

# A sustainable bioenergy policy for the period after 2020

Fields marked with \* are mandatory.

## Introduction

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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<sup>[10]</sup> 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

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\* 1.1. In what capacity are you completing this questionnaire?

- academic/research institution
- as an individual / private person
- civil society organisation
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- international organisation
- other
- private enterprise
- professional organisation
- public authority
- public enterprise

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

- Agriculture
- Automotive
- Biotechnology
- Chemicals
- Energy
- Food
- Forestry
- Furniture
- Mechanical Engineering
- Other
- Printing
- Pulp and Paper
- Woodworking

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

- 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
- non-EU country(ies)

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 Panel Federation aisbl (EPF)

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*

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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

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### 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 type="radio"/>	<input checked="" 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 type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Biofuels from agricultural and forest residues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" 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 type="radio"/>	<input type="radio"/>	<input checked="" 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 checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Heat and power from forest residues (tree tops, branches, etc.)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

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

Bioenergy based on feedstocks sourced in the EU	<input type="radio"/>	<input type="radio"/>	<input checked="" 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	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

Please specify the "other" choice

*200 character(s) maximum*

Biofuels and Heat and power from waste wood with reuse and/or recycling potential.

### 3. Benefits and opportunities from bioenergy

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#### 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 type="radio"/>	<input type="radio"/>	<input checked="" 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 checked="" type="radio"/>	<input type="radio"/>
Reduction of GHG emissions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Environmental benefits (including biodiversity)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

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

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

*2500 character(s) maximum*

Bioenergy feedstocks for which there are no competing uses, such as non-woody residues and waste from agriculture, cattle breeding, livestock farming and municipal/household waste, may well be supported further for producing biogas, biofuels and heat/electricity production as there is significant further potential without risk of distortion of competition with other uses.

## 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 checked="" type="radio"/>	<input 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 checked="" type="radio"/>	<input type="radio"/>	<input 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 checked="" type="radio"/>	<input type="radio"/>	<input 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 checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Varying degrees of efficiency of biomass conversion to energy	<input checked="" type="radio"/>	<input 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 checked="" type="radio"/>	<input type="radio"/>	<input 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	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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

*2500 character(s) maximum*

The principle wood inputs for the wood panel sector are small roundwood, sawmill residues (chips and sawdust) and recycled wood (post consumer and post industrial) . Prior to the development of the wood panel industry these wood types previously had no viable use - but today are used to make wood products, such as particleboards and fibreboards which are mainstream products used in numerous everyday applications but particularly in construction, furniture,

packaging and transport. As a result of the manufacturing process, these wood inputs continue to have value as a carbon store as well as being the ingredients of a vibrant manufacturing industry across the EU employing over 100,000 workers mostly in rural areas.

These same wood inputs are being used in ever increasing quantities by subsidy supported biomass energy plants, thereby losing their value as a carbon store and creating an unfair playing field for the wood panel manufacturers.

Unlike solar and wind whose availability is limitless, wood has competing users, limits on its supply (limited by long growing cycles) and it plays a vital role in carbon storage during its usable lifetime. Hence much more careful consideration must be given to the incentives to be used to drive renewable technologies such that they don't disadvantage intrinsically beneficial use in products. The markets where many wood panel products are traded are sensitive to price movement and so the ability to pass on rising raw material costs is limited. The incentivised wood burning energy sector has an advantage in the market and as such where our members compete with energy, there are corresponding increases in wood costs. These costs erode competitiveness which risks closure.

It is vital that account is taken of national and regional resources, and of all demands placed upon them. To date the emphasis of biomass energy strategies is to look at biomass availability through the prism of energy demand without giving adequate consideration to the demands of material use which both add economic value and extend the carbon life. Were harvested wood products to be recognised for their climate mitigation potential then a growth in material use would both significantly contribute to climate change mitigation but would also see economic and employment benefit grow. The versatile nature of wood means that material uses can maximise its carbon and economic benefits whereas energy use can only result in a premature end of life.

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

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

Any additional comments?

2500 character(s) maximum

Care has to be taken that support for advanced biofuels after 2020, does not increase the risk of putting much more pressure on the wood supply. The awarding of double credits for some wood types such as sawdust and cutter shavings in the ILUC Directive is of particular concern as these are vital raw material inputs into the wood panel industry. The Commission should be aware that the process of turning wood into liquid fuels is very energy intensive, which is the reason why it is not economical under normal circumstances. Consequently, sawdust and cutter shavings and any other woody biomass suitable for material use should not be eligible for double-counting and actually should not be promoted at all for biofuels and bioliquids due to the competition with other industries and the energy intensive conversion process.

Additionally, in the absence of EU sustainability requirements for solid and liquid biofuels, there is no effective control measure to address sustainability risks stemming from imports of bioenergy sources from outside the EU.

