European Renewable Energy Council
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EREC POSITION PAPER ON BIOFUELS

A critical energy source and a historic opportunity for the EU

Brussels, 20th of June 2008. *Seemingly every day, oil prices reach new record levels and show no signs of stabilising.[1] Production from traditional oil fields is declining and centering on politically unstable regions of the world. Oil companies are turning to exploiting oil from costly and more carbon and water intensive sources, such as tar sands, and in ever more environmentally sensitive areas.[2] The continuing growth in oil consumption also produces increased emissions of greenhouse gases. CO_2 emissions, especially in the road transport sector have reached absolutely intolerable levels. To curb these problems immediate action is needed.*

Biofuels have a major role to play both in improving energy security and tackling climate change. They also provide an opportunity for rural areas to break the cycle of poverty both in the developed and developing world. However, biofuels have come under serious attack. EREC regrets that the debate about biofuels has become emotional and irrational, peaking in the proposal by the EP lead rapporteur to delete the 10% binding target for renewables in transport. EREC firmly believes that biofuels are a crucial part of our strategy in meeting the renewables target and thus in meeting GHG reduction targets and reducing the EU's import dependency. From an international environmental perspective it is absolutely imperative to develop European standards and European biofuels production. The latter one can be significantly developed only with the binding target for biofuels. The future Directive needs to reflect this situation.

Challenges in the transport sector

CO_2 reduction. The transport sector is a major contributor to GHG emissions. Including oil refinery emissions, the transport sector, today, accounts for more than a quarter of all Europe's greenhouse gas emissions. Much worse is the fact that these emissions have been rising remorselessly. They are

[1] 132 US$/bbl on 18th of June.

[2] The emissions to produce 1 barrel of oil from oil or tar sands are on average 3 times higher that the emissions from conventional oil. See: page 22 in "Oils Sands forever, the environmental implications of Canada's oil sands rush", Dan Woynilliwicz, November 2005.

now 26% higher than they were in 1990. Biofuels, together with increased transport efficiency, fuel efficiency and savings are at present the only immediately available and viable alternative to fossil fuels capable of reducing GHG emissions significantly and with immediate effect. EREC calls upon the EU decision-makers not to let the chance pass by to create a viable legislative environment encouraging renewable energy solutions in the transport sector. Only the binding 10% target can establish a framework which enables Member States to deliver on using renewable fuels in this sector (and deliver on replacing fossil fuels in the transport sector).

Energy security. At present, the EU is importing 98% of its transport fuel needs from third countries, most of which are located in politically unstable regions. The increasing world demand is pushing oil prices to historic maxima and only developing an alternative fuels market can compensate increasing oil costs and alleviate the oil bill. Domestic biofuel production has a big potential in reducing the EU's heavy dependency on crude and fuel imports. In the wake of a looming peak in oil, leading oil companies are exploring more and more environmentally harmful crude from tar sand, shale and the deep sea. Specifically biofuels can help to cushion the negative impact of this growing shortage. EREC would like to stress that sustainable biofuels produced in the EU can deliver a considerable contribution to addressing this energy security concern in EU Member States.

10% is part of the 20% target

EREC applauds the Commission, which showed extreme diplomatic sensitivity in establishing the fragile equilibrium of national targets for 2020. The 10% target is an essential, necessary part of the overall 20% target for renewable energy by 2020.

10% binding target and sustainability – EU as a leading example for sustainable production

As the experience with the existing biofuels Directive shows, fuel distributors (oil companies) only use biofuels if there is an economic advantage (fiscal incentive) or because they are forced to use them. Precisely the binding nature of the biofuel target has triggered the very important debate on sustainability criteria and a certification scheme. Notwithstanding the fact that EU biofuel producers comply already today with the highest possible global farming standards, only the EU biofuel objective justifies the building of a sustainability and certification scheme. This scheme could serve as an example for biofuel production standards all over the world. The industry is willing to commit to strong and reasonable sustainability standards since we do not want to repeat the mistakes of the oil industry. If, however, biofuels will only be used marginally because the 10% binding target has been deleted, the sustainability rules will lose their *raison d'être*. EREC fears that in such a case the EU would miss a great opportunity to develop similar sustainability schemes for fossil fuel and for all other uses of bioenergy and crops in general. Therefore EREC urges the EU to set a new sustainability standard for own production and import, in a world where over 90% of all biofuels are produced and used outside the EU – mostly without any environmental or social standards. It is a historic opportunity!

Food, feed and biofuels

Biofuels feedstock. Bioethanol in Europe is mainly produced from cereals (around 2 mln tonnes)[3] with wheat as a dominating feedstock. Due to strong cereal price increases over the last 12 months sugar beet use is growing.[4] Currently, only 1.6% of the total EU produced cereals output is used to make fuel ethanol. By far the biggest share of EU grain production serves to feed cattle (58,1%). The second biggest consumer of cereals is the food industry (22.1%).[5] Globally, biofuels are currently using about 2% of the world's grain production. European biodiesel production currently accounts for about 2% of global oilseed demand.

