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-fee 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_R

[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.

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-fee will inform the impact assessment for REDII.

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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 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

AEBIOM (European Biomass Association)

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

The European Biomass Association (AEBIOM) is the common voice of the bioenergy sector with the aim to develop a sustainable bioenergy market based on fair business conditions.

AEBIOM is a non profit Brussels based international organisation founded in 1990 that brings together 29 national associations and around 90 companies from all over Europe thus representing more than 4000 indirect members including mainly companies and research centers.

AEBIOM holds a strong position representing all bioenergy sectors and has a unique possibility to influence European policies, communications and various other EU papers.

* Please enter your email address

info@aebiom.org

* Are you registered with the EC transparency register?

- [x] 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':

EU level

* 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.

3600 character(s) maximum

Although some measures of the current RES Directive would deserve to be

improved or better implemented, overall, the RES has allowed RES operators to organise and plan investments within a stable medium term regulatory framework. This is more the case for the electricity and heating and cooling sectors. In the transport sector, the ILUC debate and decisions have led to major uncertainties on the biofuels sector (see chapter 5).
Overall, the Directive has also encouraged Member States (MS) to support RES projects through financial incentives necessary to face fossil fuels competition. This stability and support is mostly based on the legal commitments from MS to reach a mandatory national RES target, which was a strong signal towards economic operators.

The 2008 financial and economic crisis as well as several relatively warm winters has led to a reduction / limited increase of overall energy consumption, therefore leading to a less important need of quantitative RES developments to reach the foreseen trajectories. RES development potential is still very high.

In the transport sector, biofuels production is today lower than the projections announced by Member States in their NREAPS. This is partly due to the legal and regulatory uncertainty that took place with the ILUC debate and decisions.

The 2013-2014 Russian – Ukraine gas dispute has led to important discussions at EU level regarding energy security. Unfortunately, the outcoming decisions have not identified RES development as the most important key solution to tackle this major challenge. In its “Energy Security Strategy”, RES are only mentioned as one possible measure in a list of many.

As far as the bioenergy sector is concerned, the RES Directive has played an important role for increasing EU bioenergy consumption. Statistical analysis indeed shows that bioenergy has regularly increased since the Directive is in place. For more information, see AEBIOM 2015 statistical report – which exhaustive version is free of charge for EU Policy makers.

Regarding technological developments, improvement is of course still possible through R&D and innovation actions but overall, such development is not a barrier to the progress of the bioenergy sector as most technologies are mature. One important barrier concerning this sector is the uncertainty related to the sustainability discussion as the possibility of EU sustainability criteria from solid and gaseous biomass is being discussed since 2008 with no final decisions taken for the time being but possible decisions announced in a near future. This situation makes investments plans more complicated. AEBIOM is in favour of an EU harmonised sustainability policy.

More generally, an important barrier to the deployment of RES today is the low fossil fuel prices and the continuous support to fossil fuels which make competitiveness for RES more complicated, in particular in the H&C sector (no level-playing field). Fossil fuels subsidies should be urgently phased-out

and carbon outside the ETS sectors should be priced, as it is done today in several Member States who have introduced a carbon tax.

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	◉	○	○	○	○
Best practice is derived from the implementation of the existing Renewable Energy Directive	◉	○	○	○	○
Regional consultations on renewable energy policy and measures are required	○	○	○	○	◉
Member States consult on and adopt renewable energy strategies that serve as the agreed reference for national renewable energy policies and projects	◉	○	○	○	○
The Commission provides guidance on national renewable energy strategies	◉	○	○	○	○

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

3600 character(s) maximum

1) 27% RES objective is a minimum: AEBIOM is of the views that that the EU RES sector can deliver much more than the 27% RES target agreed on by Member States. The European Commission should fully capitalise on its right of initiative and propose ambitious mechanisms that incentivise Member States to pledge higher than 27%.

