

## **Response of the Low Carbon Vehicle Partnership to the European Commission Consultation on Biofuel Issues**

This response to the European Commission's Consultation on proposals for biofuels within renewable energy policy legislation has been prepared by the Low Carbon Vehicle Partnership (LowCVP). LowCVP is an action and advisory group whose members work to accelerate a sustainable shift to low carbon vehicles and fuels in the UK and thereby stimulate opportunities for UK businesses. The Partnership is a multi-stakeholder forum with 250 members including many leading fuel suppliers, biofuel producers, vehicle manufacturers, major fleet operators, environmental and consumer groups, academics and representatives of government departments.

LowCVP has led the development of a carbon and sustainability reporting scheme for the UK Department for Transport (DfT) as part of the Renewable Transport Fuels Obligation. This response draws upon this experience focusing on questions 1, 2 and 3 only. The European Commission is encouraged to draw from the UK experience that represents the most advanced biofuels sustainability assurance scheme of its type. Relevant documents have been made available to the Commission and comprise:

- Draft Technical Guidance including detailed fuel chain and default values for carbon reporting
- Sustainability reporting framework: detailing the principles behind the reporting scheme
- Carbon certification methodology: detailing the methodological principles behind the design of a GHG (greenhouse gas) calculation for biofuels

The aim of the Commission's proposals to encourage the production and use of low carbon intensity biofuels and manage the wider sustainability risks on an EU-wide basis is supported by all LowCVP members. Members also agree on the need to ensure targets for biofuels supply are established at a level for which there is adequate supply of low carbon intensity, sustainable biofuels. Most members believe the increased 10% (by energy) biofuel target agreed at the EU 2007 Spring Council should only proceed if adequate systems have been introduced to ensure fuels are sustainable and of low carbon intensity.

## 1. How should a biofuel sustainability system be designed?

### Question 1.1. Do you think the “possible way forward” described above is feasible?

*The “possible way forward” may be feasible but most LowCVP members believe it could be further improved through the introduction of incentives based on carbon intensity and a reporting process to address wider sustainability criteria.*

In the absence of an internationally operational sustainability scheme(s) for biofuels, LowCVP members fully support the intention to develop a minimum EU-wide sustainability standard. A carbon-based criterion to exclude fuels that do not deliver GHG savings from incentives should be permissible under trade rules. Extending the scheme to cover other significant criteria may be possible under World Trade Organisation (WTO) rules but is susceptible to challenge.

A significant weakness of the current proposals is their emphasis on ‘second generation’ biofuels to deliver carbon benefits at the expense of recognising the potential for GHG savings from all biofuels that deliver high GHG saving, including ‘first generation’ fuels. Research by the LowCVP [1], and others, has illustrated that on a life-cycle basis the net greenhouse gas emissions of biofuels vary widely depending on the feedstock and the way it is cultivated and processed. For example, the field-to-wheel GHG savings for wheat to ethanol vary from 7% to 77% compared to petrol. The “possible way forward” would require member states to reward all bioethanol from wheat at a common level rather than on the basis of their GHG savings.

LowCVP, and other studies, demonstrate that production of a lower carbon intensity biofuel from the same feedstock (in this case wheat) is likely to be more expensive. For example, operating costs for a fossil fuel-fired biofuel plant that achieved a GHG saving of 10-20% were half that of the most efficient straw fired system which achieved nearly 80% GHG saving. The highest GHG savings are also likely to require higher capital cost plants. Using by-products as an energy source within the plant can contribute significantly to improving the GHG balance – but without incentives there are more commercially viable uses for the product. The study found that the cost-effectiveness of the biofuel, in terms of £ per tonne of carbon equivalent avoided, is five times higher for a low carbon intensity bioethanol compared to a low carbon intensity equivalent.

The UK is proposing to reward biofuels on the basis of their lifecycle carbon intensity (including any direct land-use change) in a second phase of the RTFO. This approach would encourage all biofuel suppliers to improve the GHG savings of all supplied fuels.

In order to encourage production of biofuels with lower carbon intensity and lower costs per tonne of carbon saved the LowCVP recommends that:

- a reward scheme based on carbon saving should operate above the minimum cut-off with a linear relationship between reward and carbon saving. This would effectively give a cut-off a 0% carbon

saving as there would be no incentive to add biofuels with a negative GHG-saving.

The extent to which a 'sustainable' biofuel (including a minimum 'acceptable' GHG saving and wider criteria) can be determined for the purposes of trade differentiation is uncertain. A UK feasibility study [2] concluded that differentiating and rewarding biofuels on the basis of their carbon intensity is probably acceptable under trade rules. However, the acceptability of not rewarding fuels that fail to meet other sustainability criteria is significantly more uncertain. The criteria would need to be internationally agreed and the benefits specifically linked to the policy objectives for biofuels. It is conceivable a very limited number of criteria could be developed based upon international agreements. However, this would require more investigation and is liable to WTO challenge, unless the criteria development has been conducted through an inclusive process and has involved potentially affected countries. Since the EU has not embarked upon this the risks of successful challenge are raised.

