

A sustainable bioenergy policy for the period after 2020

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 Directive³ and the Fuel Quality Directive⁴ provide an EU-level sustainability framework for biofuels⁵ 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

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

In 2010, the Commission issued a Recommendation⁹ 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 and will also organise a dedicated stakeholder conference on 13 April 2016.

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 economy¹⁰ 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.

(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?

<input type="radio"/> academic/research institution
<input type="radio"/> as an individual / private person
<input type="radio"/> civil society organisation
<input type="radio"/> international organisation
<input type="radio"/> other
<input type="radio"/> private enterprise
<input checked="" type="radio"/> professional organisation
<input type="radio"/> public authority
<input type="radio"/> public enterprise

1.2. If you are a private or public enterprise, could you please indicate your principal business sector?

<input type="radio"/> Agriculture
<input type="radio"/> Automotive
<input type="radio"/> Biotechnology
<input type="radio"/> Chemicals
<input type="radio"/> Energy
<input type="radio"/> Food
<input type="radio"/> Forestry
<input type="radio"/> Furniture
<input type="radio"/> Mechanical Engineering
<input type="radio"/> Other
<input type="radio"/> Printing
<input type="radio"/> Pulp and Paper
<input type="radio"/> Woodworking

1.3. *If you are a private or public enterprise, could you please indicate the size of your company?*
(Medium-sized enterprise: an enterprise that employs fewer than 250 persons and whose annual turnover does not exceed EUR 50 million or whose annual balance-sheet total does not exceed EUR 43 million.

Small enterprise: an enterprise that employs fewer than 50 persons and whose annual turnover and/or annual balance-sheet total does not exceed EUR 10 million.

Micro-enterprise: an enterprise that employs fewer than 10 persons and whose annual turnover and/or annual balance-sheet total does not exceed EUR 2 million.)

<input type="radio"/> large enterprise
<input type="radio"/> medium-sized enterprise
<input type="radio"/> small enterprise
<input type="radio"/> micro-enterprise
<input type="radio"/> I don't know

1.1 **1.4.** *If you are a professional organisation, which sector(s) does your organisation represent?*

<input type="radio"/> Agriculture
<input type="radio"/> Automotive
<input type="radio"/> Biotechnology
<input type="radio"/> Chemicals
<input checked="" type="radio"/> Energy
<input type="radio"/> Food
<input type="radio"/> Forestry
<input type="radio"/> Furniture
<input type="radio"/> Mechanical Engineering
<input type="radio"/> Other
<input type="radio"/> Printing
<input type="radio"/> Pulp and Paper
<input type="radio"/> Woodworking

1.5. *If you are a professional organisation, where are your member companies located?*

<input type="radio"/> Austria
<input type="radio"/> Belgium
<input type="radio"/> Bulgaria
<input type="radio"/> Croatia
<input type="radio"/> Cyprus
<input type="radio"/> Czech Republic
<input type="radio"/> Denmark
<input type="radio"/> Estonia
<input type="radio"/> Finland
<input type="radio"/> France
<input checked="" type="radio"/> Germany
<input type="radio"/> Greece
<input type="radio"/> Hungary
<input type="radio"/> Ireland
<input type="radio"/> Italy
<input type="radio"/> Latvia
<input type="radio"/> Lithuania
<input type="radio"/> Luxemburg
<input type="radio"/> Malta
<input type="radio"/> Netherlands
<input type="radio"/> Poland
<input type="radio"/> Portugal
<input type="radio"/> Romania
<input type="radio"/> Slovakia
<input type="radio"/> Slovenia
<input type="radio"/> Spain
<input type="radio"/> Sweden
<input type="radio"/> United Kingdom
<input type="radio"/> non-EU country(ies)

1.6. If you are a civil society organisation, please indicate your main area of focus.

<input type="radio"/> Agriculture
<input type="radio"/> Energy
<input type="radio"/> Environment and Climate
<input type="radio"/> Other
<input type="radio"/> Technology & Research

1.7 If you are a public authority, can you define more specifically your area of competence?

<input type="radio"/> national government
<input type="radio"/> national parliament
<input type="radio"/> regional government
<input type="radio"/> regional parliament
<input type="radio"/> local authority
<input type="radio"/> government agency
<input type="radio"/> other

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

(200 characters maximum)

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 characters maximum)

