

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

1. How should a biofuel sustainability system be designed?

Question 1.1.:

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

Yes, indeed we think this should be the principle way forward.

As one of the main goals of the European legislation for energy is the reduction of greenhouse gas emissions (GHG), without any doubt the saving of GHG should be the main criterion when incorporating a new legislation on the promotion of biofuels.

In this respect the JRC/EUCAR/Convave “well-to-wheel” study could only be an example for the definition of “default values” for net GHG savings.

First of all the variety of conversion routes for biofuels is manifold and furthermore we have to point out the fact, that the JRC/EUCAR/Convave “well-to-wheel” study is not including the production of biodiesel based on by-products like animal fats and used cooking oils (UCO).

The Institute for Product Development at the Danish Technical University has made a “Life Cycle Assessment of Biodiesel from Animal Fat”. This report states that especially biodiesel made from animal fats and used cooking oils have the most efficient GHG savings, and even have a reduction in GHG compared with using the fat as fuel in boilers:

Main conclusion: *Environmentally and in terms of fossil fuel savings, fat is better used in cars than in boilers.*

The LCA mentioned is enclosed this questionnaire.

The German IFEU-Institute has also made a survey on GHG savings, and come to the same conclusion, that biodiesel made from animal fats and used cooking oils (UCO) have the most efficient GHG savings. This survey also shows that it is not a question of the specific technique but always the use of the specific raw materials, their availability and their by-product usage. Consequently residues should be included when incorporating a new legislation on promotion of biofuel.

Question 1.2.

What do you think the administrative burden of an approach like the “possible way forward” would be ?

The supervision of sustainability criteria is necessary but must be done in a practical and pragmatic way, and the paperwork must not be too comprehensive.

We find that the “book and claim” system seems to be preferable comparing to the other systems (track and trace, mass balance), as far as the system has relatively low implementation and operation costs, and further it can be “easily” and “rapidly” implemented worldwide due to small numbers of verification moments and the participants of the system will not be hampered in their daily activities.

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 sustainable 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.

As mentioned in our answer to question 1.1., the focus on raw materials must include more and more by-products such as animal fats, used cooking oils and others. Regardless whether it is a benchmark system, a certification system or a system based on bilateral agreements it must always be transparent and traceable.

Questions –1.4–1.5 –1.6.

These questions are not linked to the use of by-products like animal fats and therefore we will not focus on these questions.

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.

As mentioned above reg. questions 1.4 – 1.5 – and 1.6, this question is not linked to the use of by-products like animal fats.

Question 2.2.

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

As mentioned before by-products are not concerned by this discussion. But nevertheless it must be clear that a system giving credits for this reason (or any other not yet mentioned here) do not discriminate by-products. The use of by-products itself is an acknowledged GHG saving method particularly where these by-products must otherwise be disposed of. This should absolutely be accredited.

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 reason for promotion of biofuels are to gain independence from oil imports, to promote rural areas and to reduce GHG emissions. Hence the definition of “eligible” and so called second generation biofuels should support these

goals. Therefore it seems to be more appropriate to put the focus on feedstock-energy and CO2-efficiency. Advanced technology is not a goal in itself.

On this account the biofuels must be produced in a sustainable way including cultivation and harvest of raw materials, transport, production etc. The ongoing discussion about the use of cellulosic materials does not fit all these requests. Is cellulosic material as such sustainable, including the one from the rain forests, mangroves, palm plantation? Will possible deforestation, erosion or even desertification not be assessed?

The same question must be asked discussing special techniques. If the production process itself is harmful to the environment spoiling water, air and energy then it must be obviously stopped. Even the finest technique must be evaluated like the common available: The potential to reduce GHG emissions.

We think that cellulosic material as all other material like palm oil and the production processes must provide objective evidence of their sustainability. Only a holistic approach will fit the sustainability criteria in a global world. Due to that also the use of by-products like glycerine or proteins (from soy and rape) for feed or food must be incorporated in the holistic approach.

EU Commissioner Mrs. Fischer-Boel said, that the definition of second generation biofuels should be mainly based on the use of agricultural by-products of all provenience. This includes cellulosic material as well as animal by-products or by-products from the food and drink industry. Especially their use has a high GHG emissions saving potential but nevertheless also their use must fit the sustainability criteria discussed.

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.

We are of the opinion, that this above mentioned technique/cellulose bonus is not in line with the global goal of the promotion of biofuels. Only pure sustainability criteria should be the basis for subsidies.

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.

Definitely **YES. Without any doubt.**

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?

Different examples show that in the most cases technique is possible to fit the political standards/targets:

Substitution of lead in the antiknock additive
Use of high biodiesel blends in trucks

For more years the target to increase the biodiesel blend is well known and accepted. We should not stop on this route, therefore the 10 % blending is a **must** on the way forward.

Question 4.2.

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

Yes. In Germany biofuels has been a real success, which was mainly based on the use of high blends (B-100), and the promotion in Germany of biodiesel has made the public awareness of the need for biofuels high, and for that reason biofuels are very well accepted in Germany,, and the same goes for a country like Sweden.

But also international higher blends, like the B-20 in the US, is enjoying a broad acceptance by the major engine companies. Most have stated formally that the use of blends up to B20 will not void their parts and workmanship warranties.

Question 4.3.

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

Yes, if all discussed sustainability criteria are fulfilled. Especially biomethane from manure, sewage sludge or other organic residues has a high GHG emission reduction potential.

Question 4.5.

Should the legislation ask the Commission to review, by a given date, whether it is possible to be confident that the 10% target can be achieved through:

- a) rules that allow 10 % blending by volume of ethanol in ordinary petrol, plus
- b) rules that allow 10 % blending by volume of biodiesel in ordinary diesel, plus
- c) the four options listed under “other options for solving the problem”,

If so, what should the date be?

If the review were to conclude that the targets is unlikely to be met, what action should the Commission take?

We strongly believe that the 10 % blending is feasible (with foreseen capacity for biodiesel production in Denmark the 10 % target can be reached within a few years, with RME (rapeseed methyl ester) and FME (Fat methyl ester), but on the other hand also a credit system/certification system based on higher blends should be allowed and promoted. Such a credit system could help to reach higher overall blending, even before the European Committee on Standardisation will amend the diesel standard to allow 10 % biofuel (biodiesel or bioethanol) blends.

Question 4.6.

More generally, what role should taxation play in the promotion of biofuels (considering different situations such as low blends, high blends and second-generation biofuels)?

The Commission should be open for both systems. Blending obligations as well as tax incentives (even for higher blends). At present both are necessary to compensate for the disadvantages in the production costs to achieve the advantages of the greenhouse gas savings.

The problem with tax incentives is, that it in some way should be coupled to the raw oil prices index, in order to avoid over- or under compensation.

The EU must introduce mandatory targets, if member states fail to achieve the indicative targets so far laid down by the EU.