

# 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
-

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

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

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

- large enterprise
- medium-sized enterprise
- small enterprise
- micro-enterprise
- I don't know

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

*200 character(s) maximum*

Arizona Chemical B.V. a Kraton Company publicly listed in New York

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 type="radio"/>                      | <input type="radio"/> | <input checked="" type="radio"/> |
| Biofuels from energy crops (grass, short rotation coppice, etc.) | <input type="radio"/>      | <input type="radio"/>                         | <input type="radio"/>                      | <input type="radio"/> | <input checked="" 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 checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/>            |
| Biofuels from algae   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>            | <input type="radio"/> | <input checked="" type="radio"/> |
| Biogas from manure  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>            | <input type="radio"/> | <input checked="" type="radio"/> |
| Biogas from food crops (e.g. maize)   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>            | <input type="radio"/> | <input checked="" type="radio"/> |
| Biogas from waste, sewage sludge, etc.  | <input type="radio"/> | <input type="radio"/> | <input checked="" 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 type="radio"/> | <input type="radio"/>            | <input type="radio"/> | <input checked="" 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 type="radio"/> | <input checked="" 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 type="radio"/> | <input checked="" type="radio"/> |
| Commercial heat generation from solid biomass                         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>            | <input type="radio"/> | <input checked="" type="radio"/> |
| Large-scale combined heat and power generation from solid biomass     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>            | <input type="radio"/> | <input checked="" type="radio"/> |
| Small-scale combined heat and power generation from solid biomass     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>            | <input type="radio"/> | <input checked="" type="radio"/> |
| Heat generation from biomass in domestic (household) installations    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>            | <input type="radio"/> | <input checked="" type="radio"/> |
| Bioenergy based on locally sourced feedstocks                         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>            | <input type="radio"/> | <input checked="" type="radio"/> |
| Bioenergy based on feedstocks sourced in the EU                       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>            | <input type="radio"/> | <input checked="" 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 checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/>            |

Please specify the "other" choice

*200 character(s) maximum*

Biofuels from by-products (such as Black Liquor Soap (BLS) and its derivatives Black Liquor (BL) and Crude Tall Oil (CTO)).

### 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 type="radio"/> | <input type="radio"/>            | <input checked="" type="radio"/> |
| Grid balancing including through storage of biomass (in an electricity system with a high proportion of electricity from intermittent renewables) | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>            | <input checked="" type="radio"/> |
| Reduction of GHG emissions  | <input 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 type="radio"/> | <input checked="" 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 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*

EU legislation should not promote the use of bio-based materials for bioenergy, where such materials are used for other higher value purposes contributing to CO2 emission reductions.

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

*2500 character(s) maximum*

In order to correctly estimate benefits and opportunities from bioenergy (including biofuels), EU legislation and policies affecting all bio-based industries should contain coherent and correct definitions and classifications of materials/substances used for bioenergy. In other words, materials and substances must be classified on the basis of scientific evidence and be legally sound. In particular, EU legislation should take into account the EU Court of Justices' case law, which establishes the methodology and legal criteria for the classification of materials/substances as "waste", "residue" and "product".

One example illustrating the importance of correct classification, is the inclusion of tall oil (i.e. CTO) in point (o) of Annex IX of the RED. Annex IX of the RED contains a list of feedstocks for the production of biofuels eligible for double counting towards the 10% transport 2020 target. Point (o) of Annex IX refers to "[b]iomass fraction of wastes and residues from forestry and forest-based industries, i.e. [...] tall oil". Point (o) thus refers to CTO as a residue. However, when applying the definition of "processing residue" in Article 2 of the RED it is evident that CTO does not constitute a residue. This is also the conclusion drawn by the European Commission, as well as the result derived from applying the case law from the Court of Justice (for further information kindly see Annex II to our Position Paper). The reference to tall oil (i.e. CTO) as a residue in point (o) of Annex IX is consequently incorrect. The effect of this is an artificially increased demand for CTO, and a resulting increase of its price, thus distorting competition on the market for procurement of CTO by other bio-based industries, and thus has a negative impact on the latter with the result that their activities will produce more GHG emissions.

To prevent such situations in the future, EU legislation needs to be set out in such way that it creates a level playing field where all bio-based industries can compete for raw materials and substances on free market terms. This will create benefits and opportunities for all bio-based industries and allow them to contribute to the objectives of the EU's 2030 energy and climate targets, whilst continuing to invest in innovation and growing their business in Europe generating growth and jobs.