There are several major reasons why the EU should ensure that RES continue to develop: climate change tackling, energy security strengthening, jobs creation etc…

2) A new term for the RES Directive: An essential aspect to ensure stability in the RES sector development is to build the new RES Directive on the basis of the existing one. Several provisions have set clarity, have delivered results and should be maintained (articles 2, 5) or reinforced (art 13 or 14, etc).The revised Renewable Energy Directive should build upon the current acquis to capitalise on success achieved and ensure a seamless transition to the 2030 regime.

3) Robust Monitoring and reporting obligations: The mandatory national targets, together with the planning and monitoring tools (NREAPs and progress reports) have been a very strong and important signal towards the RES sector trough bringing visibility and stability. In the RES II legislation, although national mandatory targets are unfortunately no longer part of the system, it is essential that Member States provide clear information on their plan, strategy and measures to develop RES at national level and that such reporting and planning is somehow harmonised at EU level. This is essential both for EU institutions to make sure that the EU commitment of “at least 27% RES in 2030” is reached and for RES economic operators to get positive signals at policy and legislative level and to continue to invest into this sector. In this context, the template for national plans must be binding.

4) Differentiated EU mechanisms for target delivery: In addition to the reporting and monitoring system, the Commission should also foresee mechanisms (gap avoiders and gap fillers) that should be agreed in advance and enshrined in the revised Renewable Energy Directive, in order to make sure that the minimum 27% RES target will be reached (more information: see the joint statement of 12 RES EU associations: A legislative package to regain global leadership in renewable energy - www.aebiom.org)

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	◉	○	○	○	○
In relation to national/regional natural resources, specific technology relevant trajectories for renewable energy up to 2030	◉	○	○	○	○

Overview of policies and measures in place and planned new ones	◉	○	○	○	○
Overview of renewable energy trajectories and policies to 2050 to ensure that 2030 policies lie on the path to 2050 objectives	◉	○	○	○	○
Qualitative analysis	○	◉	○	○	○
Trajectories for electricity demand including both installed capacity (GW) and produced energy (TWh)	○	○	◉	○	○
Measures to be taken for increasing the flexibility of the energy system with regard to renewable energy production	○	◉	○	○	○
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	○	◉	○	○	○

Please explain.

3600 character(s) maximum

1) Keep the existing reporting format: Guidance, planning and reporting tools that need to be set under RES II Directive should follow the current RES approach and provide detailed information on RES development, distributed among energy sectors (H&C, electricity and transport) and among different RES technologies and sources, in order for RES stakeholders to have a clear vision on recent and expected developments.

2) Long term priorities: Preparing 2030 RES plans in relation to 2050 goals makes a lot of sense. Not only the EU (2050 roadmaps) but also several Member States have investigated possible energy developments and commitment towards 2050. As the EU is willing to reduce its GHG emissions by 80-95 % in 2050 compared to 1990, it is logical that 2030 RES plans contribute in an efficient and coherent way to this objective. Further developing RES towards 2030 is also fully in line with the three 2050 “no regret options”(RES, Energy Efficiency, infrastructure).

3) Flexibility: Regarding the flexibility of the energy system with regards to RES production, when it comes to the power sector, biomass for power can be a

solution to complement variable RES production methods. Hydropower, solar thermal electricity, geothermal and biomass, as disptachable RES, are desirable options to generate power along with demand side management, interconnections and storage.
In order to increase the flexibility in the system (both in the form of electricity and heating & cooling), the revised Renewable Energy Directive should put in place concrete provisions to unlock the potential of dispatchable renewable generation.

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.

3600 character(s) maximum

There are many possible uses of biomass to produce energy. First of all, biomass can be used to produce heat, electricity or biofuels. Secondly, when it comes to heat and electricity, biomass can be used in many different types of installations: from small to very large heating installations (possibly connected to a district heating network) ; from small to large combined heat and power (CHP) installations ; multifuel co-firing or biomass only power installations. These different uses vary significantly among Member States. Also, there are different feedstocks of biomass (wood, agro, waste). Finally, all RES are at different stages of maturity. In this context, it would be very difficult to define harmonised EU support schemes that would be adapted to all these situations.
Sufficient flexibility should be granted to Member States in the post-2020 period to design appropriate support mechanisms according to renewables technology maturity and technology-specific risk profiles and features
In order to ensure consistency between national levels, the approach of an EU guidance with general principles should be maintained.

