

# EBB

## European Biodiesel Board

Avenue de Tervuren, 363 – 1150 Bruxelles  
 Tel: +32 (0)2 763 24 77 – Fax: +32 (0)2 763 04 57  
 E-mail: [info@ebb-eu.org](mailto:info@ebb-eu.org) - web site: [www.ebb-eu.org](http://www.ebb-eu.org)

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### EBB COMMENTS TO THE COMMISSION CONSULTATION ON BIOFUELS ISSUES IN THE NEW LEGISLATION ON THE PROMOTION OF RENEWABLE ENERGY

#### EBB Members Companies

NOVAOL Austria GmbH,	Austria	BIOVERDA	Ireland
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AGROINVEST	Greece		
DOW Haltermann	Belgium		

#### Member Associations

FEDIOL  
 VDB

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## EBB COMMENTS TO THE COMMISSION CONSULTATION ON BIOFUELS ISSUES IN THE NEW LEGISLATION ON THE PROMOTION OF RENEWABLE ENERGY

### Introduction

The European Biodiesel Board (EBB) is the European Federation of Biodiesel producers. It gathers 50 member companies accounting for around 80% of EU biodiesel production. EBB Membership is restricted to companies producing biodiesel or building up biodiesel production capacities in the EU. At present, biodiesel represents more than  $\frac{3}{4}$ <sup>1</sup> of the biofuels produced in the EU. The position below represents the answer of EBB member companies to the public consultation procedure launched by the EC Commission in the last month of April.

### General comments

Mineral fuels and the GHG produced by their burning represent a serious global threat to the environment contributing to climate change, desertification as well as to biodiversity. The lack of local oil resources and the growing EU deficit of diesel<sup>2</sup> represent a second threat pending on the future of EU countries. Biodiesel represents today the most appropriate and easy answer that the EU industry and EU agriculture can give for reducing GHG emissions from transport and improving EU security and independence of supply in term of diesel fuel availability. The biodiesel answer also increases support for rural development, thus contributing substantially to the success of EU Agricultural policy. Finally it contributes to reduce the traditional important EU deficit of vegetable proteins, by increasing the EU production of oilseeds meals.

Conventional fuels represent a real problem in terms of GHG and security of supply but the EC Commission does not plan to establish sustainability schemes applying to mineral fuels, even though it would be appropriate to distinguish among various oil sources and discourage the use of mineral fuels produced from unconventional oil extraction (for example from tar sands whose GHG balance is at least 6 time worse than the one of Arabian oil<sup>3</sup> and whose collateral damages to environment, forest and water resources are impressive and permanent).

**In this frame the scheme which is currently proposed for ensuring the sustainability of biofuels should be drawn in a way as to further promote biofuels and biodiesel in Europe, without creating any bureaucratic obstacle or unjustified additional cost which may damage the competitiveness of biofuels towards fossil fuels.**

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<sup>1</sup> Biodiesel represents 81,5% of the EU production of biofuels (Biofuels Barometer 2006 EurObserv'ER)

<sup>2</sup> Wood Mac Kenzie report: "*The long and short of it: European product imbalances and their implications*", Aileen Jamieson, April 2005

<sup>3</sup> IFP study, April 2001 "*Évaluation des émissions de CO2 des filières énergétiques conventionnelles et non conventionnelles de production de carburants à partir de ressources fossiles*" Author: Georgia PLOUCHARTE Etude réalisé pour le Commissariat Général au Plan

## 1. HOW SHOULD A BIOFUELS SUSTAINABILITY SYSTEM BE DESIGNED?

It would not be consistent to produce biofuels and generate very negative consequences on the environment as a result of their production. Biodiesel is an environmental product and we have to avoid the possibility that its production may lead to serious environmental damages.

**For this reason the European biodiesel industry will stand first in order to apply a certification scheme aimed at avoiding such consequences.**

As indicated above such system should be conceived in a way as to further promote the production and the use of biofuels in Europe via eliminating all doubts on eventual negative environmental impacts.

The environmental sustainability of the agricultural or forestry raw materials with which biofuels are or will be produced is clearly a fundamental aspect of their future development. Obviously the issue needs to be tackled in an appropriate perspective underlining the efforts that the EU has realised (cross-compliance, agri-environmental measures) in the last years towards a more sustainable agriculture. Such efforts are unique at world-wide level and have to be taken into account while assessing the environmental sustainability of biofuels and biofuels raw materials originated from the EU or from third countries. This distinction is quite fundamental specifically in the case of biodiesel since it is worth mentioning that more than 90% of the biodiesel produced in Europe today is originated from EU raw materials and that such a situation is expected to be modified only but marginally within the next 5 years, EU biodiesel raw materials being expected to cover at least 70 to 80% of the biodiesel industry demand of supply even in the long term and under the 2020 targets.

For EU produced raw materials EBB considers that the current cross-compliance rules (on the negative side) and (on the positive side) the agri-environmental measures of the CAP applying to food and non-food productions have to be considered as sufficient and there would be no necessity to strengthen them.

As far as imported raw materials (or imported finished products) are concerned, EBB favours the establishment of an eventual certification system aiming to avoid the non-sustainable use of limited natural resources (notably of the rain forest) provided that such a system is:

- simple and proportional
- horizontal and non-discriminatory
- internationally applicable

### **Simple and proportional**

It would not be consistent to damage the environment while producing biofuels. It would be inconsistent as well if the consequence of a sustainability scheme would be to create a burdensome and costly system that would discourage the use, the production and the competitiveness of biofuels (which are part of the solution), when compared to fossil fuels (which are part of the problem).

