

A sustainable bioenergy policy for the period after 2020

Fields marked with * are mandatory.

Introduction

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

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

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

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

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

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

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

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

[1] COM(2014) 15.

[2] COM/2015/080 final.

[3] Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC (OJ L 140, 5.6.2009, p. 16).

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

[5] Used for transport.

[6] Used for electricity, heating and cooling.

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

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

[9] COM/2010/0011 final.

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

1. General information about respondents

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

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

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

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

- Agriculture
- Energy
- Environment & Climate
- Other
- Technology & Research

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

200 character(s) maximum

Royal Society for the Protection of Birds.

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

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 type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> |
| Biofuels from energy crops (grass, short rotation coppice, etc.) | <input type="radio"/> | <input type="radio"/> | <input checked="" 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 type="radio"/> | <input checked="" 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 type="radio"/> | <input checked="" 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 type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Heat and power from industrial residues (such as sawdust or black liquor) | <input type="radio"/> | <input checked="" type="radio"/> | <input 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 checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Large-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"/> |
| Small-scale combined heat and power generation from solid biomass | <input type="radio"/> | <input checked="" type="radio"/> | <input 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 checked="" type="radio"/> | <input 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 checked="" type="radio"/> | <input type="radio"/> |
| Other | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Please specify the "other" choice

200 character(s) maximum

Please note that in completing the above options, an assumption has been made of a robust sustainability criteria for bioenergy as set out elsewhere in this response.

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 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 checked="" type="radio"/> | <input 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 checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Growth and jobs, including in rural areas | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Sustainable development in developing countries | <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"/> |

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

2500 character(s) maximum

There are some limited opportunities for bioenergy to play a role in the transition to a low-carbon energy system. In order for these opportunities to be maximised, policies and sustainability criteria should incentivise the right kinds of technologies and feedstocks.

Combined heat and power and heat-only technologies should be prioritised.

Biomass feedstocks should be used in a way that corresponds with the cascading use hierarchy (i.e. putting reuse and recycling ahead of other uses such as combustion for energy generation and ensuring that wastes are products genuinely at the very end of their lifecycle) and that makes sure that most efficient use is made of limited wood resources from forests.

The types of bioenergy feedstock that should be supported are genuine wastes and residues, arisings from ecological management for nature conservation and limited use of well-sited energy crops. A report by the Institute for European Environmental Policy suggests that there is at most 1.5m additional hectares

of land that could be explored for energy crop cultivation across Europe (<http://www.eeb.org/EEB/?LinkServID=F6E6DA60-5056-B741-DBD250D05D441B53>)

One important potential source of bioenergy is ecological arisings from management undertaken for the purpose of nature conservation. The RSPB led a UK Government-funded project exploring and demonstrating the use of wetland materials such as soft rush and common reed resulting from the management of nature reserves and surrounding land to produce bioenergy (https://www.rspb.org.uk/Images/biomass_tcm9-405250.pdf)

It may also be possible for the use of woody biomass to be used to produce bioenergy and provide a benefit. For example, many UK woodlands and heathlands are undermanaged and bringing them back into management is necessary to benefit wildlife. Woody biomass generated from such operations could be used as a bioenergy feedstock in small scale, local markets where it is demonstrated to be an effective driver for bringing woodland into better condition for wildlife. The impacts of woodland management on climate change should be minimised as far as possible.

At all times, benefits and opportunities are only credible if a full and genuine lifecycle analysis of all emissions shows that there is a carbon benefit to be gained over timescales appropriate to renewable energy and climate mitigation policies (the EU is committed to substantial emissions reductions by 2030).

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 checked="" type="radio"/> | <input 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 checked="" type="radio"/> | <input 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 checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Impacts on biodiversity | <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 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 type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Other | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Please specify the "other" choice

200 character(s) maximum

Prolonging the use of fossil fuels in conventional power generation stations through conversion to co-firing with biomass.