In theory, incentives are generally meant to kick-start and not to stay in the long run. The problem is that fossil fuels are still highly subsidized in Europe and the carbon non sufficiently priced. Fossil fuels subsidies should be removed, and carbon externalities properly priced. ETS is one way to go ahead but should be improved. A carbon pricing outside the ETS sector is already in place in several EU Member States.

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?

3600 character(s) maximum

As mentioned above, AEBIOM is of the views that it is not possible to introduce EU level harmonised support schemes.

Apart from national support schemes, necessary in certain cases, it would be interesting to focus efforts and financing on support to investments. As far as biomass is concerned, an important barrier, is the costs of initial investment. This is the case for private consumers, industries and district heating systems (local authorities). This barrier is even more important in a context of very cheap oil price. Through the future RES, EED and EBPD legislations, the EU could encourage the switch from fossil to renewable through co-supporting the initial investment cost. The financing could come both from EU and national funds. The implementation and activation would need to be organised at national or regional level so as to take into account the characteristics of the local context.

This support to investment is particularly important in district heating (DH). This would increase energy efficiency very much, reduce local air pollution, and create more renewable electricity production in CHP. When combined with electricity production, DH are also an opportunity for efficient energy heat recovery. Through supporting investments costs, the EU could promote this development, together with other political measures.

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.

3600 character(s) maximum

The existing cooperation mechanisms should be a possibility for MS to develop a smart enhanced regional cooperation. This should be based as much as possible on a bottom-up approach and exchange of information. Such mechanisms should remain voluntary.

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	○	○	○	○	○
Administrative complexities	○	○	○	○	○
Lack of cost-effectiveness / uncertain benefit for individual Member States	○	○	○	○	○
Government driven process, not market driven	○	○	○	○	○
Member States reluctant to see their taxpayers/ consumers' money used for investments outside their country	○	○	○	○	○

Other? Please explain.

3600 character(s) maximum

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.

3600 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	○	○	◉	○	○
EU-level requirements on market players to include a certain share of renewables in production, supply or consumption	○	○	◉	○	○

EU-level financial support (e.g. a guarantee fund in support of renewable projects)	○	◉	○	○	○
EU-level support to research, innovation and industrialisation of novel renewable energy technologies	○	◉	○	○	○
Enhanced EU level regulatory measures	◉	○	○	○	○

Any other ideas or comments, please explain.

3600 character(s) maximum

1) Phase out fossil fuels subsidies: In order for the EU to be global number one in renewables, support to fossil fuels should be phased out, as announced by the Commission in its report “State of the Energy Union 2015”: “To put the right decarbonisation incentives in place, we will also push for a phase-out of fossil fuel subsidies”.

2) Make full use of right of initiative to reflect COP21 level of ambition:, The European Commission should fully capitalise on its right of initiative and propose ambitious mechanisms that incentivise Member States to pledge higher than 27%.

3) A robust governance system: In the absence of national binding RES targets, strong and reliable governance system should be put in place in order to make sure that Member States continue to ensure RES developments and contribute to the EU 27% RES target in 2030.

4) Propose differentiated EU mechanisms for target delivery: measures to prevent gaps between the collective obligation of the EU and Member States‘ plans (gap-avoiders) and instruments to fill such gaps (gap-filling instruments) should be agreed in advance and enshrined in the revised Renewable Energy Directive (more information: see the joint statement of 12 RES EU associations: A legislative package to regain global leadership in renewable energy - www.aebiom.org)

5) Conditionality of financing tools: Last but not least, existing EU financing tools (ex: Modernisation fund, Structural and Investment funds) should be assessed to ensure that the projects and actions supported by these tools are in line with the EU objective to become number one in RES and with the 2050 EU decarbonisation objectives.

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?