To this end a certification scheme should be conceived in the simplest possible way. Default values should be used in order to simplify the calculations of the GHG balances. The principle of proportionality should apply to such a system: contrary to food products which are sold in little packages in the shelves of a supermarket, biofuels are produced and distributed in bulk blended together with millions of tonnes of fossil fuels every year. It would not be proportional to conceive a system were biofuels raw material or their production processes are monitored or worse traced or labelled at each step.

### **Horizontal and non-discriminatory**

It would be misleading to believe that a certification scheme applied to biofuels alone would solve or even just contribute to solve the problem of deforestation and biodiversity loss. As far as biodiesel is concerned it needs to be underlined that palm oil for EU biodiesel production accounted for less than 5% of the overall EU palm oil imports last year. The "remaining" 95% was used for food production (~75%) and electricity generation (~20%). It also needs to be reminded that palm oil imports in the EU have

risen by ~150% in the period 2000-2006, as a result of its increased use by the food (margarine, biscuits, ice creams, etc...) and the electricity sector. Deforestation in South-East Asia was not (and is not) a result of biofuels production, but rather of food, wood and electricity production.

A sustainability scheme applying only to "biofuels" areas would result in the use of "certified areas" for biofuels crops, while the forests and habitats would continue to be disrupted to satisfy the demand from the other sectors (which are the ones responsible for more than 95% of the damages caused by Europe until now as far as palm cultivation is concerned) and the demand arising eventually from other countries like India and China.

Only a **horizontal** scheme, applying to biomass regardless of its final use, can really have a positive impact in reducing deforestation and protecting areas. Although some difficulties would arise when applying it to the food sector - which does not enjoy any direct support scheme - it is obvious that such a scheme should apply at least to all bio-energies, including biomass for electricity production and for heating and cooling (which are exactly in the same situation as biofuels, i.e. biomass users and beneficiary of political/financial support). It would be a clear discrimination in the frame of a new Directive on renewable energies to apply a certification scheme on biomass for biofuels production while the same scheme would not apply to the same biomass if used for producing electricity or heating and cooling. Therefore EBB requests the sustainability scheme to be **non-discriminatory** and include all energy uses of biomass.

The Presidency Conclusions of the European Council of March 8<sup>th</sup>-9<sup>th</sup>, 2007 clearly called upon the Commission to establish an overall coherent framework for renewable energies. The new comprehensive directive shall contain "*provisions as regards criteria and provisions to ensure sustainable production and use of bio-energy and to avoid conflicts between different uses of biomass*"<sup>4</sup>

For the moment it seems that the Commission clearly missed that point and focuses on biofuels only. Uneven treatment for the same biomass according to the final use would create serious market distortions and would be unsustainable because negative environmental impacts would not be prevented.

### **Internationally applicable**

An optimal scheme preventing inappropriate land use and deforestation should not only apply to all biomass regardless what the end-use of the biomass is, it should also apply globally. Ideally such a system should be multilateral and implemented at UN level, this in order to avoid that only the biomass grown for EU market is certified while the biomass sold in the other countries is grown in a way that further depletes the environment.

The EU can stand first in implementing environmental rules on biofuels (and bio-energies), but this has to be considered as a first step in the perspective that the rest of the global community will follow.

A sustainability scheme applying only in the EU would result in the use of "certified areas" for EU bio-energy and biofuels crops, while the forests and habitats would continue to be disrupted to satisfy the demand from the other countries. As a result the problems of deforestation and bad land use would not be solved and the EU bio-energy and biofuels industries would suffer of a competitive disadvantage when compared to third countries' producers.

While waiting for the global community to implement similar standards on biomass, in the meantime we have to ensure that EU produced biofuels will not be discriminated towards biofuels imports from third countries. For this reason any sustainability scheme **has to be applied internationally** to all biofuels (and bio-energy) consumed in Europe, this means that it has to apply also to imported biofuels and imported bio-energy.

### **1.1 Do you think the "possible way forward" described by the Commission is feasible?**

The possible way forward as described by the EC Commission is based on three criteria, one related to GHG emissions, the two others to land use.

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<sup>4</sup> 7224/07 ANNEX I, page 21

As a general principle EBB welcomes such a division since we believe that for simplicity reasons the GHG criterion and land use criteria shall be dealt with, assessed and monitored separately.

Below are the EBB comments on the 3 criteria proposed by the Commission (answer 1.1.A) as well as on the types of evidence required to comply with these criteria (answer 1.1.B):

### **ANSWER 1.1.A**

#### **Sustainability criteria (criteria 1, 2 & 3)**

##### **Minimum GHG saving (10%?) (criterion 1)**

EBB supports the concept proposed by the Commission that biofuels used to fulfil the requirements of the legislation should not emit more GHG in production than they save. A baseline of 10% would also be acceptable.

The real problems laying behind a correct implementation of this criterion are two:

1. How are GHG emissions measured?
2. Once measured, with what kind of fossil fuels emissions are biofuels emissions compared?

