

A sustainable bioenergy policy for the period after 2020

Fields marked with * are mandatory.

Introduction

EU Member States have agreed on a new policy framework for climate and energy, including EU-wide targets for the period between 2020 and 2030. The targets include reducing the Union's greenhouse gas (GHG) emissions by 40 % relative to emissions in 2005 and ensuring that at least 27 % of the EU's energy comes from renewable sources. They should help to make the EU's energy system more competitive, secure and sustainable, and help it meet its long-term (2050) GHG reductions target.

In January 2014, in its Communication on A policy framework for climate and energy in the period from 2020 to 2030,[1] the Commission stated that '[a]n improved biomass policy will also be necessary to maximise the resource-efficient use of biomass in order to deliver robust and verifiable greenhouse gas savings and to allow for fair competition between the various uses of biomass resources in the construction sector, paper and pulp industries and biochemical and energy production. This should also encompass the sustainable use of land, the sustainable management of forests in line with the EU's forest strategy and address indirect land-use effects as with biofuels'.

In 2015, in its Energy Union strategy,[2] the Commission announced that it would come forward with an updated bioenergy sustainability policy, as part of a renewable energy package for the period after 2020.

Bioenergy is the form of renewable energy used most in the EU and it is expected to continue to make up a significant part of the overall energy mix in the future. On the other hand, concerns have been raised about the sustainability impacts and competition for resources stemming from the increasing reliance on bioenergy production and use.

Currently, the Renewable Energy Directive[3] and the Fuel Quality Directive[4] provide an EU-level sustainability framework for biofuels[5] and bioliquids.[6] This includes harmonised sustainability criteria for biofuels and provisions aimed at limiting indirect land-use change,[7] which were introduced in 2015.[8]

In 2010, the Commission issued a Recommendation[9] that included non-binding sustainability criteria for solid and gaseous biomass used for electricity, heating and cooling (applicable to installations with a capacity of over 1 MW). Sustainability schemes have also been developed in a number of Member States.

The Commission is now reviewing the sustainability of all bioenergy sources and final uses for the period after 2020. Identified sustainability risks under examination include lifecycle greenhouse gas emissions from bioenergy production and use; impacts on the carbon stock of forests and other ecosystems; impacts on biodiversity, soil and water, and emissions to the air; indirect land use change impacts; as well as impacts on the competition for the use of biomass between different sectors (energy, industrial uses, food). The Commission has carried out a number of studies to examine these issues more in detail.

The development of bioenergy also needs to be seen in the wider context of a number of priorities for the Energy Union, including the ambition for the Union to become the world leader in renewable energy, to lead the fight against global warming, to ensure security of supply and integrated and efficient energy markets, as well as broader EU objectives such as reinforcing Europe's industrial base, stimulating research and innovation and promoting competitiveness and job creation, including in rural areas. The Commission also stated in its 2015 Communication on the circular economy^[10] that it will 'promote synergies with the circular economy when examining the sustainability of bioenergy under the Energy Union'. Finally, the EU and its Member States have committed themselves to meeting the 2030 Sustainable Development Goals.

[1] COM(2014) 15.

[2] COM/2015/080 final.

[3] 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 (OJ L 140, 5.6.2009, p. 16).

[4] Directive 98/70/EC of the European Parliament and of the Council of 13 October 1998 relating to the quality of petrol and diesel fuels and amending Council Directive 93/12/EEC (OJ L 350, 28.12.1998, p. 58).

[5] Used for transport.

[6] Used for electricity, heating and cooling.

[7] Biomass production can take place on land that was previously used for other forms of agricultural production, such as growing food or feed. Since such production is still necessary, it may be (partly) displaced to land not previously used for crops, e.g. grassland and forests. This process is known as indirect land use change (ILUC); see <http://ec.europa.eu/energy/en/topics/renewable-energy/biofuels/land-use-change>.

[8] See more details on the existing sustainability framework for biofuels and bioliquids in section 5.

[9] COM/2010/0011 final.

