



“Decarbonising transport has been highlighted as one of the key areas in which we can help achieve net zero across the construction industry. Supporting this exciting project is just the latest step in the ongoing development of our rail freight capabilities, which forms part of Tarmac’s wider commitment to reducing CO₂ across the whole business. We’re always keen to explore new initiatives and innovations that can help us move materials to the right place at the right time more efficiently and sustainably.”

Chris Swan, Head of Rail at Tarmac

Climate Action

Tarmac in innovative trial to decarbonise rail freight and reduce passenger delays

Together with partners Furrer+Frey and GB Railfreight, Tarmac is trialling an innovative overhead electrification system that could revolutionise rail freight, reducing the use of diesel and boosting the industry’s net zero ambitions.

The Decarbonisation & Electrification of Freight Terminals (DEFT) project – trialled at the Wellingborough freight terminal in Northamptonshire – is expected to decarbonise rail and lessen freight’s impact on passenger journeys.

Freight trains are typically loaded and unloaded from above, preventing the use of the high voltage overhead cables used on mainline railways. As such, they still rely on diesel to move in and out of terminals and passengers can be delayed by slower diesel freight trains on mainlines, or those waiting to be moved into a depot by a shunter.

Engineers from Furrer+Frey GB designed a Moveable Overhead Conductor system where overhead equipment supplying electricity to the locomotives can safely move away once the train is in place and return when the train needs to move again.

Funded by the Department for Transport and Innovate UK, Furrer+Frey’s innovative system is being trialled at Tarmac’s



aggregate facility in Wellingborough, in partnership with GB Railfreight. The project started in July 2021 and is expected to last for nine months. If successful, the moveable overhead system could go on to be deployed at other freight terminals across the UK and support the full decarbonisation of Britain’s railways.

Noel Dolphin, head of UK projects at Furrer+Frey GB, said: “The electrification of freight terminals is the biggest technological hurdle to net zero rail freight and we have just overcome it. The demonstrator shows how we can plug freight yards into electrified rail lines and operate them safely and efficiently with the locomotives we already have – meaning greener, cleaner and better journeys.”

The DEFT project is one of 30 initiatives to win funding from the Department for Transport, in partnership with Innovate UK, focusing on improving journeys and reducing the environmental impacts of rail as the country builds back better from COVID-19.