## 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 type="radio"/> | <input type="radio"/> | <input checked="" 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 type="radio"/> | <input type="radio"/> | <input checked="" 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 type="radio"/> | <input type="radio"/>            | <input type="radio"/> | <input type="radio"/> | <input checked="" 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 type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> |
| Impacts on biodiversity  | <input type="radio"/> | <input type="radio"/>            | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> |
| Varying degrees of efficiency of biomass conversion to energy                                    | <input type="radio"/> | <input type="radio"/>            | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> |
| Competition between different uses of biomass  |                       |                                  |                       |                       |                                  |

|   |                                  |                                  |                       |                       |                       |
|---|----------------------------------|----------------------------------|-----------------------|-----------------------|-----------------------|
| (energy, food, industrial uses) due to limited availability of land and feedstocks 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 checked="" type="radio"/> | <input type="radio"/>            | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Please specify the "other" choice

*200 character(s) maximum*

EU legislation should not promote the use of bio-based materials for biofuel production, where such materials are used for other higher value purposes contributing to CO2 emission reductions.

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

*2500 character(s) maximum*

CTO is scarce raw material with limited availability on the market. The incorrect classification of CTO as a residue in Annex IX of the RED as well as in national implementing legislation creates an artificial increase of demand of CTO in the energy sector diverting raw material from one sector to another thus having a negative impact on all bio-based industries.

To ensure that valuable raw materials that are used for other higher value purposes, it is essential to establish coherent definitions and securing correct classifications of materials/substances at EU level. To this end we suggest introducing the following references to the concepts of "waste hierarchy" and "by-product" as set out in the Waste Framework Directive (2008/98/EC) (WFD) in Article 2, Definitions, of the new RED:

- "waste hierarchy" shall be defined as in Article 4(1) of Directive 2008/98/EC (RED) of the European Parliament and of the Council"

- "by-product" shall be defined as in the new Article 5(1) of the Commission's proposal for a Directive amending Directive 2008/98/EC on waste"

Annex IX of the RED:

In order to ensure that only feedstocks that actually contribute to the objectives of the RED can be added to Annex IX, the EU legislators has included a test in Article 3(5), second paragraph, of the RED. The application of that test reduces the risks related to State promoted bioenergy production and use. The test sets out the relevant criteria against which the Commission

has to examine a new feedstock to be added to Annex IX. However, the feedstocks already included in Annex IX have not been examined by the Commission or made subject to the test, and the Commission only has the power to add new feedstocks, but not to remove feedstocks already included. These inconsistencies are discriminatory and best remedied by the removal of the Annex. Alternatively, the legally incorrect reference to “tall oil” (i.e. CTO) in point (o) should be removed. The reference is contrary to the definition of “processing residue” in Article 2 of the RED and not supported by facts or scientific evidence. Furthermore, since the reference to “Biomass fraction of wastes and residues from forestry and forest-based industries, i.e.” is without legal relevance for the purpose of Annex IX and its inclusion only risks resulting in legal inconsistencies, also this part of point (o) should be removed.

## 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<sup>[1]</sup> 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 type="radio"/>            | <input checked="" type="radio"/> |
| Indirect land-use change                                 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>            | <input checked="" 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*

In this context, it is essential that a holistic approach to the bio-based industry is taken. This is needed to ensure that all industry sectors of the bio-economy can contribute to mitigate GHG emissions and compete on equal terms for their key raw materials. The existing EU sustainability scheme for biofuels and bioliquids has not been effective in addressing the total GHG emissions since alternative uses have not been taken into account. Materials, such as CTO, when promoted for biofuel, will no longer be available for the bio-chemical industry. Consequently fossil based materials will be used instead, which will lead to higher GHG emissions in the bio-chemical sector. Therefore, overall GHG emissions do not decrease and the biofuel policy does not only distort markets but, above all, fails to produce its desired effects.

Member States should thus have to demonstrate justified reasons for intervening in well functioning competitive markets and be obliged to carry out impact assessments and stakeholder consultations. This would raise the level of compliance with sustainability requirements under the RED.