[10] Closing the loop – an EU action plan for the circular economy (COM(2015) 614/2).

1. General information about respondents

★ 1.1. In what capacity are you completing this questionnaire?

- ☐ academic/research institution
- ☐ as an individual / private person
- ☐ civil society organisation
- ☐

- international organisation
- ☒ other
- ☐ private enterprise
- ☐ professional organisation
- ☐ public authority
- ☐ public enterprise

1.8. If replying as an individual/private person, please give your name; otherwise give the name of your organisation

200 character(s) maximum

European Biofuels Technology Platform/ETIP Bioenergy

1.9. If your organisation is registered in the Transparency Register, please give your Register ID number.

(If your organisation/institution responds without being registered, the Commission will consider its input as that of an individual and will publish it as such.)

200 character(s) maximum

1.10. Please give your country of residence/establishment

- ☐ 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 non-EU European country
- ☐ Other non-EU Asian country
- ☐ Other non-EU African country
- ☐ Other non-EU American country

* 1.11. Please indicate your preference for the publication of your response on the Commission's website:

(Please note that regardless the option chosen, your contribution may be subject to a request for access to documents under [Regulation 1049/2001](#) on public access to European Parliament, Council and Commission documents. In this case the request will be assessed against the conditions set out in the Regulation and in accordance with applicable [data protection rules](#).)

- ☒ Under the name given: I consent to publication of all information in my contribution and I declare that none of it is subject to copyright restrictions that prevent publication.
- ☐ Anonymously: I consent to publication of all information in my contribution and I declare that none of it is subject to copyright restrictions that prevent publication.
- ☐ Please keep my contribution confidential. (it will not be published, but will be used internally within the Commission)

Perceptions of bioenergy

2.1. Role of bioenergy in the achievement of EU 2030 climate and energy objectives

Please indicate which of the statements below best corresponds to your perception of the role of bioenergy in the renewable energy mix, in particular in view of the EU's 2030 climate and energy objectives:














































- ☒ Bioenergy should continue to play a dominant role in the renewable energy mix.
- ☐ Bioenergy should continue to play an important role in the renewable energy mix, but the share of other renewable energy sources (such as solar, wind, hydro and geothermal) should increase significantly.
- ☐ Bioenergy should not play an important role in the renewable energy mix: other renewable energy sources should become dominant.

2.2. Perception of different types of bioenergy

Please indicate, for each type of bioenergy described below, which statement best corresponds to your perception of the need for public (EU, national, regional) policy intervention (tick one option in each line):

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	Should be further promoted	Should be further promoted, but within limits	Should be neither promoted nor discouraged	Should be discouraged	No opinion
Biofuels from food crops	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Biofuels from energy crops (grass, short rotation coppice, etc.)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Biofuels from waste (municipal solid waste, wood waste)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Biofuels from agricultural and forest residues	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Biofuels from algae	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Biogas from manure	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Biogas from food crops (e.g. maize)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Biogas from waste, sewage sludge, etc.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Heat and power from forest biomass (except forest residues)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Heat and power from forest residues (tree tops, branches, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

Heat and power from agricultural biomass (energy crops, short rotation coppice)					
Heat and power from industrial residues (such as sawdust or black liquor)					
Heat and power from waste					
Large-scale electricity generation (50 MW or more) from solid biomass					
Commercial heat generation from solid biomass					
Large-scale combined heat and power generation from solid biomass					
Small-scale combined heat and power generation from solid biomass					
Heat generation from biomass in domestic (household) installations					
Bioenergy based on locally sourced feedstocks					

Bioenergy based on feedstocks sourced in the EU	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bioenergy based on feedstocks imported from non-EU countries	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please specify the "other" choice

200 character(s) maximum

reasonable sustainability limits should be respected by all above mentioned sections which are selected as 'should be further promoted'

3. Benefits and opportunities from bioenergy

3.1. Benefits and opportunities from bioenergy

Bioenergy (biofuel for transport, biomass and biogas for heat and power) is currently promoted as it is considered to be contributing to the EU's renewable energy and climate objectives, and also having other potential benefits to the EU economy and society.

