European Commission
DG Energy and Transport
B-1049 Brussels

15 June 2007

Subject: response to consultation on "Biofuel issues in the new legislation on the promotion of renewable energy"

Question 1.1:
Do you think the "possible way forward" described above is feasible?

Question 1.2:
What do you think the administrative burden of an approach like the "possible way forward" would be? (If possible quantify your answer)

Question 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.

Boeing is supportive of all measures that will increase the usage of sustainable biofuels in transportation. Indeed, Boeing is actively collaborating with industry, academics and government on alternative fuels (of which biofuels are part) research and is evaluating the viability of alternative fuels for air transportation. In partnership with Virgin Atlantic Airways, Virgin Fuels, GE Aviation and several candidate biofuel suppliers, a 2008 biofuel demonstration is planned which is aimed at demonstrating renewable fuel sources and processing methodologies suitable for commercial jet engines and the aviation industry. Boeing is also the R&D lead for the Commercial Aviation Alternative Fuels Initiative (CAAFI), an industry coalition actively pursuing alternative fuel applications for commercial aircraft. Boeing is investigating the feasibility of establishing a similar programme in Europe.

Any EU policy on biofuels will have to ensure that biofuels are sustainably produced and take into account their potential effects on environment. While pursuing the viability of biojet fuel (that is, a biofuel especially tailored for jet aircraft applications), Boeing is carefully addressing all related issues, including the effects on land (such as deforestation) and the need to identify a suitable and sustainable feedstock. The sustainability criterion 1 (achieving a minimum level of greenhouse gas savings) is certainly to be supported and is fully in line with Boeing's goal to work on environmentally progressive technologies to achieve CO2 reductions.

However, this and other sustainability criteria should not lead to EU-only standards for biojet fuels certification. As far as biojet fuel is concerned, Boeing is working through CAAFI, to help universally-accepted standards be developed, bearing in mind that biojet fuel has to meet a series of technical requirements in order to be viable, and that such requirements differ from those required by biofuels for the car industry.

As biojet fuel will need to meet much more stringent performance requirements than biodiesel, special processing methods will need to be developed. However, it is anticipated that the biojet fuel will still need to be blended in percentages (e.g. up to 20%) with better performing conventional or synthetic jet fuels to meet the minimum performance requirements. In order to stimulate fuel producers to develop and produce the more costly biojet fuel, financial incentives need to be offered to producers and users.

Question 3.1:
How should second-generation biofuels be defined? Should the definition be based on:

a) **the type of raw materials from which biofuels are made (for example, "biofuel from cellulosic material")?**
b) **the type of technology used to produce the biofuel (for example, "biofuels produced using a production technique that is capable of handling cellulosic material")?**
c) **Other criteria (please give details)?**

With regard to biojet fuel, there is no need for a definition. Biojet fuel should be assessed against its performance on the basis of a technology-neutral approach. The task to identify the best technologies that deliver the best results should be left to the market.

Question 3.2:
Please give your comments on the "possible way forward" described above. If you think the problem should be tackled in a different way, please say how.

If a biojet fuel that meets all the above-described requirements is eventually developed, aircraft operators using it should receive an advantage trough the EU Emission Trading Scheme (ETS), in consideration of the benefits in terms of CO2 reductions that would result. The current proposal on EU ETS does not provide for detailed incentives to entice operators to switch to biofuels.

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?

With regard to biojet fuel, markets should determine how targets are met, since the technologies that can best deliver certain goals, such as reducing GHG emissions, may still be under development. Boeing's goal is to achieve a biofuel

share higher than 10% for jet fuel, and the technology along with future fuel feedstocks to meet this goal are still being developed. Boeing estimates that two years will be needed to assess whether this is feasible, and five years to get to certification.