



Swedish Bioenergy Association
Torsgatan 12 11123 Stockholm
Sweden
/Kjell Andersson

2007-06-18

Svebios answer to the European Commissions consultation on biofuels

First one question of the language used in the consultation. “Biofuels” in our opinion is a term used for all kinds of fuels from biomass – solid, gaseous and liquid fuels. We understand that the consultation only concerns “liquid biofuels for transport”. We think this should be clarified, and we think the term should be either “liquid biofuels” or “transport biofuels”.

Question 1.1

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

No.

Svebio, the Swedish Bioenergy Association, represents 300 companies and enterprises engaged in the bioenergy business, with vast experience of producing and using large amounts of biomass for energy. We are strongly opposed to the introduction of a regulation of the type described in the proposal.

There is no difference between using products from agriculture and forestry for energy and for food, feed stuff or raw materials for forestry. The regulation of agriculture and forestry, and the legislation for natural protection and conservation, that is already in place in the member states can also handle the production biomass for energy. This does not need to be regulated on a European level.

Sweden today uses 115 TWh bioenergy. Most of this is by-products from forest industry and wood fuels from forest. In these cases the energy balance is always very positive; the input of fossil fuels, e. g. for transports of the fuel, is at most only a few percent of the total energy content and the reduction of carbon dioxide emissions when substituting fossil fuels is usually more than 100 percent (as oil, coal and gas production has a higher input of production energy). Even when solid biofuels are refined to pellets and briquettes the energy balance is extremely good – 85 – 90 percent of the total energy input is available for heat and electricity production. For these kinds of products no regulation is needed. The same will be true when solid biomass from forestry will be used in second-generation transport biofuel production.

A smaller part of our bioenergy comes from agriculture. Here the energy balance sometimes is less favourable. But the balance is for all types of energy plants and production chains clearly positive. For specialised cellulosic energy crops like short rotation coppice willows (salix), canary reed grass and hemp the energy balance is very good, and comparable to that for biomass from forestry. For traditional agricultural crops like wheat used for ethanol, sugar beets used for ethanol, and rape seed used for RME the balance is also positive, particularly if one counts the valuable by-products at their value (either as feed stuffs or as energy raw materials, or for biogas production).

As all these uses of biomass for energy have positive energy and carbon balances, and in no cases negative energy or carbon balances, we can see no reason to create a new bureaucratic system to regulate the production of these biomasses.

Question 1.2

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

The burden would be considerable for the bioenergy industry and would hamper the necessary introduction of bioenergy as a major way of lowering the emissions of carbon dioxide.

Question 1.3

General comments.

See the answer above. Production of biofuels in our country, and with the methods currently used and planned, is sustainable.

We do not in general see biomass production in forestry and agriculture as a separate activity, but as an integrated part of regular forestry and agriculture. The same foresters that produce pulpwood and timber will (and already do) produce bioenergy raw material on the same forestland. The farmers that produce food and feed crops will also, on the same land, produce energy crops. Some of these crops are in fact identical, like wheat and rape, if they are used for food or for energy.

An example: The production of agricultural products in Sweden is about 80 TWh measured in energy (all harvested product plus straw and other by-products). The input of energy is about 5,5 TWh. If more energy crops would be grown and harvested and the by-products would be used Swedish agriculture could produce 30 - 35 TWh biomass for energy, according to a recent governmental study. The input of energy for this production would not be much higher than the input is today. But “surplus grain production” would be avoided, by-products would come to use (straw and manure) and set-aside land would be used for production. Many of the specialized energy crops require less fertilizers and input of diesel than regular farming does. This is particularly true for cultivation of salix.

If the European Union wishes to improve the energy balance in agriculture the best steering instrument would probably be to tax diesel for agriculture and to tax artificial fertilizers. To make this in a fair way it would have to be done in all member states and equal for the production of crops for food, feed stuffs and energy.

Question 1.4

Carbon stock differences

We also feel that this regulation is an unnecessary step. The protection of wetlands is important, but is a part of national policies for environmental protection and conservation. We do not see a general threat against wetlands from energy crop production. Energy crops will be grown on regular farmland. In many cases, such as salix and energy grass, the carbon stock in the soil will increase.

In general, carbon stock changes are difficult to calculate, particularly for individual farmers. The conditions vary from farm to farm, based on different soils and growing systems. We strongly warn against imposing a new bureaucratic regulation based on incomplete knowledge.

