

European Pure Plant Oil Association – EPPOA

European Pure Plant Oil Association (EPPOA)

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To

**Energy and Transport Directorate-General,
European Commission**

For

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*Response sent by EPPOA,
representing associations, institutions, companies, and private members
in
France, United Kingdom, Denmark, Ireland, Germany and Spain.*

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Presentation of the association:

EPPOA is a non-governmental not-for-profit organisation which was formed in 2002 to promote Pure Plant Oil (or Pure Vegetable Oil/Straight Vegetable Oil) as a fuel which is the only natural biofuel readily available in the European market.

Preliminary remarks:

Biofuel obligations would kill the cleanest biofuel option, namely pure plant oils - PPO. PPO has a very good environmental performance, especially in the form of decentralized production and distribution. Pursuing the biofuels obligation route would sacrifice the PPO option along with any hope of a transparent free market, only for the benefit of established road fuel monopolies.

Environmentally based, graduated tax reductions with tax exemption for the cleanest biofuels would be a transparent and efficient way of rewarding technologies with the best environmental performance.

One important measure is missing in the Directive/EU policy: binding obligations for the automobile industry to produce engines capable of running on 100% biofuels such as PPO and bioethanol - BE. Suitable vehicles exist but are not generally available.

Together, environmentally based tax reductions/exemption and obligations to produce 100% biofuel (PPO/BE) compatible engines would be a historical opportunity to form the only true basis for a simple, efficient, transparent, fairly regulated fuel market favouring the cleanest and economically most viable solutions.

Question 1.1: Is the objective of promoting biofuels still valid?

The answer is: Yes, more than ever.

Apart from the general aspects of environment/climate and self supply security, the beneficial impacts on economic opportunities for people in rural areas in Europe and developing countries will increase as new crops are needed to replace food production as a result of further globalization of the market for agricultural products.

The arguments that energy from biofuels should be utilised more efficiently for heat and electricity production is false. Using liquid biofuels such as pure plant oils, henceforth referred to as PPO, and bioethanol, henceforth referred to as BE, for these purposes would be wasteful due to their high energy density which makes them extremely suitable for transportation fuels. The same is true for conventional

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transport fuels such as diesel, petrol and even heating oil. Such fuels are very difficult to replace. The replacement of conventional, dirty transport fuels is a necessary part of the change from fossil fuel dependency to renewable energy self sufficiency.

With PPO the environmental benefit is overwhelming because of the extremely positive energy balance. Low energy consumption in oil production and processing combined with the fodder or energy value of the press cake also give an extremely good CO₂ balance. The cake is a good animal fodder product, especially cake from cold press production and has proven suitable for heating and combined heat and power systems. If the straw is also used as a fuel the performance is further enhanced. In addition, especially with decentralized production and distribution, simple biofuels bring new life to rural communities through the impact on economics and employment.

The Common Agricultural Policy's energy crops credit will be reduced in 2013. Given the current conditions of energy supplies it would appear prudent to introduce new incentives to encourage domestic energy crop production. Decentralized production and distribution of cold pressed PPO should be recognized as a great opportunity for both the EU member states and farmers operating within the EU.

Arguments against promotion of biofuels due to deforestation to create fuel feedstock are valid. Implementation of a sliding scale of taxation to encourage the use of fuel feedstock with good environmental credentials will counter this potential negative impact.

However, the targets should be met with EU sources, for several reasons, including:

- a) The option of just buying biofuels from third countries, especially third world countries obstructs the wholehearted effort to reach sustainable solutions within the EU;
- b) The European rural communities are in great need of alternative crops because of the intensified competition in food production that will otherwise lead to further rural depopulation and a combination of abandoned areas and areas of intensified industrial agriculture with severe environmental consequences;
- c) The third world countries populations will find their necessary food production in unbalanced competition with export only production of fuel for the EU; this would just repeat the disasters made by the export production of other crops for the rich countries, such as coffee, where international competition lead to unreasonably low prices, convenient for the rich countries but disastrous to the third world countries involved.

The increasing oil prices are likely to leave room for reasonable biofuel prices and thus reasonable conditions for oil plant production in the EU even with environmental restrictions.

Question 2.1: With existing policies and measures, will biofuels achieve a market share of 5.75% in the European Union by the end of 2010?

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No. As has already been clearly demonstrated, without mandatory targets many countries will lag far behind.

Question 2.2: What are the main factors favouring the development of biofuel use in the EU? What are the main obstacles?

A truly progressive and sound approach with the greatest possible impact would be a combination of factors including:

F1) Mandatory promotion of biofuels in all member states through tax exemption/reduction.