##### **1. How are GHG emissions measured?**

EBB believes that an EU wide reference LCA should be identified and agreed by the Commission and by all the stakeholders as the reference meter for measurement.

The **JRC-CONCAWE-EUCAR study** can represent a good basis for creating such a reference, but it needs to be reviewed and ameliorated, as acknowledged by Commission DG Environment during the first stakeholder consultation meeting on the GHG evaluation schemes under the revision of Directive 98/70 on Fuel Quality held last May, 29<sup>th</sup>, 2007.

As already detailed in its title (Concawe is the technical arm of the EU oil industry, EUCAR is the technical arm of the EU car industry) the JRC-CONCAWE-EUCAR study was performed using unbalanced expertise and especially no expertise from the biofuels industry and from EU agriculture<sup>5</sup>. This is even worsened by the presence of a conflict of interests since some Concawe and EUCAR experts work for companies who are directly developing and strongly supporting some kind of "2<sup>nd</sup> generation biofuels" involved in the study (and this on the specific ground of supposed better GHG balance ...).

As a consequence of this unbalanced expertise, the JRC-CONCAWE-EUCAR study takes a thorough consideration of all biofuels chains, but surprisingly does not take into consideration biodiesel production from recycled fats, used frying oils and animal fats waste, whose GHG balance is very positive.

Although the JRC-CONCAWE-EUCAR study is to be ameliorated before becoming an objective reference agreed by a democratically composed panel of experts, it is still to be kept as a starting point provided it will be reviewed quickly; the study is reviewed every year: this is a perfect and quick opportunity to include missing necessary scientific expertise from biofuels industry and agricultural experts.

##### **2. Once measured, with what kind of fossil fuels emissions are biofuels emissions compared?**

The JRC-EUCAR-CONCAWE study takes in thorough consideration all biofuels production chains, but takes into account only one single kind of diesel fuel (as if all fossil fuels were produced from the same crude oil extraction and in the same production chain). In the study there is no GHG calculation of unconventional oil extraction (tar sands, heavy crudes etc ...).

However, in terms of global CO<sup>2</sup> emissions, the marginal contribution from biofuels to reduce future oil demand is likely to have an exponential positive effect on CO<sup>2</sup> emission reduction. The future marginal oil demand (which will be reduced by the future marginal increased biofuels use), in fact, will be mainly satisfied by unconventional oil extraction (both for reasons of price and of security of supply – most of unconventional oil reserves being in North and Latin America<sup>6</sup>). Now, CO<sup>2</sup> emissions from unconventional

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<sup>5</sup> this leading to a lack of expertise on agricultural laws, yields, pesticides, fertilisers, land use, which is even more curious, considering that the study focuses mainly on GHG emissions coming from the agricultural aspects and inputs of the biofuels production chains

<sup>6</sup> see table 2 in ANNEX

oil extraction are much worse<sup>7</sup> (until six times worse for Canadian tar sands<sup>8</sup> – i.e. the main source) than CO<sub>2</sub> emissions from today's conventional oil extraction. It is obvious that a global marginal contribution from biofuels to reduce marginal oil demand from unconventional extraction will have a much larger impact than the 60 to 80% GHG reduction mentioned in one of the most reliable LCAs comparing conventional fossil fuels and biofuels<sup>9</sup> (more particularly biodiesel). GHG savings linked to biofuels should be compared with the fossil fuels that biofuels actually replace and will replace, i.e. with the last barrel of diesel (the most expensive one since it is the most difficult to extract and the most polluting) and not with the best or average GHG balance fossil fuels.

Finally EBB believes that GHG savings (calculated according to LCAs rules) should be calculated using a general baseline, in terms of GHG saving per km of each fuel or biofuel (and not comparing for instance biodiesel versus diesel or bioethanol versus gasoline). A comparable GHG savings default value calculation should also be introduced for renewable electricity as well as heating and cooling.

Land use criteria: no use of new lands previously associated with:

- high carbon stocks land (e.g. peat lands) – (criterion 2)
- "high biodiversity" land – (criterion 3)

EBB agrees with the principle of preventing such inappropriate land to be used for biofuels production. The definition of such areas needs to be clear in order not to lead to obstacles on the use of normal agricultural lands or lands suitable for agriculture. This should even apply to low value lands that could be converted to agriculture with high benefits for the local populations and with direct positive contribution to the fight against desertification.

As indicated by the EC Commission in its "*possible way forward*", the year of entry into force of the Directive could be taken as the starting point for monitoring the use of high carbon stock lands and high biodiversity areas. Such areas, not cultivated at the year of the Directive could not be used for biofuels and bio-energy production.

However a different concept should apply if one of these areas, not cultivated at the year of the Directive, is then transformed in an agricultural area. After a security period (of 5-10 years, to be defined by international experts) as from its transformation into agricultural area (to avoid its transformation for the direct purpose of producing biofuels and bio-energy) these areas could then be employed also for producing biomass for bio-energy.

What we have to avoid, in fact, is that the demand of biomass for biofuels or bio-energy directly leads to the transformation of high GHG stock or high biodiversity land, but we have to avoid as well that bio-energy and biofuels are discriminated without justification against other uses.

Third Countries' Governments should be involved in the definition and process of identifying protected areas within their territories.