Question 1.5

Land with exceptional biodiversity

All agriculture and forestry can be a threat to biodiversity. If the products are used for energy does not make any difference, and the present regulation of forestry and agriculture is sufficient. In Swedish forestry legislation great emphasis is based on regulation of considerations for biodiversity. When harvesting the forest the forester has to leave a certain amount of dead wood and high stumps, protect biotopes of special value, leave barriers of trees along lakes, creeks and swamps, etc. These considerations are the same for biomass production.

In forestry there is since many years a voluntary system for certification that can be applied also to bioenergy products.

In farming special support is given to farmers to keep and protect stonewalls, single trees and groups of trees, protect pastures, etc. These considerations are the same regardless of the wheat harvested is used for bread or ethanol, or if the sugar beets are used for sugar or ethanol.

When salix is planted the biodiversity in some ways is increased, as the bushes give good protection for animals, and that the vegetation is kept several seasons between harvests. In an open agricultural landscape the salix plantations create more biodiversity and also act as wind breakers.

Over all energy production in agriculture can not be seen as a bigger threat to biodiversity than regular farming.

Question 1.6

Definition of exceptional biodiversity

To protect “exceptional biodiversity” is of course essential, but this should be reached with measures in environmental programs and conservation.

Questions 2.1 and 2.2

Effects on land use

The problem currently in Europe is that large areas of farmland have been taken out of use as set-aside land (fallow land), to avoid surplus production of grain and other farm products. These areas should first of all be used for energy production. In Sweden these set-aside areas are 300 000 – 400 000 hectares or 10 – 15 percent of all farmland.

Also in East Europe (The Ukraine, Russia, Belarus, etc) much farmland is in bad use and could be utilized for energy crops.

Maybe there is a problem of increased “pressure” from using more land for agriculture, because of energy crop production, in certain countries. We are not aware of this problem in Sweden.

We also believe there is a lot of badly used forestland in many parts of Europe. Even in Sweden, with a highly developed forestry, it is possible to increase the utilisation of the forests for higher yields of renewable forest products.

Question 3.1

Definition of second-generation biofuel for transport

With second-generation transport biofuels we mean fuels based on cellulosic material – of course this is a result of certain technologies capable of producing these biofuels from cellulose.

Question 3.2 and 3.3

Extra support for second-generation biofuels

We see no reason that second-generation biofuels get a certain higher subsidy. The purpose of the development of second-generation biofuels is to broaden the raw material base. The cellulosic raw materials are cheaper and more abundant. The capital cost of second-generation biorefineries is on the other hand much higher. But the goal must be that the total cost of second-generation fuels makes them competitive with first-generation biofuels.

In Sweden we do not work with fuels obligations. Our steering instrument is carbon tax on fossil fuels combined with tax exemption on non-fossil fuels, which applies to all renewable fuels.

Question 4.1

Blending of biodiesel into diesel

The regulation for blending of biofuels in regular petrol and diesel should as soon as possible be changed to allow blending of 10 percent biofuels in both.

On the Swedish market we now, beside low-blending of 5 percent RME, also have two different types of diesel fuels with 15 and 20 percent biodiesel blending. There are apparently technical solutions to allow this level of blending for regular motors. These examples should be studied by the Commission.

Question 4.2

Measures to encourage high blends

On the Swedish car market we already have over 60 000 flexifuel cars using E85. There are soon 1 000 ethanol pumps in the country. So the infrastructure and the market are in place. Brazil has a wide use of high blend ethanol and pure ethanol since 25 years. If it is possible in Brazil and Sweden it is possible also in all of EU.

Question 4.3

Biomethane, methanol and DME

Legislation should be prepared also for handling of these biofuels. We need fuel standards and agreements with the car industry well before large-scale production of the fuels is in place.

Question 4.5

Review and strategies

The choice of strategies should largely be up to the member states. Reviews of the fulfilment of the directive should be done regularly, e. g. every three years.

Question 4.6

Taxation

Taxation should be the main steering instrument. Fossil fuels should be taxed according to their emissions of carbon dioxide, and the biofuels should be excluded from taxation. The tax exemption should be the same for all biofuels, whether they are used for low blend, high blends or pure biofuels, and based on the biofuel part.

Beside ethanol, biodiesel and second-generation biofuels there is also biogas, which can be used as a transport fuel. In Sweden we have 14 000 cars and buses that can run on biogas, and 150 biogas pumps, and this market is expanding quickly. Biogas has certain advantages when it comes to energy balance and the possibility to use wet waste materials. It is surprising that the Commission hasn't mentioned this alternative.

Kent Nystrom

Svenska Biodenergiforeningen
Svebio