As part of a solution mitigating these problems, the sustainability criteria

set out in Article 17 of the RED should be reassessed. In this reassessment two additional criteria should be added:

- A new criterion based on a “cradle to grave” approach taking into account the aggregate quantity of GHG emissions (including all direct emissions as well as significant indirect emissions) during the full (fuel) lifecycle should be introduced. The criterion would serve as a means to avoid a too narrow outlook on GHG emissions. The Life Cycle Assessments (LCA) used under the US Renewable Fuels Standard may be used as a source of inspiration.
- A second added criterion serving as an “alternative use sustainability criterion” should be introduced, requiring biofuel producers to show that the raw material concerned cannot be used for a higher value application. Should the raw material concerned have such an alternative application, the biofuel producer would have to prove, through a market analysis that there is an excess of the material concerned available. A similar criterion is in place under Dutch legislation, which could serve as a source of inspiration.

The criteria should be applicable to all residues and wastes, as is presently the case for the sustainability criterion on GHG emission savings in Article 17(2).

## 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*

Within the framework of the work to achieve an effective promotion of advanced biofuels, we wish to underline the importance of free and competitive markets in the EU and call for EU legislation and policies that do not promote one bio-based sector or bio-based industry over another. The existing RED, as modified by the ILUC Directive, unfortunately incentivises the use of CTO for biofuel production, and risks bringing negative consequences to the bio-based pine chemical sector, which uses CTO as its key raw material for higher value purposes substituting fossil based materials in downstream industries by

making bio-based chemicals out of the same raw material.

Since certain Member States incorrectly have classified CTO as a residue, biofuel producers using CTO in these States only need to show compliance with one out of the five obligatory sustainability criteria in Article 17 of the RED. This also makes it easier to provide State aid to the production of CTO based biofuels. This results in an artificially increased demand for CTO, thus distorting competition on the market for procurement of CTO by other bio-based industries.

Further, since point (o) Annex IX of the RED refers to CTO as a residue, CTO is one of the feedstocks for which the production of biofuels is eligible for double counting towards the 10% transport 2020 target. As set out above, this classification is incorrect, and results in additional artificially increased demand for CTO.

We do not believe these negative effects were intended when the RED was initially adopted, nor when the RED was amended by the ILUC Directive. Neither do we believe that they are in line with the objectives of the RED, nor with the intention of the Commission in its ongoing review of the RED under its better regulation agenda. We therefore call on the Commission to correct these inconsistencies in order to enable all actors of the bio-economy to continue competing on an equal footing and contributing to intelligent and resource efficient use of raw materials. We would like to underline that our industry is not asking for any advantages, merely for a level playing field.

### 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*

In general, we do not believe that the best way forward is to maintain or extend support schemes for biofuels after 2020. If any aid is to be granted, it should only be given in the form of investment aid. In the transition to a green economy, it is central that markets operate properly and that government support, including support to facilitate the drive towards renewable sources, does not create imbalances that go against the principle of technology neutrality and prevent innovation.

As stressed by Commissioner Vestager in her speech at Bruegel on 12 October 2015, government subsidies must not harm the level playing field in Europe's Single Market. Furthermore, any subsidies granted must be well-designed since, when "the technologies mature and become cheaper, the case for government support is weaker". In addition, EU Member States should not continue to subsidise products when it has become clear that their production will never become economically viable without operating State support or they in fact do not contribute to achieve the environmental objectives sought.

Government interventions can in some circumstances be justified in order to support the achievement of targets for e.g. climate change and energy sustainability. However, in order to fulfil the aims set out above, and to ensure that State support is cost-effective as well as financially sustainable, the provisions in Article 17 in the RED regarding State support should limit the State aid allowed to financial support in the form of investment aid. Operating aid should not be allowed, since it benefits undertakings with regard to expenses which they normally have to bear themselves, in their day-to-day management. As also stressed in the case law of the EU Court of Justice, operating aid has, by its nature, the effect of distorting competition in the sectors in which it is granted. However, if, for specific reasons, there is a need to still allow operating aid there must be strict limitations in time, not exceeding a maximum period of three years, and a strict reporting obligation to the European Commission by the aid recipient and the Member State granting the aid, as well the possibility for stakeholders to provide comments on the aid measure. Such a provision would ensure that the negative effects of aid measures will be limited in terms of distortions of competition and impact on trade between Member States.