Please rate the contribution of bioenergy, as you see it, to the benefits listed below (one answer per line):

	of critical importance	important	neutral	negative	No opinion
Europe's energy security: safe, secure and affordable energy for European citizens	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Grid balancing including through storage of biomass (in an electricity system with a high proportion of electricity from intermittent renewables)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Reduction of GHG emissions	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Environmental benefits (including biodiversity)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

Resource efficiency and waste management					
Boosting research and innovation in bio-based industries					
Competitiveness of European industry					
Growth and jobs, including in rural areas					
Sustainable development in developing countries					
Other					

3.2. Any additional views on the benefits and opportunities from bioenergy? Please explain

2500 character(s) maximum

It is also important to highlight that the deployment of biofuels and bioenergy bring opportunities e.g. to decarbonize transport, boost economic growth and jobs and achieve steps towards energy security for Europe. For example, the “wasted” stud (<https://europeanclimate.org/wp-content/uploads/2014/02/WASTED-final.pdf>) estimates that biofuels from wastes and residues can create up to €15 billion annually which would flow into Europe’s rural economy and up to 133,000 permanent jobs would be created in feedstock collection and transport. In addition, construction of these biofuel plants would require up to a further 162,000 temporary workers, and operation of these plants would create up to a further 13,000 permanent jobs It will be necessary to identify synergies between the fuel generation and the fully established industries and to create biorefinery concepts for the optimal use of biomass. It should be kept in mind that a new biorefinery creates approximately 100 direct jobs and up to 1,000 more in ancillary services like maintenance and transport. Also towards 2030 and 2050, it is clear that biofuels will be part of an EU transport decarbonisation strategy that optimally uses its resources and technological assets. Moreover, with regard to BBI / bioeconomy along the whole value chain different sectors (material, chemicals, biofuels, CHP) can be provided. Moreover, from a strategic viewpoint one can benefit from the experiences / lessons learned (supporting elements, stakeholder and acceptance debates etc.) for decarbonising all the different sectors.

Biomass is an available option when it comes to grid balancing also having in mind a smart bioenergy approach (e.g. like here Thrän et al. Energy, Sustainability and Society (2015) 5:35 DOI 10.1186/s13705-015-0062-8) it’s a matter of progress of other renewable alternatives in the different EU MS. In the short and medium term we clearly see bioenergy as a promising option. There is a fair chance that the biomass market will become global, just like the

pellet market already is. Having an eye on the sustainability of the logistic and supply chains should be taken into account/is necessary.











4. Risks from bioenergy production and use

4.1. Identification of risks

A number of risks have been identified (e.g. by certain scientists, stakeholders and studies) in relation to bioenergy production and use. These may concern specific biomass resources (agriculture, forest, waste), their origin (sourced in the EU or imported) or their end-uses (heat, electricity, transport).

Please rate the relevance of each of these risks as you see it (one answer per line):

	critical	significant	not very significant	non-existent	No opinion
Change in carbon stock due to deforestation and other direct land-use change in the EU	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Change in carbon stock due to deforestation and other direct land-use change in non-EU countries	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Indirect land-use change impacts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
GHG emissions from the supply chain (e.g. cultivation, processing and transport)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
GHG emissions from combustion of biomass ('biogenic emissions')	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Impacts on air quality	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Impacts on water and soil	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Impacts on biodiversity	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Varying degrees of efficiency of biomass conversion to energy	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Competition between different uses of biomass (energy, food, industrial uses) due to limited availability of land and feedstocks and/or subsidies for specific uses					
Internal market impact of divergent national sustainability schemes					
Other					

4.2. Any additional views on the risks from bioenergy production and use? Please explain

2500 character(s) maximum

Having a look at the risks of bioenergy it should be compared to the risks of current energy carriers like coal, fossil fuel or nuclear power which are having long term impacts on the environment.

