

INFORSE-Europe¹ response to Public consultation exercise for the Biofuel issues in the new legislation on the promotion of renewable energy, carried out by Energy and Transport Directorate-General, European Commission

June 18, 2007

General Comments

INFORSE-Europe supports the increased use of biomass in sustainable ways and as part of a sustainable development, including use of biofuels in transport. Renewable energy must be supported in order to enter the energy markets, but the support must be limited to renewable energy that is provided in sustainable ways. Regarding biomass it is evident that it must be produced in ways, where the source is renewed, but also criteria should be applied to limit eventual negative environmental and social effects; and maybe also reward solutions with special positive environmental and social effects. This should be integrated in the support mechanisms.

The increasing trade with biomass, including import from 3rd world countries makes it increasingly difficult to evaluate the sustainability of biomass supply. Specific cases of unsustainable production of biomass has been presented recently such as the replacement of virgin rainforest in Malaysia and Indonesia with monoculture farming of oil palms. Also cases of social unacceptable effects of biomass projects has been published, including displacement of people to give way for plantations for biofuels.

In addition, the use of biomass in energy should be as efficient as practical possible with a gradual conversion to best available technologies and with promotion of the most environmental solutions in all steps from production to use.

Biofuels for transport cannot replace increased energy efficiency of vehicles nor energy optimisation of the modal split of transport, or phasing-out of transport that is not cost-effective when external costs of transport are included.

Regarding achieving targets, INFORSE-Europe finds that the appropriate target for transport should be total renewable energy as fraction of total energy demand in transport. There must also be promotion of other forms of renewable energy in transport than biofuels.

Question 1.1: Do you think the "possible way forward" described above is feasible?

Yes, INFORSE-Europe agrees that support of biofuels and other biomass should be based on criteria that EU countries apply for domestic as well as imported materials; but the criteria must be extended as follows:

- Regarding the minimum level of greenhouse gas emission reduction, INFORSE-Europe finds that the fossil fuel emissions must include emissions of fossil-fuel production and

¹ INFORSE-Europe, International Network for Sustainable Energy - Europe, is a network of 70 NGOs promoting sustainable energy, i.e. energy efficiency and renewable energy, throughout Europe. Further information at <http://www.inforse.org/europe>

delivery (well-to-tank emissions) and that biofuels should have at least 25% less greenhouse gas emissions than fossil fuels, a figure that could be increased within some years, e.g. to 50%.

- The date for permissible land-use change should be before the current rush for biofuels, not the date of the Commission proposal, to avoid rewarding harmful land-use change. The date should not be later than 1/1 2005.

- The biomass energy production must not lead to increased pollution. This includes that biomass production must not increase the use of chemical fertilizers or pesticides, compared with the land-use that it replaces. To avoid spreading of GMOs, bio-fuel crops must not include GMO plants.

- Biomass energy production must not contribute negatively to the livelihood of local people using the land or being neighbours to the land used for biomass for energy. Particular care should be taken regarding the livelihood of indigenous populations. Affected people and potentially affected such as neighbours and people sharing the same watershed should be involved in decision-making and in certification schemes.

- For biomass used within the same area where it is produced and not processed chemically no proof of criteria should be required. This will apply for local use of pure plant oil, pure ethanol, and biogas (biomethane).

An additional comment is that the Joint Research Centre (JRC)/EUCAR/CONCAWE well-to-wheel study is not adequate for policy purposes since it has neglected biogas and all the other waste-based transport biofuel production technologies, i.e. the technologies that have the largest environmental merit. It is necessary that the Commission requires them to be included in forthcoming JRC WTW studies.² There is a general tendency within the DGTREN to ignore biogas and other waste-based transport biofuel production technologies, e.g. the status report on fulfilling the renewable energy in transport directive in EU member countries mentions biogas only in one footnote. These technologies with the best climate and other environmental merit of all transport biofuels could also have important contribution in the ongoing renewal of EU waste policy, the new strategy for sustainable use of natural resources, CAFÉ strategy and ETAP programme. Their use should be rewarded in the EU transport biofuel policy against energy crop based transport fuels, which at the moment seem to be the sole focus of the DGTREN transport fuel policy. In conclusion, it seems that increased co-operation between DGTREN and DGENV is needed.

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.)

In each EU country must be a certification authority and administration similar to administration of certified organic farming or the voluntary FSC system for timber. Since

² Until these studies are revised, the most policy relevant study is the Ludwig-Bölkow-Systemtechnik (LBS) study "Well-to-Wheel Analysis of Energy Use and Greenhouse Gas Emissions of Advanced Fuel/Vehicle Systems - A European Study" made in 2002 and available at http://www.lbst.de/welcome__e.html

the criteria are simpler than for organic farming also the administration will be simpler; but there will be some start-up administration approving that harmful land-use change has not taken place.