## 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

Sawdust and cutter shavings and any other woody biomass suitable for material use should not be promoted for biofuels and bioliquids due to the competition with other industries and the energy intensive conversion process.

## 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*

#### 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*

Evidence from our members around Europe is that support mechanisms for biomass technologies are relatively non-specific as regards which technologies are supported, instead they rely on market forces to drive not necessarily the most innovative but rather the most commercially viable. Wood burning technology is neither new nor innovative and because of this the investment risks are lower. Irrespective of efficiency or emissions, support schemes have generally driven renewable biomass generation capacity to favour wood burning. The consequence of this has been to put at both local and regional level a disproportionate demand on wood supplies which has driven up costs to the detriment of non-subsidised product producers such as the wood panel industry.

Going forward support needs to be more targeted to genuinely innovative technologies that can deliver increased capacity with minimum impact on others whilst achieving carbon neutrality almost immediately (and not over the 40-100 year growth cycle of trees).

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

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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)

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	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 type="radio"/>	<input checked="" 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 checked="" type="radio"/>	<input type="radio"/>
Indirect land-use change impacts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
GHG emissions from supply chain, e.g. cultivation, processing and transport	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
GHG emissions from combustion of biomass ('biogenic emissions')	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Air quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Water and soil quality	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Biodiversity impacts	<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	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Other	<input 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

Of great concern to us is that many biomass energy plants supported by state aid use wood (virgin and recyclable) that could have an otherwise useful life. This is not only against cascade of use principles (and against EU waste hierarchy principles) but it is also far from ideal in terms of carbon accounting. Burning wood for electricity generation typically releases 1,905kg of CO<sub>2</sub> per tonne of wood, in contrast, wood processing produces only 378kg of CO<sub>2</sub> per tonne of wood. A report by Greenpeace (Dirtier than coal) illustrates that burning whole trees actually increases CO<sub>2</sub> emissions per unit of electricity generated relative to coal by 49% over a 40 year period. Emissions from biomass are often compared to emissions from fossil sources, however in the case of wood which in Europe can have typical growing periods of 50-120 years, the point where the increased CO<sub>2</sub> released from wood relative to coal is rendered neutral is over a period substantially beyond 2050. Policy that promotes the burning of wood other than short rotation crops can only increase CO<sub>2</sub> over the period recognised by the International Committee on Climate Change to be critical.

Current policies are too 'broad brush' such that the subtleties of wood supply and demand at a regional and local level become obscured. To date policies have been developed to deliver solely on renewable energy priorities, consequently impacts on other users are deemed an 'unintentional consequence'. A sustainable bioenergy policy must consider material use of wood as an equal societal benefit to energy such that policy doesn't disadvantage (intentionally or unintentionally) the material use of wood relative to energy.

To avoid these unintended consequences, it is of great importance that the EU ensures that the EU waste hierarchy is applied and controlled rigorously and it should be considered to apply this hierarchy also on materials (like it has been done in the Flanders region in Belgium). Furthermore, the EU should impose a strict landfill ban for all wood waste. The EU should also discontinue VAT reductions for fire wood and wood pellets and chips used for private or industrial combustion.

Last but not least, products manufactured from wood should be preferred in public procurement as a market pull for more cascading use. Using more wood products will ultimately result in more end of life wood that will become available for energy generation at the moment when material recycling is no longer possible.

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

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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 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"/>
Avoid environmental impacts (biodiversity, air and water quality)	<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"/>
Mitigate the impacts of indirect land-use change	<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"/>
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 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"/>
Ensure long-term legal certainty for operators	<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"/>
Minimise administrative burden for operators	<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 energy security	<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 EU industrial competitiveness, growth and jobs	<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"/>
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*

## 8. EU action on sustainability of bioenergy

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### 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*

Where they exist such as in the UK, sustainability criteria is presented in a manner that supports the policy driver i.e. increased use of biomass for renewable electricity generation. The EU framework on the sustainability of bioenergy must be focused on protection of the environment, land use change and other impacts from an increased demand for biomass, where the emphasis is on energetic users to demonstrate that their activity is not adversely impacting neither on competing industries nor on the environment.

Renewable energy from biomass including wood should be encouraged when and where appropriate (e.g. to divert woody biomass from landfilling), but it shouldn't be at the expense of the environment or other users who derive a livelihood from the material. To this effect, the EU should put a cap on the bioenergy share of fulfilling the RED overall quota to a level that can be sustainably supplied to remove a significant amount of pressure from woody biomass.

A sustainability framework for bioenergy should include the impact on material use as a core parameter, alongside land use change and Green House Gas criteria.

Where state aid is provided, evidence based demonstration of compliance with the sustainability criteria should be linked to receipt of the aid and not restricted to just a reporting requirement. Energy generators must be required to demonstrate that they only use woody biomass from sustainable sources without unfair competition with existing industries and that they burn only wood that is at the end of its lifetime. Where state aid is not being received

it should be sufficient to only report against the criteria. Furthermore, incentives further developing biomass energy should exclusively be given to mobilisation, infrastructure or investments, but the use of specific fuels should never be supported.