In theory, there is enough land available to feed a growing population and allow the production of renewable energies without any conflicts. A lot of food losses occur during the food production, processing or handling and cause food shortage in some regions of the world. A set of proactive measures such as education, training, supply with modern inputs, improved facilities for the storage of the harvests to avoid losses, improved access to markets, better extension services, more research to increase the production per hectare needs to be implemented in such regions. By keeping the current EU 7% cap of 'food' crops on the contribution of biofuels we do not see ILUC as a given risk. The ILUC does depend on the technology and production pathways of biofuels. An interesting study has been published on <http://www.globiom-iluc.eu/>.

Of course some feedstocks tend to have a higher ILUC, like Palm Oil, but we assume, that the risks of Palm Oil production are tackled under the categorie 'Change in carbon stock due to deforestation and other direct land-use change in non-EU countries' where we see a high risk.

In Europe, biofuels for transport are part of an important strategy to improve fuel security and independency, mitigate climate change and support rural development.

EU needs to take actions and sets EU wide standards. An internal market of divergent national sustainability schemes can lead to the risk of fraud and artificial trade.

5. Effectiveness of existing EU sustainability scheme for biofuels and bioliquids

In 2009, the EU established a set of sustainability criteria for biofuels (used in transport) and bioliquids (used for electricity and heating). Only biofuels and bioliquids that comply with the criteria can receive government support or count towards national renewable energy targets. The main criteria are as follows:

- Biofuels produced in new installations must achieve GHG savings of at least 60 % in comparison with fossil fuels. In the case of installations that were in operation before 5 October 2015, biofuels must achieve a GHG emissions saving of at least 35 % until 31 December 2017 and at least 50 % from 1 January 2018. Lifecycle emissions taken into account when calculating GHG savings from biofuels include emissions from cultivation, processing, transport and direct land-use change;
- Biofuels cannot be grown in areas converted from land with previously (before 2008) high carbon stock, such as wetlands or forests;
- Biofuels cannot be produced from raw materials obtained from land with high biodiversity, such as primary forests or highly biodiverse grasslands.

In 2015, new rules^[1] came into force that amend the EU legislation on biofuel sustainability (i.e. the Renewable Energy Directive and the Fuel Quality Directive) with a view to reducing the risk of indirect land-use change, preparing the transition to advanced biofuels and supporting renewable electricity in transport. The amendments:

- limit to 7 % the proportion of biofuels from food crops that can be counted towards the 2020 renewable energy targets;
- set an indicative 0.5 % target for advanced biofuels as a reference for national targets to be set by EU countries in 2017;
- maintain the double-counting of advanced biofuels towards the 2020 target of 10 % renewable energy in transport and lay down a harmonised EU list of eligible feedstocks; and
- introduce stronger incentives for the use of renewable electricity in transport (by counting it more towards the 2020 target of 10 % renewable energy use in transport).

[1] Directive (EU) 2015/1513 of the European Parliament and of the Council of 9 September 2015 amending Directive 98/70/EC relating to the quality of petrol and diesel fuels and amending Directive 2009/28/EC on the promotion of the use of energy from renewable sources (OJ L 239, 15.9.2015, p. 1).

5.1. Effectiveness in addressing sustainability risks of biofuels and bioliquids

In your view, how effective has the existing EU sustainability scheme for biofuels and bioliquids been in addressing the risks listed below? (one answer per line)

	effective	partly effective	neutral	counter-productive	No opinion

GHG emissions from cultivation, processing and transport					
GHG emissions from direct land-use change					
Indirect land-use change					
Impacts on biodiversity					
Impact on soil, air and water					

Any additional comments?

2500 character(s) maximum

In EU policy, the debate on ILUC was ongoing within recent years and has finally been settled with the result that no ILUC factors were included in the RED for lack of scientific conclusiveness and general agreement on this aspect. From our point of view the risk of ILUC cannot yet be judged in the question above. However, several questions remain open (direct and indirect land use, definition of biodiversity, soil, water, forest carbon balances and the related sustainability of forestry materials, social criteria, etc.).