Furthermore, it is worthwhile noting that barely 3% of EU imported palm oil is used to produce biodiesel. The lion's share imported into the EU is destined for the food industry. Blaming biofuels for the global commodity crisis may provide an easy argument, but only distracts attention from the root causes of the problem. The principal drivers for the recent surge in food prices is explained as a combination of demand growth especially in Asia, because of the yield reduction due to weather related poor harvest (floods, drought)in some key producing countries, by food export restrictions by some national governments, of financial speculation and also, of course, due to high oil prices. High agricultural prices will give additional incentives to restart agriculture in rural areas all over the world and especially in developing countries.

Oil price. EREC wants to underline that hunger and malnutrition in the developing world are not due to a lack of food but are a result of poverty. The spiraling price of oil deepens poverty not just by driving up food production costs (especially fertilizer and logistics), but in a pervasive manner that touches all parts of the economy. Without biofuels, oil prices would be even higher. This simple fact has been overlooked by much of the media. According to Merrill Lynch, oil and gasoline prices would be about 15 per cent higher if biofuels weren't available. Moreover, some 70 per cent of the world's hungry live in rural areas, exactly where biofuels (can) generate most economic wealth.

Land availability. Less than 1 per cent of available global agricultural land is used at the moment for the production of biofuels. The United Nations Food and Agriculture Organisation (FAO) forecasts that this will rise to only 2 per cent by 2030. In the EU a lot of land will be freed due to the reform of the EU sugar regime. The sugar quota will be reduced by approximately 6 mln tonnes or 0.9 mln ha of sugar beet. If this sugar beet was turned into ethanol it would result in close to 6 bln litres of ethanol. By comparison: In 2007 the EU produced 1.77 bln litres of ethanol and the 10% target for gasoline equals an estimated 18 bln litres. So with EU-grown sugar beet alone (and with land which is already now being cultivated!) the EU could reach 1/3 of its 2020 fuel ethanol need.

Fuel and feed production. EREC feels that an important quality of EU biofuels producer is being neglected in the debate about food and fuel. Biofuel production has a protein rich by-product that replaces imported soy meal or cake. The EU depends heavily on soy to feed its animals. Currently the EU imports 80% of its vegetable proteins (or 40 mln tonnes). In the case of bioethanol production,

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[3] *Total EU cereal consumption for the season 2007/08 was set at 270 mln tonnes. Source: EU Cereals Management Committee.*

[4] *In Germany for instance, the share of sugar beet as bioethanol feedstock increased from 0,03 mln tonnes in 2006 to 0,2 mln tones in the beginning of 2008. In Germany, the share of cereal as raw material for bioethanol production decreased substantially from approximately 98% in 2006 to approximately 54 % in 2008 (Source: LAB).*

[5] *Source: European Commission, Management Committee on Cereals, harvest 2007/2008.*

1/3 of the crop goes to the feed/food chain as protein concentrated animal feed (DDGS). Each 7.5t/ha of wheat will generate 2,700 litres of ethanol and 1 tonne of protein. Also the production of biodiesel yields valuable by-products such as protein-rich rape cake/meal and glycerine. EREC calls upon the EU legislators not to blackmail biofuel producers prematurely without considering their potential to feed and fuel.

2nd generation biofuels. The so-called advanced or 2nd generation biofuels have a great potential in terms of optimal use of raw material, increased GHG savings and use of less fertile land. However, before 2nd generation will become commercially available on a large scale considerable efforts in terms of R&D and investment capital are still needed. EREC acknowledges and supports the political desire to come to a next or second generation of biofuels. EREC would like to underline that 2nd generation biofuels will only become a reality if there is a well-developed 1st generation biofuel industry that can generate the funds to invest in 2nd generation and favourable government and EU policy that stimulates and funds research & development of new technologies as well as demonstration and introduction on the market.

In conclusion, EREC urges MEPs and the Council to maintain the 10% binding target for renewable energy sources in the transport sector.

EREC, the European Renewable Energy Council, is the umbrella organisation of the major European renewable energy industry, trade and research associations active in the field of photovoltaics, small hydropower, solar thermal, bioenergy, ocean & marine, geothermal, wind energy, concentrated solar power and biofuels. It represents an industry with an annual turnover of more than 40 billion € and more than 350.000 employees.

EREC represents:

- AEBIOM (European Biomass Association)
- eBIO (European Bioethanol Fuel Association)
- EGEC (European Geothermal Energy Council)
- EPIA (European Photovoltaic Industry Association)
- EREF (European Renewable Energies Federation)
- ESHA (European Small Hydropower Association)
- ESTELA (European Solar Thermal Electricity Association)
- ESTIF (European Solar Thermal Industry Federation)
- EUBIA (European Biomass Industry Association)
- EU-OEA (European Ocean Energy Association)
- EUREC Agency (European Renewable Energy Research Centres Agency)
- EWEA (European Wind Energy Association)