PUBLIC TRANSPORT

Wirelessly-charged electric buses commence trial in Milton Keynes

An all-electric bus route has commenced in Milton Keynes that will test whether electric buses can perform on a par with their diesel counterparts in a real-world operational environment. Eight buses will run for five years in a carefully monitored demonstration programme, which will objectively assess their technical and commercial viability.

The electric buses will take over a route that even diesel buses find demanding: running 17 hours a day, seven days a week, with each bus covering over 56,000 miles per year. But instead of plugging into the mains, the new buses will be able to recharge their batteries wirelessly during their working day. This means they can run a continuous service for a whole 17 hours, just like a diesel bus.

The concept is simple: wireless charging plates set into the road transfer power directly to receiving plates underneath the bus, using a technique based on the principles of electrical induction. In just 10 minutes, a bus parked over a charging point will replenish two-thirds of the energy consumed on its 15-mile route. Only two wireless charging points are needed to service all eight buses, which will charge in the time scheduled for driver breaks.

The eight electric buses are predicted to remove approximately five tonnes of particulates and noxious tailpipe emissions from the city's streets each year and approximately 270 tonnes of CO_2 per year from the atmosphere. As the UK electricity supply becomes greener, the CO_2 savings could increase to more than 680 tonnes per year.

READ MORE:
tinyurl.com/q37cs2u

ELECTRIC VEHICLES

EV car club launched at Hertfordshire university

A new, entirely electric, pay-per-use car club has launched at the University of Hertfordshire, providing staff, students and the local community with a convenient and environmentally friendly travel alternative that removes the costs of owning and running a car.

The University's Environment and Sustainability team has partnered with Source East (the region's electric vehicle recharging network) and E-Car Club (the UK's first entirely electric pay-per-use car club) to run the scheme, which offers three electric cars to hire by the hour from either the University's College Lane or de Havilland campus via a membership programme.

READ MORE:
tinyurl.com/puroxyy

LowCVP's Andy Eastlake
Take it with a pinch of salt

Measuring and comparing emissions from different vehicle types running on different fuels is a complicated matter. With emissions arising at different stages of the 'life cycle' and in many different forms, the difficulties in getting clear answers have increased. That's why the LowCVP has been leading calls to develop a pathway to a more holistic approach for measuring the total impacts of vehicle use.

Some recent media reports have suggested that EVs can produce more emissions over the life-cycle than the conventional vehicles they replace. But the search for a newsworthy angle can sometimes lead the media to report the exceptional as though it's the norm.

Some electric vehicles in certain circumstances may, indeed, have a significant carbon footprint but for the vast bulk of studies, electric car use leads, overall, to significantly less CO2 than is emitted from cars with a conventional internal combustion engine. Where low carbon energy sources are used, the emissions are significantly lower. And that's today. As more coal plants are retired, life-cycle emissions drop even further and night-time charging provides an opportunity to take advantage of wind power and grid capacity to further cut the CO_2 impact.

There's another story doing the rounds that new direct-injection gasoline engines, engineered to emit less CO_2, are producing more health-damaging fine particulates. The latest legislation includes measurement on particle number in order to control these emissions and it's safe to say that the particulate traps now standard on diesels are extremely effective, so may be applied to gasoline cars as limits tighten. But the fact that burning fossil fuels gives rise to fine particles is not really news as I remember testing this nearly 20 years ago!

Last month even the LowCVP had cause to rebut a headline after coverage about a LowCVP study stated that some of the 1,300 or so buses funded under the Government's Green Bus Funds are emitting more local pollutants than the buses they replaced. The overwhelming conclusion of the study, in fact, was that these low carbon buses are doing better in terms of both CO_2 (by a large margin) and local pollutants, but that with changes to the regulations even more could be done to improve air quality.

So the moral of the story is if you see a surprising headline about low carbon vehicles, take it with a large pinch of salt… and try to take a look at the original source or report before jumping to conclusions!

FURTHER INFORMATION: www.lowcvp.org.uk