

Response
to
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
June 2007

Consultation Document Questions

1. How should a biofuel sustainability system be designed?

Question 1.1

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

GATE believes that the "possible way forward" proposed by the Committee – a "simple incentive/support system for biofuels" – is fundamentally feasible if certain aspects are clearly included and defined.

First and foremost, any framework must be uniform across all member countries (as opposed to a series of national programs), and the sustainability criteria which are used to evaluate the entire biofuel process – from raw material production to transport to refining and delivery – must be applied to fuels coming into the EU from abroad as well as those produced within member countries. Not only are issues of global sustainability, social responsibility and environmental impact of relevance, but the exercise will also be futile on an economic level for the Union if European producers find themselves adhering to regulations while being undercut in price and availability by foreign products which do not have to meet the same standards of production and sustainability.

The impact of biofuel production all along the production chain (including any future biomass technologies) must be held to consistent, transparent and non-discriminatory standards. These in turn must be formulated in straightforward guidelines that leave little room for prevarication on rules regardless of product origin.

GATE agrees that, as the consultation document states,

The system could discourage:

- *the conversion of land with high biodiversity value for the purpose of cultivating biofuel feedstocks;*
- *the use of environmentally harmful systems for biofuel production. Must be carefully defined.*
- *it should avoid any discrimination between domestic production and imports and should not act as a barrier to trade. Its operation should be monitored with a view to making it more sophisticated in future.*

The criteria for assessing what 'land conversion' means must include not just the potentially permanent razing of biodiverse areas for planting, but possible use that may seem ostensibly temporary but could impact such areas on a long-term basis. It must also be clear that any raw material or biofuel resulting from adverse land conversion in non-EU countries will be held to the same standards as EU products.

The same is true for the discouragement of environmentally harmful systems for biofuel production overall. This section could include support for improving existing cultivation and production practices as well as infrastructure and product transport sectors.

Overall, GATE's position is that short-haul and regional solutions should be preferred over long-distance solutions for a number of reasons, and this should be explicitly encouraged to the extent they are possible. Any solutions must be evaluated on the economic, ecological and energy impacts they have where they are actually produced.

Question 1.2

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

Any administrative approach must be comprised of a Europe-wide, uniform system. It is difficult to quantify the administrative burden prior to a concept being developed, but any system should make use of appropriate agencies, information and methods already in existence before establishing a new agency solely for this purpose. Given the many collaborative efforts between existing groups and assuming efficient design, it is possible that much of this administration could be carried out via information systems administered by stakeholders and then audited by a streamlined independent body.

In any case, a uniform approach avoiding conflicting agencies is of the utmost importance for accountability and transparency. Any approach should be applied equally to all producing countries, and support in the form of education and technology must be provided to developing producing countries if necessary. Non-conforming imports could, if necessary, be given a limited time (and clearly defined benchmarks and deadlines) to conform to EU standards or risk losing certification.

Finally, minimum sustainability criteria must be met by the entire production chain.

The track and claim verification system should be preferred as it is one way to avoid re-labelling of non-conforming products.

GATE considers it a responsibility and duty for producers and other stakeholders – particularly those of GATE's size – to participate and contribute to the development and execution of relevant

administrative bodies and systems. GATE supports the establishment of an independent and centralised certification and monitoring body.

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?

Biofuels as a whole are generally defined as fuels which can be produced from renewable feedstock as opposed to fossil-based fuels, which are non-renewable. But our expectations of renewable fuel production reaches well beyond establishing a simple replacement for traditional fossil fuels. Society, and the environment, demand that fuel production not only replace fossil fuel, but that the raw materials used for biofuel be produced and processed in such a way that the various kinds of damage or risks – environmental and otherwise - generated by fossil fuel extraction, production and use is not simply transferred over to a new production chain.

From this perspective, the points suggested by the consultation document represent a beginning, but are too limited to provide any kind of assurance that biofuels will be sustainably produced. The document present criteria consisting of GHG emissions, carbon stock assessments and biodiversity/land use issues. Additionally, the 'Well-to-Wheel' study, which is provided as a possible basis for setting biofuel specification values, is not entirely appropriate to the overall discussion. Rather, it focuses too narrowly on straightforward energy balance values. These values become useful to evaluating the overall sustainability of a fuel production process when placed in a much broader context.