The "possible way forward" identifies two of the significant criteria, carbon stocks and biodiversity, but does not address other risks such as water use and labour conditions. Reduced incentives for feedstock failing to meet social criteria would almost certainly lead to successful WTO challenge if failure to meet these criteria leads to reduced incentives for these fuels. However, an appropriately designed reporting requirement and Kitemark scheme (a voluntary scheme whereby companies agree to source only sustainable fuels) can include social criteria to encourage good practice by industry. This is the approach to be followed in the UK.

The UK and the Netherlands have developed wider environmental and sustainability criteria (as described in the appended documents) which companies report against. These currently focus on the farm/plantation where the key risks (such as deforestation and loss of biodiversity) arise. It is intended that a future evolution of the scheme encompasses the wider supply chain including processing and possibly transportation of feedstock.

This sustainability reporting makes use of existing voluntary agri-environment and social accountability schemes to minimise the cost and administrative burden of compliance. A comprehensive range of existing standards have been benchmarked against a Meta-Standard to determine which standards achieve a Qualifying Standard, and are deemed to supply "sustainable" feedstock. Supporting these commodity standards in their development and evolution is critical to the success of any sustainable biofuel standard and LowCVP urges the EU to support these schemes – including the emerging Better Sugarcane Initiative and Roundtable on Responsible Soy.

In recognition of the limitations of trade rules in addressing other significant sustainability criteria within an incentive scheme, the LowCVP recommends that the EU introduce a parallel reporting requirement for the wider sustainability criteria that are not part of the minimum standard. The practical

details for operation and compliance are described in the documents appended.

Most LowCVP members support the proposal to use a recent reference date in order to assess changes in carbon stocks associated with land use change. The UK scheme proposes the reference year as 2005 in line with the existing RSPO scheme. A relatively recent year is intended to promote the production of crops on idle or degraded land, which is acknowledged by most LowCVP members as a significant move towards addressing displacement effects. LowCVP therefore recommends a base year for land use change as 2005.

In determining the carbon intensity of a fuel, LowCVP members support the use of appropriate default values but believe that the use of actual data to calculate a more accurate carbon intensity should be encouraged as in the UK. The UK guidance identifies the data points most influential in the carbon intensity of the fuel. This flexible system has the potential to deliver against the objectives of practicality, cost-effectiveness and the necessity to improve performance over time.

Development of an EU-wide (and internationally acceptable) WTW calculation method of GHG-saving is important. ISO standards for life-cycle analysis exist and the UK and Netherlands have already reached consensus on many of the key elements of the calculation method. Encouraging individual Member States to develop their own individual GHG calculation methodologies and auditing procedures is inefficient and undesirable.

**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)**

*The administrative burden of the “possible way forward” must be balanced against the aims and credibility of the scheme.*

In isolation, bilateral or multilateral agreements between the European Community and a third country as evidence of adherence to criteria is not an acceptable method of assurance. A strong degree of international consensus exists that using international voluntary agri-environment and social assurance schemes represents a robust yet practical approach to verifying claims. A feasibility study to explore the potential for carbon certification within the UK RTFO [2] concluded that the costs of data collection and verification for carbon certification would be unlikely to have a significant impact on the economics of biofuel production in the UK or abroad.

A recent UK Government consultation estimated the annual compliance costs under the proposed UK reporting requirements but responses to these estimated costs have not yet been published following the close of the consultation. The cost is likely to vary widely but costs per litre of biofuel supplied are likely to be small.

The administrative costs are likely to be small compared to the cost of sourcing assured biofuels (such as RSPO).

**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?**

Using appropriate, defined defaults for GHG savings (with the option to provide more detailed information) and allowing voluntary agri-environment and social assurance schemes as evidence of compliance with sustainability criteria would represent minimal administrative burdens and provide a minimum level of assurance.

Robust assurance schemes are key to the credibility of sustainability claims. Whilst the existence of bilateral or multilateral agreements to prove adherence to criteria is not an acceptable method of assurance, bilateral agreements are welcome, but effective and enforceable mechanisms are necessary to provide confidence in claims. Some members believe it appropriate to allow Member States to determine how to verify the fulfilment of the criteria; however, the majority believe that different approaches in member states will reduce the credibility of the scheme and not provide sufficient public confidence.

The UK scheme uses existing assurance schemes and this would minimise the occurrences of Member States duplicating verification efforts. A meta-standard approach, detailed within the UK Framework Report, ensures a common approach for biofuels, within the EU and internationally, which is consistent with the ‘national treatment principle’ within Article III of GATT. The existing framework for voluntary standards also provides the potential for criteria to be extended to cover verification of land use change (as addressed by emerging standards such as the Roundtable on Sustainable Palm Oil).