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

- Impacts on the natural environment and biodiversity through direct and indirect land use change as well as changes to land and forest management practices
- The inappropriate use of biomass feedstocks that result in increases in emissions relative to fossil fuels, or only modest savings over relevant timescales (the EU is committed to substantial emissions reductions by 2030)
- The use of limited biogenic and inappropriately sourced wood resources for bioenergy when they would be better used by other industries
- The undermining of the waste hierarchy
- The mis-spending of public or consumer money on subsidies that result in carbon dioxide increases or only in very modest decreases in emissions
- The risks of carbon increases over medium-term timescales come from carbon debt and decreased carbon stocks in vegetation due increased harvesting levels.

A further risk is that bioenergy is assumed to be carbon neutral in the energy sector because it is assumed that emissions will be counted in the LULUCF sector. However, the use of projected reference levels and the import of feedstocks from non-Kyoto Protocol countries into the EU means that many of these emissions are never accounted for. Accounting for bioenergy emissions against projected reference levels under existing LULUCF rules is problematic because it allows business as usual biomass emissions (which may include predicted increases in emissions) to be incorporated into the baseline and therefore only variance from these predictions is ever accounted for. As a result, emissions are neither accounted in the land use (LULUCF) or energy sectors and are thus “missing” from countries’ accounts (Chatham House, Submission to the European Commission’s consultation: A sustainable bioenergy policy for the period after 2020; Forest-based biomass energy accounting under the UNFCCC: finding the ‘missing’ carbon emissions). Fixing the LULUCF rules under the UNFCCC emissions to address this loophole has so far proven politically intractable. While negotiations continue, it should not be assumed that LULUCF rules will be modified to address this problem and capture the missing emissions. In this context, it is necessary to ensure that emissions are instead reflected in accounting in the energy sector in order to ensure genuine emissions reductions are made over meaningful timescales.

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

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

- Biofuels produced in new installations must achieve GHG savings of at least 60 % in comparison with fossil fuels. In the case of installations that were in operation before 5 October 2015, biofuels must achieve a GHG emissions saving of at least 35 % until 31 December 2017 and at least

50 % from 1 January 2018. Lifecycle emissions taken into account when calculating GHG savings from biofuels include emissions from cultivation, processing, transport and direct land-use change;

- Biofuels cannot be grown in areas converted from land with previously (before 2008) high carbon stock, such as wetlands or forests;
- Biofuels cannot be produced from raw materials obtained from land with high biodiversity, such as primary forests or highly biodiverse grasslands.

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

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

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

5.1. Effectiveness in addressing sustainability risks of biofuels and bioliquids

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

| | effective | partly effective | neutral | counter-productive | No opinion |
|--|-----------------------|----------------------------------|-----------------------|----------------------------------|-----------------------|
| GHG emissions from cultivation, processing and transport | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| GHG emissions from direct land-use change | <input type="radio"/> | <input checked="" 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 type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> |
| Impact on soil, air and water | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> |

Any additional comments?

2500 character(s) maximum

The original bioliquids and biofuels policies ignored the impacts of Indirect Land Use Change and have therefore potentially incentivised the use of biofuels that increased emissions rather than reducing them.

While a cap on food-based biofuels has now been implemented, this was only possible once the industry had grown to a certain size and it was difficult to set a lower cap that excluded existing industry. Setting sustainability controls too late, or too weakly to begin with, can result in this kind of industry lock-in. Lessons from this should be learned for the wider bioenergy sustainability framework. The cap now in place helps, but ILUC is still not taken into account, it does not cover all land-based crops and it does not extend to the Fuel Quality Directive.

The vague definitions of areas such as high biodiversity grasslands have limited the effectiveness of sustainability criteria.

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

In order to create space for advanced biofuels the 7% cap on food based biofuels should be maintained after 2020 and tightened. Other measures should play a role too including reducing the demand for transport, efficiency and electrification.

No biofuels-specific target should apply post-2020 as this incentivises quantity and makes the quality of biofuels and their environmental benefits difficult to guarantee. Given the strong interactions between sources of

biofuel and the wider bioenergy sector, setting a specific biofuels target is counter-productive and could result in less than optimum use of limited resources in some cases.