When it comes to biofuels, location matters: Where and how is the raw material being produced, where is it being processed into biofuel, and where is the biofuel being implemented. In addition to valid energy security concerns, if the EU switches its reliance on foreign fossil fuel to a wholesale reliance on biofuel or raw materials produced cheaply in developing countries, or which are solely based on food crops, then one unsustainable energy system will have simply been replaced by another. The consultation document does not adequately address the various economic, security, social and environmental aspects of viable biofuel production for EU suppliers and consumers.

If you think the problem should be tackled in a different way, please say how, giving details of the procedures that would be used.

Sustainability as a definition should go further than GHG / carbon values, land use definitions and so on. If land use is an issue, then infrastructures must be addressed to optimise the use of land already under cultivation and increase efficiency along the production and transport chains. This is particularly true of new EU countries. And while the consultation document posits that domestic feedstock

wouldn't be favoured over imports, GATE suggests that a crucial element of long-term, viable energy sustainability lies precisely in favouring and developing local strategies over long-distance solutions.

It is arguable that the entire premise of basing new legislation on alternative fuel production and use on values and production standards set by the petroleum industry and oil use is a fundamentally flawed point of departure. Leaving this larger issue aside for the moment, the consultation document provides evaluation methodologies which do not incorporate all aspects of biofuel and petroleum production. Here is where a thorough lifecycle assessment approach could be applied. And while lifecycle assessment is still being developed as a feasible evaluation method, any criteria or legislation on an EU level should not be delayed due to the lack of a complete and coherent evaluation plan. On the contrary, the development of these assessment tools to provide legal and administrative underpinning should have utmost priority.

Question 1.4

Carbon stock differences between land uses would be taken into account under criterion 2. Should they also be taken into account under criterion 1? If so, what method should be used to determine how the land in question would have been used if it had not been used to produce raw material for biofuels?

GATE has made an effort to enter into collaborations with growers in agricultural areas that are either underused or unused due to infrastructure deterioration, political transition or other reasons. This includes cultivable land in new EU countries which, while it was once under cultivation, is no longer being used to full capacity. If this land remains underused or fallow, then there is certainly a potential that it would be developed for non-agricultural purposes, in which case the option of biofuel cultivation could provide a desirable alternative when it comes to reducing carbon emissions.

There is, indeed, a large quantity of under-used agricultural land due to lack of infrastructure, lack of coordination or lack of funds.

What this consultation question seems to be assuming is that land not currently under agricultural zoning or use will be re-defined as potential cultivable for biofuel use as opposed to potential food cultivation, or remaining in a completely non-cultivated state (i.e. grasslands, wetlands, forest, etc.)

Determining how land 'could potentially be used' – whether for biofuel cultivation, available for other forms of development or to be protected – would seem an adjunct to overall zoning legislation and regulation. This could include testing carbon levels in the land as a part of an overall environmental assessment, including soil analysis and carbon content, and projecting potential carbon stock and the differences that would result under various potential uses. Assuming consensus could be reached on

the meaning of carbon stock values and the thresholds allowed for various types of activities, this process could be folded into overall zoning assessment processes.

Question 1.5

As described in the "possible way forward", criterion 3 focuses on land uses associated with exceptional biodiversity. Should the criterion be extended to apply to land that is adjacent to land uses associated with exceptional biodiversity? If so, why? How could this land be defined?

Buffer zones to prevent use seepage (deforestation, cultivation creep, infestation of biodiverse areas with biofuel crops unless these areas are already under cultivation) would be difficult to define in individual cases. Under regional or national supervision, the definition of buffer zones could be subject to a variety of interests and influences not in keeping with the intent of EU legislation. Thus, if implemented, any legislation or certification process would have to be centrally defined and verified.

Question 1.6

How could the term "exceptional biodiversity" (in criterion 3) be defined in a way that is scientifically based, transparent and non-discriminatory?

Under the Cartagena Agreement on Biosafety (2003), a number of international programs were initiated by the UN and international NGOs and agencies to develop criteria and indicators regarding biodiversity. Certainly the work already done by these groups should not be ignored. In particular, the work on the relation between agriculture and biodiversity ('agro-biodiversity') carried out in the Ukraine would be of relevance. (see: Biodiversity Indicators for National Use – BINA: <http://www.ulrnc.org.ua/services/binu/index.html>).