### **ANSWER 1.1.B**

#### **Types of evidence required to show respect of criteria above**

The Road Map for Renewable Energy clearly underlines that one of the most important reasons for which the EU is lagging behind in meeting its objectives for renewable energy is represented by "*the complexity, novelty and decentralised nature of most renewable energy applications resulting in numerous administrative problems. These include unclear and discouraging authorisation procedures for planning, building and operating systems, differences in standards and certification and incompatible testing regimes for renewable energy technologies*"<sup>10</sup>.

<sup>7</sup> IFP study, April 2001 "*Évaluation des émissions de CO<sub>2</sub> des filières énergétiques conventionnelles et non conventionnelles de production de carburants à partir de ressources fossiles*" Author: Georgia PLOUCHARTE Etude réalisé pour le Commissariat Général au Plan

<sup>8</sup> *ibid.*

<sup>9</sup> "*Energy and greenhouse gas balances of biofuels production chains in France*" ADEME-PWC study, Dec 2002.

<sup>10</sup> COM(2006) 848 final : COMMUNICATION FROM THE COMMISSION TO THE COUNCIL AND THE EUROPEAN PARLIAMENT on a « *Renewable Energy Road Map for Renewable energies in the 21st century: building a more sustainable future* » page 4

This is probably the best explanatory argument developed in the Road Map itself in favour of a very simple and clear reporting mechanism under a future certification scheme for biofuels (and biomass for bio-energy).

Additionally today, due to the various support schemes existing at national level, a real European internal market for biofuels does not exist.

This aspect is again underlined in the Road Map which indicates that in the bio-energy sector "*the development recorded so far is made up of generally patchy and highly uneven progress across the EU*"<sup>11</sup>.

**EBB believes that a certification scheme on biofuels (and bio-energy) should not add up to the complication of the biofuels sector and should not increase the fragmentation of the market and support schemes in the different Member States.**

For this reason it is highly recommendable to create a single EU scheme relying on certificates issued and verified by a single European accreditation body. Such body should preferably enforce the easiest form of "book and claim" system for land use purposes.

For this same reason, it is highly recommendable not to add other sustainability criteria to the ones already listed in the "*possible way forward*", to avoid the risk of increasing the complication of the system.

The European Commission, in its "*possible way forward*" indicates 4 possible options of ensuring that the sustainability criteria are met:

#### **Option 1**

##### EU Member States schemes accredited by comitology

As highlighted above, EBB believes that a situation where 27 different schemes would be enforced would damage the creation of an internal market and endanger the future development of biofuels. It would also be contradictory with the simplification objectives indicated in the Road Map aiming at eliminating the uneven nature of biofuels policies across Member States.

However, should this option become the preferred solution as a "*way forward*", it would be necessary at least **that the principle of mutual recognition of certification schemes fully applies**. In this perspective it would be crucial that the new legislation legally provides in a very explicit manner that Member States' biofuels support scheme shall not require exclusive compliance with the correspondent national certification scheme, but that compliance with any national biofuels scheme accredited by comitology is enough to access to national detaxations/obligations systems.

#### **Option 2**

##### International (voluntary) schemes accredited by comitology

Voluntary schemes such as the Roundtable on Sustainable Palm Oil (RSPO) and the Roundtable on Responsible Soy (RTRS) should be considered as an interesting pattern on which an EU-wide certification scheme could be drafted. These systems include many other aspects beyond GHG impact and land-use (social criteria, child labour, etc.) and in this sense they could not be used as such.

They should however be positively included in the elaboration of an EU system and eventually accredited contemporarily in all Member States as a possible basis for compliance. An EU scheme should also be supportive of the efforts undertaken in the framework of these international schemes.

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<sup>11</sup> *ibid.*, page 5

It must be underlined however that such systems, being linked to a single production chain (palm, soy), could not be directly used without the elaboration of a more general frame applicable to all the other (and eventually innovative) biomass sources which, in the absence of a specific certification scheme, would risk to be negatively discriminated.

### **Option 3**

#### International treaties with third countries producing biofuels raw materials

Although quite vague, such option could be of interest at least for two reasons:

1. it could oblige third countries to produce their biomass in a sustainable manner, without discriminating on the final use of the biomass. In this sense it could help establishing a really efficient and horizontal, non-discriminatory system applying to all biomass sources as described above.
2. an international treaty would per se grant legal compliance with the requirements and may help in eliminating all sort of complicate paperwork linked to certification schemes.

This option would have as a main disadvantage to require quite important amount of time and negotiations necessary in order to agree on a treaty and its implementation. It could be explored however as a possible valuable solution eventually leading to a UN multilateral agreement on biomass sustainability.

### **Option 4**

#### Member States monitoring on the basis of minimum requirements in the absence of other schemes

Same comment as Option 1, but some additional worries should be expressed about the transparency of a system implemented only by Member States without consultation and participation of all the stakeholders.

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

The impact will depend on the certification scheme which is adopted. The simpler and the more efficient the system, the lesser the administrative burden and the related costs.

Too much paperwork certainly will not lead to greenhouse savings, but will rather suffocate biofuels (and bio-energy) production. This applies even more if additional infrastructures would be needed (for instance for segregating biofuels raw materials). The main challenge that biofuels will have to tackle in the next years will be that of reducing the price gap between biofuels and conventional fuel. Consequently a certification scheme should be drawn bearing in mind the principle of proportionality: trying to ensure their sustainability without creating a further economical disadvantage for them, but rather contributing to their development.