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

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

2500 character(s) maximum

Existing sustainability requirements in other sectors or parts of the world have not prevented the use of clearly unsustainable feedstocks for bioenergy. For example, the lack of forest management regulation in the southeastern USA has played a role in the use of entirely unsustainable feedstocks from there by EU member states. Sustainability regimes that exist within certain member states are mixed, but on the whole are not effective enough. In the UK, for example, biogenic emissions are not counted and biomass is classed as carbon neutral. The sustainability criteria that are in place only apply to 70% of feedstock used, and are not stringent enough to prevent severe impacts on the natural environment. The regional risk approach employed by the UK's sustainability criteria is far too broad to identify impacts that may be occurring on the ground. Instead, only FSC wood should be permitted.

Attempts to ensure that emissions are properly accounted for under the land use sector (LULUCF rules) have proved politically intractable and placing faith in these rules to solve these problems and fully capture emissions from bioenergy combustion looks unwise at the present time.

The EU Emissions Trading Scheme also wrongly assumes that all bioenergy emissions are accounted for in the LULUCF sector, creating a misguided incentive for using bioenergy that could be providing negligible carbon savings or even resulting in increases in emissions.

Stringent, EU wide sustainability criteria on energy producers are needed that ensure that all biomass used results in genuine emissions reductions, without harm to the natural environment.

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

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

| | 1st | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th | 9th | 10th |
|--|----------------------------------|----------------------------------|----------------------------------|----------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Contribute to climate change objectives | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Avoid environmental impacts (biodiversity, air and water quality) | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Mitigate the impacts of indirect land-use change | <input type="radio"/> | <input type="radio"/> | <input 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 efficient use of the biomass resource, including efficient energy conversion | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input checked="" 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"/> |
| Ensure long-term legal certainty for operators | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Minimise administrative burden for operators | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Promote energy security | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Promote EU industrial competitiveness, growth and jobs | <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"/> |

7.2. Any other views? Please specify

2500 character(s) maximum

A post-2020 bioenergy sustainability should ensure that any, limited, use of bioenergy towards renewable energy targets results in genuine emissions reductions, the use of the most efficient technologies and the best use of limited resources.

Some studies suggest that the EU could already be close to the limit of the amount of available sustainable biomass and therefore the inclusion of a cap would prevent the incentivisation of use of unsustainable feedstocks.

8. EU action on sustainability of bioenergy

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

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

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

5000 character(s) maximum

Post-2020 any framework on bioenergy sustainability should include provisions ensuring that:

- Ensuring full and accurate carbon accounting against a historical baseline, that then rules out the highest carbon feedstocks
- Robust environmental sustainability criteria on energy producers
- A cap on the overall amount of biomass used, in line with available sustainable supply
- The use of biomass is in line with the cascading use hierarchy and the principles of a circular economy

Any policy's success will be measured by its ability to rule out the most environmentally damaging kinds of biomass and those kinds which provide negligible emissions reductions or in fact result in emissions increases relative to fossil fuels.

9. Additional contribution

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

5000 character(s) maximum

Land Use, Land Use Change and Forestry (LULUCF) emissions accounting rules are currently not fit to properly capture the emissions from bioenergy, in part, though not exclusively, due to the use of projected reference levels. Accounting for biomass emissions against projected reference levels under existing LULUCF rules is problematic because it allows business as usual bioenergy emissions (which may include predicted increases in emissions) to be incorporated into the baseline and therefore only variance from these predictions is ever accounted for. As a result, emissions are neither accounted in the land use (LULUCF) or energy sectors and are thus “missing” from countries’ accounts . Fixing the LULUCF rules under the UNFCCC emissions to address this loophole has so far proven politically intractable. While negotiations continue, it should not be assumed that LULUCF rules will be modified to address this problem and capture the missing emissions. In this context, it is necessary to ensure that emissions are instead reflected in accounting in the energy sector in order to ensure genuine emissions reductions are made over meaningful timescales.

One of the risks of the use of bioenergy is a question of scale, and the size of the industry, and in turn demand for resources, needs to be limited to available sustainable supply. The higher the demand for resources, the higher the risk that energy generators will seek out sources that are unsustainable or result in large quantities of emissions.

However, these risks still exist even within a small sector, and this is why a cap alone would not be sufficient. All four principles proposed for the sustainability framework are needed, in order to work together and avoid loopholes and perverse incentives.

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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