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.

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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

APIGCEE - Associação Portuguesa dos Industriais Grandes Consumidores de Energia Eléctrica (Association of Large Industrial Electricity Consumers in Portugal)

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

Associação Portuguesa dos Industriais Grandes Consumidores de Energia Eléctrica (APIGCEE) is the Association of Large Industrial Electricity Consumers in Portugal, which is member of IFIEC Europe since 1998. APIGCEE aims at safeguarding the interests of its members in the industrial use of electricity and contributing to the establishment of a regulatory system in the electricity sector that promotes transparency among the activities of generation, transmission and distribution as well as to increase the efficiency and quality of service. APIGCEE with an aggregated power consumption of 4.5 TWh (2014) represents approximately 10% of the total electricity consumption and 25% of industrial consumption in Portugal.

* Please enter your email address

directorexecutivo@apigcee.pt

* 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
- [x] Portugal
- [ ] Romania
- [ ] Slovakia
- [ ] Slovenia
- [ ] Spain
- [ ] Sweden
- [ ] United Kingdom
- [ ] Other

* 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

The Renewable Energy Directive (RED) has been implemented in different EU countries with very diverse targets. Some countries like Portugal aimed for an ambitious target of 31% of renewables leading to massive implementation of windfarms. Feed-in tariffs are largely used and electrical energy produced by

wind farms has priority access to the grid. Since wind energy is characterized by its intermittency, conventional thermal power plants have to ensure the load when there is no wind. Regulated costs have increased dramatically placing an extra burden on consumers.

During the windiest season a decrease on the wholesale electricity prices is noticeable which is outweighed by the increase in thermal power plants' electricity production during other periods of the year. Reverse pumping has been extensively used for energy storage.

The development of technology to harness renewable energy should be pointed out as one of the positive aspects of RED. RED had a positive impact on environment through emission reduction but led to less competitive regulatory costs.

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

Care should be taken with over optimistic mandatory national targets for RES penetration. Studies should be performed at national level to ascertain the economic impact of the increase of RES targets as well as its cost efficiency. We agree that a binding global EU target for renewables should be met. Paper work should be streamlined as much as possible avoiding too much “red tape”.

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

Concerning the issue on “national/regional natural resources, specific technology relevant trajectories for renewable energy up to 2030” there shouldn’t be any technology prescription. In order to achieve the long term goals, it should be left to the market to single out which are the most effective technologies to be deployed.

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

Most technologies used for harnessing RES are mature (e.g. wind generators, solar thermal collectors and to a lesser extent photovoltaics), therefore support schemes should be phased out. Energy acquisition contracts (and reserve capacity) place an unduly burden on regulated costs rendering electricity costs less competitive.

When it comes to the electricity sector, support should instead be directed to research and development aimed at delivering competitive electricity prices by reducing the levelised costs of electricity (LCOE) from renewables, as to make them cost-competitive with conventional electricity generation.

In case support schemes are to be implemented, APIGCEE considers that is less harmful a “Harmonised EU-wide level support schemes” to prevent further distortion of the market, thus creating a level playing field without each Member State (MS) setting its own rules.

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

An EU-level harmonised support scheme is difficult to implement, because each MS tend to defend its own competitiveness through the management of the power production system. Despite the referred hurdle the mechanism could be implemented through a Directive aimed at developing high potential technologies that need an economic stimulus to become market competitive. This stimulus should be limited in time and only applicable to an installed power cap.
The RES targets would be fostered by the RES access prime to the market and the CO2 value applicable to thermal power plants. RES financing should be achieved from the emitted CO2 or from a fund aiming at decarbonising European economy.

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 instruments in the Renewable Energy Directive seem to be enough to achieve a fair penetration of RES projects across Europe. Cooperation between project promoters and technology suppliers achieved a high degree of success in many EU countries mainly due to market drivers. Cross border investments with new production units have been implemented in some EU countries (e.g. ENERCON factory of wind turbine blades and supporting struts in Portugal – Viana do Castelo).
Once again it is important to stress that undue subsidies should be minimized as a way to prevent market distortion.
Development of less mature RES technologies should be fostered by joint support schemes involving as much as possible different EU players. The Commission surely has a role in devising the appropriate legal framework for these support schemes.