3600 character(s) maximum

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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.p

[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	○	○	○	○	○
Surplus electricity that is not self-consumed onsite cannot be sold to the grid	○	○	○	○	○
Surplus electricity that is not self-consumed onsite is not valued fairly	○	○	○	○	○

Appliances or enabler for thermal and electrical storage onsite are too expensive	○	○	○	○	○
Complex and/or lengthy administrative procedures, particularly penalising small self-consumption systems	○	○	○	○	○
Lack of smart grids and smart metering systems at the consumer's premises	○	○	○	○	○
The design of local network tariffs	○	○	○	○	○
The design of electricity tariffs	○	○	○	○	○

Other? Please explain.

3600 character(s) maximum

AEBIOM understand that the questions asked under chapter 2 of this consultation only concern the power sector and have prepared its answers on the basis of this understanding. However, one should not forget that self-consumption also exists in the H&C sector (individual biomass stoves and boilers).

As far as biomass is concerned, when it comes to self-consumption, one should differentiate between private consumers and industries. Regarding the first ones, self-consumption of electricity produced from biomass is not in place today. In the future, micro co-generation installations could be developed and provide an opportunity to private consumers to produce both heat and electricity in their house, provided that this is allowed on the legal side (on the basis of the current legislation this would seem complicated). The development of this technology should be encouraged.

Regarding the industrial sector, there a many companies (in particular wood sector companies: sawmills, pulp / paper, panels etc…) which have CHP unit on their site. In certain cases, electricity produced on site is self- consumed (eg: In Sweden, there are some 40 CHP installations in pulp factories, producing in total 6 - 6.5 TWh of electricity yearly. The electricity is mainly used internally in the factories). In other cases, the electricity production is not self-consumed but is sold to the grid, due to the support schemes in place and / or due to the fact that self-consumption is not encouraged. In the future, it could change depending on the incentives systems and the changes in legislation.

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

- [ ] Highly under-exploited
- [x] 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?

3600 character(s) maximum

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	○	◉	○	○	○	○
Lack of administrative capacity and/or expertise/ knowledge/information at the local level	◉	○	○	○	○	○
Lack of energy strategy and planning at local level	○	◉	○	○	○	○
Lack of eligible land for projects and private property conflicts	○	○	○	◉	○	○
Difficulties in clustering projects to reach a critical mass at local level	◉	○	○	○	○	○
Lack of targeted financial resources (including support schemes)	○	◉	○	○	○	○

Negative public perception	○	○	◉	○	○	○

Other? Please explain.

3600 character(s) maximum

As far as biomass is concerned, there are already in place CHP municipality plants which provide heat and electricity to inhabitants. This model could be further developed, in particular when new building blocks are being built or are subject to major renovations provided that administrative and financial barriers are removed. The biomass CHP cooperative format also already exists (eg: in Austria, Sweden, Finland – examples available at AEBIOM). This format could be further developed provided that administrative, competitiveness and financial barriers are removed. In this context, the involvement of local actors (for biomass: local biomass producers, logistic companies, consumers) is essential.

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	○	◉	○	○	○
Supporting local authorities in preparing strategies and plans for the promotion of renewable energy	◉	○	○	○	○
Facilitating cooperation between relevant actors at the local or municipal level	◉	○	○	○	○
Facilitating access to targeted financing	◉	○	○	○	○
EU-wide right to generate, self-consume and store renewable electricity	○	○	○	◉	○
Measures to ensure that surplus					

self-generated electricity is fairly valued	○	○	○	◉	○
Harmonized principles for network tariffs that promote consumers' flexibility and minimise system costs	○	○	○	◉	○

Other? Please explain.

3600 character(s) maximum

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?

3600 character(s) maximum

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)	○	○	◉	○	○
Lack of administrative capacity and/or expertise/ knowledge/information at the national and local level	○	◉	○	○	○
Lack of energy strategy and planning at the national and local level	○	◉	○	○	○
Lack of physical space to develop renewable heating and cooling solutions	○	○	○	◉	○
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					
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	◉	○	○	○	○
Lack of targeted financial resources and financing instruments	○	◉	○	○	○
Lack of definition and recognition of renewable cooling	○	○	○	○	◉
Lack of electricity market design supporting demand response, decentralised energy and self-consumption and thermal storage in buildings and district systems	○	○	○	○	◉
Lack of mapping tools to identify the resources potential at regional scale with local renewable energy	○	○	◉	○	○
Lack of tools and information to compare the lifecycle costs of the various alternative heating and cooling alternatives	◉	○	○	○	○
Negative public perception	○	○	◉	○	○

Other? Please specify and explain.

