

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

1. How should a biofuel sustainability system be designed?

Volvo's opinion is that all biofuels shall fulfil a number of sustainability criteria before getting support. The criteria that such a system should include are greenhouse gas savings, energy efficiency, land use (soil carbon), land use efficiency (competition with other uses) and biodiversity etc. The optimization of energy efficiency on a "well to wheel" basis is of great importance in order to utilize the limited biomass resources in the most efficient way. Future vehicles will have improved energy efficiency and the fuel production from "Well to Tank" also need improvements. It is of importance to design a system which sets the focus on the most promising solutions. The system should be technology neutral so that any fuel which fulfils the sustainability criteria gets support independent whether they are 1:st or 2:nd generation fuels. The criteria should then be divided into several categories. The criterion 1 in Box 1 of reaching for example 10% reduction is not detailed enough. The system should be designed so that fuels that reduce CO₂ for example by 90% get more support than a fuel that reduces CO₂ by 10%. The EUCAR/CONCAWE/JRC "Well to Wheel" study serves as a sound scientific basis for the criteria energy efficiency and greenhouse gas savings.

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

Volvo's opinion is that the effects on land use need to be monitored carefully in order to ensure that possible negative impacts are minimized or avoided. Especially the conversion of for example grass land into land for biofuel production needs some kind of monitoring system in order to analyze the soil carbon release. In order to minimize the competition from different land usage the overall yields need to be maximized. This should be supported with some kind of scheme promoting the most promising crops for production of sustainable biofuels.

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

Volvo's opinion is that one should avoid defining what is the first or the second generation of fuels. Every fuel should be judged depending on its well-to-wheel performance by a number of important criteria, not whether it belongs to a certain generation of production processes. The criteria Volvo considers to be most important are Greenhouse gas reduction potential, Energy efficiency, Land use efficiency and Feedstock availability. See our comments regarding question 1 for more details. However, a possible route could be to classify different fuels depending on how well they meet the criteria stated above.

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

AB Volvo's opinion is that the most important measure for introduction of biofuels into the market is to develop fuel standards, both for the fuel properties and for the related engine/ vehicle emission certification. A fuel standard for "Biofuel XX" gives all stakeholders, from fuel providers to vehicle producers and customers a much more solid ground to base their needed investments on.

Regarding the proposed increase of low blending of FAME up to 10%, it is important to consider the implications on the current vehicle fleet. Volvo's suggestion is to keep the current possibility to blend 5% FAME into conventional diesel fuel and in addition develop new standards for diesel fuels with higher blending of FAME and market those in dedicated pumps.

It is also important to remember that many biofuel components (for instance hydrocarbons produced via hydrogenation of vegetable oils) can be blended into conventional diesel fuel in rather high proportions without putting the fuel outside current standards, in this case EN590. The current limit of 5% FAME is therefore not a limit of the possible biofuel content in the future.

A second route is to blend renewable feedstock's upstream into the refineries' crude oil feed. From a CO₂ perspective, this could be an even more efficient use of the limited renewable sources we have. By applying a well-to-wheel perspective, this renewable content should be taken into account when assessing the produced fuels.