

## Biofuels



# Delivering carbon reductions through transport biofuels

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By 2010, drivers are expected to fill their vehicles with a five per cent blend of biofuels – liquid energy from renewable, plant-based sources. If recent European Commission proposals are accepted, this will rise to about 14 per cent by 2020. Some drivers may even choose to take up the option of driving specially adapted vehicles such as flex-fuel cars that can operate on up to 85 per cent ethanol.

Increased biofuel use in the UK is being driven by the Renewable Transport Fuel Obligation (RTFO). This is due to be introduced in April 2008. This requires fuel suppliers to source five per cent of all road transport fuels from renewable sources by 2010. It requires oil companies to supply biofuels (or purchase Renewable Transport Fuel Certificates) rather than pay an alternative 'buy-out' penalty charge.

Studies have shown that most biofuels produce considerably less greenhouse gases (GHGs) than fossil fuels, when measured on a life-cycle basis and can also improve supply security. The UK Government hopes that the RTFO will save around 1M tonnes of CO<sub>2</sub> in 2010 – the equivalent of taking a million cars off the road. There is also considerable anxiety about the wider social and environmental effects of growing energy crops – particularly increased tropical deforestation to make way for new palm and soya plantations or other crops displaced by enlarged sugar cane production. There is also concern that increased land use for biofuels, is leading to pressure on food production and higher commodity prices that may benefit poor rural farmers but will increase living costs for the urban poor.

### LowCVP and RTFO

To manage the potential risks of increased biofuel use, the UK Government has accepted the advice of the

LowCVP to address sustainability concerns within the RTFO. Suppliers will therefore be required to publicly report on the life cycle GHG savings and broader sustainability features of the fuel they supply. It is hoped that corporate social responsibility pressures will encourage companies to source more sustainable (and low carbon) biofuels. The Government has proposed targets to benchmark company performance and indicate the level of performance expected in the first three years of the RTFO.

The proposed carbon and sustainability reporting requirement is the first in the world. The LowCVP is managing the development of the calculation methodology and working to align this with proposals in the Netherlands and under development in Germany and France to work towards a harmonised EU scheme.

### The Road to Certification

To receive Renewable Transport Fuel Certificates, companies must calculate and report on the GHG savings of the fuel on a life-cycle or well-to-wheel basis. These vary widely depending upon the fuel feedstock and how it is cultivated and processed. Sugar-cane ethanol is the cheapest and least carbon intensive of widely available biofuels. Corn-ethanol, particularly that produced in the US using coal, can lead to increased life-cycle emissions. Displacing forests and grasslands from land to grow biocrops can also negate any greenhouse-gas benefits from the biofuel and are included in the calculation.

Companies must also report on whether feedstock has been grown according to any acceptable social or environmental standards, such as those developed by the Round Table on Sustainable Palm Oil (RSPO) or other agri-environmental schemes such as the Assured

Combinable Crops Scheme operated in the UK.

The Government is presently considering when to move from the proposed reporting requirement to the inclusion of incentives for biofuels with higher greenhouse-gas savings. At this point, the least sustainable fuels may not be issued Renewable Transport Fuel Certificates. The European Commission has also announced proposals that would require companies to achieve a gradual reduction in the carbon intensity of the transport fuels they supply after 2010. Rewarding biofuels on the basis of their GHG savings would help achieve the Government's climate target. It would also provide a benefit for so-called 'second-generation' biofuels that use a greater range of feedstock with higher GHG savings and the potential for increased land productivity.

The proposed reporting requirements address many, but not all of the concerns associated with increased biofuel production. In particular, other measures and monitoring will be needed to ensure that growing biofuels does not lead indirectly to destruction of areas of high biodiversity value. Also that production of crops for fuel does not lead to unacceptable increases in food commodity prices. While there are genuine concerns about the wider environmental implications and range of GHG savings of biofuels, it is clear that – with appropriately designed controls – it is possible to ensure that biofuels deliver meaningful carbon reductions without encouraging wider degradation. Sustainability assurance schemes though, are not a panacea for all environmental degradation and social inequity that poor biofuels production practices can cause. Encouraging producers to join schemes like RSPO can reduce the occurrence of bad practice but they do not provide an effective substitute for good governance and regulation of natural resources in supplying countries ●

***The LowCVP was established in 2003 to help accelerate the shift to low-carbon vehicles and fuels. It now has nearly 250 members from motor and energy companies, government, academics, and environmental NGOs and others. The LowCVP has played a leading role in framing the carbon and sustainability reporting requirements and will continue to play a central role as the UK moves towards the launch of the RTFO in 2008.***