All the previous mentioned issues and risks influence investor confidence, which is a main driver for commercial deployment of advanced biofuels in Europe. To achieve an investor friendly environment, a long-term stable policy at EU and national level is needed. The ongoing debate on sustainability needs to be settled by finding a recognised standard, which applies for all biomass sectors across Europe.

In some countries, biofuels have often a negative reputation owing to one-sided media coverage. The general sentiment for biofuels is not good due to ongoing debates about the sustainability of food-crop-based biofuels. The resulting indecisiveness hampers also the development of better performing biofuels. Apart from the fact that the private motorist is very concerned about fuel cost and the performance and reliability of his car the consumer is also influenced by the media and the ongoing debate about 'fuel vs food'. Sustainability criteria have been established to stabilise the consumer confidence in advanced biofuels.

The lessons learned from the recent years and the relevant impacts related to the implementation of sustainability criteria was the right way to go and clearly should be continued post-2020.

5.2. Effectiveness in promoting advanced biofuels

In your view, how effective has the sustainability framework for biofuels, including its provisions on indirect land-use change, been in driving the development of 'advanced' biofuels, in particular biofuels produced from ligno-cellulosic material (e.g. grass or straw) or from waste material (e.g. waste vegetable oils)?

- ☐ very effective
- ☐ effective
- ☐ neutral
- ☒ counter-productive
- ☐ no opinion

What additional measures could be taken to further improve the effectiveness in promoting advanced biofuels?

2500 character(s) maximum

It is hard to judge how effective the sustainability framework for biofuels has been. The double counting clearly has helped wasted material (e.g. UCO) to enter the market, helping member states for fulfilling their mandate. The established sector, producers of conventional biofuels have on the other hand side suffered thus the policy was not effective for the whole sector. The long-term vision for advanced biofuels industrialisation needs to be based on the existing conventional biofuels industry where technical, operational and financial synergies exist with advanced innovative pathways. In this respect, it is advisable to maintain a healthy sustainable conventional biofuels industry that facilitates the transition to advanced biofuels. For advanced biofuels, binding sub-targets are essential for providing a sufficient market outlook. The EBTP considers that innovative pathways are based on technologies with a high implementation potential and high well-to-wheel energy efficiency, but also elevated upfront development and demonstration costs, since they are still at demonstration scale. For upscaling, consistent efforts and investments are essential. When a technology matures, multiple counting should be phased out in a smooth transition allowing the learning curve and economies of scale to be built upon. Product quality should be more clearly emphasized; the final fuel(s) have to meet necessary standards and vehicle manufacturers' requirements. Artificial counting rules such as those that were introduced in the RED should be avoided. Such rules have so far had mostly disturbing effects on sound development and have introduced additional uncertainties. Dedicated energy crops should remain in the list of eligible feedstocks for advanced biofuels production, as they provide best land-use efficiency, can be grown on marginal or degraded land and are able to create additional income for farmers without competing with food. They should not be capped.

5.3. Effectiveness in minimising the administrative burden on operators

In your view, how effective has the EU biofuel sustainability policy been in reducing the administrative burden on operators placing biofuels on the internal market by harmonising sustainability requirements in the Member States (as compared with a situation where these matter would be regulated by national schemes for biofuel sustainability)?

- ☐ very effective
- ☐ effective
- ☐ not effective
- ☐ no opinion

What are the lessons to be learned from implementation of the EU sustainability criteria for biofuels?
What additional measures could be taken to reduce the administrative burden further?

2500 character(s) maximum

It is urgent and critical to prevent the EU bioindustry and bioeconomy from losing their importance and competitiveness at the international level. Post 2020 liquid transportation fuel and combustion engines will still make up by far the majority of road transportation in both light and heavy duty vehicles as well as in aviation and marine transport. A pragmatic and long-term approach to biofuel legislation is thus vital on an EU level. Such legislation should be based on simple, meaningful, quantifiable and verifiable criteria which are based on sound science and which are implemented without delay at Member State level. In addition it should not penalise the EU biofuels industries against the other regions and continents or for that matter unfairly against other alternatives like EV.

