
Kleanbus completes build of first repowered bus and accelerates prototype testing program

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Kleanbus has completed the development of its first advanced modular electric platform, installing the pioneering system into its first prototype vehicle.

Combining proven e-powertrain components from leading Tier 1 suppliers with Kleanbus' own integration technology and proprietary software, Kleanbus' 'e-drivetrain in a box' can convert a bus, whether single or double decker, from ICE to fully electric quickly and cost-effectively.

Installed in an Optare Solo, Kleanbus is now accelerating its prototype testing programme, with dynamic development taking place at its facility in the east of England. In parallel, the company is entering pilot trials with key bus fleet operators too.

Completely technology agnostic, Kleanbus' innovative platform approach means it can take advantage of the very latest componentry, enabling it to leverage a wide variety of batteries and motors, creating purpose-built e-powertrains tailored exactly to a bus operator's needs.

From its 9,000 sq ft facility, the Kleanbus repower programme consists of a full base vehicle evaluation and analysis of operator duty cycles, allowing a conceptual drivetrain to be modelled and validated through simulation. In parallel, the diesel engine and all associated systems are removed.

The packaging space is fully digitised and the design process progressed to create a bespoke electric drivetrain platform that will meet the operator's duty cycle requirements. Once prototypes are created, they are subjected to a rigorous test and validation programme ahead of certification.

Underlining Kleanbus' high-quality manufacturing standards, it has achieved the internationally recognised ISO 9001 and ISO 14001 automotive industry certifications for its world-class products and practices. The ISO 9001 certification represents the quality management standard set within Kleanbus' operation with products meeting customer expectations, while ISO 14001 is awarded for Kleanbus' environmental standards and its commitment to reducing its environmental impact.

Once a model type e-drivetrain solution has been designed and tested it takes less than two weeks to repower an individual bus, getting vehicles back in service in as little time as possible. Operating costs are also dramatically lower, at a third of those of a conventional diesel bus while electric repowered buses from Kleanbus also cost significantly less than a new electric bus.

However, thanks to Kleanbus' partnerships with innovative finance providers, operators can choose several ways in which to finance their vehicle, ranging from paying for the vehicle upfront and leasing the battery, to paying nothing upfront and leasing both the vehicle and the battery. In this way, operators can fund the cost of the repower through operating revenue, maximising the business case.

And thanks to the company's relationships with charging providers, Kleanbus also arranges for an operator's depot to be upgraded with appropriate charging technology, enabling them to go electric without having to contact third parties, effectively offering a one-stop shop.

Joe Tighe, Co-Founder and CEO of Kleanbus said: "Momentum is building rapidly with the completion of our 'e-drivetrain in a box' and the installation of this modular platform system into our first prototype. We are excited to accelerate our prototype testing programme, with pilot trials also starting this month with two bus operators.

"Leveraging the latest in proven components from leading Tier 1s, our technology agnostic solution enables us to create an adaptable system that can convert a diesel bus into a state-of-the-art zero emission vehicle quickly and cost effectively.

"Kleanbus also provides the complete solution to bus operators, with innovative financing and charging as part of the total package, making it easy to go zero emission. The potential for repowering is huge: lower operating costs for bus operators and accelerating the transition to a clean future."

(Kleanbus)