

RTFO Team  
Department for Transport  
Zone 2/17 Great Minster House  
76 Marsham Street  
London  
SW1P 4DR

16<sup>th</sup> May 2007

Dear Sir or Madam,

**Response to the Consultation on the Renewable Transport Fuel Obligation – May 2007.**

This is the response to the RTFO consultation by the National Forum on Biomethane as a Road Transport Fuel. The Forum members offer their thanks for the opportunity to comment on this important consultation.

**Summary of Key Points**

- The Forum is supportive of the RTFO as a means of increasing the use of biofuels in the UK transport fuels market.
- We do not believe that in the current proposal the obligation falls in the right place. Rather we would support the original ideas, as expressed in the feasibility study, of the obligation lying with those who pay the excise duty on fossil fuel sales. This would move the obligation further up the supply chain nearer to the end consumer, improving awareness and accountability in the system.
- The RTFO should move as soon as possible to a system based upon greenhouse gas savings with minimum sustainability standards for fuels to gain credits. The timetable for the move to this system should be established as soon as possible to allow the fuels industry time to adapt and plan.
- There are other hurdles to the development of the transport biofuels market that the RTFO alone will not fully clear. The two we would like to raise are reform of the Bus Service Operators Grant, which deters the use of alternative fuels, and the recognition of renewable or a 'green' gas when transported through the grid system not just at point of production. The latter has been established elsewhere in Europe with a huge boost to biomethane vehicles as a result.

**About the National Forum on Biomethane as a Road Transport Fuel**

The National Forum on Biomethane as a Road Transport Fuel aims to promote the production and use of biomethane in the UK road transport fleet. The Forum brings together a wide range of stakeholders with interests in the area.

Biomethane is a unique renewable fuel. When produced from organic waste it has the lowest greenhouse gas emissions of any biofuel, in fact using it as a fuel actually saves greenhouse gas emissions, rather than reducing them, as decomposing

organic waste would otherwise emit methane into the atmosphere. In transport applications biomethane also burns more cleanly than liquid biofuels, helping to improve air quality.

### **Answers to Selected Consultation Questions**

In the interests of improving the supply and uptake of biomethane, the Forum welcomes the RTFO initiative and has the following comments on the specific questions raised in consultation.

#### **Question 1. Is the definition of obligated supplier correct?**

No, we believe that the obligation should fall, as set out in the feasibility study, on all those who pay fuel duty, not just those owning the fuel at the time of passing through the duty point.

Placing the obligation as proposed, with main refiners and importers, poses two main problems. Firstly the oil industry has stated that pipeline compatibility problems mean that they cannot include biofuels (particularly bioethanol) at this point in the system. Secondly this set up undermines public accountability, and places the refiners and importers at the mercy of suppliers and forecourt operators, i.e. the fuels can be produced but there is little incentive under the RTFO for them to be stocked and marketed. The success of the RTFO is therefore particularly sensitive to any negative public sentiment around biofuels.

#### **Question 3: Is it appropriate to calculate the obligation as a percentage of the obligated suppliers' fossil fuel sales, making it a more stretching target?**

Yes. Placing the obligation slightly higher than the level that can be blended with conventional forecourt petrol and diesel will help to develop the market for high blend biofuels (e.g. E85, biomethane), as these fuels will have to be provided for obligated suppliers to meet their targets. A stretching target will also support the value of RTF certificates, which will in turn stimulate the market for biofuels.

#### **Question 5: is it appropriate to exclude sales of road fuel gases from the calculation of suppliers' obligations?**

No. Exclusion of road fuel gases sends a negative signal about the importance of these fuels. Road fuel gases should be included, but with a minimum threshold for the obligation to take hold. This will encourage road fuel gas suppliers to explore and potentially invest in renewable gas supplies, namely biomethane. In countries like Sweden the fossil and biomethane industries have developed hand-in-hand both supporting each other, to a point where now over half the methane supplied to vehicles is biomethane.

#### **Question 6. Should the RTFO have an end-date defined in the RTFO Order, and if so what should it be?**

No. The RTFO should either be open dated, or given a minimum duration. The duration of the obligation needs to be as long as possible to give certainty in the market and allow investment. The suggested minimum end date of 2020 is welcomed as minimum length of obligation. It is important, however, that interim reviews are built into the system. Every 5 years may be a suitable period.