3600 character(s) maximum

1) Unfair competition: One barrier not mentioned in the list is the difficulty for RES to be competitive in a context where fossil fuel price is very low, negative externalities of fossil fuels are not properly priced, and fossil fuels continuing to receive subsidies. Other EU legislations must be complementary to the RES Directive to urgently phase-out fossil fuels subsidies, and to price greenhouse gas emissions in non-ETS sectors (as this is already the case in several EU Member States).

2) Information and awareness of consumers and local authorities (for

district heating) are among the most important barriers to renewable energy development in the H&C sector.

3) National / local energy strategies are sometimes missing. These would help RES actors to have a clearer vision to organise themselves in order to contribute to the planned objectives and targets. The strategy and planning exercise is also a driver to perform a concrete evaluation of RES potential and possibilities.

4) As far as financing is concerned, there are already existing financial tools at EU level, which allow to support RES development in the H&C sector (eg: conversion of fossil fuel heating system to a RES heating system in a district heating). However, this remains a priority among many others. One important remaining barrier is the lack of support to investments into individual biomass heating appliance. The cost of this investment is still high compared to fossil fuels and therefore, there is a need to encourage such investment to take place.

5) RES in Buildings: Regarding requirements in buildings codes, the current legislation sets measures to increase the share of RES in new buildings and buildings going under major renovation. These should become mandatory (already many Member States have introduced a mandatory minimum share of RES for new / renovated buildings) through addressing both the H&C and electricity sectors. It is also essential to address the existing stock of buildings. This could be done through a long-term refurbishment planning of existing building renovation, based on primary energy use requirement, as it was put in place in France under the “Loi de Transition Energétique”.

6) Better reflect RES H&C potential: One barrier not mentioned in the list is the lack of information regarding the RES potential in the H&C sector in EU modelling exercise for mid / long term projections. Assumptions of such exercise need to be revised and data collection need to be improved. RES can deliver more than what EU models planning. Recognising this potential in the modelling exercise would contribute to strengthen investors and consumers awareness.

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	○	○	◉	○	○
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	◉	○	○	○	○

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	○	◉	○	○	○
Measures supporting best practices in urban planning, heat planning, energy master planning, and project development	○	◉	○	○	○
Criteria and benchmarks for promoting district heating and cooling taking into consideration the local and regional conditions	○	◉	○	○	○
Nearly zero-energy building (NZEB) standards to include a mandatory minimum use of renewable energy	◉	○	○	○	○
Including systematically renewable energy production in buildings' energy performance certificates	○	◉	○	○	○
The promotion of green public procurement requirements for renewable heating & cooling in public buildings	○	○	◉	○	○
Heating and cooling equipment installers should present renewable energy alternatives when asked to replace fossil fuel heating and cooling equipment	◉	○	○	○	○
Develop best practices for enterprises, including SMEs, to integrate renewable heating and cooling into their supply chains and operations	○	◉	○	○	○
Requirement to consider renewable energy alternatives in subnational, national, regional or EU security of supply risk	◉	○	○	○	○

preparedness plans and emergency procedures					
Targeted financial measures	◉	○	○	○	○

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

3600 character(s) maximum

1) Mandatory RES requirement in new / renovated buildings: In the current Article 13.4 of the RES Directive, minimum obligations of renewables in new buildings and renovated buildings (including through district heating) should be introduced addressing both the H&C and electricity sectors. To date, article 13.4 does not set an obligation. In practice, mandatory minimum obligations are already in place in a number of EU countries and are key to improve awareness and knowledge in the construction sector, of consumers, as well as of installers. Such a provision is also very much needed to complete the concept of 'nearly zero energy buildings' (NZEB) which today does not guarantee that energy consumed in new buildings after 2020 will actually come from renewables