1.10. Please give your country of residence/establishment

<input type="radio"/> Austria
<input type="radio"/> Belgium
<input type="radio"/> Bulgaria
<input type="radio"/> Croatia

<input type="radio"/> Cyprus
<input type="radio"/> Czech Republic
<input type="radio"/> Denmark
<input type="radio"/> Estonia
<input type="radio"/> Finland
<input type="radio"/> France
<input checked="" type="radio"/> Germany
<input type="radio"/> Greece
<input type="radio"/> Hungary
<input type="radio"/> Ireland
<input type="radio"/> Italy
<input type="radio"/> Latvia
<input type="radio"/> Lithuania
<input type="radio"/> Luxemburg
<input type="radio"/> Malta
<input type="radio"/> Netherlands
<input type="radio"/> Poland
<input type="radio"/> Portugal
<input type="radio"/> Romania
<input type="radio"/> Slovakia
<input type="radio"/> Slovenia
<input type="radio"/> Spain
<input type="radio"/> Sweden
<input type="radio"/> United Kingdom
<input type="radio"/> Other non-EU European country
<input type="radio"/> Other non-EU Asian Country
<input type="radio"/> Other non-EU African Country
<input type="radio"/> Other non-EU American Country

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

1.2 (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.)

<input checked="" type="radio"/> Under the name given: Bundesverband Bioenergie e.V. (BBE)
<input checked="" type="checkbox"/> 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.
<input type="radio"/> 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.
<input type="radio"/> Please keep my contribution confidential. (it will not be published, but will be used internally within the Commission)

2. 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):

	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 type="radio"/>	<input checked="" 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 type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Biofuels from algae	<input type="radio"/>	<input checked="" 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 checked="" type="radio"/>	<input type="radio"/>

Heat and power from forest residues (tree tops, branches, etc.)	○	⊗	○	○	○
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 from solid biomass	○	○	○	⊗	○
Commercial heat generation from solid biomass	⊗	○	○	○	○
Large-scale combined heat and power generation from solid biomass	○	○	○	⊗ > 20 MW	○
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 type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bioenergy based on feedstocks imported from non-EU countries	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Other (please specify)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Bioenergy needs to play an important role in future's RES energy mix to maintain grid stability, to enable a cost efficient heat supply and for sustainable transportation. According to BBE, there's still a huge biomass potential available within EU, which can sustainably be mobilized, if the framework conditions are set correctly, e.g. by increasing yields and efficiency in agriculture, esp. in the eastern and southeastern EU member states.

In Germany, and according to BBE's knowledge also in most EU member states, high quality stem wood is not used for energy, not least for cost reasons. Forest biomasses used for energy are forest residues and those qualities, which are not suited for any industrial purpose.

BBE does not consider large-scale electricity-only plants as sustainable. Also CHP plants > 20 MW (roundabout) will face difficulties in using the produced heat efficiently or meaningfully. Hence, BBE suggests setting a cap on eligible biomass CHP plants with a capacity enabling a minimum feedstock efficiency of the biomass fuel.

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 checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input 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 checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Resource efficiency and waste management	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Boosting research and innovation in bio-based industries	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Competitiveness of European industry	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Growth and jobs, including in rural areas	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sustainable development in developing countries	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

(please specify)					
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Bioenergy in general and biomass in particular are strong and effective means to quickly reduce greenhouse gases. In addition, their benefits for stabilizing electricity grids, to mitigate energy security risks or to boost domestic economies, creating jobs and income, must be recognized. Without bioenergy, a RES E-market with high shares of volatile RES sources needs to be backed and secured by fossil fuels, which is not the meaning of boosting RES technologies. According to BBE, there is no “either...or”, but only a joint RES market, a mix of all RES technologies in a smart management system.

The bioenergy development has initiated plenty of fundamental research and is focal point of innovative clusters in the bioeconomy sector and other biomass processing industries.

For developing countries, both domestic bioenergy markets and markets abroad can work as driver to develop local markets, to incite investments into infrastructure and to boost a sustainable agriculture and forestry. A strong primary sector allows a strong economy. If conventional food markets don't have the effect on increasing efficiency and investments into the primary sector, maybe the additional demand of the energy sector can set these incentives. There are plenty of synergies spin-offs for the benefit of all stakeholders, if implemented in a sustainable and adopted manner.

