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Waste no time

One of my favourite bits of the 1985 film 'Back to the Future' – which I watched again recently – was at the end of the film, when Doc Brown returns to take Marty McFly into the future. Before setting off, he refuels his modded DeLorean not with stolen plutonium, but with rubbish, including a banana peel.

Imagine my excitement to find that a process to do something like this actually exists, and is operating at an industrial scale, for making biodiesel from used cooking oil. Because the fuel feedstock is essentially a waste product, its carbon footprint is massively reduced, as the 2015 United Biscuits trial found (***https://is.gd/waboqu***). Blends of up to 7% biodiesel (BS 590) are available from normal supply networks, but even 100% blends have been demonstrated to run in Euro VI trucks. Last month, I voiced doubts about alternative fuel trucks (***https://is.gd/uduyif***); here is a way to stick with diesel.

The supply base is significant. I am told the amount of cooking oil used in the UK alone is sufficient to reduce the carbon footprint of the country's long haul truck fleet, equivalent to removing some 7,500 HGVs from the roads. Waste animal fats rendered as tallow can also be used for biodiesel, as well as agricultural crops. There's a European market for feedstocks.

A kind of biodiesel sister product is biogas: methane produced by anaerobic digestion of waste, or high-tech composting by another name. For those suppliers, the Renewable Energy Association offers Green Gas Certificates to prove their eco-status. I wonder whether that system could be adapted to organise the UK's main biodiesel producers – Olleco, Greenergy, Argent Energy – in the same way. For example, feedstocks could be restricted to UK sources of post-production or post-consumer waste, so as not to compete with food production (and meet sustainability requirements).

The principal issue is, as ever, the price premium of 100% biodiesel over the regular stuff, and the cost of any supplemental maintenance required. It's understandable that some haulage companies would find it hard to swallow those without further incentives. Enter the government, which recently consulted on its RTFO (renewable transport fuel obligation) scheme. This has the power to help hauliers and drive the biofuel industry (see article, pp19-20).

If the DfT really wants to decarbonise road freight, here is a great opportunity. With biodiesel, we have the raw materials, the supply chain, the process and the trucks, ready to roll today.

Will Dalrymple
Editor