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engineering success

# Time to bring renewable fuels into the mainstream

In the end, achieving change is all about money seasoned with political will. Look at the report published last month by the Low Carbon Vehicle Partnership (LowCVP), which reveals that bus and coach manufacturers have been leading green vehicle progress, while truck makers lag behind.

Why? LowCVP points to the government's consistently applied carbon reduction policy, which, it concludes, helped to deliver growth, particularly in hybrids and especially among bus makers. Undeniably, political will set the framework, and buses are big and blatant targets. But it was the generosity of the Green Bus Fund (mitigating the significant up-front green vehicle price hike) that tipped operators and manufacturers over the edge and got this sector moving. With its close, all that is now coming to a juddering halt.

For obvious numerical reasons, truck makers and their haulier customers have never been afforded such a luxury. So, surprise, surprise, they have not been able to keep pace. Add to that the massive costs for the logistics industry in, first, developing and now buying Euro 6 engined vehicles – which, incidentally, are mostly more fuel efficient than their Euro 5 forebears, entirely because of market forces – and it's a tribute to the industry that it's as green as it is.

That said, if we crave a more environmentally friendly future, then, as Andy Eastlake, managing director of LowCVP, says: "We urgently need to repeat the success seen in our ... bus sector in the truck and commercial vehicle industries." There's also the small matter of EU law, which mandates improvements way beyond anything that can be achieved by Euro 6 alone.

And there is a second driver: quite apart from emissions legislation, there is also the EU Renewable Energy Directive (RED), which states that at least 10% of energy consumption in transport must come from renewable sources by 2020 – just six years from now. LowCVP's own analysis (through consultancy Element Energy) finds that adopting 10% ethanol in petrol (E10) and 7% biodiesel in diesel (B7) is the most practical way. However, that requires full uptake and the availability of a large volume of 'double-counting' blendable RED-compliant fuel.

There is another way – an approach that is receiving government money, albeit only seed funding, and applies exclusively to haulage. That is dual-fuel, leading progressively to high-percentage gas-powered vehicles. The Technology Strategy Board's £23m, two-year UK demonstrator, involving 354 converted trucks, is well underway and already showing average gas substitution of 46% and carbon savings of 9%. With bio-LNG/CNG (liquefied/compressed natural gas), that carbon figure would be an order of magnitude better. Indeed, for trial trucks converted to biofuel based on used cooking oil (United Biscuits' consortium), the substitution rate is 87% and carbon savings 90%-plus (for a full update, see next month's *TE*).

Hybrids and electrics may come for heavy commercial vehicles as technologies improve, but that will be longer term. For the foreseeable future, government and business both need to invest money and resolve in gas and biofuels – trucks and infrastructure. As the recent Committee on Climate Change report 'Policy strengthening required to meet future carbon budgets' concludes: we must ramp up efforts to bring renewable transport fuels into the mainstream.



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