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

(2500 characters maximum)

The bioenergy sector offers many means of waste treatment. Without bioenergy, many wastes need to be disposed alternatively, increasing costs and environmental risks (e.g. waste wood). At the same time, GHG emissions are reduced significantly compared to a baseline scenario where biomass is deposited on landfills or decomposed on farm land (like manure).

For the biomass producing sectors – agriculture and forestry – biomass for energy increases income, especially in rural areas, and contribute to stabilizing market prices. In agriculture, production efficiency grows continuously while retail prices for food or other products drop. Not many years ago European agriculture was well-known for its over-capacities in the dairy business and other sectors. Energy crop cultivation reduces these over-capacities on farm land level while still enabling farmers to gain income. Without energy crops, market prices e.g. for milk, grain or other products will fall putting the existence especially of small, family-operated farms at risk.

In forestry, demand of the energy sector increased competition for forest wood, which enabled forest owners to gain a fair remuneration for their timber, which is not the case if there is only one or a hand

full of customers, which dictate prices. This is especially important, as requirements for forest owners on environmental services and measures to guarantee a sustainable forest management increase forest management costs significantly and need to be financed. As the vast majority of forestry energy wood is based on forestry residues, which was hardly demanded by customers before or to a too low market price, a strong bioenergy market based on sustainable management provides valuable and important income to forest owners to guarantee their sustainable forest management and sanitary measures.

In addition, a huge number of decentralized projects increases the number of stakeholders / market actors, hence guarantees competition on the market rather than oligopoly structures by a small number of energy suppliers.

With view on social sustainability, bioenergy is also an important factor for decreasing households' energy bills, as against rising costs of fossil fuels and the growing risks of declining energy security. Especially imported fossil fuels are frequently subject of criticism for social and environmental offences.

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 type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Indirect land-use change impacts	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
GHG emissions from the supply chain (e.g. cultivation,	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

processing and transport)					
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 checked="" type="radio"/>	<input 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 type="radio"/>	<input checked="" 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	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Internal market impact of divergent national sustainability schemes	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Due to existing laws in agriculture and forestry in Europe, the risk of deforestation and negative direct land use change is considered being low within EU. Misbehaviour of stakeholders are to be avenged according to the related mechanisms. General blaming the bioenergy sector for bad governance or unavenged misbehaviour is not considered fair and adequate. For an assessment of a non-sustainable deforestation in non-EU countries due to European bioenergy markets, BBE is missing data, but with view on the limited quantities of imported woody biomass fuels to EU markets and their origin, this risk is expected being low.

There can also be positive direct land use changes, e.g. "upgrading" low-value, degraded lands into sustainably managed forests or farm lands.

In terms of GHG emissions from combustion, BBE believes that if a sustainable forest management with a positive carbon balance can be documented, the emissions of combustion are balanced; hence emissions are not significant in European countries.

Emission of particles cannot be denied, but these are effectively regulated, monitored and avenged by national emission control acts (and lately by MCP directive). These thresholds require efficient and effective measures to mitigate air emissions, lowering the environmental risks of biomass combustion significantly.

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

(2500 characters maximum)

Regulating markets always risk interfering with other markets. Regulating only parts of interconnected markets creates market distortion and indirect effects and displacement of the problems thought of being solved by the regulation. If the barrier for the use of biomass in energy markets is high (by setting exceptionally strong sustainability requirements), but other users of the same biomass are not obliged at all to show any sustainability proof, it is obvious that the impact of sustainability requirements for the energy sector on general sustainable forest management is zero, while the substitution of fossil fuels, which should still be the key objective, is limited or even decreased.

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 rules¹¹ 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).**

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	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
GHG emissions from direct land-use change	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Indirect land-use change	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Impacts on biodiversity	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Impact on soil, air and water	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

¹¹ 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).

Any additional comments?

The existing EU sustainability scheme for biofuels and bioliquids has effectively sensitized the stakeholders for GHG balances and GHG mitigation potential. In Germany, the introduction of a CO₂-mitigation quota on fossil fuels has led to an optimization of GHG emissions along the whole biofuels supply chain, including agriculture and its upstream chains (e.g. kind and use of fertilizers, adopted crop rotation...). The CO₂-calculation methodology of the EU sustainability scheme is basis for this approach.