In order to be consistent with the scope of the EU Directives, the system should contribute to decrease biofuels price or should at least leave it unchanged when compared with fossil fuels.

A very interesting approach would be to apply the same kind of certification scheme not only to biofuels or biomass for bio-energy but also to fossil fuels, where, in order to be in line with the “polluter-pays principle”, higher taxation should apply to more polluting fuels<sup>12</sup>. This would help discouraging the use and the production of fuels from unconventional oil extraction (such as tar sands distillates) and at the same time would eliminate the relative economic disadvantage deriving from a certification scheme applied only on biofuels/bio-energy (which are part of the solution) and not on their fossil competitors (which are part of the problem).

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<sup>12</sup> This interesting proposal is formulated at page 7 of the “Green paper on market-based instruments for environment and related policy purposes” COM (2007)140 final of 28.3.2007.

**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**

See general comments to section 1 above.

With respect to the timeframe for implementation it would be necessary to have a pilot/testing period before implementing a system at EU level. Its adoption and its definition should be realised along a time frame of some years in a way to enable the industry and the other stakeholders involved to adapt their investments and their behaviour to the new reality.

**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 materials for biofuels?**

As specified above, as a general principle EBB believes that for simplicity reasons the GHG (criterion 1) and land use criteria (criteria 2 and 3) shall be dealt with, assessed and monitored separately. In order to minimise confusion and overlapping, the eventual negative GHG impact of eventual biofuels or bio-energy cultivation on high GHG stock land such as peat lands etc. should be directly avoided by preventing the possibility to grow on these areas.

**1.5 As described in the possible way forward, criterion 3 focuses 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?**

Clear limits need to be defined according to scientific based assessments. Extending the application could entail additional unnecessary confusion on the definitions to be used. An extensive interpretation of the adjective "adjacent" could easily cover half of the known world. If aimed at further promoting biofuels and not at discriminating them, the system needs to be kept simple and proportional and exclude "indirect" impacts.

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

Its definition shall be internationally accepted and globally applicable. The *Ramsar Convention*<sup>13</sup> could provide a pattern definition for wetlands. Criteria of Annex I of the Convention on Biological Diversity<sup>14</sup> and criteria and mechanisms for sites eligible for identification of "*Special Areas of Conservation*" of the EU Habitats Directive<sup>15</sup> could be considered as being land associated with exceptional biodiversity, however the last instrument is only applicable today at European level.

## **2. HOW SHOULD OVERALL EFFECTS ON LAND USE BE MONITORED?**

### **2.1 Comments on the possible "way forward" as described in the consultation document**

The creation of a sustainability scheme for biofuels (and bio-energy) should suffice to avoid inappropriate land use. Since there cannot be an objective definition of indirect effects on land use, such a criteria should not be retained and the Commission should not be asked to report on this.

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<sup>13</sup> Convention on Wetlands of International Importance especially as Waterfowl Habitat, of February 2nd 1971 ("*Ramsar Convention on Wetlands*")

<sup>14</sup> United Nations Convention on Biological Diversity of June 5th, 1992: Rio de Janeiro "*Convention on Biological Diversity*"

<sup>15</sup> Article 6 of "*Habitats Directive*" 92/43/EEC of 21<sup>st</sup> May 1992 on the conservation of natural habitats and of wild fauna and flora.

However, should such obligatory report be requested, it would be appropriate to ask the Commission to report not only on indirect effects on land use of increasing biofuels use, but also on the indirect effects on land use, GHG emission, on independence of supply and on public health of increased fossil fuel use over the same period.

## 2.2 Is it possible to link indirect land use effects to individual consignments of biofuel?

No, this is clearly impossible.

## 3. HOW SHOULD THE USE OF SECOND GENERATION BIOFUELS BE ENCOURAGED?

Future biofuels technologies constitute today a promising path for research. In the long term there are good possibilities to start with pilot projects (as it is already the case for the Choren BTL project) and end up with large scale production (as it is already the case for the vegetable oils hydrogenation technology developed by Neste Oil). Future biofuels technologies should normally entail advantages in terms of flexibility in the use of raw materials and are reported to be more GHG efficient, at least in laboratory test or pilot plants. On the other hand they require much higher investment costs and are based on more energy demanding processes. Also, particularly referring to BTL production, questions are raised about the cost and GHG efficiency of, among others, transporting impressive volumes of very low weight raw materials as straw towards very large scale economy processing plants. On theoretical assumptions of feasibility studies such straw are considered as "0" value purchase raw materials. But it is clear that, if the technology would be employed on a large scale, straws would become an economic good with much higher prices. Also if straws are not kept on the field it implies further economic cost and negative environmental impacts for the lack of their natural contribution to fertilisation, which means that chemical fertilisers would be employed to balance the absence of straws on the fields.

Present biofuels technologies and notably FAME already entail very important advantages in terms of reduced GHG emission, security of supply and rural development. There is still a large room for improving present biofuels techniques and performances and for finding alternative raw materials in order to ameliorate the environmental impact and the price competitiveness of biodiesel and improving the use of by-products.

### Question 3.1:

#### **How should second-generation biofuels be defined?**

First of all, with respect to semantics, EBB would insist in suggesting to the Commission, if possible, not to refer in the official frame of the revised Directive to these new groups of biofuels technologies as well as to the currently available biofuels on the basis of a "1<sup>st</sup> and 2<sup>nd</sup> generation" concept.

