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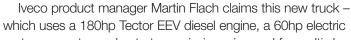
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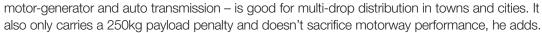
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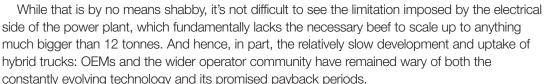
The rise and rise of diesel electric hybrids

es, series diesel-electric hybrid powertrains are now well established in the bus sector, but, in the HGV world, until recently the story of parallel hybrids has been quite different. Practically all the truck OEMs now have prototypes, but only a few brave souls – such as DAF and Iveco – have launched even limited production runs.

It was only last month, for example, at Rockingham Motor Speedway's Low Carbon Vehicle event, that Iveco finally unveiled its 12 tonne Eurocargo hybrid, using the Eatondesigned parallel hybrid drive and Hitachi Li-Ion batteries.







But all this is about to change. RCVs (refuse collection vehicles) specialist Dennis Eagle is set to ship its first diesel-electric parallel hybrid technology vehicle – and this is a full 6x2 26-tonner, powered by BAE Systems' new HybriDrive parallel hybrid powertrain. The truck, seen for the first time at last month's RWM (Recycling Waste Management) show, at the NEC, in the guise of a Volvo FE chassis, will go to an unnamed local authority on trial in the next few weeks.

This vehicle is powered by a 300hp Volvo D7 Euro 5 (and EEV – enhanced environmentally friendly vehicle) engine, working with BAE Systems' new clutch and electric machine (motor, electronic controls and batteries) and matched to a Caterpillar CX fully automatic transmission. Andy Graves, technical sales engineer with Dennis Eagle, tells TE that, while the penalties for going hybrid include a payload deficit of 350kg and some £30,000 on the vehicle price tag, payback from 20–30% fuel savings (on the urban cycle) will be within four or five years.

Assuming success and rising production volumes – likely, given Dennis Eagle's claimed high levels of interest in the vehicle – this on-cost should fall. Indeed, Dr Mike Mekhiche, BAE Systems director of programmes, power and energy management systems, suggests the figure should be "no more than a few per cent rise in the vehicle price", compared with a traditional diesel unit.

Crucially, though, Mekhiche also observes that the new parallel diesel-electric hybrid offers up to three times the power and torque of current Eaton parallel drive units. And he states that it still provides "at least 30% fuel economy at the same price". Further, he indicates that his new electric machine supports from 350hp to 650hp diesel engines, with its 95 and 135hp variants.

"New York City, where we are currently trialling hybrid RCVs, likes to run large engines," he quips, adding that five HybriDrive trucks in Classes N2 to N3 (construction, RCV, pickup and delivery vehicles) are now on trial in the US. Stand by for some very convincing hybrid trucks.

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