Concerning ILUC, in fact this effect was even caused by the EU sustainability scheme, as it doesn't cover the whole biomass demand side, but only the small niche market of energy markets. ILUC is a result of incomplete system boundaries. If other biomass users, like the food and feed markets, biomass for material and even the upcoming bioeconomy sector were obliged to show the same sustainability proof for their products, including land-based criteria, there wouldn't be indirect but only direct land use change effects, which then can be avenged with related national mechanisms.

Effects on biodiversity and on soil, air and water can be seen, but here other regulations are already in place, like the Cross Compliance rules and the criteria within the Forest Europe process (partly implemented in national forest laws). However, their implementation is strongly supported by the EU sustainability scheme and the related voluntary certification schemes, which monitor and check e.g. a sound handling of dangerous chemicals and that areas with a high biodiverse value are not negatively impacted by the bioenergy sector.

In general, due to the EU sustainability scheme, a spill-over of the required sustainable biomass supply chain management to other sectors, which are not embraced in the RED, can be seen. Usually, there are plenty of by-products with the biofuel production, like glycerin or animal feed. Many companies realized the benefit of voluntarily "co-certifying" these products, too, once the main product (or sometimes biofuels are just the co-products) has to go through the certification process. They see the benefit of a "one stop shop certification" for all their products. So the EU sustainability scheme for biofuels and bioliquids has already a positive impact on other, non-energy biomass markets, too.

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 characters maximum)

The sustainability framework for biofuels, which is defined in the RED in article 17, is a scheme to define the SUSTAINABILITY of a fuel, and not its KIND. It is not an instrument to promote biofuels of any kind, but to guarantee, that the biofuels produced meet the sustainability criteria as defined in the RED. So the impact of the sustainability framework on the development of “advanced biofuels” is rather zero.

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 characters maximum)

A vast number of accepted, voluntary certification schemes may be confusing and have potential for market distortion and a “race to the bottom”, once different standards and qualities can be observed. Though the European Commission recognizes these voluntary certification schemes according to a general set of criteria and a common methodology, there are huge differences in the quality, reliability and credibility of the schemes, which risk that ambitious and credible ones, which usually result in higher costs, are disadvantaged against low-standard schemes with sometimes questionable approaches. Hence, when recognizing voluntary certification schemes, it needs to be guaranteed that “weak” approaches don’t erode the meaning of the EU sustainability scheme.

Further on it has shown, that within the implementation period of the EU requirements into national law in the EU member states a longer penalty free transition period is advisable. It needs long time to communicate the requirements in the sector, especially in the wood energy markets with plenty more market actors as in the biofuels sector. Parallel to this capacity building measures, companies need to establish the in-house infrastructure to manage the sustainability proof process and to train their employees (e.g. on how to calculate a GHG balance along their individual supply chain). Then it turns out, that there will be many unclear processes/feedstocks/questions, which haven't been considered in the EU legislation or its national implementation yet, hence need to be clarified by the competent authority. Against this, after the end of this short transition period, any failure in the proof of a sustainable biomass supply chain, and if it is through no fault of the company itself but maybe due to long handling time of a clarifying process in the competent authorities, the operator risks losing the support forever. In this context, A transition period of one year for the market actors may seem too short.

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 existing support mechanisms for innovative low-carbon technologies relating to bioenergy?

(2500 characters maximum)

A support scheme or any other instrument setting incentives for direct CO₂-Emission reduction can be an effective tool to boost technology development and supply chain optimization. The best practice example of the CO₂-mitigation quota on fossil transport fuels in Germany demonstrates that new approaches and technologies are incited to further reduce the CO₂-impact of the produced biofuels to gain a better competitiveness on the market and to raise profitability. Once a price is put on carbon dioxide emissions, companies become innovative developing mitigation methodologies.

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	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Change in carbon stock due to deforestation, forest degradation and other direct land-use change in non-EU countries	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Indirect land-use change impacts	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
GHG emissions from supply chain, e.g. cultivation, processing and transport	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
GHG emissions from combustion of biomass ('biogenic emissions')	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Air quality	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Water and soil quality	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Biodiversity impacts	<input checked="" type="radio"/>	<input 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	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Other (please specify)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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

(2500 characters maximum)

There are already effective regulations in place addressing e.g. air emissions (MCP directive), water and soil emissions (Cross Compliance regulations) or biodiversity impacts (Natura 2000). With the EU timber regulation legality and within in many cases also sustainability of forest management are required.

