



ELECTRIC AVENUE

Three major UK fleets are putting Fuso's zero-emission eCarter to work in the nation's capital. Brian Weatherley examines the all-electric 7.5-tonner and the opportunities for its wider adoption in our cities

When it comes to switching to 100% electric trucks, range isn't the only anxiety for fleet operators. Aside from concerns over battery-charging infrastructure, there's the understandable nervousness of learning all about an unknown driveline technology as you go along. However, Lloyd Bonson, UK product manager for Fuso, stresses that won't be the case for anyone buying an eCarter, Fuso's all-electric 7.5-tonner. In fact, he insists: "We want to work with our customers. This isn't a case of 'Here's the truck, go and fend for yourselves.'"

As well as supplying chassis and full servicing, Bonson confirms Fuso will also offer advice and support on infrastructure to all would-be eCarter users, and is already working closely with charging equipment suppliers. "More and more fast-charging units are going into London," he reports,

before adding: "We're actively getting involved in helping customers with their infrastructure." However, if electric trucks are to gain a wide following, Bonson believes the UK's charging network has to develop at a faster pace - but he insists that it is coming.

One of the incentives to early EV adoption will be the provision of Workplace Charging Scheme grants, currently available through the DfT's Office of Low Emission Vehicles (see links, p44). "The fact that there is support from the government to help workplaces transition to electric vehicles, that's something we see as a positive," adds Bonson. While the actual up-front grant, worth up to £300, is paid to the charging equipment installer, rather than the operator, he reckons that the savings would be passed on to the end user.

Back in 2016, eCarter entered small-series production at Fuso's main European plant in Tramagal, Portugal. Large-scale production won't start

until next year. However, following a recent handover of left-hand-drive seed vehicles to German operators in December, the first right-hand-drive eCarters have now been supplied to DPD, Hovis and Wincanton for use in London. Between them, the three major operators have nine box-bodied models, with the zero-emission light-duty trucks supplied on two-year unlimited mileage contracts.

As UK local authorities flex their muscles over air pollution, eCarter looks a viable alternative to a diesel truck when delivering into environmentally sensitive urban areas. "We know cities are under massive and increasing pressure to clean up their acts. We have a number of them in the UK in breach of air quality standards, and the mayor of London has been very clear in expressing his vision for what London needs to deliver in that space - which is emission-free vehicles by 2050. That may seem a long way



QUIETLY DOES IT

The author drove a partly laden box-bodied eCarter late last year around Berlin's congested streets. It's the ultimate 'point-and-shoot' truck based on the compact Japanese chassis. Insert the key-fob into the dash slot, engage 'D' with the stubby selector in the dashboard, release the lever handbrake, depress the throttle pedal and you're away.

The lack of engine noise is uncanny – at most there's the muted whine from the electric driveline, punctuated by an occasional whirr of the battery cooling system. Otherwise, inside it's as quiet as a monastic retreat. For delivery drivers used to the constant crackle of a diesel engine, eCarter will be a revelation. Even carrying a 2t load, its brisk acceleration from rest was impressive. The 390Nm maximum torque from its 154bhp motor was available virtually instantaneously. That ensured it was always up with the pack in busy traffic (up to a top speed of 50mph), while the regenerative braking acts like an engine brake, slowing the vehicle down nicely until the service brakes are needed.

Ride and handling are also good, and thanks to its low-mounted, 2.0m-wide, three-man cabin, eCarter can get into, and out of, tight delivery spots. Its no-nonsense trim should also withstand the rigours of fleet life. Our only criticism was that the battery level indicator in the main dash is disappointingly small. We'd also prefer a large digital readout on the speedo, rather than the current needle and dial design. However, we understand these issues could well be addressed when large-scale series production versions appear in 2019.

away, but we know that's not far in terms of the journey we have to take...our ambition is similar to that of the mayor, and that is a future which is emission free for our vehicles," says Mike Belk, managing director of Mercedes-Benz Trucks UK. (Mitsubishi Fuso Truck and Bus Corporation is 89.21% owned by Mercedes-Benz parent Daimler.)

In total, 11 eCarters make up the first tranche of right-hand-drive demonstrators, with a second batch due to bring the total to 20 by the end of the year. Belk reports no shortage of UK operators keen to evaluate the all-electric 7.5-tonner. "We've had enormous interest. There's an appetite out there to sample it to find out more and see what it's about." However, he cautions: "These trucks have to go to customers who will use them for the exact purpose they're designed for."

With its six 13.8kWh batteries, the eCarter has a current range of 100km (62 miles), although Fuso boss Marc Llistosella says by the end of this year the target is to reach 180-200km (124 miles). With AC charging, the battery-pack can be fully charged in about nine hours (making overnight charging the obvious

route to replenishment). However, a DC fast-charger takes only an hour at most to charge 80% of the battery-pack, and under two to charge it completely. Charging is via a CCS type 2 socket. However, further developments in battery technology could see charging times and driveline weight brought down when higher energy-density batteries come on stream.

Meanwhile, eCarter will be offered with Fuso's Truckconnect telematics package, which will include a predictive maintenance function capable of reporting the status of the vehicle's electric drivetrain and battery in real time to an operator or dealer. This is similar to Mercedes-Benz's Uptime system, which provides continuous vehicle status monitoring on diesel-engine models.

When eCarter enters full-scale production next year, further enhancements will also be made to the all-electric 7.5-tonner in what Llistosella describes as 'eCarter 2.0'. The improvements will include easier to replace batteries, more efficient thermal management and less wiring. In 2021 an 'eCarter 3.0' will gain a new rear axle



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Mike Belk

which will reduce energy losses from the electric drivetrain even further.


So who will want an eCanter? Obvious customers will be those companies delivering into urban areas where emissions and noise sit high on the local authority’s (and residents’) agenda. The near-silent nature of eCanter clearly makes it an attractive proposition for inner city night-time work.

And while its chassis price will be higher than its diesel counterpart, it will enjoy lower running and maintenance costs. Equally attractive is the fact that eCanter attracts no VED (vehicle excise duty). “Our view [on the current version] is that within three years it will repay itself,” reckons Belk at Mercedes-Benz.



Electric drivetrains have traditionally involved a kerbweight trade-off. The 3.4m wheelbase eCanter’s body weighs 4,290kg. That body/payload ratio is highly attractive, not least when compared to

European diesel-engined 7.5-tonners.

If the eCanter is to succeed as an urban delivery chassis then, as Belk says, it will be because it matches its users’ operating mission. “Electric trucks are all about route management...and battery control. Inevitably, the first couple of years are when people get experience. They could then go lock, stock and barrel. If people decide to go [electric] they will go with the whole fleet.” 

FURTHER INFORMATION

Workplace Charging Scheme grants – <https://is.gd/owobas>

Electric vans win 750kg derogation – <https://is.gd/iyujit>

Renault 13-t electric rigid – <https://is.gd/yocate>



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