**Question 7: Does this provide a proper framework for identifying renewable fuels?**

No, parts of the framework still need development. In particular, the following issues around biomethane need to be resolved:

- 'Natural road fuel gas' is defined as 'road fuel gas that has a methane content of not less than 84%'. This definition may be suitable, but the industry needs to work to a biomethane standard, like that in Sweden, so that vehicle manufactures have confidence in a quality fuel. Ideally this standard should be set by the Government and ultimately by the EC, and only fuels meeting this standard being eligible for the RTF certificates.
- The equivalence factor for biomethane (1 kg of gas = 1 litre of fuel) is convenient, but not grounded in energy content, greenhouse emissions or any other factors. We suggest the equivalence should be based on energy content, although as a simple figure is required this should be **1kg gas = 1.5 litres of fuel** (based on the actual figures of 1 kg gas (at standard temp and pressure = 1.33 litres of diesel (biodiesel is similar), 1.47 litres of petrol or 1.9 litres of bioethanol).
- Biomethane needs to maintain its renewable status when injected into the grid so that it can be produced at one point and used at another. This use of the grid in this way greatly facilitates the transport of biomethane and its flexibility for use as a vehicle fuel. This point is discussed further under question 24.
- The status of biomethane produced from landfill gas needs to be defined (renewable or non-renewable).
- Biomethane could be a significant source for the production of biohydrogen. Hydrogen promises to be a major transport fuel in the future, and many areas in the UK are developing hydrogen projects. Inclusion of hydrogen in the RTFO scheme is therefore strongly advisable.

**Question 8: In advance of internationally agreed standards, can more be done to ensure that biofuels are sustainably sourced, e.g. voluntary standards.**

In the experience of our members, the timespans needed to set up voluntary standards are similar to mandatory standards. We therefore think that the emphasis should be on urgently developing mandatory sustainability standards for biofuels. In the mean time we feel that the key is to maximise transparency and availability of the carbon and sustainability report in biofuels production and supply, to enable end users to check for themselves where feedstocks are sourced from and the production processes used. In this way the market can set its own standards, as they have done for example with demanding organic food.

**Question 10: are the proposed arrangements for the recycling of the buy-out fund appropriate?**

Yes, in general terms. These arrangements mirror those used in other markets, and provide incentive for biofuel supply. However, it should be recognised that this approach will make obliged suppliers just fall short of their obligation. This is because as suppliers get close to meeting their obligation the return from the buyout fund will get very close to or even exceed the penalty they pay, so reducing the financial incentive to meet or exceed their obligation. This may reduce any incentive for suppliers to promote some high blend fuels, as they may prefer to just stay under the 5% and pay the reduced penalty from just missing their obligation. This tends to negate the incentive for high blend fuels, which was intended by setting the obligation in its current form at just over 5% of fossil fuel sales. These situations should be

modelled to ensure that there is sufficient incentive for obligated parties to meet the target in full.

Below is an example of where obligated supplier may get more from the recycled buy out fund that they pay in penalties even though this miss their obligation:

- *Using the figures in the example provided, if a producer is obligated for 10,000,000 litres and falls short by 250,000 litres they would pay a fine at 15 pence per litre but would regain 0.6 pence per litre of redeemed obligations, and hence in fines they would pay out £37,500 ( $250,000 \times 0.15$ ) but by receipts from the recycling of the buy outs they would receive £58,500 ( $9,750,000 \times 0.006$ ). In this circumstance there would be no incentive for the obligated party to trade in RTF certificates, as they would be better off paying the fine and taking the pay back!*

We would prefer to see a system where the buyout fund is recycled purely to those who surrender certificates, but limited to maximum payout equal to the buyout price. This would:

- Not reward obligated suppliers for simply meeting their obligation
- Encourage suppliers to meet their obligation, otherwise they will have to pay the full penalty for not meeting it (rather than a penalty reduced by receiving some of the buy out fund back).
- Ensure a strong price for RTF certificates as long as the market is not over subscribed – sellers should be able to get a good market price or a reasonable payout from the buyout fund if large obligated suppliers opt just to pay penalties.