For intra-EU trade, certification including proof of origin of products must follow export, similar to the practice for organic farming.

For import into EU, the exporting country must establish certification and proof of origin similar to the one applied in EU.

An overall authority must oversee that criteria and origin is respected, in EU as well as in exporting countries. It must have the authority to remove support to products with false and inadequately fulfilled criteria, and to stop import of biofuels from countries that are not able to fulfill criteria for its products or for parts of its products.

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?

In principle it will, if the criteria are extended as proposed above and they are enforced, including with stop of imports from countries that do not fulfill criteria safely and with certainty.

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?

Yes, because greenhouse gas releases from land-use changes are not necessarily captured by criterion 2. As a practical measure, greenhouse gas releases can be allocated for the biofuel production during the first 10 year, starting from the start of the full-scale biofuel production.

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?

If the biodiversity can be threatened by biofuel production on adjacent areas, these should also be excluded from biofuel production. Unfortunately it will depend on the local situation, when this is the case; but experience from agriculture beside nature protection areas must be used to qualify this.

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?

Existing nature protection experience and regulation must be applied to keep biodiversity healthy, for fulfillment of the EU target to stop loss of biodiversity, and to protect endangered species.

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.

Regarding monitoring of overall land-use change, it is important to monitor overall land-use change annually, including in exporting countries outside EU, and evaluate the greenhouse gas effect as well as the effect on biodiversity of the overall change. If increased production of feed-stock for biofuel is causing overall land-use change that increases greenhouse gas emissions, harm biodiversity or have negative social effects, these negative effects must be included when evaluating if the sustainability criteria are met for the biofuel production.

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.

As these are dispersed effects, they will have to be counted as average to the type of biofuels that is causing the effect. If for instance it is found that in a country soy-bean production for biofuels cause land-use change with negative effects in adjacent areas, such as moving of husbandry or food-crops into areas where it harm biodiversity, this harm must be counted to the soy-bean based biofuel in that country; but not necessarily to other biofuel productions in that country.

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)?

Second generation technologies include other technologies than conversion of cellulosic materials to biofuels. We will propose instead to apply environmental criteria, including larger greenhouse gas abatements (minimum 50% compared with fossil fuel total emissions well-to-tank), and that the feed-stock is secondary materials such as waste products.

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 do not agree with the "double counting" of second generation biofuels. In addition to R&D funding for second generation biofuels, support must be based on environmental and sustainability criteria, including greenhouse gas emissions and life-cycle environmental impacts.

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?

As mentioned above we support the inclusion of greenhouse gas savings in the criteria, so the answer is yes.

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?

The EU should work to allow 10% biodiesel blends and higher (see answer to 4.2), so the countries can choose that option, if they decide so.

Question 4.2:

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

The EU should support the countries, if they want to include pure or almost pure use of ethanol, biodiesel and other biofuels. In practice, EU could make a demand on car suppliers to specify for each car how high fraction of biofuel it can use, and make adequate documentation available for the EU for this information. It could also demand that car suppliers introduce flex-fuel cars as is done in Brazil (petrol+ethanol), and diesel flex-fuel cars that can run on fossil diesel, biodiesel, AND pure plant oil. In addition ethanol blends in standard gasoline could be increased to 15 %^(volume) and biodiesel blends in standard diesel to 20 %^(volume) since they work well in current vehicles.

Question 4.3:

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

Yes, all transport biofuels should be supported based on their environmental merits, not based on current production and current amount of suitable vehicles. Biogas should be promoted as the most environmentally benign biofuel. Biomass based DME and methanol should be supported just as other biofuels, with the support based on environmental criteria.

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 target is unlikely to be met, what action should the Commission take?

The review should deal with the policies planned and implemented by the countries, including blending, use of pure/high blend biofuels in captive fleets, and other options. In particular INFORSE-Europe finds that use of biomethane and pure plants oils should be promoted as they are some of the most environmentally benign vehicle fuels.

The review should be one year after the deadline for the implementation of the appropriate directive(s) and could be repeated every second year. Main reviews could be in 2011 and 2015.

If the target is unlikely to be met for a given country, the Commission should ask the country to strengthen and stronger enforce its policies, and to reduce transport related fossil fuel use and greenhouse gas emissions in other ways to compensate for the missing biofuel (e.g. by modal shifts, introducing other renewables in transport)

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)?

It is proposed that taxation follow greenhouse gas emissions, so a biofuel with e.g. 60% greenhouse gas emission compared with fossil fuel total emissions (well-to-tank) will enjoy a 40% tax reduction.