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Getting to grips with the real deal on biofuels?

Biofuels are very much on transport engineers' radar right now. On the one hand, there's the prospect of gaining green credentials and driving a wedge through the current impasse on out-of-hours deliveries. On the other, there are well-aired concerns over invalidated warranties, and operational and storage problems.

We've all heard the stories – even those faced by operators using the approved 3% mix of biodiesel with conventional mineral diesel (page 12). As for the fleet managers who are apparently happy to run on non-recommended ratios – even, in some cases, 100% fuel derived from rendered animal fat, used frying oil, you name it – would you try it? Probably not.

Well, maybe you won't have to. Almost all the reported challenges are only relevant to so-called first-generation biodiesel – primarily RME (rapeseed methyl ester) or FAME (fatty acid methyl ester) – processed from crop oils, such as rapeseed. But the world is moving on.

What about the growing ranges of other renewable fuels, including second-generation biodiesels, such as synthetic diesel and dimethyl ether (DME), each produced form biomass?

And what about the different ways of blending and indeed burning them? Biogas (natural gas, but recovered from landfill sites and/or processed, rather than pumped from the North Sea), for example, has been used with spark-ignition engines for years. But how about combining it with small amounts of biodiesel and burning it in conventional diesel engines?

Various of the truck manufacturers are working on variations of these – most publicly, Volvo, with its current trials focusing on just two: DME and methane-diesel (page 16). If we accept that such alternative biofuels and combinations have some potential to overcome most, if not all, of the challenges with standard biodiesel, then we need to understand their ramifications.

What are the additional vehicle costs, in terms of engine modifications and extra fuel tanks? What about the impacts on service intervals, maintenance details and warranties? And what about the biofuel infrastructure? Is it likely to come and, if so, when? Without answers to these questions, it's difficult to see how cash-strapped operators can make rational decisions.

We all need to get up to speed on this. European legislators are inexorably forcing all industries, not just transport, towards their vision of environmentally-friendly operations. And governments, too, are committed to reducing emissions, with increasingly stringent targets getting uncomfortably close.

So we can probably expect more pressure and more incentives – and maybe well before the Euro 6 emissions deadline of December 2013. It wouldn't be a huge surprise to hear that, whichever hue of government is elected, DfT (the Department for Transport) makes another RPC (reduced pollution certificate) available to early adopters of Euro 6 – much the same as it did for Euro 5, until last September.

When these carrots and sticks emerge, it would be just as well to know which way to jump. Time to get to the CV Operator Show and start asking some questions?

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