU to support more electricity infrastructure.

22. Please assess the importance of stronger EU rules in the following areas to remove administrative barriers to renewable energy deployment:

	Very important	Important	Not very important	Not important	No opinion
Creation of a one stop shop at national level to allow for more streamlined permitting procedures	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online application for permits	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A defined maximum time-limit for permitting procedures, and effective consequences if deadline is missed	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Harmonisation of national permitting procedures	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Special rules for facilitating small-scale project permitting, including simple notification	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Pre-identified geographical areas for renewable energy projects or other measures to integrate renewable energy in spatial and environmental planning	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Any other views or ideas? To what extent has the RED been successful in reducing unnecessary administrative barriers for renewable energy projects in the Member States? Please specify.

3,600 character(s) maximum

'Administrative barriers' is a term often used to undermine important safeguards, for example for nature protection. 'Streamlining' administrative procedures is a worthwhile aim, but must not be at the expense of important measures to protect nature and to ensure access to information and justice.

The EEB strongly supports spatial planning for RES, taking into account ecological risks. Where this has been implemented, e.g. in France and Scotland, it has proven to protect wildlife effectively and to help with public acceptability. It needs to be highlighted though that spatial planning should be the starting point according to which renewable energy installations are located, not the other way around. However 'pre-defined areas' need not be the only ones open to developers. Rather spatial planning should be used to indicate to developers the locations in which consenting risks are likely to be lower.

Early stakeholder involvement will also facilitate a successful deployment of renewable energy installations and reduce the likelihood of time consuming disputes or even legal challenges.

Regional coordination and streamlining will bring many benefits, but as investment in RES and grid increases it will be important to do more in this context in order to integrate environmental objectives, such as nature protection, into the new policy and institutional arrangements. When EU regional and national climate and energy plans are drawn up for the post 2020 period it would make sense to consider each region's potential for renewable energy development and the need for related grid development as a single package. The need to deliver both generation and supply infrastructures without degrading Europe's ecology should be built into the Energy Union's planning and reporting processes, using SEA or a similar approach suited to strategic planning over large geographical areas.

23. Please identify precise challenges with regard to grid regulation and infrastructure barriers in EU Member States that you are aware of.

3,600 character(s) maximum

Nature protection designations and laws are often perceived as a 'barrier' to development, because consideration of these important safeguards is deferred to a very late stage in planning. This of course results in controversy. It also entails consenting to risks for promoters, who may proceed with developing their plans while unaware of the environmental realities on the ground.

The EU requirement to use 'strategic environmental assessment' (SEA) (Directive 2001/42) should, in principle, help to 'nature-proof' energy investment plans. It should ensure that public and environmental stakeholders are informed and consulted. Given the public opposition faced by large energy investments, such efforts to build legitimacy and minimise impacts are important. However, SEA is not applied by the European Commission to its own plans and programmes - for example for PCIs. Moreover, SEAs for national energy infrastructure plans, where these are carried out, rarely seek to avoid potential impacts on biodiversity and the Natura2000 network.

This means consideration of nature protection issues is effectively deferred to a point in time when developers are seeking spatial planning and/or development consents, i.e. after considerable investment of time and resources. This situation clearly has the potential to give rise to conflicts 'on the ground' between energy and environmental goals. If it is treated as an afterthought to expensive and important European and national plans, environmental realities are likely to appear as an obstruction, and the requirement to respect EU environmental law are likely to be seen, by some, as a cause of delays and costs.

The solution is not weakening or removal of administrative requirements, but earlier consideration in policy and planning so that these requirements are not confronted as 'barriers' to specific projects.

24. How would you rate the administrative burden and cost of compliance with the RED for national, regional and local authorities?

	Very important	Important	Not very important	Not important	No opinion
Administrative burden	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cost of compliance	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please explain. How could the administrative burden and cost of compliance be reduced in the period after 2020?

3,600 character(s) maximum

Streamlining administrative requirements is beneficial, provided it does not mean cutting corners with environmental safeguards and public engagement. Streamlining means doing the same job, but more efficiently.

For example it is possible to use 'tiering' of environmental assessments, so that strategic assessment of plans and programmes feeds into project level EIA's and 'appropriate assessments' required under the Habitats Directive. By considering the environment earlier in the policy and planning cycle, challenges are reduced at the stage when projects are delivered. However for 'streamlining' of this kind to be possible requires there to be adequate capacity in environmental authorities to fulfill their

remits.

25. Please rate the importance of stronger EU rules in the following areas to remove barriers relating to renewable energy training and certification:

	Very important	Important	Not very important	Not important	No opinion
Incentives for installers to participate in certification/qualification schemes	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increased control and quality assurance from public authorities	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Understanding of the benefits and potential of renewable technologies by installers	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mutual recognition of certificates between different Member States	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments, other ideas, please explain. To what extent has the RED been successful in reducing unnecessary training and certification barriers in the Member States?