Although mineral oil industry representatives, who for various reasons, including procrastination, mainly support future biofuels, often refer to biofuels within such a "generational" frame, this definition appears to be misleading.

A generation often substitutes another who has become old and is ready to retire. Currently available biofuels are neither obsolete nor declining (biodiesel has grown in average more than 45% per year over the last two years). Equally, future biofuels technologies, although promising, have not yet entered in their "working age" and should not be seen as substitutes, but as complementary to biodiesel and bioethanol (also considering how ambitious the Directive targets are). Thus EBB would recommend the Commission to use, if possible, in the revised Directive **the much less cryptic concepts of available biofuels and future biofuels (technologies)** that would be more appropriate than the "generational" misleading metaphor. This would also avoid the creation of an artificial and negative competition between future and currently available biofuels.

Also such a distinction between future and presently available biofuels based on technology availability is very doubtful and cannot be used in order to provide different level of support to one or the other

technology: it is not because a technology is not available today but may be available tomorrow that it should be automatically preferred to the existing ones. Equally it is not because a technology employs a particular kind of raw material that it should be preferred to others.

Therefore it has to be defined on the basis of **objective, demonstrable criteria** as set out in **answer 3.1c.**

**Question 3.1.a:**

**Should the definition be based on the type of raw materials from which biofuels are made (for example, "biofuel from cellulosic material")?**

As indicated above, a raw material based definition would certainly lead to unfair discrimination among the different biofuels. This can be explained through various examples:

- Ethanol from sugar cane does not have, by definition, a better GHG balance and a more interesting environmental impact than ethanol from other raw materials. It can be the case only if it is processed by using the by-products of sugar cane (bagasse) in order to create the energy necessary for the processing. However bio-ethanol can also be produced from sugar cane without burning the bagasse. Similarly, biodiesel (FAME) can be produced by employing one or more of its by-products (the meals from oilseeds crushing and/or the glycerine) to feed the process. If both by-products are employed the GHG of FAME improves very significantly. However: under a raw materials based definition even if all of its by-products are used for creating the energy necessary to the processing of FAME, the consequent important GHG savings would not be rewarded or taken into account for further encouraging this kind of production since FAME would be disqualified by using vegetable oils as a raw material, which would be a clear nonsense
- FAME and NexBtl (Hydro-diesel) technology employ the same raw material, but are different technologies with different GHG and environmental impacts. Why should they be considered automatically at the same level only because they employ the same raw materials?

**Question 3.1.b:**

**Should the definition be based on the type of technology used to produce the biofuel (for example, "biofuels produced using a production technique that is capable of handling cellulosic material")?**

A technology based definition would equally represent an unacceptable mistake. Obviously a technology change cannot represent an objective by itself (not all change is innovative), in fact:

- Biodiesel (FAME) production from used fried oils (UFOs) and animal waste/animal fats, being produced from a recycled product that would be burnt anyhow or dispersed in the environment has a very positive GHG balance and has no impact on land use. Research conducted by various research institutes<sup>16</sup> confirm such important advantages, highlighting that FAME produced from such raw materials also represent a very feasible option for replacing fossil diesel. Now: under a technology based definition FAME from UFOs and animal fats would be excluded from the list of the "preferred biofuels", and this would clearly represent an unfair discrimination.
- Research is being conducted today on biodiesel (FAME) production from algae. This can also entail very high CO<sub>2</sub> cuts, avoiding land use, exploiting instead sea water (the largest globally available resource), possibly even using waste sea water and purifying it with algae growth. Again: under a technology based definition FAME from algae would be excluded from the list of the "preferred biofuels" and this would clearly represent another unjustified discrimination.

**Question 3.1.c:**

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<sup>16</sup> The German IFEU-Institute has realised a study on this topic: [http://www.ufop.de/downloads/Co2\\_neutrale\\_Wege.pdf](http://www.ufop.de/downloads/Co2_neutrale_Wege.pdf)

**Should the definition be based on other criteria (please give details)?**

The examples above and the strength of logic indicate that a hierarchy among the different biofuels cannot be defined on the basis of the technology or of the raw material employed.

**It has to be defined on the basis of objective and demonstrable criteria.**

**The first and main criterion should be the GHG emissions per fuel/biofuel energy content.**

Such criterion should be based on LCAs of the various production chain (elaborated within a democratic and transparent EU reference study<sup>17</sup>) and would enable political decision makers to create a hierarchy of the various biofuels based on a transparent and objective measurement of their GHG impact.

Additionally, EBB believes that, if a hierarchy has to be established, the present as well as the future biofuels technologies should be evaluated not only on the basis of GHG impact but on the basis of all of **the three EU objectives. Eventual reward systems should therefore reflect the eventual (and effectively proven) advantages or disadvantages that they entail according to the three objectives of the EU Directives.**

Biofuels **should not be discriminated and separated in two artificial categories** (the so called "first" and "second" generations), but eventually classified in terms of their real demonstrated contribution to promote:

1. GHG emission cuts
2. Independence and security of supply (also considering the EU diesel deficit and gasoline surplus)
3. Rural development

Any other kind of basis for a stronger incentive to favour some technologies when compared to others would appear as groundless, except if focussed on R&D actions and justified by research and testing.

