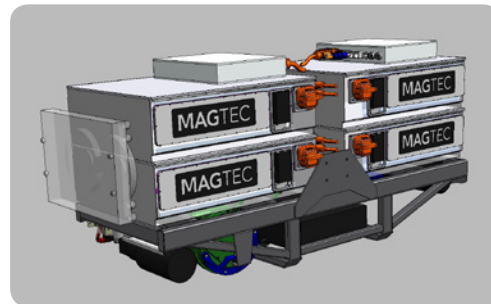


MAGTEC UK's **largest supplier** of hybrid and electric drive systems

City Sightseeing bus EV conversion QUICK FACTS:



- The double decker bus was manufactured in 1999. City Sightseeing buses typically have a lifespan of over 20 years and are usually the older vehicles in an operator's fleet
- Sightseeing routes frequent highly populated areas in slow urban traffic, causing large amounts of harmful air pollution
- Full electric drive system has no tailpipe and even uses regenerative brakes to further reduce fine particle emissions caused by brake pads
- Electric conversion involves removing 2.1 tons of diesel engine and gearbox and replacing with 1.9 tons of battery packs, electric motors and solid state convertors.
- The battery pack is capable of holding 133kWh of electrical energy with charge time of 8 hours overnight at depot using low carbon off-peak energy. The battery is made from Lithium Iron Phosphate and can be charged/discharged without memory effect thousands of times.
- Battery packs are modular and scalable which means that greater range is simply a function of fitting more battery packs.
- Energy efficiency tests have exceeded the expected 0.67 miles per kWh resulting in a maximum range of 90+ miles, or a practical range of 76 miles per day exceeding the 65 miles per day daily duty cycle of City Sight Seeing bus
- The motor outputs 3000Nm of torque 150kW power and in testing the electric double decker has scaled lengthy 1 in 5 gradients (Jenkin Road) in Sheffield with ease
- Environmental savings are 33t of CO2 and 535kg of NOx per year.
- Cost saving of using electricity rather than diesel are £20k per year.
- Over 100 cities around the world operate City Sight Seeing fleets carrying over 8 million passengers annually.



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