

Battery train enters passenger service



Is this the way forward for the Uckfield line?

The prototype Independently Powered Electric Multiple-Unit has entered trial passenger service on the Manningtree–Harwich branch, where it is scheduled to operate on weekdays for a six week trial period in March. The IPEMU comprises a Bombardier Electrostar Class 379 four-car 25 kV 50 Hz EMU which has been retrofitted with Valence Technology lithium iron magnesium phosphate batteries for off-wire use. It will be used to assess the potential for battery-powered trains to be used on non-electrified routes between electrified lines, or on branch lines which would be expensive to electrify. The data gathered will help to determine whether any future IPEMU should be a straight battery unit or an overhead battery hybrid.

The project is a collaboration between Bombardier, infrastructure manager Network Rail, operator Abellio Greater Anglia, innovation body Future Railway and the Department for Transport. The partners expect that future IPEMUs would be designed from new rather than adapted from existing EMU designs, thus enabling optimisation to minimise energy consumption. However the project will also provide useful information for any proposed retrofit.

'We've made terrific progress with this project so far and seeing the battery-powered train in timetabled service is a huge step forward', said Network Rail Principal Engineer James Ambrose. 'After months of engineering and testing, the train is running just as we would like it. We'll be using this six-week period to gather data on how it handles during passenger service – most travellers will recognise how quiet and smooth the ride is compared to a diesel-powered train.'

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