## 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)

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



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

*2500 character(s) maximum*

## 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 type="radio"/> | <input type="radio"/> | <input checked="" 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 checked="" type="radio"/> | <input type="radio"/>            | <input type="radio"/> | <input type="radio"/> |
| Mitigate the impacts of indirect land-use change                                     | <input type="radio"/> | <input type="radio"/>            | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>            | <input type="radio"/>            | <input checked="" 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 checked="" 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 checked="" type="radio"/> | <input type="radio"/>            | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>            | <input type="radio"/>            |
| Minimise administrative burden for operators           | <input type="radio"/>            | <input type="radio"/> | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/>            | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>            | <input checked="" type="radio"/> |
| Promote energy security                                | <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 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  | <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"/>            |

Please specify the "other" choice

*200 character(s) maximum*

Allowing all bio-based industries to contribute to achieving the objectives of the EU bioenergy sustainability policy, and not intervene into free competitive market mechanisms.

7.2. Any other views? Please specify

*2500 character(s) maximum*

It is essential that a holistic approach to the bio-based industry is taken when Member States are putting into place their national energy and climate plans. This is needed to ensure a free market where all industry sectors of the bio-economy can compete on equal terms for their key raw materials/substances and contribute to mitigating GHG emissions, without certain bio-based industries being favoured.

The Emissions Trading System (ETS) should provide the incentive for investments in renewable energy. National policies such as subsidy schemes derived from the RED interfere with a correct working of the ETS. The focus should be on CO<sub>2</sub>-emission reductions in a technology-neutral way without creating market distortions.

We wish to reiterate the importance of not creating an uneven playing field where one bio-based industry is favoured over another. National authorities should be obliged to carry out impact assessments and public consultations with industries affected by the RED before introducing any measures that may distort competition between different bio-based industries using the same raw materials/substances for their production of bio-based products, such as bio-based chemicals.

## 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

From the point of view of our industry, the EU's goal of reaching the 10 % renewable energy target in the transport sector together with Member States' implementation of the RED has unfortunately, worked to the detriment of the CTO based bio-chemical industry as explained in more detail in the earlier sections of our reply to this consultation.

The EU legislator has, by incorrectly referring to CTO as a residue in Annex IX of the RED, created further inconsistencies in EU-legislation. As explained above, when applying the case law from the Court of Justice for the classification of substances and materials to CTO it is evident that CTO does not constitute a residue, nor a waste, but a product. This is also clear when applying the definition of "processing residue" in Article 2 of the RED on CTO, and it is the conclusion drawn by the European Commission. Yet another example showing that CTO is not a residue follows from the application of Article 2(2) of the REACH Regulation. According to this Article substances that constitute wastes shall not be registered under the REACH Regulation. Materials that are registered under REACH must therefore neither be waste, nor residues, but products. The fact that CTO is registered under the Regulation thus further confirms that CTO is not a waste or a residue, but indeed a product.

It should be noted that, the global CTO volumes are too small to make any significant difference as feedstock on the EU fuel market and the EU biofuel market. Even if all the CTO available on the world market would be converted to biofuel and used in the EU, the impact versus the 2020 target would still be insignificant. Should all available CTO in the EU be used for the production of biofuel in the EU, it would amount to no more than 0.2 % of the EU's total transportation fuel volume.

We are by no means against renewable energy or biofuels. We do however call on the European Commission and the co-legislators to ensure a level playing field is put in place for all bio-based industries using and competing for the same materials/substances. To this aim, we encourage the Commission to introduce new provisions ensuring that all players in the bio-economy are taken into account in relation to the objectives of the RED and related EU legislation, and thereby allowing them to continue contributing to the EU objectives. In particular, we welcome coherency and alignment of definitions with other EU legislation and case law, and we would suggest that:

- A reference to the concept of "waste hierarchy" is included in Article 2, Definitions, of the new RED;
- A reference to the concept of "by-product" as amended in the proposed new Article 5(1) of the Commission's proposal for a Directive amending Directive 2008/98/EC on waste, is included in Article 2, Definitions, of the new RED;
- Only State support in the form of investment aid is allowed;
- Article 17 of the RED is reassessed, and two additional sustainability

criteria are included: a Life Cycle Assessments criterion as well as an alternative use criterion.

- Annex IX of the RED is removed; or
- The reference to “tall oil” in point (o) of Annex IX of the RED is removed; and
- The reference to “Biomass fraction of wastes and residues from forestry and forest-based industries” in point (o) of Annex IX of the RED is removed; and
- There is no reference to incentive schemes in the form of multiplying factors or quotas for biofuels which distort markets for raw materials.

## 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*

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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