

World-first battery charger for light rail wins international award

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The world's first rapid battery charger for Very Light Rail has won an Engineering and Technology Innovation Award in the Future Mobility category.

Judges highlighted the charger's vital role in unlocking a new type of lower-cost, battery powered tram for smaller cities, called Very Light Rail (VLR).

A VLR system is currently being built and trialled in the West Midlands, at Dudley's VLR Innovation Centre. The first VLR system is destined for Coventry and is expected to be operational by 2025.

The charger will top-up battery powered VLR vehicles in an estimated three minutes using an arm that autonomously lowers from above, providing an alternative to overhead lines.

Furrer+Frey GB adapted the charger from ones already in use for buses in parts of Europe and Canada.

The new charger can support both buses and VLR vehicles, helping to support a fully electric public transport system as the industry races to net zero.

Noel Dolphin, Head of UK Projects at Furrer+Frey, said: “We are delighted to have won the first ever Future Mobility award from the EInnovation Awards.

“Our engineers are rising to the challenge of bringing a long history of rail electrification into the 21st century with this world-first overhead, all-in-one charger for Very Light Rail.

“The units can charge very light rail, buses, bin lorries or even heavy rail – meaning there is immense scope for these chargers to power the widespread electrification of urban transport.”

The Engineering and Technology Innovation Awards are overseen by the Institute of Engineering and Technology and recognise the best innovations from science, engineering and technology across the globe.

Alongside the Furrer+Frey charger, the shortlist finalists for the Future Mobility award – a brand-new category at the Engineering and Technology Innovation Awards – were:

- Zonar Coach, an intelligent dashcam that provides real-time safety warnings, and
- the Advanced Vehicle Monitoring and Assistance System (AVMS) developed by Heriot Watt University, designed to monitor drivers’ behaviour to reduce road accidents

The world’s first rapid charger was installed by Furrer+Frey GB in April this year as part of a multi-million-pound project to develop Coventry’s Very Light Rail system, overseen by the Black Country Innovative Manufacturing Organisation (BCIMO).

The Furrer+Frey *All-In-One OpBrid* charger is already in use for electric buses in Sweden, Spain, Canada, and the Netherlands. But new software developed by the Swiss firm’s British arm means the charger can support new light trams as well as buses.

Photo credit: Furrer+Frey/ John Zammit