Question and Answers

Background

Q. April 15th 2008 is the date that the Renewable Transport Fuel Obligation comes into force in the UK. What happens then?
From 15th April 2008, all fuel companies will be obliged to replace a certain percentage of their annual fossil fuel sales with biofuels. This is set at 2.5% for 2008, rising to 5% in 2010. In practice this should mean that from April 2008 all fuel should contain biofuels. The UK fuel market is currently around 40 million tonnes – 2.5% equates to one million tonnes, and 5% equates to two million tonnes.

Q. How will this affect motorists?
It won't. Cars require no modifications to run on fossil fuel with up to 5% biofuel inclusion, and fuel retailers will still set the price at which they sell the fuel. By using their normal filling stations and pumps motorists will be making a contribution to reducing climate change.

Q. Why is the government introducing the RTFO?
The government is introducing the RTFO to help reduce UK carbon emissions and meet its targets on climate change. An estimated 25% of the UK's carbon emissions come from road transport and these continue to rise. The RTFO will also go some way to reduce our dependence on imported oil.

Q. What exactly are biofuels?
Biofuels are liquid fuels made from plant materials and wastes and residues that can be used in transport instead of conventional fossil fuels. Because plants are renewable and absorb carbon dioxide as they grow biofuels make a contribution to cutting carbon emissions. Biodiesel is usually blended with diesel, and bioethanol with petrol, to be sold at the pump.

Food and fuel

Q. If we use crops for biofuels, won't it mean that we don't have enough food for everyone?
No. If more crops are required to satisfy demand for both food and biofuels, the market will respond accordingly. The Food and Agriculture Organisation of the UN estimates that no more than 1% of the available land for agriculture in the whole world was used for biofuels in 2004. They also estimate that this will only rise to 2% by 2030. Not all suitable agricultural land is in use at present and farmers will respond to increased demand by

increasing crop yields and planting on more land. In addition, the main co-products in the production of biofuels provide high-protein animal feed for the livestock sector.

Q. Isn't the use of crops for biofuels forcing up the price of food?
Any additional demand for any crop could put up prices. Recent rises in raw material (cereals and oilseeds) prices have been the result of poor weather (like prolonged drought in Australia and flooding in the UK last summer), poor harvests and changing diets in emerging economies like China and India. Also remember that the price of raw material represents only a tiny proportion of the total cost of most food products. For example, the cost of cereals makes up only 1 – 5% of the total cost of bread.

Q. How much land will be needed to grow crops for fuel?
To fulfil the 5% inclusion rate, the NFU estimates that 375,000 hectares will be needed for wheat for ethanol, and 840,000 hectares for oilseed rape for biodiesel, based on a 50/0 split of bioethanol to biodiesel and average yields.

Q. How much palm oil is used for biofuel production in the EU currently?
Under 1% of palm oil imported into the EU is used in biofuel production.

Q. How much wheat is used for bioethanol production in the EU currently?
Under 2% of wheat produced in the EU is currently used in biofuel production. No wheat is currently used to produce bioethanol in the UK.

Q. In the UK can crops for fuels be grown on land that was previously part of 'set-aside'?
Yes. Set-aside was introduced in the early nineties as a way of taking land out of production and to prevent the accumulation of food mountains in the EU. At that time these surpluses were being 'dumped' on world markets, thus depressing market prices and contributing to poverty in developing countries. However, these surpluses no longer exist and coupled with increasing demand and rising prices the European Commission has reduced set aside to zero for the current year. This land will be available for any agricultural production including biofuels.

Q. If 'set-aside' land is used to grow crops for fuels won't it affect wildlife?
Set-aside was not introduced for environmental reasons. It was a way of taking land out of production to prevent surpluses of cereals in the EU. Since set-aside was introduced the EU have implemented a number of environmental schemes specifically aimed at promoting and protecting wildlife. Over 7.5 million hectares of land in the UK is now covered by these schemes.

Carbon and Sustainability

Q. How do biofuels help combat climate change?
Climate change is caused by emissions of greenhouse gases, including carbon dioxide. Biofuels help to combat climate change because the crops they are produced from

absorb carbon dioxide as they grow. Carbon dioxide is released as they are burned, but absorbed by new crops again, making a complete cycle.

Q. Do biofuels really deliver savings on greenhouse gas emissions?
If crops are grown and processed in an environmentally sensible way biofuels will deliver savings on greenhouse gas emissions. Research by the Central Science Laboratory has demonstrated that bioethanol made from wheat and biodiesel made from oilseed rape have the potential to reduce greenhouse gas emissions by 65% and 53% respectively compared to conventional fossil fuels. These savings can be increased if co-products are used as a source of fuel to replace fossil fuel in the processing.