**Question 13: Should the Government specify that, from a given date, credits under the RTFO should be linked to the GHG-saving of the fuel? What arrangements, and how quickly should this requirement be introduced?**

The RTFO should move as soon as possible to a GHG-saving based system. Most importantly, a date for this to occur should be set as soon as possible to ensure that obligated parties have sufficient time to prepare, and to send a signal to the market that this is the system that will be used.

The GHG-saving based system should be grounded in a robust 'well to wheel' equivalent whole life carbon costing. As fuels will be used in a variety of vehicles they should be tested in popular vehicles in each sector and a fleet average figure for carbon savings produced.

The methodology used to produce GHG savings should include the following specific to biofuels:

- Any increased carbon emissions caused by clearing and burning plant material prior to planting
- Carbon released from the oxidation of organic matter over time from soils or peat bogs as biofuel crops are grown
- Carbon emissions from agricultural processes and transport (e.g. fertilizers and pesticides, agricultural vehicles, transport to market)
- Greenhouse gas emissions prevented – this is a key factor when using biofuels produced from waste products that would otherwise decompose and release methane into the atmosphere.

We understand that initial feasibility work has been undertaken on GHG reporting for bio-fuels, and we look forward to viewing and commenting on draft proposals in due course.

**Question 14: Should the Government specify that, from a given date, only those biofuels meeting certain minimum environmental and social standards should qualify for credits under the RTFO? If so, what standards should be applied and from what date?**

Minimum standards for qualifying fuels should be set as soon as possible, backed up by a robust, independently audited sustainability assessment. As with the introduction of a GHG-saved system, the date of introduction should be set as soon as possible to ensure that obligated parties have sufficient time to prepare, and to send a signal to the market that this is the system that will be used.

The sustainability assessment should include:

- Impacts on local air quality from biofuel use –some data suggests that these fuels can produce higher vehicle emissions.
- Effects on food and fuel prices, particularly in developing nations.
- Any destruction of virgin habitats, and impacts on endangered species and biodiversity.
- Water use.
- Contamination from pesticides and fertilizers.

We understand that initial feasibility work has been undertaken on sustainability reporting for bio-fuels, which is essential as the number of feedstock and fuel permutations potentially make this a large and time-consuming undertaking. We look forward to viewing and commenting on draft proposals in due course.

**Question 15: Is the Government right to await the review of the relevant fuel quality standards before setting targets higher than 5%.**

No. The sustainability assessment should form the limiting factor for future RTFO targets. A high target will stimulate the market for high blend biofuels, for example E85, B30 or biomethane, that can already be used in appropriate vehicles today.

**Question 16: To what extent should Government support for biofuels be constrained by the impact on fuel prices at the pump?**

The level of fuel duty and VAT levied largely determines the pump price of UK fuels. The effect of the RTFO on pump prices is highly unlikely to be anything more than marginal, and therefore cost should not be used as a reason for setting less demanding targets.

**Question 17: Will the RTFO have an adverse impact on other sectors? To what extent should this constrain future Government support for biofuels?**

The effect of the RTFO on other sectors should be examined as part of the sustainability assessment, and this should inform the level of future RTFOs. The examinations of the effects of the RTFO on other sectors should not be constrained to the negative ones. In particular the RTFO could stimulate the market for biofuels produced from organic waste, which would have a positive effect on the waste management industry and also the farming sector (by creating a market for agricultural waste).

**Questions 18 & 19: Are there any other ways of structuring the system in the future and what are the merits of the different methods.**

As stated in our response to questions 14 and 15, we believe that the RTFO should move to a system based upon GHG savings with minimum standards for fuel sustainability.

A future system should take into account the considerable GHG savings potential from the deployment of more efficient vehicle technologies, such as hybrids and fuel cell vehicles. As such it is crucial that the system incentivises renewable fuels on the basis of well-to-wheels GHG savings, rather than just well-to-tank emissions.

**Question 20: is the Government right to insist that carbon saving and sustainability criteria are built into future EU-wide biofuel targets and support mechanisms?**

Yes

**Question 21 & 22: What should the level of the RTFO target be in future years (e.g. 2015 and 2020)? Should the level of ambition be maintained at the 2010/11 level, or increased? When should the Government set targets for years beyond 2010/11?**

The level of the target should be increased, with the limit set by the sustainability appraisal. Future targets should be set as soon as possible (when the sustainability appraisal is complete) to allow time for the fuel industry to adapt their supply of fuels to meet future demand, and include biomethane and biohydrogen.