Regarding the term 'non-discriminatory', this term must mean that all raw materials, products, methods and processes are judged by the same measures regardless of country of origin.

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

Question 2.1:

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.

The consultation document states:

The legislation could ask the Commission to report regularly on:

- how land use would have developed if biofuel use had remained constant;

This is purely speculative and could only be based on assumptions. This doesn't appear to be particularly relevant to this exercise as it does not contribute to the encouragement of biofuel use in a constructive manner. The question seems designed to monitor the potential harm done by biofuel raw material cultivation as opposed to keeping certain land uses intact (food cultivation, biodiverse habitat). And for these purposes, other sustainability criteria have already been discussed above.

- how land use has in fact developed; and

- the estimated effect on overall land use of increasing biofuel use.

These imply a monitoring system of land use development and the distribution of raw material cultivation for biofuels – which would be a useful exercise in learning more about cultivation competition between raw materials, between food and fuel crops, and in relation to overall sustainability issues.

Ideally, land for biofuel crops should already be under cultivation or be fallow agricultural land. However, any wholesale regional switch from food or long-term crops to biofuel crops for short-term gain should be discouraged.

One method to protect biodiverse areas would be incentives to leave these areas intact, or the settings of standards and legislation that clearly discourage the cultivation of these areas in any way for biofuel, or for other types of cultivation misplaced by increased biofuel raw materials.

When the cultivation of biodiverse areas is government sponsored – as in some of the major supply countries for biofuel raw materials – the EU could mandate the establishment of international benchmarks and monitoring regarding the size and location of biodiverse areas.

GATE recognizes that state-sponsored expansion into biodiverse areas for biofuel raw materials intended for export is supported via the argument of national priorities. Nations have no motivation for pursuing the non-sustainable production of raw materials for biofuels unless the market for these feedstocks contracts. Renewable energies, by definition, must adhere to a higher standard of sustainability vis-à-vis oil exploration and extraction.

Question 2.2

Do you think it is possible to link indirect land use effects to individual consignments of biofuel? If so, please say how.

This would seem to be a difficult exercise at best, and one fraught with potential attempts by producers or cultivators to circumvent regulatory requirements in areas considered fragile or disputed.

If, however, a method had to be designed for this purpose, it would seem that a certificate of raw material origin would be indispensable, and that this certificate of origin would have to follow the production chain all the way until it reached the final fuel distributor or was blended into traditional fuel. This implies a high degree of traceability and a simplified, universal monitoring system accessible to all raw material and biofuel producers. This would include both EU and non-EU suppliers.

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

Because the definitions of second-generation biofuels will range from feedstock type to technology to improved efficiency, the focus should be on the encouragement of innovation and collaboration.

This includes but is not limited to:

- cooperation between academic and industrial actors;
- the inclusion into the stakeholder group of non-governmental organisations (NGOs) and research institutions with insight into the impact of any new raw material or extraction method on the sustainability criteria;
- improved training and education opportunities in this entire sector;
- the protection of innovation from short-term financial gain interests;
- many regions already offer incentives for innovative projects to locate operations in their area in return for easy permitting, labour support and tax breaks – this could be expanded.

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)?

GATE suggests criteria should include:

- type of raw material (food, non-food, rate of renewability vs. cultivation intensity, etc.);
- type of technology (type of raw material, efficiency, outlook of success, cost);
- efficiency of raw material use with relation to GHG emissions and energy balance;
- CO₂ negativity that goes beyond a certain specified level (i.e. beyond CO₂ neutrality).

Furthermore, second-generation biofuels would be held to the same sustainability criteria which are applicable to current biofuels. Any legislation should be formulated in such a manner that any future developments or technologies are not put at a disadvantage.

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.

Again, an integrated stepped approach could be implemented so that new technologies would not lose momentum at the very beginning just because they aren't perfected at inception. Incentives should be based on energy and eco-related efficiency content of new fuels or processes.

Question 3.3

Should second-generation biofuels only be able to benefit from these advantages if they also achieve a defined level of greenhouse gas savings?

Second generation biofuels should not be subjected to a different set of criteria than first-generation biofuels, from minimum energy balance and GHG reduction specifications to sustainability considerations.

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

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?

As stated above, the volume blending mandate suggested here should be seen as a point of departure, the lowest hurdle to pass, rather than the long term goal to be achieved. GATE agrees that a volume blending mandate is desirable, but only as part of a much more far-reaching approach.

