

# Hydrogen Train Project looks back to the future

January 6, 2021



A project aiming to transform the future of the rail industry is underway at the home of Scotland's railway heritage.

A retired ScotRail Class 314 electric set was transported by road from its depot in Glasgow to the Bo'ness & Kinneil Railway where it will be converted to hydrogen-powered – a cleaner, greener alternative to diesel for non-electrified routes.

The work is part of a Scottish Enterprise project, in partnership with Transport Scotland and the University of St Andrews' Hydrogen Accelerator, to bring skills for the future of the rail industry into the Scottish supply chain and create opportunities for businesses based here.

It will be carried out by an industry consortium led by hydrogen technology specialists Arcola Energy over the next 11 months with the target of showcasing the train to a global audience attending the COP26 conference in Glasgow in November.

Transport Secretary Michael Matheson said: "This project has the potential to be a game changer for the

future of Scotland's rail rolling stock.

"Our Rail Decarbonisation Action Plan sets out to make our passenger railways emissions free by 2035, but to maximise our climate change ambitions, there is also a requirement to look at what we do with retired stock. If we can bring those back into use in a carbon neutral way, there are huge climate gains to be made."

As well as the benefits for Scottish business, the rail industry and the environment, the project will also provide a huge boost to the Bo'ness & Kinneil Railway, a heritage railway, which relies on tourism and has suffered throughout the 2020 Covid lockdowns and restrictions.

The Hydrogen Train Project will attract renewed interest in the visitor attraction, operated by the Scottish Railway Preservation Society (SRPS), as well as providing a direct cash injection via rental of the facilities there.

Scottish Enterprise interim CEO Linda Hanna said: "There are huge opportunities for SMEs in Scotland's rail supply chain from this project and a key step towards our ambitions of creating an international rail cluster here in Scotland.

"The close working of our public sector, academia and business will be a real draw, with the added bonus of our third sector being involved via the the Scottish Railway Preservation Society in Bo'ness. And as well as the project benefitting from the expertise of the volunteers and local contractors, it is fantastic this jewel in our tourism sector will receive a boost at a time when it is so needed."

Steve Humphreys, SRPS Chairman added: "We are delighted to be able to work on this project and the arrival of the Class 314 units on our site at a time when we have had a very difficult year is a welcome and positive step towards our future.

"We have been at the forefront of Scottish railway preservation for 60 years and being part of the future of the railway industry in Scotland makes a fitting project for our Diamond Jubilee in 2021.

"Visitors will once again be able to take a nostalgic steam train journey and visit Scotland's largest railway museum here with us. At the same time, we will be assisting in the development of the future of rail travel in Scotland."

Dr Ben Todd, CEO of Arcola Energy added: "Hydrogen traction power offers a safe, reliable and zero-carbon alternative for Scotland's rail network. The hydrogen train project is an excellent opportunity for industry leaders in hydrogen, train engineering and safety to collaborate with local technology providers to develop a deployment ready solution."

Professor John Irvine of the University of St Andrews said: "The aim of this project is not just to develop a new low carbon approach that will reduce carbon dioxide emissions and improve air quality, it is also to develop skills and create new supply chain opportunities. If we are to address climate change we need to combine disruptive new technologies like hydrogen trains and offshore wind energy with new capabilities and an agile new workforce, delivering on both climate and employment."

*Photo credit: Scottish Enterprise*