2) Long term renovation strategies for existing buildings: Focusing measures only on new buildings and renovated buildings will not be sufficient to decarbonise the H&C sector. Further actions must be taken to support measures in existing buildings stocks. When it comes to existing buildings, rather than setting a renewable heating and cooling obligation, it may be more efficient to set long term (2050) national refurbishment strategies. Minimum requirements in terms of primary energy could be established. Such a provision would mean a need for a mechanisms triggering renovation cycles by 2050 that promote only the most efficient technologies using renewable energy (for example, for individual appliances, linking support schemes with eco-labelling requirements). This provision could be set under the EED. Long term deep renovation, including the replacement of heating systems is more effective than a quick-fix-approach which can lock-in technologies not compatible with long-term decarbonisation objectives (see also AEBIOM answer to the EED public consultation). Regarding district heating (DH), the above mentioned requirement would contribute to support new DH installations but also to improve/modernize existing installations through better energy efficiency performance as well as a switch from fossil to RES.
Overall, the current provisions of the RES directive in article 13 and 14 must be maintained and strengthened after 2020, especially regarding increase of awareness, simplification of administrative procedures, certification of installers.

3) Do not forget the industrial sector: The question above does not focus much on the industrial sector whereas this is a very important one when it comes to H&C consumption. It would be appropriate and useful to think about measures that encourage industrials sites to switch from fossil to renewable energy sourcing. One of the reasons why this switch is not taking place at a large scale today is the lack of information and awareness of industrial sites, as well as the fact that carbon is not properly priced today. One idea could be

to require national / regional benchmarks of industries heat consumption and sources and, based on the results of this exercise, instore appropriate measures.

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	○	○	○	○	○
Shorter trading intervals (e.g. 15 min)	○	○	○	○	○
Lower thresholds for bid sizes	○	○	○	○	○
Risk hedging products to hedge renewable energy volatility	○	○	○	○	○
Cross border capacity allocation for short-term markets (i.e., some capacity being reserved for intraday and balancing)	○	○	○	○	○
Introduction of longer-term transmission rights (> 3 years)	○	○	○	○	○
Regulatory measures to enable thermal, electrical and chemical storage	○	○	○	○	○
Introduction of time-of-use retail prices	○	○	○	○	○
Enshrine the right of consumers to participate in the market through demand response	○	○	○	○	○

Any other view or ideas? Please specify.

3600 character(s) maximum

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)?

3600 character(s) maximum

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	○	○	○	○	○
Transparent and foreseeable grid development, taking into account renewable development and integrating both TSO and DSO level and smart technologies	○	○	○	○	○
Predictable transparent and non-discriminatory connection procedure	○	○	○	○	○
Obligation/priority of connection for renewables	○	○	○	○	○
Cost of grid access, including cost structure	○	○	○	○	○
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.

3600 character(s) maximum

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?

3600 character(s) maximum

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	○	○	○	○	○
Online application for permits	○	○	○	○	○
A defined maximum time-limit for permitting procedures, and effective consequences if deadline is missed	○	○	○	○	○
Harmonisation of national permitting procedures	○	○	○	○	○
Special rules for facilitating small-scale project permitting, including simple notification	○	○	○	○	○
Pre-identified geographical areas for renewable energy projects or other measures to integrate renewable energy in spatial and environmental planning	○	○	○	○	○

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.

3600 character(s) maximum

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

3600 character(s) maximum

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	○	○	○	○	○
Cost of compliance	○	○	○	○	○

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

3600 character(s) maximum

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	○	◉	○	○	○
Increased control and quality assurance from public authorities	○	◉	○	○	○
Understanding of the benefits and potential of renewable technologies by installers	◉	○	○	○	○
Mutual recognition of certificates between different Member States	○	○	○	○	◉

Comments, other ideas, please explain. To what extent has the RED been successful in reducing

unnecessary training and certification barriers in the Member States?

3600 character(s) maximum

Article 14 of the current RES Directive already sets provisions related to information and training. These need to be strengthened for better implementation in order to allow installers to be trained on RES technologies and financings so that the information can reach the consumers more easily.