LUC and other sustainability criteria must still be further clarified. In addition rules for more explicit checking and for sustainability certification should be implemented and tested in Europe, and outside Europe as it is probable that imports from other regions will occur. Importantly as well, initiatives to inform and explain to the wider public the benefits of biofuels on the economy and on the Society (and the ongoing efforts to minimise their pitfalls) shall be encouraged and supported (see specific funding or activities such as the European Sustainable Energy Week, <http://www.eusew.eu>). Policy makers and stakeholders should invest efforts into informing the public of the values and impacts of large scale bio-industrialisation in Europe. To avoid a patchwork of inconsistent/ incompatible national policies, there is a need for harmonisation and clear guiding principles established at EU level, to achieve targets on decarbonisation of the transport sector. Standardization and quality regulation of biofuels remains a pivotal condition for (advanced) biofuel commercialisation; this is a subject on which the European Commission and its member states should come to an agreement in order not to delay the process of market uptake. In concrete policies at EU and national level, clear and binding objectives for advanced biofuels should be set, and artificial counting rules such as those that were introduced in the RED should be avoided. Such rules have so far had mostly disturbing effects on sound development and have introduced additional uncertainties. Advanced biofuels development requires specific incentives, but there are better options than the current double counting

5.4. Deployment of innovative technologies

In your view, what is needed to facilitate faster development and deployment of innovative technologies in the area of bioenergy? What are the lessons to be learned from the existing support mechanisms for innovative low-carbon technologies relating to bioenergy?
















2500 character(s) maximum

It is important to take into account that several national energy and transport policies are being developed for the horizon 2030 - in line with the Energy Union, and the Directive on the deployment of alternative fuels infrastructure (2014/94/EC). These policies need to be harmonised where necessary to avoid fragmentation and ensure reliable interconnection for transport (and fuel distribution). Overall, the process to develop the legislative 2030 framework should be better structured than what occurred with the debate for the amendment of the RED.

6. Effectiveness of existing EU policies in addressing solid and gaseous biomass sustainability issues

6.1. In addition to the non-binding criteria proposed by the Commission in 2010, a number of other EU policies can contribute to the sustainability of solid and gaseous bioenergy in the EU. These include measures in the areas of energy, climate, environment and agriculture.

In your view, how effective are current EU policies in addressing the following risks of negative environmental impacts associated with solid and gaseous biomass used for heat and power? (one answer per line)

	effective	partly effective	neutral	counter-productive	No opinion
Change in carbon stock due to deforestation, forest degradation and other direct land-use change in the EU					
Change in carbon stock due to deforestation, forest degradation and other direct land-use change in non-EU countries					
Indirect land-use change impacts					
GHG emissions from supply chain,					

e.g. cultivation, processing and transport	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
GHG emissions from combustion of biomass ('biogenic emissions')	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Air quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Water and soil quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Biodiversity impacts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Varying degrees of efficiency of biomass conversion to energy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Competition between different uses of biomass (energy, food, industrial uses) due to limited availability of land and feedstocks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

Please specify the "other" choice

200 character(s) maximum

6.2. Any additional views on the effectiveness of existing EU policies on solid and gaseous biomass?
Please explain

2500 character(s) maximum

Non binding criteria on European level. Some countries have binding criteria but it is unclear how this affects the volunteer EU criteria.

The EBTP doesn't have the expertise to rate the effectiveness for heat and power.

It is why biomass used for the transport sector have to comply with binding criteria while biomass which is used for e.g. heat and power doesn't have to comply.