With respect to objective 2. on security of supply it cannot be ignored that EU and global diesel demand has increased dramatically in the last years leading to a substantial rise in EU diesel imports from third countries and more particularly from Russia. In the year 2005 Europe has imported 24 million tonnes of diesel from Russia and has exported a surplus of 19 million tonnes of gasoline to the US. Observing the continuing **dieselisation** of EU cars and the increasing demand for diesel (from the US and world-wide), analysts predict a future diesel shortage threat for Europe that may face a shortfall of 50 million tonnes a year of diesel by 2015 under current investment schemes<sup>18</sup>. This further confirms the validity of promoting biofuels and even the specific urgent necessity, for Europe, to promote as a priority the available diesel substitutes and notably biodiesel.

With respect to rural development, it is worth highlighting that more than 90% of EU biodiesel is produced from EU agricultural raw materials, which are particularly quality/cost competitive. For the future the EU biodiesel industry and EU farmers associations do not expect the share of local raw material employed for biodiesel production to descend below 70% in the medium and long term (including the 10% 2020 target).

**Question 3.2:**

**Please give your comments on the "possible way forward" described (i.e. *double or higher subsidisation for "2<sup>nd</sup> generation" biofuels*). If you think the problem should be tackled in a different way, please say how.**

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<sup>17</sup> see answer 1.1.A page 5 above

<sup>18</sup> Wood Mac Kenzie report: "*The long and short of it: European product imbalances and their implications*", Aileen Jamieson, April 2005

A further subsidisation of a group of biofuels when compared to another group can only be acceptable if based on fully justified, transparent and objectively measurable criteria, as indicated above.

In such a concept the proposed "possible way forward" can be accepted, however EBB would like to make the following comments:

- The proposed idea that "*an obligation to achieve a 2% share of first generation biofuels could be fulfilled, instead, with a 1% share of second-generation*" is unacceptable. Such a mechanism would result in a dangerous shrinking of the final global biofuels target of 10% in 2020. Theoretically, if it was to be fulfilled only by the so-called "2<sup>nd</sup> generation" it would be reduced to 5% (i.e. less than the 5,75% today in force!).
- If a differentiation has to be made in the way in which a biofuels accounts towards an obligatory system (which in our view is not necessary), it should be done in a way that "less preferable biofuels" should count less in achieving mandatory targets. In other words an obligation to achieve a 1% share of biofuels would need - for instance - a 1,5% share of the "less preferable biofuels". This at least would not result in shrinking the 10% target in terms of quantities. The target is to achieve an effective minimum share of biofuels in the overall consumption of petrol and diesel in transport by 2020. It is a quantity based target, not quality.
- If a differentiation has to be made (but again this is not necessary) also in the detaxation schemes this should be based on objectively measurable biofuel performances. In particular the argument according to which more expensive biofuels would need a higher subsidy or detaxation when compared to the cheaper cannot be accepted. FAME from recycled fats has approximately the same GHG impact and the same impact on security of supply and land use as BTL, it would be a nonsense to provide more financial support to BTL since it is more expensive. There would be no logic in providing a higher subsidy to an equal product simply because it is more expensive and therefore less competitive. Non-discrimination, free trade and competition principles (among biofuels having the same environmental advantages and impact per energy content) have to play.

### 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?**

GHG being an essential parameter the answer is "yes", provided that the threshold is set at a reasonable level. This should apply to all biofuels and not only to "preferred biofuels" or "second generation".

## **4. WHAT FURTHER ACTION IS NEEDED TO MAKE IT POSSIBLE TO ACHIEVE A 10% BIOFUELS 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?**

As far as biodiesel is concerned, EU legislation should explicitly provide that a higher percentage of biodiesel (FAME) should be authorised in diesel.

Such incorporation is today limited to 5% and this represents a major obstacle to biodiesel markets and production in Europe. The largest part of biodiesel sold in the EU is sold in low blends - today below 5% (which equates to only 4.4% by energy content) - due to a limitation set in the European diesel standard EN590. Higher blends today require separate pumps and labelling with a huge logistic investment which is unbearable for EU fuel producers and distributors.

Various studies proved that there are no scientific reasons for justifying the ceiling in the EN590 EU diesel standard. A scientific study<sup>19</sup> was realized in France on blends well beyond 10%: the use of 50% FAME was tested for a period of 12 years (1993 -2005) in heavy duty and also in light vehicles.

This long term study was performed by a neutral panel of experts from engine manufacturers, mineral oil industry and institutional/governmental bodies: it was funded by ADEME, ONIDOL, Elf Company, TOTAL Company and the cooperative Champagne Céréales. Expert assessments were carried out by the Institut Français du Pétrole (IFP). The injection systems were controlled by Marc Lefevre of the Electrodiesel Company, representative of Bosch.

The official outcome of this study is that even with a 50% FAME blend no technical problem due to biodiesel use was observed over a period of 12 years continuous use.

In spite of this scientific and other statistical evidence (a large number of captive fleets are running both in Italy and in France with B30 blends without any technical worry, millions of car have run with pure biodiesel in Germany since years, ...) a leading part of EU car and engine manufacturers (driving the opinion of the EU Federation of car manufacturers – ACEA) opposes and blocks the revision of the EN590 standard.