The level of taxation should reflect the environmental benefits rather than the production costs. The former will increase the benefits whereas the latter will favour over-expensive/inferior biofuels. The general attempt to prevent over-compensation should either be disregarded, at least in this initial phase of development, or be extended to cover all biofuels as a whole with an environmentally based distribution of tax reductions so it really pays to produce the best fuels.

F2) Binding obligations for the automobile industry to produce engines capable of running on 100% biofuels such as PPO and BE.

This is a far more progressive approach than limiting the fuel options to inferior fuels and grey solutions of mixed fuels, where fuel producers are forced to adapt the fuels to outdated engine technologies. This serves to delay the needed switch from dirty to clean fuels. When engines are designed to run on PPO and BE, they can also run on the fossil equivalent. If all vehicles were designed in this way they would serve to create a true basis for a simple, efficient, transparent, fairly regulated fuel market favouring the cleanest and economically most viable solutions. The solutions exist:

- Along with the original Elsbett engine, converted diesel engines, available for an increasing number of makes and models, have proved efficient with low emissions when running on 100% PPO, 100% diesel, and any mixture in-between;
- Flex-fuel cars made for the Brazilian market can run on 100% BE (ethanol/ alcohol), 100% petrol, and any mixture in-between (ordinary Brazilian petrol contains 25% BE). With their significant market share, the Brazilian branches of European companies such as Volkswagen, Renault, and Fiat, already have the expertise. Pure BE clearly has a superior environmental performance than E85, found in Europe.

F3) Mandatory acknowledgement of all biofuels by all Member States.

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At least in France it is directly forbidden to use PPO as a road fuel. This obstructs common EU policy and has taken away the incentive to develop PPO production and technologies within that country.

Main Obstacles, which should obviously be abandoned and/or avoided, include:

- O1) The peculiar contradiction between on the one hand the EU insistence on free market conditions and on the other hand the EU supporting planned monopolistic economic measures. This approach inevitably leads to artificial solutions, disproportionate profits for certain favoured very large companies, unnecessarily high costs and direct or hidden support for conventional/adapted fuels.

Insistence on centralized markets will favour the oil companies to the detriment of independent producers/distributors. This will forfeit the significant prospects for rural development. The negative effect of oil companies taking over biofuel markets is exemplified in the Danish wood pellet market where small, independent, cost efficient companies are bought after which prices have been doubled.

Insistence on unnecessary quality documentation will favour larger producers/distributors over independent producers. For example:

The quality parameters of PPO are very simple. Excessive testing and control has no advantage and will lead to a loss of rural decentralized production and distribution. A balanced approach, including the provision of information and other forms of support for producers, would reduce what will become an unnecessary financial burden on producers.

- O2) Unwillingness at national levels. Among the obvious examples are the Danish lack of commitment and the French direct obstruction of PPO combined with biodiesel monopoly support.

Question 3.1: Looking towards 2010, is the present European system of indicative targets and support for biofuels appropriate or does it need to be changed?

The targets should remain as a total proportion of biofuels on the market but they should be made mandatory for all member states.

Question 3.2: What are your views on the advantages and disadvantages of the options described in section 3.2 of this paper?

- A) This is the option that will work.
B) As has been shown in a number of countries this option has proven insufficient. Look to Denmark for an example.

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- C) This option would also be insufficient: the loopholes would make it look like a Swiss cheese.
- D) This option would uphold transportation fuel monopolies, prevent competition and cost efficiency, and delay the necessary switch from outdated engine technology and dirty fuels to clean fuels used in optimized engines.
- E) This option would be as bad as D).
- F) This option would be as bad as D).
- G) This option would be as bad as D).
- H) This option would be as bad as D).
- I) This option can be a good supplement to A).
- J) This option can be a good supplement to A).

Question 3.3: How should the option(s) you favour be put into practice?

In the simplest possible way by amending the Biofuel Directive to incorporate a Practice of:

- P1) Explicitly favouring fuels with the best environmental performance by using a large tax reduction or exemption, allowing overcompensation.
- P2) Explicitly favouring decentralized production/distribution, including balanced test/control requirements, possibly allowing extra overcompensation, thus reviving rural economies.
- P3) Setting mandatory national targets, possibly rewarding over fulfilment which could consist of allowing further tax reductions as a national level competition parameter.

Question 3.4: Should other options than those in section 3.2 be considered?

Yes:

Binding obligations on the automobile industry to produce engines capable of running on 100% biofuels such as PPO and BE should be introduced.