How fuels are classified and defined is a tool that can be manipulated to support the activity regardless of impact. For example under the UK's sustainability criteria waste and biomass wholly derived from waste is exempt from the requirements. Waste has the meaning given to it in Article 3(1) of Directive 2008/98/EC of the European Parliament and of the Council. Taking the UK example the Environment Agency has an important role under the Waste Framework Directive (WFD), in determining whether a substance is a waste or is derived from waste. Despite this the UK gives priority to its Renewable Obligation Order and says that 'for sustainability reporting, the waste definition should be used with the broad intention of the RED in mind. This may mean there are times when a material is classified as a waste by the Environment Agency but this is not definitive for the purpose of the ROO'. In practice this can result in for example small round wood being classified as a waste. In a similar vein under the UK scheme, Forestry residues can be exempted from full reporting whereas these residues do get utilized for material use.

The EU criteria should be based on tight definitions and strict interpretation such as to avoid 'loop holes'.

## 9. Additional contribution

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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*

It is vital that account is taken of national and regional resources, and of all demands placed upon them. To date the emphasis of biomass energy strategies is to look at biomass availability through the prism of energy demand without giving adequate consideration to the demands of material use which both add economic value and extend the carbon life. Were harvested wood products to be recognised for their climate mitigation potential then a growth in material use would both significantly contribute to climate change mitigation but would also see economic and employment benefit grow. The versatile nature of wood means that material uses can maximise its carbon and economic benefits whereas energy use can only result in a premature end of life.

Top down incentives have been shown to deliver blunt outcomes. They are relatively successful at driving bioenergy development but this is at the expense of the resource efficient use of the raw material. As a consequence, wood that was being used for material uses that extend the carbon and economic

life are instead causing it to be diverted directly to energy. This is particularly stark in the field of waste where subsidised energy is influencing the market such that reclaimed waste wood that was previously recycled is now diverted to energy thus negating the waste hierarchy. No incentives should be given towards offsetting the fuel cost.

Woody biomass is treated in policy as any other commodity however due to the long growing cycle particularly from European sources it should be treated as a finite source. If woody biomass is to satisfy the increasing demands of material and energy use then biomass energy strategies need also to include afforestation strategies.

Material use of carbon storing naturally renewable materials like wood should be included in and stimulated by the EU's Climate and Energy Policy. Wood products offer a simple and natural way to reduce the CO2 emissions causing global warming. Substituting fossil carbon-intensive products would play a key role in helping the EU achieve its environmental and climate change targets.

The main goal of European sustainable bioenergy policy for the period after 2020 should be to support the best solutions to protect our environment. In the last years there were set strong incentives to burn wood by policy tools like the RED or Emission Trading System (ETS) instead of following cascade principles of use. For example, where the wood-based-panel industry burns only non-recyclable wood residues to generate process energy, other sectors are heavily incentivised to use any woody biomass including virgin wood and recyclable wood in order to reduce their ETS allowance requirements since woody biomass is considered to be „carbon neutral“. In terms of the ETS goals, this contradicts to the climate goals because the use of wood for bioenergy leads to a deficit by the material use of wood. The material use of wood has the best impact to the climate because of the CO2 savings in the product and the substitution effect.

Whilst we take the view that EU institutions should encourage the increased use of wood in construction and in daily-life applications, we would accept as a minimum that EU policy at least does not act as a disincentive to its the use by virtue of increased cost as a consequence of competition with a subsidised energy market.

Despite the efforts of DG GROW to evaluate the competition of both the energy as wood processing industry for wood available on the market which was clearly visible as a result of subsidizing the energy use creating a market disturbance, the current status of the EC is that no policy around material hierarchy and cascading use of wood will be developed. However, several countries are developing a policy around this subject, which unavoidably will lead to national differences due to different economic or industrial interests apart from sustainability of material efficiency goals. Since the sustainability context is an international context and significant regional differences will lead to unexpected (at best) or deliberate (at worst) abuse, the EC should develop a clear policy creating a framework that shall be taken into account in case national legislation would/should be developed.

Using wood in construction, furniture and packaging offers the opportunity both to store carbon and to displace the use of fossil carbon-intensive materials. Every cubic metre of wood used as a substitute for other building materials reduces CO2 emissions by an average of 1.1tonne CO2. When combined with the 0.9 tonnes of CO2 stored in each cubic metre of wood, the total increases to 2 tonnes CO2. Likewise, replacing other construction materials with wood would save about 30% primary energy in the manufacturing phase.

A 10% increase in the wooden houses built in Europe would produce CO2 savings to account for 25% of the reductions prescribed in the Kyoto Protocol.

Finally, you may upload here 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!**

## Contact

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