



Renewable Transport Fuels Obligation (RTFO)

- Biofuels can play a part in reducing CO₂ emissions from road transport but the amount saved, measured on a 'well to wheel basis', will vary substantially dependent upon the source material and the process used to produce the biofuel.
- The oil industry is adding biofuels to petrol and diesel to meet the Renewable Transport Fuel Obligation (RTFO) which commenced on 15th April 2008; the RTFO's targets are 2.5% by volume of biofuels in 2008/9, 3.25% in 2009/10, 3.5% in 2010/11, 4% in 2011/12, 4.5% in 2012/13 and 5% in 2013/14.
- Further increases in the level of biofuels to 10% by energy have been agreed, subject to review in 2014, under the Renewable Energy Directive.
- Concerns have been expressed about the sustainability of some source material used in biofuels; the Renewable Energy Directive will include criteria for carbon savings and sustainability of source material.
- A cautious approach to further increases is considered advisable until current studies into ensuring the sustainability of biofuels, including indirect effects, are completed.

Renewable Transport Fuel Obligation (RTFO) Questions & Answers

Q Why was the RTFO introduced?

The UK Government first announced its intention to introduce the RTFO in November 2005. This was in response to the EU Biofuels Directive in 2003, setting member states an indicative target of 5.75% by energy content in road fuels by 2010. Since then the Government has conducted a number of consultations on the RTFO, and set in train the legislative process in July 2006.

In October 2007, Parliament approved the RTFO legislation, requiring suppliers of road fuels to incorporate a proportion of biofuel in petrol or diesel, or pay a penalty.

Q Who administers the RTFO?

The Renewable Fuels Agency was established on 26th October 2007, under the RTFO Order 2007. It is responsible for monitoring the implementation of the RTFO by 'obligated companies'. Obligated companies are required to submit monthly reports of the volumes of fuels sold and the biofuel content.

Q What are the initial targets for biofuel content under the RTFO?

The RTFO commenced on 15th April 2008 with an original target of 2.5% by volume biofuel content in road fuels in 2008/9, followed by 3.75% in 2009/10 and 5% in 2010 onwards. Revised Renewable Transport Fuel Obligation limits were approved by Parliament in April 2009. The new levels are 2.5% by volume of biofuels in 2008/9, 3.25% in 2009/10, 3.5% in 2010/11, 4% in 2011/12, 4.5% in 2012/13 and 5% in 2013/14.

In year one the target has been mainly met by blending 5% biodiesel into conventional sulphur free diesel (often referred to as B5 blend). Ethanol will also be blended into unleaded petrol grades (E5 blend) as distribution terminals are modified. There will be a continued support package of a 20p per litre duty incentive on the biofuel element (until 2009/10), supplemented by a 15p per litre penalty for suppliers failing to meet the obligation. In 2010/11 the duty incentive will end and the penalty will increase to 30p per litre.

Q What are the benefits from the RTFO?

The use of biofuels will reduce the “well to wheels” emissions of carbon dioxide associated with road transport. The exact reduction will depend on the biofuels used and their source.

The EU Biofuels Directive also cited potential benefits accruing to farmers in the EU and reduced dependence upon imported oil. However, at the higher biofuel blend volumes of 10%, significant amounts of imported biofuel would be required, so the benefits for farmers and security of energy supply could be limited.

Q Are bio fuels likely to give rise to problems with vehicles?

Under current European Motor Fuel Standards the maximum limit for blending of bioethanol and biodiesel with conventional petrol and diesel is 5% by volume. Vehicles require no modification to use this level of blend. B5 blends are available in some EU countries already.

(For further information see our Briefing Paper ‘Biofuels in the UK’)

The oil industry is working with other organisations within the European Standards Organisation, CEN, to examine if the current limits on biofuel composition of road fuels can safely be increased. For biodiesel a revised limit of 7% FAME will be adopted this summer. For ethanol a revised limit of 10% will be adopted in 2010/11.

Q Concerns had been expressed about the sustainability of biofuels?

The review carried out by the Government’s Renewable Fuels Agency (RFA) which administers the RTFO and led by the RFA Chairman Prof. Ed Gallagher, into the indirect effects of the production of biofuels (food vs fuel and indirect land use changes), advised a slowing in the pace of biofuel use originally envisaged under the Renewable Transport

Fuels Obligation. The review also looked at the impact upon food prices and supply.

The oil industry fully supports a robust system for determining sustainability and carbon saving of biofuels.

Eventually under the RTFO, the value of credits for obligated companies will be based on these criteria. The oil industry has been making a substantial contribution to the work of the Low Carbon Vehicle Partnership in developing these reporting criteria, which will be applied from 2010/11 onwards

Q Are there alternatives to biofuels

UKPIA in its 2004 publication ‘*Future Road Fuels*’ outlined a number of possible new fuel and vehicle technology routes to lower carbon road transport, including biofuels, compressed natural gas (CNG), LPG, ‘biomass to liquids’(BTL) fuels and hydrogen.

The ‘*Future Road Fuels*’ report highlighted the fact that the CO₂ savings of biofuels calculated on a ‘well to wheels basis’ varied considerably, depending upon the source material and the processes involved. The report also highlighted the potential impact of biofuels upon land use and sustainability.

There has been focus on biofuels because they are readily available, albeit they are more expensive than conventional petrol and diesel, and the processes and technology are well known.

Biofuel options include current biofuels from food crops, and advanced bio fuels that use fuel blending components derived from non-food crops (straw, wood, waste, etc). Aside from not diverting land from food production, advanced biofuels have a number of potential benefits in comparison with conventional biofuels, including the potential for superior carbon dioxide (CO₂) reduction and less energy intensive energy inputs during the growing and production cycle. However, currently there is a cost penalty.

A number of studies, including those from the Royal Commission on Environmental Pollution, DEFRA’s Biomass Task Force and the December 2007 report by the EU Commission’s Joint Research Centre, have also highlighted the greater potential CO₂ and cost benefit of using biomass to generate heat and power, rather than conversion into liquid fuels for use in road vehicles.