

Chiltern Railways brings emission-cutting train into service

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A new innovative train has been launched this week designed to cut emissions, fuel use, air and sound pollution.

It has been launched by Arriva Group's Chiltern Railways. Known as the 'HybridFLEX', it is the result of a four-year partnership between Chiltern Railways, Porterbrook (the train owner) and Rolls-Royce.

The companies pooled their knowhow and resources to convert a diesel train into one that now runs on both diesel and battery power. The concept train is the first 100mph capable battery-diesel hybrid train to operate on the UK's national rail network.

The HybridFlex train will initially operate between Aylesbury and London Marylebone with plans to bring the new type of train to the London to Oxford via Bicester Village route in the coming months.

The train has been retrofitted with a Rolls-Royce powerpack which means quieter and quicker journeys and a 25 percent reduction in CO2 emissions on every journey it makes. Nitrogen oxide and pollutants are also cut by 70 and 90 per cent respectively. The HybridFlex train substantially also cuts fuel usage and reduces

noise by up to 75 per cent in and around stations and urban areas. It also presents the opportunity for faster customer journeys in the future because the train will be able to accelerate away from a station more quickly.

Arriva Group's Managing Director for UK Trains, David Brown, said: "Innovating for a sustainable future is at the heart of Arriva's business and we're incredibly proud of what has been achieved alongside Porterbrook and Rolls-Royce through a shared commitment to green technologies. This ground-breaking concept-train will allow us to deliver cleaner, more sustainable rail services right now, further contributing to decarbonisation."

Richard Allan, Chiltern Railway's managing director, added: "Chiltern Railways is determined to operate a railway that is as sustainable and environmentally friendly as possible.

"We have worked hard with our partners to fit a powerful battery power pack underneath a 20-year old diesel train to make the train cleaner, quieter and quicker.

"We are really proud that this train is now carrying customers and look forward to assessing its performance in daily service."

Rolls-Royce's 'mtu' Hybrid PowerPack pairs a diesel engine with an electric unit that can function both as a motor and as a generator. The battery system stores power that is recovered during train braking.

The concept train will be assessed in customer service to understand if there is an opportunity to convert more diesel trains to use this innovative hybrid technology in the future.

Government Rail Minister Wendy Morton said: "Rail is getting even greener and Chiltern Railways' launch of this cutting edge hybrid train is another major leap forward.

"We are working across transport to hit net zero by 2050 and it is brilliant to see our railways rising to the challenge."

Mary Grant, CEO of Porterbrook said: "The entry of our hybrid battery-diesel train HybridFLEX into passenger service is great news for Chiltern Railways and its customers. It's a significant first step in demonstrating how improvements to this fleet can reduce emissions and improve air quality both at stations and other locations across the network.

"HybridFLEX is part of Porterbrook's growing portfolio of alternative traction systems designed to help deliver a more sustainable railway."

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Warren East, Chief Executive Officer, Rolls-Royce said: "In this critical decade of climate action, today's entry into service of the HybridFlex train demonstrates what we can achieve through technological innovation and agile collaboration. This smart piece of engineering enables the acceleration of the UK

Government ambition to remove all diesel-only trains from the network by 2040, making rail journeys quieter, cleaner and faster. We're delighted to be part of this groundbreaking team alongside Porterbrook and Chiltern Railways and look forward to seeing the train in service."