

**Biofuel issues in the new legislation on the promotion of renewable energy
Public consultation exercise, April – May 2007
Energy and Transport Directorate-General, European Commission**

Statement of CHOREN Industries GmbH, Freiberg/Germany

1. How should a biofuel sustainability system be designed?

Question 1.1:

Do you think the "possible way forward" described above is feasible?

In theory feasible, in praxis high administrative effort (cost, management resources)

Question 1.2

What do you think the administrative burden of an approach like the "possible way forward" would be? (If possible, please quantify your answer.)

Question 1.3

Please give your general comments on the "possible way forward", and on how it could be implemented. Does it give an adequate level of assurance that biofuels will be sustainably produced? If you think the problem should be tackled in a different way, please say how, giving details of the procedures that would be used.

Question 1.4

Carbon stock differences between land uses would be taken into account under criterion 2. Should they also be taken into account under criterion 1? If so, what method should be used to determine how the land in question would have been used if it had not been used to produce raw material for biofuels?

There could also be examples, when land use for biofuel production could actually increase biodiversity, land quality and carbon sequestration through that new land use, e.g. through afforestation of degrading and erosion prone soils.

These positive effects have to be calculated and could be added to the CO₂ balance of the biofuels being produced from such sources or alternatively should gain CO₂ tradable credits

Question 1.5

As described in the "possible way forward", criterion 3 focusses on land uses associated with exceptional biodiversity. Should the criterion be extended to apply to land that is adjacent to land uses associated with exceptional biodiversity? If so, why? How could this land be defined?

The criterion should not be applied to land adjacent to land with exceptional biodiversity since it would further restrict the area of available land for biofuel production.

Question 1.6

How could the term "exceptional biodiversity" (in criterion 3) be defined in a way that is scientifically based, transparent and non-discriminatory?

2. How should overall effects on land use be monitored?

Question 2.1

Please give your comments on the "possible way forward" described above. If you think the problem should be tackled in a different way, please say how.

Question 2.2

Do you think it is possible to link indirect land use effects to individual consignments of biofuel? If so, please say how.

3. How should the use of second-generation biofuels be encouraged?

Question 3.1:

How should second-generation biofuels be defined? Should the definition be based on:

a) the type of raw materials from which biofuels are made (for example, "biofuel from cellulosic material")?

b) the type of technology used to produce the biofuel (for example, "biofuels produced using a production technique that is capable of handling cellulosic material")?

c) other criteria (please give details)?

The main advantages of the so called 2nd generation biofuels are

- Higher feedstock flexibility including waste streams
- Higher yield (3 x higher per hectare)
- higher potential contribution to total fuel consumption
- no significant competition to food crop production
- Low CO₂ emissions
- High product quality
 - o Lower exhaust gas emissions
 - o direct feeding into the existing distribution channels combined with suitability for long-distance transportation and storage;
 - o suitability for existing engines combined with opportunities for further development for more sophisticated engines;
- more sophisticated conversion technology offers export opportunities for European industry

The substantial advantages described above make it desirable from an environmental, political and social economic perspective to see 2nd generation biofuels find their way into the market.

However, there are various challenges associated with a large scale market entry of innovative conversion technologies such as BTL based on Fischer Tropsch ('FT') synthesis, especially:

- o Higher specific investment costs
- o lack of reference plants
- o higher investment risks
- o early learning curve associated higher production costs

Overcoming these challenges requires a differentiation between different kinds of biofuels. For several reasons the term 1st/2nd generation biofuels is not really helpful. We suggest the following differentiation:

- In the mid to long term perspective, a detailed classification system considering the main motives to support biofuels (climate change, security of supply, rural development) and additional criteria has to be developed. A three-class system for each criterion seems to be a feasible approach.
- For the short term perspective, we propose a modified wording for the two categories
 1. (conventional) biofuels, eg FAME from rape seed oil
 2. Successive biofuels or "biofuels who are worthy of special support" (as per the German definition in the new "Biokraftstoffquotengesetz"), such as BTL based on FT synthesis

Successive biofuels should be defined by a “positive list” taking into account both promising opportunities and greater challenges as e.g. higher production costs. The list should be updated once a year. Agreement on the European level should be intended.

Any national support scheme for advanced biofuels should then be based on these definitions/classifications.

In any case, given the size of the investment required for production facilities for advanced biofuels such as BTL and the investment horizons involved, it is essential that there is a reliable and long term framework in place to create a level of confidence with market participants such as investors, feedstock suppliers and off-takers.

Question 3.2:

Please give your comments on the "possible way forward" described above. If you think the problem should be tackled in a different way, please say how.

As a result of the above mentioned, the proposed way forward is exactly the way that has to be followed for the Cat. 2 biofuels

Question 3.3

Should second-generation biofuels only be able to benefit from these advantages if they also achieve a defined level of greenhouse gas savings?

This might be acceptable subject to the financial level of recognition. If CO₂ mitigation is fully accounted for in early stage start up subsidies then this might be a way forward

4. What further action is needed to make it possible to achieve a 10% biofuel share?

Question 4.1:

Should the legislation include measures to ensure that diesel containing 10% biodiesel (by volume) can be placed on the market, and is in fact placed on the market?

One of the reasons, BTL Fischer-Tropsch Diesel is worthy of specific support is the high quality and the suitability for existing engines. For BTL-blends up to at least 30 %, no single adjustment in the EN 590 standard is required. A strong support of the BTL route enables European industry to produce 3 % - 5 % of the European transport fuel demand in 2020 and thus to close the gap to the existing fuel standards.

The specific support for BTL consist of the availability of risk sharing tools for the vast investment for the first-of-a-kind large scale demonstration facilities.

Another important challenge to overcome is the feedstock competition towards green power and heat. As biofuels are apart from decreasing transport intensity the only opportunity to decrease the climate impact of the road transport system, while heat and power may be generated by multiple renewable energy sources incentives for directing feedstock to the transport sector are required.

Question 4.2:

Should the legislation include measures to encourage the use of ethanol and biodiesel in high blends? If so, what?

Question 4.3:

Should the legislation include measures to encourage the use of biomethane, methanol and DME in transport? If so, what?

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