7. Policy objectives for a post-2020 bioenergy sustainability policy

7.1. In your view, what should be the key objectives of an improved EU bioenergy sustainability policy post-2020? Please rank the following objectives in order of importance: most important first; least important 9th/10th (you can rank fewer than 9/10 objectives):

	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
Contribute to climate change objectives	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Avoid environmental impacts (biodiversity, air and water quality)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mitigate the impacts of indirect land-use change	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Promote efficient use of the biomass resource, including efficient energy conversion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Promote free trade and competition in										

the EU among all end-users of the biomass resource	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ensure long-term legal certainty for operators	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Minimise administrative burden for operators	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Promote energy security	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Promote EU industrial competitiveness, growth and jobs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7.2. Any other views? Please specify

2500 character(s) maximum

Long term certainty is important

8. EU action on sustainability of bioenergy

8.1. In your view, is there a need for additional EU policy on bioenergy sustainability?

- ☐ No: the current policy framework (including the sustainability scheme for biofuels and bioliquids, and other EU and national policies covering solid and gaseous biomass) is sufficient.
- ☐ Yes: additional policy is needed for solid and gaseous biomass, but for biofuels and bioliquids the existing scheme is sufficient.
- ☐ Yes: additional policy is needed on biofuels and bioliquids, but for solid and gaseous biomass existing EU and national policies are sufficient.
- ☒ Yes: a new policy is needed covering all types of bioenergy.

8.2. In your view, and given your answers to the previous questions, what should the EU policy framework on the sustainability of bioenergy include? Please be specific

5000 character(s) maximum

Sustainability of biofuels is still a “loosely defined” topic from a scientific point of view: it is essential to accelerate the development of science based, rational and transparent:

- Criteria, indicators, methodology (LCA and others) and data,
 - across the full value chains
 - based as much as possible on data from demonstration or industrial-scale projects
 - for EU relevant geographies, for both domestic and imported feedstocks or biofuels
 - for the three dimensions of sustainability (environmental, social and economic)
- Models, monitoring and impact assessment tools to
 - help assess implementation of enacted legislation,
 - prepare public (policy) and private (investment) decisions,
 - better assess the issues around direct and indirect land use change
 - help manage the issues of competing uses of arable land and biomass.
 - provide satisfactory guarantee of the sustainable use of biomass while stimulating best practice
- adequate link to topic of BBI / bioeconomy
- identifying synergies with power-to-x (PTX) technologies accelerating the implementation of renewable energies in different sectors

9. Additional contribution

Do you have other specific views that could not be expressed in the context of your replies to the above questions?

5000 character(s) maximum

As mentioned in one of the first questions, we do believe that bioenergy should continue to play an important role in the renewable energy mix, but the share of other renewable energy sources (such as solar, wind, hydro and geothermal) should increase significantly. Saying so, we would like to see that the renewable pathways grow together and that sustainable renewable energy should be promoted. It should not be forgotten that all renewable energy sources help to receive an independent energy system which should be the main goal.

It is important to realise that there should not be an adversarial set-up between biofuels or any other energy carrier. The important thing is the need to increase the share of renewable energy in all energy carriers. So far, the competitor within the transport sector is fossil fuel. It should be made visible that, depending on origin, feedstock and processes used, also fossil fuel has several impacts on sustainability (e.g. social impact) Therefore similar criteria and performance should be investigated and made transparent for fossil fuels to allow fair competition.

Gaseous biofuels were a bit of a 'forgotten option' in the 2009 RED framework despite there are of huge importance with regard to current and future CO2 regulations on the TTW side. Although potentials of biomethane (as CNG and LBG) via biogas from residues and wastes through anaerobic digestion may remain modest, gasification-based routes to biomethane may provide a relevant potential, particularly for countries in which part of current methane consumption is hard to substitute by other fuels or technologies. In this context, it will be important to provide some incentive for biomethane as well, and also create a platform for GoOs for renewable methane. Renewable hydrogen may become relevant on a longer term, particularly if it enters the transport market. Its contribution may remain modest up to 2030, but policy should anticipate on the future role that renewable hydrogen should play on the longer term.

Finally, you may upload here any relevant documents, e.g. position papers, that you would like the European Commission to be aware of.

ea518277-86ff-442c-93ad-bf8281a525dd/2015_02_23_EBTP_Position_on_the_rapporteur_s_amendement

Thank you for participation to the consultation!