**Question 23: Is our approach to setting the level of the buy-out price a reasonable one? Does the 30 pence per litre “package” strike the right balance between encouraging the use of renewable transport fuels and protecting consumers? For how many years into the future should it be guaranteed?**

The duty differential and buy out price should be set for long timescales to give the fuel industry confidence to invest in the supply chain. As stated in our answer to question 16, the pump price of fuel is largely driven by taxation, and therefore the 30 pence per litre package could be increased with little effect on consumers if it fails to sufficiently encourage renewable transport fuels.

**Question 24: Will rewarding different biofuels on the basis of their relative carbon saving performance be sufficient to bring [second generation biofuels] onto the market? If not, what other Government support might be appropriate?**

No. Although this approach to the RTFO will provide an incentive there are other hurdles that should be removed to encourage second generations biofuels.

1. Buses are a natural market for bio-fuels, however their uptake is hindered by the bus fuel duty rebate system. This system means that diesel is very cheap for bus operators to use, and hinders the development of alternative fuels including bio-fuels and hydrogen. We recommend a reform of this system to give a grant to the bus industry based on criteria other than ‘diesel consumed’ which will allow more appropriate costs for diesel fuel and create opportunity for alternative fuels such as bio-methane and hydrogen. There will be an important secondary benefit of improved local air quality from such fuels.

2. As stated in our introduction, biomethane is a renewable fuel with unique environmental benefits. Biomethane is chemically identical to natural gas, and could therefore easily be injected into the gas grid to enable vehicles to be refuelled away from the production plants. However, at the moment there is no 'green gas' system in place to mirror the set up for 'green electricity', and once biomethane is injected into the gas grid it's renewable status is lost.

We recommend the Government look to establish a renewable gas system similar in style to the current renewable electricity system. This would allow gas users to purchase renewable gas delivered via the grid, with the suppliers matching their use with biomethane injected into the grid system. Such a system would allow the existing natural gas vehicle fleet and refuelling infrastructure to use biomethane, providing a huge boost to biomethane producers. The 'anaerobic digester' market in Switzerland is growing significantly as a result of such a mechanism, and more than 3400 biomethane fuelled NGVs are now in use.

3. Capital grants for production and refuelling infrastructure would also help overcome investment hurdles that may not be cleared with the RTFO as proposed.

**Question 25: Should the Government consider providing additional support to encourage the use of high blend biofuels?**

Yes. High blend biofuels can help advance the market for biofuels in general, and can be particularly attractive to certain transport sectors (e.g. buses, heavy goods vehicles). There are areas that the Government should be looking at to provide further support are:

- Recognising the difference between biomethane and fossil methane in the duty system, potentially reduce the duty on biomethane to zero as is the case in many other EC countries.
- Providing incentives through the company car tax system for vehicles that can take high blend biofuels such as FFV's or gas vehicles.
- Encourage local measures by local authorities such as reduce parking rates for biofuel vehicles and reduction in congestion charges.
- Information programmes to allow people to make informed choices and dispel some of the 'myths' around biofuels.

Biomethane is an ideal vehicle fuel to run at high blends, as it is chemically identical to its fossil fuel equivalent, natural gas. Policy and operational lessons can be learnt from other European countries where biomethane has been encouraged, for example:

- 228 buses running on biomethane in Lille, France.
- 3400 natural gas vehicles running on biomethane in Switzerland.
- Major programmes in Sweden, Austria and Germany.

In addition to the GHG emissions benefits, when compared to diesel biomethane reduces NO<sub>x</sub>, PM<sub>10</sub> and noise. Production vehicles now exist (most OEMs now offer NGVs), reducing the hurdles that early adopters had to overcome.

**Further Details**

If further details are required on the comments provided please contact the Forum secretary using the details below:

Ed Dearnley  
National Society for Clean Air  
44 Grand Parade  
Brighton  
BN2 9QA

Phone - 01273 878771  
Email - [edearnley@nsca.org.uk](mailto:edearnley@nsca.org.uk)