The Commission is encouraged to engage organisations such as the Global Bioenergy Partnership, FAO and UNEP to begin the process of developing international agreement on acceptable criteria protecting biodiversity and managing land-use change. Key issues will include:

- the definition of idle (or degraded) land
- the definition of exceptional biodiversity and
- the greenhouse gas calculation methodology

The Commission should also engage the joint OECD/ECMT transport research centre to develop agreed best practice for a biofuels GHG calculation methodology. The UK is willing to share its methodology already being field tested.

**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 had it not been used to produce raw material for biofuels?**

The UK will include direct land-use change within the boundaries of a GHG calculation methodology but recognises that this does not manage indirect land-use changes.

The emphasis for a credible methodology must be on information that is verifiable. Whilst it is possible to verify previous land use, verifying alternative land use is subjective. Indirect land-use change (e.g. crops grown on land now used for biofuels are displaced to another area) is also subjective and outside the direct control of a company. This should be managed at the international level, perhaps through bilateral agreements (see question 2.1) but with verification activities.

**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?**

A ‘buffer zone’ is appropriate for areas of exceptional biodiversity (high conservation value areas). The appended Framework Report details the relevant biodiversity criteria and determines the extent to which this is met and therefore verifiable by existing standards.

**Question 1.6. How could the term “exceptional biodiversity” be defined in a way that is scientifically based, transparent and non-discriminatory?**

In order to avoid possible WTO challenge, the definition of “exceptional biodiversity” will need to be internationally agreed. The Convention on Biological Diversity (CBD) (1992) is dedicated to promoting sustainable development and the CBD places strong emphasis on the sovereign right of Parties to exploit their own resources. Within this appropriate framework there is no internationally agreed definition of “exceptional biodiversity” that may be used as a criterion for sustainable biofuel production. The European Commission will need to initiate these international discussions within the technical body for the CBD<sup>1</sup> to reduce the risk of successful WTO challenge.

Criteria relating to biological diversity are significant but additional criteria for diversity such as fresh air, water and a cultural heritage are also recognised. The UK sustainability criteria identifies definitions drawn up by the High Conservation Value Network and acknowledges further work in this area to identify specific land areas from other groups including Conservation International (Biodiversity Hotspots), Birdlife International (Important Bird

---

<sup>1</sup> Subsidiary Body on Scientific, Technical, and Technological Advice (SBSTTA)

Areas), WWF G200 Ecoregions (regions classified 'vulnerable' or 'critical/endangered') and European High Nature Value Farmland. UK work therefore provides a good basis to begin discussions.

## **Question 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.**

*LowCVP members acknowledge that indirect land-use change should not be part of the GHG calculation but should be addressed through national and international activities.*

The UK approach only considers direct land-use change within the biofuel carbon intensity calculation. This approach does not manage indirect land-use changes or concerns regarding competition between crops for energy, food and other applications. These issues are not within the direct influence of companies and will therefore not be successfully managed within a company sustainability assurance scheme as proposed in the UK. The European Commission, with Member States, should initiate research internationally in partnership with those countries in the areas of key concern (e.g. Brazil, Indonesia, Malaysia). Specifically, the Commission should identify and develop monitoring and management practices to avoid the adverse effects of indirect land-use changes. Key to this will be developing effective mechanisms to encourage biofuel production on idle (degraded) land and supporting effective governance and management of areas of high conservation value.

The Commission should undertake research in order to identify key risk areas with monitoring and management strategies.

**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.**

The LowCVP does not believe it is practical to link indirect land-use effects to individual consignments of biofuel. These effects are generally outside of the control of individual companies and whilst robust sustainability assurance schemes are essential to retain public and political confidence in biofuels, they are not a panacea to mitigate all risks and are therefore not an effective substitute for good governance and regulation of natural resources. The methods of allocating indirect land-use change to individual biofuels are highly subjective and would make the approach very susceptible to challenge through WTO.

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

**Question 3.1 and 3.2. Please give your comments on the “possible way forward”. If you think the problem should be tackled in a different way, please say how. Should second-generation biofuels only be able to benefit from these advantages if they also achieve a defined level of GHG saving?**

‘Advanced’ or second-generation processes can deliver significant GHG savings and other benefits compared to some first-generation biofuels, but some are broadly comparable in carbon intensity to Brazilian sugar-cane ethanol. If cultivated in a sustainable manner these fuels should not, and under WTO rules, cannot be discriminated against simply because they are defined as a first-generation product.

LowCVP members believe the long-term policy framework should be technology neutral, based upon the environmental performance of the fuel and not based on a feedstock type or conversion process. The proposed UK approach to reward biofuels on the basis of their carbon intensity would provide appropriate reward and encouragement of second-generation production.

## **References**

1. <http://www.lowcvp.org.uk/assets/viewpoints/Biofuels%20WTW%20final%20report.pdf>
2. <http://www.lowcvp.org.uk/assets/reports/RTFO%20-%20feasibility%20of%20certification.pdf>