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

3600 character(s) maximum

Public acceptance towards renewable energy projects could probably be improved if there was a better planning and setting of the energy system taking into account the characteristics of both variable and distpatchable renewable energy sources. The role of these later should better recognised and taken into account when setting plans and taking actions to develop RES electricity. Both variable and dispatchable RES sources have an important role to play.

Dispatchable renewable energy sources such as geothermal, ocean-thermal, salinity gradient, hydropower, solar thermal electricity, solid biomass and biogas, are desirable flexibility options to generate power along with demand-side management, interconnections, and storage. In this context, flexible RES technologies can be used in partial load operation and in certain cases can quickly ramp their output up and down on demand. Additionally, some RES (including biomass) can be used for the combined generation of heat and power, and be connected to local district heating systems. Extra flexibility stems from the fact that the respective shares of heat and power can be adjusted, and from the possibility to convert a surplus of RES electricity to heat- including the option of heat storage. A better planning of all RES sources combined with better training and information of installers would strengthen consumer's awareness and acceptance of RES projects.

As far as biomass is concerned, an important aspect of public acceptance is sustainability. AEBIOM is in favour of an EU harmonised sustainability policy.

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	○	○	◉	○	○
Reduce dependency on oil imports	○	○	○	◉	○
Increase diversification of transport fuels	○	○	◉	○	○
Increase energy recovery from wastes	○	○	○	◉	○
Reduce air pollution, particularly in urban areas	○	○	○	○	◉
Strengthen the EU industry and economy competitiveness	○	○	○	◉	○
Stimulate development and growth of innovative technologies	○	○	◉	○	○
Reduce production costs of renewable fuels by lowering the level of investment risk	○	○	○	◉	○
Facilitate fuel cost reduction by integration of the EU market for renewable fuels	○	○	◉	○	○

Any other view or ideas? Please specify

3600 character(s) maximum

The 10 percent target has been diluted through the ILUC-rules and double counting. The positive aspect is that the target gave a focus to the transport sector and its contribution to decarbonisation in EU.

The dependence of imported oil is still very high in the transport sector, and RED has made little to change this. Only a couple of member states so far have reached the target.

The market is still totally dominated by fossil diesel and fossil petrol. The ILUC-rules and the discussions prior to this decision have strengthened the position of the fossil fuels on the market compared to RES. In most countries there is very little diversification, as they only use low-blend strategies.

Production of transport fuels from waste (2nd generation) is still very low. This is due to uncertainty in regulation and of support systems not functioning well. Of many proposals to NER300 only few projects were funded of which only these biofuels projects are operating today:

BEST cellulosic ethanol project, Crescentino, Italy
VERBIO straw to biomethane plant, Schwedt Germany

The European biofuel industry has been badly hurt by political uncertainty and lack of long-term policies. The ILUC debate has aggravated this problem. The European biofuel industry is losing ground and competitiveness on the global market, compared to the industry in the U.S., Brazil and Asia.

Limited resources have been allocated for research and development, but few demonstration and full-scale project have been realised. Awarded NER300 money has in many cases not been used due to the conditions for support, and a non-existent market for the produced fuels. Moreover, the NER300 program has in many ways delayed projects and hindered others waiting for the awards.

Uncertainty about future support mechanisms and non-existent markets still pose a big risk. To reduce costs, several full-scale units need to be built for each technology. It is the same kind of investors in both so called first and second generation biofuels. The strict terms to get a grant for demo plants have been a risk when evaluating the chances for success. The financial conditions for project finance of production plants set by EIB is not on par with the politics to support biofuels production.

No integrated market has been developed. Instead, each country has developed its own regulatory system. In several cases volumes go to the country that gives the most favourable support. This is not cost effective on an EU level. However, the sustainability criteria have created a common basis when it comes to sustainability, which is positive.

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.