Q. Can I be sure that the biofuels used in the UK will deliver GHG savings?
Fuel companies will be required to submit reports to the Government on the biofuels they supply. This includes information on levels of greenhouse gas savings, as well as their environmental and social impacts, and this information will be published. The UK biofuels industry is committed to the production of biofuels that will deliver genuine greenhouse gas savings.

Q. Don't biofuels cause deforestation in some countries?
Agricultural production for food, cosmetics and biofuels has the potential to cause deforestation. Deforestation has been going on for many years largely for the production of timber and foods crops. There is a fear that a new biofuels industry will make matters worse. However, this is avoidable and the UK biofuels industry has recognised this, and that is why the RTFO is underpinned by sustainability criteria. These cover deforestation, air, water and soil quality as well as social effects like the treatment of workers and respect for the rights of local people. We hope that in this way UK biofuels will provide a major driver for sustainable development in all agricultural production in the future.

Q. How can we be sure that the biofuels we are putting in our cars are sustainable?
Under the RTFO, fuel companies will be required to submit reports to the Government and Parliament on the biofuels they supply. This includes information on levels of greenhouse gas savings, as well as their environmental and social impacts, and this information will be published. These reports are required for the companies to receive Renewable Transport Fuel Certificates which demonstrate that they have met their obligation. From April 2010 the Government intends to link the award of certificates to the level of greenhouse gas savings that are achieved. In addition the EU has proposed a number of mandatory environmental standards which are under discussion.

Q. If biofuels are so great why has the government only set a figure of 5% of biofuels by 2010? Are there any plans to increase this target in the future?
The target has been set for 5% by 2010 because this is achievable, It is important to start a market and introduce targets gradually so that there are no shocks to supply and demand. It allows time to build the production capacity in the UK and to develop the infrastructure to supply the fuel to market. The government intends to increase this target beyond 2010 provided three conditions are met:

- Robust sustainability and carbon standards for biofuels are developed to ensure that they are delivering high levels of carbon savings without leading to biodiversity loss or endangering sensitive habitats
- New fuel quality standards at EU level are developed to ensure existing and new vehicles can run on biofuel blends higher than 5%
- The cost to consumers is acceptable.

In addition the UK signed up to the agreement made by the EU Heads of State in March 2007 to introduce a 10% mandatory target by 2020 subject to similar caveats.

Second Generation

Q. I've heard that there will be new biofuels made from agricultural waste materials and from non-food crops, and that these will be available soon. Why don't we just wait for those?

Advanced biofuels made from agricultural waste and from non food crops generally known as 2nd generation biofuels may offer a long-term solution to the world's needs for renewable fuels; however, they cannot yet be produced sustainably on a large-scale commercial basis. Huge investment and research is required before this can be achieved. Current generation biofuels will establish a crucial infrastructure and industry. Without a working market for current biofuels it will be all but impossible for these advanced technologies to become commercially viable.

Production of biofuels

Q. What other plans are there for producing biofuels in this country? Will the UK have to import biofuels to satisfy the RTFO requirements?

The UK has enough land to meet the RTFO inclusion rate of 5% by 2010 and there are a number of companies with planning permission to build biofuel plants. In practice, some of the targets will probably be met by imports, at least in the short term.

Biofuels and my car

Q. Do motorists need a special car to run on biofuels?

No. Cars run perfectly normally on fuel containing up to 5% biofuels, the target set by the RTFO. Engine and fuel specifications as well as car warranties also permit 5% blending.

Q. Will biofuels affect the performance of cars?

At the levels of biofuel inclusion set by the RTFO, motorists will not notice any difference in the performance of their cars.

Q. What about my car warranty – is it affected by the use of biofuels?

No. The warranty is not affected as long as the inclusion of biofuel is no more than 5%.

Q. Won't biofuels be more expensive?

The fuel retailers will still determine the price at which they sell fuel.

Q. Will biofuels be on sale at all garages?
In practice this should mean that from April 2008 all fuel should contain biofuels

Q. Can I use biofuels in my car at higher concentrations than 5%?
Many vehicles can run on higher blends of both biodiesel and bioethanol. For example, Flex Fuel Vehicles can run on a mix of 85% bioethanol and 15% petrol. A number of diesel fleets are converting to use higher blends of biodiesel, for example at 20%, 30% or 50%. It is vital to check your car's manual though, as most cars are only warrantied to work at the lower levels specified in the RTFO.