3,600 character(s) maximum

26. How can public acceptance towards renewable energy projects and related grid development be improved?

3,600 character(s) maximum

Acceptability should be the goal, not 'acceptance'. More strategic planning to minimise impacts and public consultation will help to build legitimacy. Better enforcement of environmental law, weeding out the most damaging projects, will help to gain support and confidence of citizens. Environmental engagement should be supported in early stages of grid planning. More support should be awarded for micro-generation, self-consumption etc., and opportunities to invest in infrastructure projects, to give citizens more of a stake in the energy transition.

Public support can be enhanced in numerous ways that will also help achieve the EU's biodiversity target, for example:

- Reduce the total amount of new large scale infrastructure needed (wind farms, solar farms, biomass fired power stations, power lines) by requiring energy saving.
- A clearer differentiation is required between renewable energy sources that are still based on burning carbon (i.e. bioenergy) and those that are not carbon based, and between those that can cause large scale environmental damage (e.g. dams for hydropower) and those that can be deployed in a more decentralized, low impact manner (e.g. rooftop solar).
- Build public support through increasing transparency, consultation, access to justice.
- Require regional and national strategic RES planning using SEA to minimise impacts and stay within ecological limits. Complete the Natura2000 network offshore and improve implementation of the Birds and Habitats Directives across the EU.
- Build public support by giving people a stake in the energy transition - e.g. requ

ire MS to offer stable, attractive rewards for household and small scale generation.

- Grid development is needed as the share of variable RES increases. Find a way to reward in a fair and transparent way the communities through which power lines pass so they feel some benefit and to reduce local opposition.

Part 6: Increase the renewable energy use in the transport sector

Decarbonisation and the replacement of fossil fuels is particularly challenging in the transport sector. 94% percent of EU transport relies on oil products, of which 90% is imported and represents a growing share of carbon emissions. Against this background, the October 2014 European Council invited the European Commission to further examine instruments and measures for the transport sector, including the promotion of energy from renewable energy sources.

According to European Commission estimates, a significant contribution from renewable transport fuels will be required to meet the overall EU 2030 decarbonisation targets . To achieve this, measures will need to be put in place to require an increased market up-take and deployment of sustainable low-carbon biofuels and alternative renewable fuels as well as renewable electricity in battery electric vehicles and hydrogen in fuel cell vehicles.

For example, further use could be made of incorporation obligations, dedicated financing (in particular in the heavy duty transport and aviation industry) and measures to increase access to smart energy services and infrastructure and promote the development of advanced renewable fuels which are not based on food crops. Special care needs to be taken to remove current market distortions and fragmentations of the EU internal market.

28. To what extent has the RED been successful in addressing the following EU transport policy objectives?

	Very successful	Successful	Not very successful	Not successful	No opinion
Contribute towards the EU's decarbonisation objectives	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Reduce dependency on oil imports	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increase diversification of transport fuels	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increase energy recovery from wastes	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reduce air pollution, particularly in urban areas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Strengthen the EU industry and economy competitiveness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Stimulate development and growth of innovative technologies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Reduce production costs of renewable fuels by lowering the level of investment risk	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Facilitate fuel cost reduction by integration of the EU market for renewable fuels	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

Any other view or ideas? Please specify

3,600 character(s) maximum

The RED target for transport has been a big driver of crop-based biofuels and the 10% target is expected to be mostly met by using these biofuels (capped at 7% now). However, GHG savings between biofuels greatly vary especially if ILUC emissions are accounted for. In some cases the GHG footprint of biofuels can be worse than the one of the fossil fuels they are meant to replace (biodiesel) - but those indirect emissions are not taken into account in the RED. In that sense the RED target hasn't really delivered regarding the objective of decarbonising transport, since it incentivised mainly the least GHG savings ones.

In addition, the fact that mostly crop-based biofuels have been incentivised and used until now to comply with the 10% target has not helped to diversify a lot the type of fuels used in transport. The 1st generation biofuels sector received huge amounts of subsidies, mainly to buy the expensive feedstocks to the detriment of other sustainable alternatives (renewable electricity). See: <https://www.iisd.org/gsi/benefits-eu-biofuel-policies>

Other renewable fuels like electricity have not really been pushed into the market by the RED. The incentives were not clear enough for electricity, the methodology to account for its use in transport is still pending, and using guarantees of origin in the sector is still not allowed. Progress is particularly lagging behind in the road transport sector.

Overall, the technology neutrality approach within the RED sub-target for transport has failed by promoting crop-based biofuels at the expense of more sustainable fuels, such as renewable electricity.

Regarding the reduced dependency on oil imports, the RED created a new dependency, this time because of the need to import more vegetable oil or food as a compensation for the huge amount of EU vegetable oil now being used for biofuels and also biofuels' feedstocks.

29. Please name the most important barriers hampering the development of sustainable renewable fuels and renewable electricity use in transport?

Please explain, and quantify your replies to the extent possible.