3600 character(s) maximum

One important barrier is that EU has not indicated any target for renewable energy in the transport sector for 2030. This creates a major uncertainty about the political support for renewable energy in the sector. Only a few EU member states are near the RED targets for 2020, and it seems probable that many member states will miss their targets. By not adopting a target for 2030, EU has decreased the pressure on member states to fulfil the short-term goal. Together with ILUC decisions (including double counting) this will not contribute to decrease the dependence on fossil fuels. The recent biofuels development experience shows how biofuels developments are sensitive to unstable policy context. For ensuring renewable transport development in the future, policy stability is needed.

The biofuels development has been badly hampered by the debate surrounding the ILUC issue and the changes of RED following the ILUC decisions. This keeps investors away from Europe and makes them move to other, more certain markets, in other parts of the world. Europe is today losing its position as world leader in biofuels. Development of new, so-called “advanced” biofuels, based on new feed-stocks, depends on a strong market for the existing conventional biofuels. Often, the same companies are actively pursuing both kinds of biofuels. By limiting the market for biofuels in general, with the revised RED directive (ILUC rules), this also hurts the development on new biofuels and thus, benefits the fossil transport fuels.

To develop new biofuels from cellulosic feedstock and new production processes, massive support is needed for research, development and demonstration of these new technologies. A number of large-scale production units must be built in the coming years. For this to happen, the investors and bankers need secure, long-term conditions. Today, this is not happening. The conditions after 2020 are not clear. High quality of technology providers and machine suppliers are available today in EU but it remains difficult to go the commercialisation phase. The risk is that these developments may move where there is more support (US; Brazil, China)

There is room for biofuels with high GHG reduction and for electrical vehicles. Efficient hybrids using both renewable electricity and biofuels may offer the optimal solution. It is important to keep all options open.

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	○	◉	○	○	○

More harmonised promotion measures at Member States level	○	○	○	○	◉
The introduction of certain market players' obligations at the EU level	○	○	○	◉	○
Targeted financial support for deployment of innovative low-carbon technologies (in particular to the heavy duty transport and aviation industry)	○	◉	○	○	○
Increased access to energy system services (such as balancing and voltage and frequency support when using electric vehicles)	○	○	○	○	◉
Increased access to alternative fuel infrastructure (such as electric vehicle charging points)	○	◉	○	○	○

Any other view or ideas? Please specify.

3600 character(s) maximum

Quota systems and blending obligations have proven to be secure ways of creating a market up to a certain level. But they can also be a limiting factor if they are set low compared to the production potential on the market and hamper the development and market introduction of pure or high blending biofuels which is needed in the future.

Regarding the idea of the market's player obligation, which would be these players be (Fuel companies? Airlines? Maritime freight companies?), and would they be answering directly to the Commission?

Targeted financial supports for innovative low carbon technologies could be effective if the lessons learned from NER300 are used. The support needs to be long-term.

It is important to promote alternative fuel infrastructure both for electric vehicles and for high-blend or pure biofuels like E85, ED95, B100, HVO100 and biogas.

EU needs to strengthen its commitment to production and use of biofuels for transport, in particular for second generation biofuels.

Beyond 2030 Member States should be stimulated to set objectives and measures to ensure renewable transport development. EU has large untapped resources

both in agriculture and in forestry for increasing biofuels production.
As far as agricultural land is concerned, according to one scientific study (Mapping the extent of abandoned farmland in Central and Eastern Europe using MODIS time series satellite data, Alcantara, Kümmerle et al, Environmental Research letters, Sept 2013) there is 52,5 million hectares of abandoned farmland in East and Central Europe. This potential is not exploited today.

EU policy should promote both electric vehicles (as long as using RES electricity) and biofuels.
The state aid rules should make it possible to fully use taxation as a support mechanism for energy transition and greenhouse gas reduction. Biofuels should have reduced CO2 tax due to its well-to-wheels GHG- reduction. High performing solutions should be promoted.
When quota systems are used, they should be based on greenhouse gas reductions compared to fossil fuels.

Energy and carbon dioxide taxation in the transport sector should be harmonised on a European level, to guarantee a level playing field between actors on the common European market. For aviation and maritime transports, where taxation is limited according to international agreements, targeted support to promote biofuels could be needed. Double-counting should also be removed. It is a way of giving the public a false picture of the conversion from fossil fuels to renewable fuels.

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