

Answers from the European Biofuels Technology Platform to the public consultation:

Section A: Electricity from renewable sources in transport

According to the National Renewable Energy Action Plans, Member States estimate that the contribution of renewable electricity will by 2020 account for approximately 1% of energy consumed in transport: 0.8% in non-road transport (mainly in trains) and 0.2%⁵ in road transport, including electric cars, trolleybuses, etc.

Given that electricity is generated from both renewable as well as non-renewable sources,

1. how do you value the impact of the 10% target for renewable energy in transport by 2020 on the development of electric vehicles?
 - Not significant
 - Significant, but other policies/developments will be of more importance
 - Important, along with other policies/developments
 - A key driver
2. under what condition do you think it would be justified to count the whole amount of electricity in electric vehicles as renewable?
 - None
 - When the electricity is produced fully from renewable energy and without connection to the electricity grid
 - When the electricity comes with a tradable certificate showing that that amount of renewable electricity was generated
 - When there is a supply contract showing that that amount of renewable electricity was generated
 - When there is evidence on a Member State level that the development of electric vehicles has led to that amount of additional renewable electricity generation
 - Other (please specify):
3. what benefits do you expect the option you selected under (2) will have:
 - Additional renewable electricity generation
 - Faster development of electric vehicles
 - Other (please specify):
 - None, it only changes the accounting method

Please motivate your answer

4. what costs in terms of administrative burden do you expect the implementation of the option you selected under (2) will have:
 - Additional statistics collection in all Member States
 - Generating additional information on the basis of existing statistics
 - Other (please specify):
 - None

Answers to section A:

- 1) **Option c** - Important, along with other policies/developments
- 2) **Option c** - when the electricity comes with a tradable certificate; it is crucial to ensure that only renewable electricity will be incentivised.
- 3) **Option a** - additional renewable electricity generation
Motivation: Tradable permits secure the renewable electricity production. A limitation of renewable electricity for the use in electrical vehicles would mean

that a different supply structure would be needed. Being able to count electricity as renewable for electric vehicles needs to be supported, but also needs to be controlled. The best option is through the means of tradable permits which has a direct marketable effect and could increase the amount of renewable electricity directly.

4) **Option a** - additional statistics collection in all MS

Section B: Hydrogen from renewable sources in transport
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According to the National Renewable Energy Action Plans, only one Member State estimates that hydrogen from renewables will be used in transport by 2020.

1. Which are in your view the most likely ways to produce hydrogen from renewable sources (partly or fully) by 2020?
 - From biomethane, e.g. by steam reforming/partial oxidation
 - From a mixture of natural gas and biomethane, e.g. by steam reforming/partial oxidation
 - On the basis of renewable electricity, by electrolysis
 - On the basis of the electricity mix from the grid, by electrolysis
 - From biomass directly, e.g. by gasification/partial oxidation or biological processes
 - Other (please specify):
 - None are likely to be significant by 2020
2. For each option you selected under (2), if it would be used for transport, how would you suggest to calculate its contribution to the 10% target for renewable energy in transport?

Answer to section B:

As the European Biofuels Technology Platform does not cover hydrogen, it was decided not to answer on these questions.

Section C: Biomethane via the natural gas grid in transport

According to the National Renewable Energy Action Plans, Member States estimate that biofuels other than first and second generation bioethanol and biodiesel will by 2020 account for approximately 0.2% of energy consumed in transport, part or all of which may be biomethane.

Given that methane in the gas grid originates mostly from non-renewable sources (natural gas),

1. how do you value the impact of the 10% target for renewable energy in transport by 2020 on the development of methane vehicles fuelled by methane from the gas grid?
 - Not significant
 - Significant, but other policies/developments will be of more importance
 - Important, along with other policies/developments
 - A key driver
2. under what condition do you think it would be justified to count the whole amount of methane extracted from the gas grid for the use in vehicles as renewable?
 - None, until the time that all methane injected into the gas grid concerned is originating from renewable sources
 - When the methane comes with a tradable certificate showing that that amount of biomethane was generated
 - When there is a supply contract showing that that amount of biomethane was generated
 - When there is evidence on a Member State level that the development of methane vehicles has led to that amount of additional biomethane generation
 - Other (please specify):
3. what benefits do you expect the option you selected under (2) will have:
 - Additional biomethane generation
 - Faster development of methane vehicles
 - Other (please specify):
 - None, it only changes the accounting method