3,600 character(s) maximum

The concept of technology neutrality has been promoted, but with incorrect parameters in place, including wrong carbon accounting (no inclusion of ILUC / correct carbon accounting for biofuels). Some negative effects of the biofuels push by the RED were already known at the time when the RED was adopted but these had not been quantified yet. Instead of waiting and ensuring predictable rules for many years to come, the EU chose to go ahead with incentivizing the wrong solutions and then had to make a U-turn last year by adopting a cap on land-based biofuels. This was a positive political signal that recognized the negative effects of the EU biofuels policies. However, it also shows that such early and not enough informed choices should be avoided in the future.

Regarding renewable fuels made from waste & residues that are presumably delivering more GHG savings than crop-based biofuels, the 2009 RED did not provide the right framework to correctly capture the diverse parameters of their use in transport. First, the RED didn't include a specific carbon performance metric that would differentiate renewable energy pathways based on their GHG savings or other environmental or s

ocial impacts, and therefore did not support the ones with highest GHG savings and lower overall impacts. It only referred to GHG thresholds and included some multiple counting for some of these biofuels from waste and residues. In addition, it didn't include a robust sustainability framework to take into account other elements than GHG savings (waste hierarchy, soil fertility, etc.). Combined with the absence of impact assessments, this didn't provide a robust framework for ensuring a stable and robust choice of the "quality" ones.

One of the barriers for the development of the most sustainable solutions was also the lack of coherence in policy framework, by for example not taking into account fully some issues related to competing uses or the existing provisions in the waste framework directive or not having enough impact assessments about the concrete impacts on land, resources used, etc. While there have been some steps taken to address these issues in the ILUC revision of the RED, inconsistencies still remain. The discussions around renewables in transport have been too much detached from the discussion around existing frameworks and impacts on the ground, in the EU but also outside the EU, in other regions of the worlds like South-East Asia for example.

Regarding renewable electricity, the RED lacks clear incentives. Accounting methodology of renewable electricity in transport is not straightforward in the RED, and there isn't a clear methodology yet at EU level for vehicles. No direct link with electricity providers. Other barriers include the lack of simple and standardized infrastructure for different forms of e-mobility as well as lack of incentives for consumers to charge electric vehicles off-peak hours.

30. Please rate the most effective means of promoting the consumption of sustainable renewable fuels in the EU transport sector and increasing the uptake of electric vehicles:

	Very effective	Effective	Not very effective	Not effective	No opinion
Increased use of certain market players' obligations at Member State level	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
More harmonised promotion measures at Member States level	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The introduction of certain market players' obligations at the EU level	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Targeted financial support for deployment of innovative low-carbon technologies (in particular to the heavy duty transport and aviation industry)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increased access to energy system services (such as balancing and voltage and frequency support when using electric vehicles)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increased access to alternative fuel infrastructure (such as electric vehicle charging points)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Any other view or ideas? Please specify.

3,600 character(s) maximum

The multiple choice questions above are very difficult to answer if there is no clear indication of what kind of renewable fuels are concerned.

Based on the results and impacts of the current RED, it is clear that there should not be a new dedicated transport target in the RED and the current 10% target should not be continued.

The EU should build on the 7% cap for limiting & progressively phasing down the amount of land-based renewable fuels, such as rapeseed, soy biodiesel, energy crops, etc. that can be counted towards targets at EU level. The 7% cap should progressively be lowered at EU level as from 2020.

In the case of electricity, market players' obligations would help a lot to ensure that car manufacturers have to offer a certain % of zero-emissions vehicles for example. But for biofuels, it could lead to blending mandates - a volume approach again - and therefore it wouldn't solve the current problem, as it would still be a quantity approach and not a quality one. In this case, what matters here the most is the quality of what the EU wants to incentivise.

Regarding advanced biofuels, non-land based (wastes, residues), the decision regarding a support at EU level should be based on environmental and climate criteria, over all assessing the quality of the biofuels produced, taking into account also the limited availability at sustainable levels of some of the waste and residues and the existing uses. Quantity should not be a priority when it comes to resource-based energy, because of the risk of detrimental effects on the environment, land rights, etc.

As for decarbonising transport fuels in general, a blending mandate has shown to be the wrong way to go. By using blending mandates for liquid fuels the flexibility to choose how to reach your target has been lost and the system excludes de facto other renewables (solar energy, etc) and only focuses on liquid renewables i.e. biofuels.

Based on the lessons learned from the current EU fuels policies, it seems crucial to put in place a review, for example in 2025 - to ensure that there are progressive checks of the policy's environmental, climate and social impacts and that any measure that would not help fulfilling the EU long-term goals is reviewed on time to avoid detrimental impacts, whether it relates to the climate, the environment, land use, etc. We need to avoid repeating the same mistakes that have been done with the current RED target.

Regarding electric vehicles, the very successful Co2 emission standards for vehicles should be extended to 2025 and should be amended with a flexible mandate for ultralow-carbon vehicles (ULCVs).

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