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

Another factor limiting cooperation mechanisms is the burden with RES being supported by the regulated costs (e.g. access tariffs to the grid) in one MS and the benefits accounted on the targets of another MS.

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

A renewable electricity producer should not be discriminated per se if the project is implemented in another Member State. We see as positive that partnerships are established with local enterprises to implement RES projects which may lead to synergies reducing capex and provide easier access to Member State support schemes. The support schemes may vary and the following can be suggested:

- Exemption / reduction of land occupation fees provided by local authorities;
- Income tax exemption / reduction for a limited time frame;
- ….

The main objective is that the burden of support schemes is not directly passed through to regulated electricity tariffs, thus penalizing consumers.

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

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

Peripheral MS produce more electricity from RES than needed for their quota, thus supporting over costs for all renewable energy (RE) produced. The over costs could be allocated (e.g. through green certificates' acquisition) to end-users which are willing to pay a higher price for an energy mix containing more RES (mainly in central Europe MS), therefore relieving the producers.

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

Electrointensive industries have predictable load diagrams and can play a very important role in integrating electricity produced from RES. Industrial units which can modulate their consumption can absorb extra electrical energy generated from RES especially in off-peak periods, thus avoiding that the marginal electricity price drops to values close to zero. Industrial units which have rectangular load diagrams (reduced modulation capacity) can also be extremely helpful in absorbing intermittent electricity production from RES during off-peak hours.

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?

3600 character(s) maximum

RED has been effective and efficient in helping exploiting the renewable energy potential at local level. Quite often local authorities applied for distribution grid connection permits and auctioned them to the highest bidder to implement RES projects. New offshore wind energy projects are being implemented. We regret that most of the connection burden is taken by the Transmission System Operator (TSO) with a cost increase to the system which needs to be supported by consumers.

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

Undertakings may choose to become, partially, auto-generators in case investment support schemes are provided. This would be a one-off support that would not perpetuate in time through “feed-in tariffs” or rents.

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

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APIGCEE will not comment on this topic.
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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

The use of biomass in industry has a strong penetration in the pulp and paper sector. Combined Heat and Power (CHP) is largely used in this sector as well. CHP solutions using natural gas (in gas engines and gas turbines) are sometimes preferred to biomass boilers producing steam and partially expanding it in backpressure turbines for electricity generation.
Gas engines and gas turbines have higher efficiencies when compared to steam turbines (back pressure, extraction and condensing turbines) providing more electrical energy, which has a higher value than thermal energy. The renewable energy heating applications may also be hindered by biomass availability, storage facilities, logistics, etc.

The use of biogas produced from urban waste or waste water treatment plants is not always feasible due to low production and more cumbersome technology (e.g. filtration equipment and hydrogen sulphide removal, etc.).

It should be pointed out that biomass has a wide field of application and survives in competitive markets without any type of support (e.g. feed-in tariffs). MS are primarily concerned with electricity from RES and tend to forget well balanced support measures (without much investment) in the heating and cooling sector.

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

APIGCEE considers that this group of questions is out of the scope of activity of its Associates.

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

Demand side response mechanisms applied to the industry sector should remain optional in order to guarantee its cost-effectiveness. The economic impact of stopping production at industry level can induce heavy losses; therefore APIGCEE is cautious regarding the support of regulation enforcing mandatory demand side response.

The industries with modulation capacity (between minimum and maximum technical limits) may provide a valuable contribution in balancing the electrical system

by closing the gap between production and demand, by ensuring a firm compromise on energy consumption on a daily or weekly basis.

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?

- [x] 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

RES generators use mature technologies and should comply with balancing responsibilities and their associated costs likewise any other generator participating in the market. A level playing field in the grid balancing responsibilities should be ensured between RES and conventional power plants, therefore reducing the balancing burden of TSO's and generating fewer costs for the system.

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

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

3600 character(s) maximum

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

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

Policies used to reduce the carbon footprint of the transport sector and the role of RES has shown lack of coherence. As an example one should point out the shift in EU biofuels policy which hampered many investment plans.

Electro mobility still lacks cost-effective storage technical solutions for renewable electricity. Furthermore the uptake of RES technology in private transportation is still strongly dependent on public perception of its pros and cons.

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

Contact

✉ Sara.DEMEERSMAN-JAGANJACOVA@ec.europa.eu