

# ELECTRIC LIGHT

A second round of Fuso Canter E-Cell trials heralds the arrival of this all-electric light truck on these shores sooner than some may think. Steve Banner reports

Five all-electric Fuso Canter E-Cell light trucks are now on 12-month trials with fleets on short-haul urban routes in Stuttgart, Germany, following a similar exercise last year in Portugal. It means the battery-powered 6.0-tonners could be on sale here within two years.

The Portuguese trial revealed that E-Cell's day-to-day operating costs are up to 64% lower than those of a diesel truck of equivalent size, says Fuso. The drawback: the purchase price is way more than its diesel counterpart. However, the gap is steadily narrowing, due largely to ongoing falls in costs of lithium-ion batteries.

These have shrunk by a quarter over the past 12 months, says the manufacturer - which, like Mercedes-Benz, is part of the Daimler family - and could tumble by a further 20-25% by 2020. If so, that will be fortunate, given that no government subsidies are yet available to bridge the price difference, despite these trucks' clear potential to drive down emissions of NOx and particulates. As far as goods vehicles are concerned, funding available applies solely to light commercials.

What about the truck itself? E-Cell offers a range of 100km between recharges, although this is likely to decline to nearer 70km in winter. Its batteries can be fully recharged

overnight in six to eight hours but operators with access to a CHAdeMO fast-charge should be able to return them to 80% within 30-60 minutes during the day.

Slung on either side of the 3.4m-wheelbase chassis, E-Cell's four traction battery packs together weigh 600kg. Delivering 48kWh, they power a 110kW (150bhp) permanent magnet asynchronous electric motor, which uses a single-speed transmission to drive the rear wheels. Maximum torque is 650Nm with 400Nm on tap continuously.

## CURRENT PAYLOAD

Weighing 2,990kg, the E-Cell chassis cab can accommodate bodies up to 5m long. Fit a box body and the weight goes up to 3,530kg leaving a payload capacity of 2,470kg. It's also virtually silent, emitting around 50 decibels - about the same as a light shower of rain.

While that is a plus-point for operators wanting to make night-time deliveries, it also poses a potential hazard to

pedestrians and cyclists. In response, Fuso has fitted the truck with VSP (vehicle sound for pedestrians). Press a button at below 15kph and it generates a buzzing sound that should be loud enough to warn people that E-Cell is in their vicinity, but not so noisy that it wakes households.

As yet no decision has been taken over whether the batteries will be sold with the vehicle or provided under a lease. Nor has Fuso revealed its warranty on the batteries other than to point out that the diesel-electric Canter Eco Hybrid's are warranted for 10 years.

That said, their cost and weight of the batteries make it unlikely that Daimler will attempt to develop an all-electric 44-tonner any time soon. Electric light trucks such as E-Cell, however, do have a healthy future in urban distribution, it believes. And the growing hostility of local authorities towards diesel may mean that operators have no choice but to adopt them if they wish to deliver into city centres. **TE**