Currently outdated engine technologies offered by the automobile industry limit the fuel options to inferior fuels and grey solutions of mixed fuels. This delays the needed switch from dirty to clean fuels. Adapting engines so that they can be fuelled with pure biofuel and any fuel mixture provides a true basis for a simple, efficient, transparent, fairly regulated fuel market favouring the cleanest and economically most viable solutions. The solutions exist:

- Along with the original Elsbett engine, converted diesel engines, available for an increasing number of makes and models, have proved efficient with low emissions when running on 100% PPO, 100% diesel, and any mixture in-between;
- Flex-fuel cars made for the Brazilian market can run on 100% BE (ethanol/ alcohol), 100% petrol, and any mixture in-between (ordinary Brazilian petrol contains 25% BE). With their significant market share, the Brazilian branches of

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European companies such as Volkswagen, Renault, and Fiat, already have the expertise. Pure BE clearly has a superior environmental performance than E85, found in Europe.

Question 3.5: If your preferred option(s) would have implications for granting tax reductions/exemptions for biofuels, for example if these fiscal measures had to be prohibited, would that change your answer?

No. If any EU rules should prove to be obstacles to tax exemption/reduction for biofuels, those obstacles should be removed. Legislation has to be adapted to allow for the best actions; one of the main reasons for public dissatisfaction is the widespread EU and national tendency to adapt intended actions to comply with existing legislation.

The fact is that, at least today, the only option of promoting the decentralized production and distribution of PPO is tax exemption.

Question 3.6: Should Member States be able to provide tax reductions/ exemptions and lay down biofuels obligations at the same time – or should it be “one or the other”?

Only tax exemption/reduction: biofuels obligations are counter environmental, counter competition, counter rural development, pro monopoly.

Question 4.1: Should there be a system – for example, a system of certificates - to ensure that biofuels have been made from raw materials whose cultivation meets minimum environmental standards?

If so,

- What should be addressed in the standards?***
- How should the system work? Are there good models to draw on?***
- Should the biofuels directive be amended so that only biofuels which comply with environmental sustainability standards count towards its targets?***

There should be a system, yes, but all aspects of environmental impact and energy consumption should be assessed from soil to wheel, thus including crop, production, and distribution.

This should lead to a simple and efficient regulation system; a differentiated tax reduction with exemption/highest reduction to reward the cleanest fuels.

The overall targets could be changed to express weighed combinations of biofuel amounts, total corresponding CO2 reductions and other environmental impacts.

Any fair and honest system of certificates will lead to the conclusion that PPO is the superior diesel type biofuel. This fact must not be hidden in omission of critical as-

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pects such as leaving out environmental impact of the actual fuel production and distribution.

At least on a longer term, agricultural best practices should be rewarded by the EU in the form of differentiated tax exemption/reduction. It has already be demonstrated that:

- a) It is possible to grow rape seed organically;
- b) Apart from grass, rape is the crop best suited for cultivation without pesticides;
- c) In the crop rotation cycle, rape is a high yield crop with a low fertilizer burden: it requires about the same amounts of N as wheat and more than other crops, but it passes it on as a surplus of N in the field, so in a rotation where rape is followed by wheat, the N requirement of the latter is lowered to the same level as that of other crops;
- d) Other oil plants, such as gold of pleasure, with lower yield may be grown without fertilizers and thus undisputably beneficial to environment.

Question 4.2: Should a wider system of certificates be introduced, indicating the greenhouse gas and/or security of supply impact of each type of biofuel? If so,

- j) ***How should this certification system work?***
- k) ***How should the greenhouse gas and/or security of supply benefits of different biofuels be measured?***

- Should biofuels with good greenhouse gas and/or security of supply performance be rewarded within biofuel support systems for biofuels? If yes, how?

There could be a subdivision between diesel type and petrol type fuels, but the simplest possible system should be used, so probably not. Cleaner biofuels should be promoted using a sliding scale of taxation as mentioned above.

Question 4.3: Should there be a scheme to reward second-generation biofuels (made with processes that can accept a wider range of biomass) within biofuel support systems?

No, at least not presently: the first priority should be to create a viable biofuel market now and not to postpone it and divert efforts.

Question 5.1: Should the EU continue acting in favour of biofuels after 2010?

Certainly. The present efforts should only be the beginning.

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Question 5.2: If the EU is to continue acting in favour of biofuels after 2010, should this action include or exclude the definition of a quantified target for biofuels?

The action should include 5 year targets.

Question 5.3: Should EU action include the following measures (which could be pursued without defining a quantified target):

- a) support for research, development and dissemination of good practice?***
- b) continued Community financial support for the supply of biofuels and their feedstocks?***
- c) continued scope for Member States to support biofuels through tax reductions/exemptions?***
- d) the labelling of all fuel to show the proportion of biofuel it contains?***
- e) a campaign to inform consumers of the benefits of biofuels?***
- f) any other options?***

Yes to all, but probably the most important one is this new measure:

- f) Binding obligations on the automobile industry to produce engines capable of running on 100% biofuels such as PPO and BE.