Please motivate your answer

4. what costs in terms of administrative burden do you expect the implementation of the option you selected under (2) will have:
 - Additional statistics collection in all Member States
 - Generating additional information on the basis of existing statistics
 - Other (please specify):
 - None

Answers to section C:

- 1) **Option b** - significant, but other policies/developments will be of more importance (tax incentives, infrastructure requirements, competing uses for biomethane)
- 2) **Option b** - when the methane comes with a tradable certificate showing that that amount of biomethane was generated
- 3) **Option a** - additional biomethane generation. Motivation: Tradable permits secure the biomethane production on the most suitable locations with the

lowest possible costs, but need not to reduce the consumption of methane to this area. Biofuel and biomethane production is most likely to occur in rural areas (where the feedstocks are), biomethane requires a specific infrastructure and is therefore best suited to metropolitan areas and fleets for local public transport.

- 4) **Option a** - additional statistics collection in all members states
And option c - other: supervision of trade of permits

Section D: Energy content of biofuels
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According to the National Renewable Energy Action Plans, Member States estimate that the contribution of biofuels will be approximately 9.5% of energy consumed in transport, most of which is expected to be biodiesel and bioethanol.

1. Do you think additional types of biofuels need to be listed in Annex III of the Directive? If yes, which ones and could you provide values?

Please provide references for suggested values

2. Do you think more precision in terms of decimals is necessary in the values in the Annex? If yes, could you provide such values?

Please provide references for suggested values

Answers to section D:

1. It is crucial for the proper implementation of the Directive to include in its Annex III additional products which already today are available in the market. These renewable fuels are covered by the definition of “biofuels” in the Directive, but are not specifically listed in its Annex III, which – as experience in some Member States show – may lead to discrimination of these products in the national markets.

Such biofuels are e.g.: HVO petrol, HVO jet fuel, HVO liquefied petroleum gas (LPG), sugar to Y molecules, higher synthetic hydrocarbons, i.e. hydrocarbons from C8 on and maybe TAEE. The European Commission should add a provision in annex 3 that would say:

"All new biofuels, including those which are not yet included in the list, shall be taken into account by Member States. Such molecules and their characteristics will be reported by Member States to the European Commission in order to update the list".

Properties of higher synthetic alkanes = 44.43-47.5 MJ/kg energy content (source: EBTP biofuel fact sheet on hydrocarbons, not yet published). These products have potential for significant contribution towards the European climate related targets and are also products of very good quality.

Molecular structure of HVO jet and HVO LPG is similar to their fossil fuel counterparts. HVO gasoline can be used as a gasoline component similarly to fossil-based gasoline components but its advantage over fossil based gasoline is that it can be counted as a renewable fuel.

2. It is important to have a level playing field: all member states should use the values in the directive and national objectives should be expressed in %energy

(not %volume). Energy content of transport fuels, as listed in Annex III of the Renewable Energy Directive, are to be taken into account in the calculation of final gross consumption of energy from renewable sources in each Member State. These values are defined for each type of fuel by mass and by volume (lower caloric value, MJ/kg and MJ/l) without any decimal places, contrary to the common practice. In a result, fuel products, whose energetic value is rounded down, are discriminated against those fuel products, whose energy content is rounded up. The discriminatory effect of this stipulation is apparent when considering millions of litres of each of these products delivered to the European market annually in order to fulfil the renewable energy targets the EU is aiming to achieve.

Against this background EBTP suggests to use methodology of calculation that is used by Member States for the tax purposes, that means to rely on the accurate and precise calculations commonly practiced by the European fuels' suppliers and to base energy content's values of fuels and biofuels, listed in Annex III of the RED, on the national standards for calorific value measurement (e.g. German DIN51900-1:2000) or other standards (e.g. ASTM D 4809-2009). The measurement according to the standards gives the result with three decimals in MJ/kg and it is often reported with two decimals.

In this way the European legislation, building up on the existing national measures, would create a transparent and level-playing field for all energy products that are expected to contribute to the European targets.

Example:

Values according to German legislation (§ 37b BImSchG):

Fossil diesel
35.87 MJ/l

Fossil petrol
32.48 MJ/l

Biodiesel
32.65 MJ/l

Plant oil
34.59 MJ/l

HVO
34.39 MJ/l

Bioethanol
21.06 MJ/l

Biomass to Liquid (BtL)
33.45 MJ/l

(Source:

http://www.zoll.de/b0_zoll_und_steuern/b0_verbrauchsteuern/b0_energie/d0_besonderheit/c0_biokraftst/a0_allgemeines/c0_nachweis/index.html)