ZERO-EMISSION ELECTRIC VEHICLES
PREPARING FOR THE FUTURE
MINIMAL RUNNING COSTS
CONTINUAL INNOVATION

Paneltex
ELECTRIC VEHICLES

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Paneltex Electric Vehicles

7.5 - 11 Tonne Electric Vehicles

Paneltex Vision for the Future...

Zero-Emission, All-Electric Vehicles

- Zero GHG emissions at the tailpipe
- Environmentally-friendly alternative to traditional trucks
- Up to a 130-mile range on a single charge

Long-Term Project

- Paneltex Electric Vehicle engineering began in 2007
- There have been Paneltex Electric Vehicles on UK roads since 2008

Continual Innovation and Development

- In 2007, Paneltex started to prepare for the eventual shift to alternatively-fuelled vehicles, by beginning a project to design bodywork and integration for electric trucks
- At the time, there was no viable technology in the 7.5T - 11T range, so the Paneltex team built their own pilot vehicle for development!
- It was so successful, however, that the team decided to build more, refining and improving the concept on the way
- Since then, there have been Paneltex pilot and demo vehicles in customer fleets across the country

Future-Proofing the Logistics Sector

- Through gaining a decade's experience and knowhow, Paneltex has proven that the concept of electric vehicles works
- These vehicles can be the long-term solution for the future
- Everyone at Paneltex wants to be involved in making this a reality

Minimal Running Costs

- As if the environmental benefits weren't the only incentive for commercial vehicle operators, the pence-per-mile running costs make the low total cost of ownership of these vehicles attractive, particularly as the cost of running diesel vehicles rises

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Over the last decade, Paneltex has been instrumental in the uptake of battery electric vehicles in the commercial market. The Paneltex design team put its mind to environmental concerns, which led to the development of our own range of battery electric van chassis based on the rugged Isuzu Grafter. Assembled in a dedicated facility in Hull, PANELTEX ELECTRIC VEHICLES combine a brushless permanent magnet electric drive train with the latest lithium ion phosphate battery technology. Offering rapid charge capability and a great driving experience, these vehicles cost mere pence per mile for fuel with zero emissions on the road – the perfect urban delivery solution.
No specialist driver training is required for these vehicles, as the cab layout and driving style is exactly the same as a standard diesel vehicle, with an automatic gearbox. Some simple advice from Paneltex's friendly electrical team is offered to explain how to maximize performance and charge the vehicle. The driver controls the acceleration and braking using the standard pedals, whilst fixed ratio drive mean no clutch is required. Braking is both mechanical, using the Isuzu braking system, and regenerative, using the motor, which acts as a generator, putting the energy retrieved from slowing the vehicle back into the traction batteries. This in turn directly helps to increase the range. The cab is heated via Paneltex's own electric water heater, powered by the battery pack. The water is circulated through the standard cab heater matrix and uses the original heater controls, to minimise driver disruption.

The energy source is a Paneltex-designed battery pack, with the internal cells offering twice the run-time and nearly half the weight of a similar sized lead-acid battery. They are built with technology that offers outstanding intrinsic safety and excellent float and cycle life resulting in low cost of ownership. The charge and discharge is controlled by modern, sophisticated battery management system which monitors individual cell voltage, current, temperatures and overall state of charge to maximize whole life capacity and prevent damage to the battery pack.

Vehicle recharge is delivered from the grid, through a standard 9kW on-board purpose-built battery charger, with an option for an 18kW fast charger. Providing that the battery pack is given a regular overnight charge, charging can take place starting from any state of charge and interrupted at any point during charging without any detrimental effects on the life of the battery pack. The charger can also supply the vehicle's electric fridge with AC power, which can keep the box chilled/frozen overnight, if such a unit is fitted.

THE FUTURE OF COMMERCIAL VEHICLES? ASK PANELTEX...

Over recent years, Paneltex's own electric vehicle design has been proven in multiple applications, including the urban delivery sector, where some of these vehicles have been operating effectively for a vehicle's lifetime, alongside the equivalent diesel vehicles.

With a range of up to 130 miles and a wheelbase of either 3815mm or 4475mm, Paneltex currently offers electric vehicles with a GVWR of between 7.5T and 11T. These vehicles are fitted with one of Paneltex’s three battery packs, which offer power ratings of 80, 100 or 120 KWH.