Question 4.2:

Should the legislation include measures to encourage the use of ethanol and biodiesel in high blends? If so, what?

Within overall parameters of biofuel use encouragement – if other methods arise which are more efficient, any legislation should be flexible enough to accommodate developments. Lower blending levels can be seen as a transitional goal rather than an end goal.

To this extent, all possible measures should be undertaken to achieve and surpass proposed goals.

- This could include such tools as VAT waivers, special privileges for those who use high levels of biofuels or alternative energies (special commuter lanes, exemption from parking or road fees, reduced vehicle taxes, etc.).
- Public fleets of all kinds could be required to implement renewable and alternative fuel strategies.
- Public awareness campaigns could be introduced on an EU-level, tailored to national needs and tastes but uniform in message and goals.

- The use and availability of biofuels could be further supported by improved infrastructure and advertising. For example, many consumers in EU countries that have mandated blending are presently unaware that much of the diesel fuel currently sold in fuel stations already contains blended biodiesel. The overall presence of biofuel must be made transparent.
- Collaboration and support provided by petroleum companies in infrastructure development, R & D, provision of areas in refineries for biofuel production to facilitate blending, access to all service stations and oil distributors from the producer level, and so forth, could be rewarded with the maintenance of any benefits the petroleum companies receive on a state or national level. The failure to meet milestones in tangible and substantive support for the implementation of biofuels as mandated under EU legislation should lead to a scheduled reduction (or lack of augmentation) in state support. If state support as a tool is not considered applicable, another mechanism should be discussed.

Question 4.3:

Should the legislation include measures to encourage the use of biomethane, methanol and DME in transport? If so, what?

If the use of these forms is to be encouraged, GATE suggests that measures should include the entire production, distribution and consumption chain. This can include vehicle development, public transportation and goods transport. As long as the potential technologies, production chains and resulting fuels meet the EU criteria of sustainability and the fuels can be accepted by end users, discrimination should not be made.

Question 4.5:

Should the legislation ask the Commission to review, by a given date, whether it is possible to be confident that the 10% target can be achieved through:

- a) rules that allow 10% blending by volume of ethanol in ordinary petrol, plus**
- b) rules that allow 10% blending by volume of biodiesel in ordinary diesel, plus**
- c) the four options listed under 'other options for solving the problem';**

If so, what should the date be?

Ideally, a feedback system would be designed into the system from the beginning and monitored on an annual basis via national and EU agencies. The 10% by volume blending scheme should, in theory, be a goal meant to be exceeded, not a maximum to be achieved. However, if a date for review is to be set, it should allow for the amount of time necessary to establish biofuel production and distribution at a reasonable level, i.e. 3-5 years following legislation.

If the review were to conclude that the target is unlikely to be met, what action should the Commission take?

In any case, neither the producers of biofuels nor raw materials should be subject to punitive measures. States, producers or other agencies meeting or exceeding targets could be offered premiums and incentives to further raise their goals.

Question 4.6

More generally, what role should taxation play in the promotion of biofuels (considering different situations such as low blends, high blends and second-generation biofuels)?

GATE's position is that taxation and other related tools have an important role to play in the promotion of biofuels that goes beyond blending levels or second-generation biofuels. Fuel taxation, or tax waivers, can play an important role in encouraging broad use of all biofuels, especially in heavy transport, public transport and fleets, trains and marine transport.

Placing biofuels on equal footing with traditional fuels when it comes to taxation is a counter-productive measure that does little to 'level the playing field' and everything to place undue burden on a new and critical industry. Let us not forget that taxation and tariffs were used for many years to assist the petroleum industry gain a solid footing in the nineteenth and twentieth century.

Tax waivers and deductions could be offered to fleets or large-scale fuel users who implement larger amounts of biofuels. Drivers of passenger vehicles using flex-fuel could be offered further tax incentives or special commuter privileges.

Taxation of biofuels as if they are already commercially established is premature and counter-productive. Any so-called 'levelling of the playing field' of biofuels with traditional petroleum products is also a counter-productive argument for burdening biofuels and alternative energies with fuel taxes.

Furthermore, taxation could be based on wider criteria than blending ratio volume. Rather, the basis could be CO₂ emissions, energy content, etc – criteria that encourage innovation in terms of biofuel efficiency.