The Commission has sent to the European Committee on Standardisation (CEN) a mandate to amend the diesel standard to allow a 10% biodiesel blend (8.8% by energy content). This process is taking a long time – perhaps 4-5 years or more - due to the attempts to reject the mandate and the strong obstructionism of the EU car industry, and is not going to lead to widespread availability in the necessary time.

This limitation is hindering the development of the EU biodiesel industry (which in some countries like Austria, Germany and France would also have the capacities to produce more than 5% in volume, but is obliged to slow down its operations facing economic losses).

In addition to this, Europe has already a surplus of petrol and oil refiners are reluctant to blend it with ethanol. This explains why biodiesel represents today more than 80% of the biofuels sold in Europe. We can logically anticipate that also in the next years and up to 2020 the biofuels targets will be fulfilled using additional quantities and shares of biodiesel rather than of bioethanol. Therefore biodiesel incorporation shares should be raised accordingly to 10% in the short term and to 15% in the medium/long term.

**As a result, and in a view to achieve the biofuels target of the Road Map, EBB seeks strong political support from the EU legislator in order to increase the share of biodiesel (*FAME volume*) authorised in mineral diesel in two steps: first up to 10% by 2008 and then up to 15% by 2015.**

A 15% share in the longer term will be necessary to achieve the 10% energy content target of the Road Map which equates 13% in terms of FAME volume.

This could be realised via amending the European definition of diesel of Directive 98/70 – currently under revision – specifying in the EU definition of diesel that EU diesel fuel could contain up to 10% biodiesel (FAME) by 2008 and up to 15% by 2015. Alternatively the EBB strongly encourages the Commission to present legislative provisions under the new comprehensive Directive on renewable energies in order to increase the authorised FAME content of EN590 diesel at 10% and then at 15% by 2015.

An early definition of future higher biodiesel content in diesel (15% in 2015) will also give a precise signal to car manufacturers to develop their technologies anticipating the fact that the FAME content will increase. This will be very helpful to avoid any future resistance to change based on claims about presumed lack of time to prepare appropriate engine technologies.

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<sup>19</sup> "Twelve years (1992-2004) of using 50% of RME fuel mixture in heavy trucks and light vehicles". P. Gateau et alii, April 2006

**Question 4.2**

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

Encouraging measures should focus on increasing to 10% and then to 15% the FAME content of ordinary diesel.

Nevertheless public procurement and ad hoc measures should be developed in order to encourage the use of higher blends of biodiesel and notably pure biodiesel use and B30, the most common "high blend". The fact that vehicle and engine warranties are often provided in an inconsistent way across the different EU countries<sup>20</sup> (a same lorry with a same engine may have a warranty for 100% biodiesel use in Germany, without having a B30 warranty in France) represents an obstacle. This partially explains why the use of B25 or B30 blends in captive fleets has never taken off in Europe. EBB encourages the European Commission to try tackling this problem also underlining that the existence and allowance of warranties should follow technical considerations without being only based upon the strategic interests of car manufacturers. An official register kept by EU authorities, on the basis of which a warranty given for biodiesel use for an identified engine in a Member State should automatically be given for the same engine in all the EU-25, may eventually represent a solution to such a problem.

**Question 4.3**

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

No comment.

**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?**

A review clause would not be necessary if precise provisions are adopted at an early stage, but could be helpful to assess whether such legislative measure enabling a higher percentage of biodiesel (10% in 2008 and 15% in 2015) are effectively implemented.

**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)?**

Taxation is a crucial tool for promoting biofuels. EBB urges the Commission to consider that it will be essential to maintain, in parallel to an European or national obligation, the possibility for Member States to exempt or reduce tax exemption for biofuels and this under the present multi-annual system (6 years) as detailed under article 16 of Directive 2003/96, i.e. without being obliged to require such an authorisation every year to the Council of the EU voting at unanimity.

Although art. 16 of Directive 2003/96 provides that the legal possibility of detaxing biofuels would not be applicable as from the date when a biofuels obligation is enforced under EU law, it would be important

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<sup>20</sup> an indicative list of the vehicles which are warranted by the manufacturer for pure biodiesel use can be found on following link [http://www.ufop.de/biodiesel\\_fahrzeughersteller.php](http://www.ufop.de/biodiesel_fahrzeughersteller.php)  
(no responsibility is taken for the correctness of this information)

either to find a legal solution in order to keep such possibility even without changing the wording of Directive 2003/96, or to amend Directive 2003/96 in order to allow the co-existence of an EU mandate and national biofuels detaxation schemes.

A recent Commission "*Green paper on market-based instruments for environment and related policy purposes*"<sup>21</sup> proposes some interesting amendments to Directive 2003/96, which could be useful also in order to maintain the detaxation tool over the next years.

The detaxation tool in fact will be needed for:

- maintaining the practical possibility of promoting a market for **pure biodiesel** and for high blends of biodiesel in captive fleets (with a biofuel obligation it is impossible to report all of the extra-costs of pure biofuels to the final consumer while still keeping a competitive price at the pump). This would mean maintaining and promoting those markets that make biofuels and biodiesel more visible to the final consumer.
- creating a system of "**policy mix**" where the burden of the extra cost related to biofuels production is borne not only by the final consumer but also, in part, by the national budget via detaxation, thus distributing the charges and making such burden less noticeable for both the consumer and the national budgets.

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<sup>21</sup> COM (2007)140 final of 28.3.2007