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 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"/>
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 checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Promote efficient use of the biomass resource, including efficient energy conversion	<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"/>
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 type="radio"/>	<input checked="" 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	<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"/>

burden for operators										
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 checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify)	<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 characters maximum)

The objective of the EU sustainability policy should not be to repeat existing legislation. As the reduction e.g. of air emissions is already the objective of, amongst, the MCP directive, there's no need to highlight this objective in the EU sustainability scheme again, only this time for biomass only.

In BBE's views, the EU sustainability scheme shall target on developing the benefits of bioenergy while setting clear rules on guaranteeing the lowest sustainability risk. BBE prefers a positive approach as objective rather than avoiding as much bioenergy as possible. It should not be seen as a tool to limit any use of biomass, but to develop its chances within sustainable frameworks.

Although contribution to climate change mitigation is a very strong characteristic of sustainable bioenergy, especially within the EU context of climate change mitigation policy as key driver for RES development, there's much more linked with the development of domestic biomass potentials, which should not be overseen when assessing the sustainability performance of bioenergy: these are amongst job and income creation in rural areas (social sustainability), reliable and secure energy supply (economic sustainability) etc. Hence, it would be advisable to consider these benefits in the definition process of the EU sustainability policy's process.

There's no bioenergy market development without investors. For them, investment and planning security are vital, so EU sustainability policy should provide economic operators and investors a reliable framework on which they can base their investment decision on. Without – or with regularly changing requirements – markets will hardly develop.

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

(2500 characters maximum)

In BBE's view, additional policy for solid biomass is advisable to lower sustainability risks and to demonstrate sustainability against criticism. Also investors demand planning security in the meaning of clarity, under which framework they are thought to invest and to safeguard, that their investments today are still considered sustainable in 5 years.

For BBE, additional policies for solid biomass have to be based on the established and proven criteria for biofuels and bioliquids. Harmonization of criteria and other requirements for all bioenergy sectors is of utmost importance to avoid displacement effects, as each kind of biomass – be it solid, liquid or gaseous ones – can be used in each sector – heat, electricity and transportation. Sustainability is not a question of final energy use, but of a sustainable biomass sourcing, independent with what kind of technology it is converted later on.

The existing criteria for biofuels seem appropriate and well-working, so BBE proposes to adopt them for agricultural solid biomass, too. Concerning forestry biomass there are ambitious sustainability criteria within the forestry sector in place resp. within a development process. To avoid additional criteria in forestry for energy purposes only, to reduce administration and to limit additional costs, BBE advises to build a sustainability proof for forestry energy wood on existing legislation and approaches of the forestry sector. A risk based approach as it is implemented e.g. in UK or within voluntary certification schemes seem to be an effective means of safeguarding a sustainable forest management.

As biomass is a renewable but limited feedstock BBE would like to see minimum feedstock efficiency requirements avoiding inefficient biomass use for energy. In BBE's understanding, large scale electricity only facilities don't meet this requirement as they don't have a meaningful way of using the produced heat. So they should be discouraged while stronger efforts should be spent on incentivizing regional, decentralized biomass CHP and district heating projects. Similar to the approach in the transport fuel sector, the use of biomass wastes and residues may be highlighted / better incentivized to utilize this huge potential more effectively and to reduce pressure on primary biomass.

Sustainability requirements for bioenergy in the framework of the RED resp. RED II should also be introduced in other EU legislation affecting the use of biomass. This is true for other sectors, like industrial uses or the upcoming bioeconomy, but also especially for the EU Emission Trading Scheme ETS, in which the substitution of fossil fuels with biomass is a common approach to meet the GHG mitigation requirements. It has to be secured, that also within the ETS only those feedstock are utilized, which meet the same sustainability requirements than those used for RES within the RED.

Add inputs from position paper

9. Additional contribution

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

(2500 characters maximum)

Any approaches of steering material flow by regulation (discussed under the term "Cascade use of wood") are considered to introduce a planned economy and are strictly rejected by BBE. Competition for wood increases its price, making it more attractive for forest owners to harvest their timber and to place it on the markets. With the right incentives and development strategies, it should be the aim to utilize still available, huge additional forestry potentials and alternative feedstock sources like SRC on marginal farm land. Also there are still huge amounts of waste woods disposed on landfills within the EU, which are – being unused – not only a source of GHG emissions, but also a valuable fuel for dedicated CHP plants. So there are many more means of decreasing competition for forest wood than a planned economy.

Add inputs from position paper

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

Thank you for participation to the consultation!