Currently outdated engine technologies offered by the automobile industry limit the fuel options to inferior fuels and grey solutions of mixed fuels. This delays the needed switch from dirty to clean fuels. Adapting engines so that they can be fuelled with pure biofuel and any fuel mixture provides a true basis for a simple, efficient, transparent, fairly regulated fuel market favouring the cleanest and economically most viable solutions. The solutions exist:

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Further measures should include:

- g) A number of measures to reduce road transport volumes;
- h) Promotion of railway shipping of goods and vehicles, known as “ferroutage” in French (used in Austria and Switzerland).

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Question 5.4: If the EU is to define a quantified target for biofuels after 2010, what should it be? What year(s) should it relate to - 2015? 2020? both?

Both, and 5 year targets up to 2030.

Question 5.5: If the EU is to define a quantified target for biofuels after 2010, should this be expressed in terms of

- market share (as in the present directive)?***
- greenhouse gas savings from biofuel use?***
- reduced oil consumption from biofuel use?***
- reduced fossil fuel consumption from biofuel use?***

It should be expressed in terms of market share, because it is the simplest measure, and because it reflects the actual fuel consumption without loopholes.

Question 5.6: If the EU is to define a quantified target for biofuels after 2010, should this remain a purely political step (accompanied by monitoring) or should it be given concrete form?

If the latter, should this be in the form of:

- a) adding reference values for later years to the biofuels directive as presently drafted?***
- b) one or more of the options in section 3.2?***
- c) some other form?***

It should be given the concrete form as expressed in section 3.2 option a) and the additional option presented in section 3.4 both presented together as F1) and F2) as detailed in the response to section 2.2 along with the obvious mandatory acknowledgement of all biofuels by all member states as suggested in F3). Failing this maintaining an advisory target with the least possible market interference would still provide a good opportunity to create a simple, efficient, transparent, fairly regulated fuel market favouring the cleanest and economically most viable solutions. Pursuing options b) - h) as outlined in section 3.2 would skew the market as would a failure to avoid obstacles O1) and O2) as outlined in the response to section 2,2.

Mandatory targets for five year periods up to 2030. Steep mandatory targets may assist in creating a wholehearted effort now.

Question 6.1: Do you have any comments on the following issues, listed in the biofuels directive for inclusion in the Commission's progress report:

- a) the cost-effectiveness of the measures taken by Member States in order to promote the use of biofuels and other renewable fuels?***
- b) the economic aspects and the environmental impact of further increasing the share of biofuels and other renewable fuels?***

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- c) the life-cycle perspective of biofuels and other renewable fuels [and] possible measures for the further promotion of those fuels that are climate and environmentally friendly, and that have the potential of becoming competitive and cost-efficient?***
- d) the sustainability of crops used for the production of biofuels, particularly land use, degree of intensity of cultivation, crop rotation and use of pesticides?***
- e) the assessment of the use of biofuels and other renewable fuels with respect to their differentiating effects on climate change and their impact on CO2 emissions reduction?***
- f) further more long-term options concerning energy efficiency measures in transport?***

All should be retained, with the addition that calculation of the environmental impact should include crop and biofuel production and distribution; this would further reveal the superiority of decentralized production/distribution, especially for PPO.

Question 6.2: What are the prospects for second-generation biofuels that can be made from a wider range of biomass? Can they be expected to be cost-competitive with first-generation biofuels and if so by when?

These technologies are in development and these questions are academic. What is important is the creation of a viable biofuel market which must be a primary and urgent priority.

Question 6.3: It is sometimes suggested that vehicles can travel more kilometres on a given amount of biofuel than on an equal amount (measured by energy content) of conventional fuel. Are any data or explanations available on this point?

For PPO: converted diesel engines have been found, by general experience, to have at least the same mileage on PPO as on diesel, litre to litre. Given that PPO has a lower energy content the molecular oxygen content is the predominant assumption to explain this phenomenon. It is considered quite possible that engines built for PPO may even create a litre to litre superiority.

Little funding has been made available for research. The best results would be obtained by supporting those presently engaged in this field. Many badly and wrongly performed research attempts have been made by conventionally oriented research institutes, and that has created a lot of false claims that have been harmful to the promotion of pure biofuels like PPO.

Among the regrettable but typical oversights made by conventional research institutions with good reputations have been:

- Testing of ordinary, non optimised diesel engines or engines optimised using inferior technologies

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- Testing using inferior plant oils, often of doubtful origin, even including plant oils chosen at random in local supermarkets, with no information about production, processing, or crucial fuel quality parameters.

Question 6.4: Problems have been reported in interpreting the directive's requirements on the calculation of the contribution of certain types of biofuel (notably ethers such as ETBE). Could the drafting of this directive be improved on this point? If so, how?

No comment.