

The future's bright, the future's green

As part of the programme for COP26, Low Carbon Logistics was developed to celebrate innovation in the rail freight sector and showcase its environmental benefits.

The UN Climate Change Conference of the Parties (COP26) brings governments, experts and scientists together to accelerate action towards the goals of the Paris Agreement and the UN Framework Convention on Climate Change.

The new green design for Direct Rail Services' (DRS) 68006 showcases the superb environmental benefits of rail freight and how a diesel locomotive is able to significantly reduce its carbon emissions when using HVO fuel.

Hydrotreated Vegetable Oil (HVO), is a direct replacement for traditional diesel and is one of the cleanest fuels on the market. Supplied by Crown Oil, this second-generation, synthetic, advanced renewable diesel alternative eliminates up to 90 per cent of the carbon (CO₂e) and significantly reduces nitrogen oxide (NO_x), particulate matter (PM) and carbon monoxide (CO) emissions.

Seth Kybird, NTS CEO, said:

We're launching this new livery as a real visual reminder that rail is the most environmentally friendly way to transport goods and using this fuel its carbon dioxide figures are amazingly low.

Rail is already 76 per cent less polluting than road and if successful this trial will show that using this type of fuel rail can play a huge part in the UK in achieving net carbon zero.

We already have our excellent Class 88 bi-mode electric locomotives but this fuel could provide an alternative where the overhead electric wires are not available, which opens up 62 per cent of the network to extremely low CO₂ freight.

The locomotive also has a new name – Pride of the North as a tribute to all of DRS's work in Scotland and northern England, where it will spend much of its life.

Nuclear Transport Solutions (NTS), a subsidiary of the Nuclear Decommissioning Authority (NDA), is currently running a trial of the fuel using traditional Class 66s and now also in this special Class 68 – the UK's

most advanced diesel locomotive – to showcase the steps it is taking to towards achieving Net Carbon Zero.

In the groundbreaking six-week trial the trains will travel across Scotland from Inverness to Mossend delivering vital supermarket goods, travelling the 340-mile round trip, with hugely reduced carbon dioxide emissions. They will travel over 12,000 miles, delivering over 1,440 containers in the trial's duration.

Steve Hardy, Director of Environment for the NDA, said:

This trial of a diesel replacement has the potential for a very large reduction in carbon footprint and is an important part of our carbon reduction plans.

It's extremely exciting, and the learning from the trial will be shared with all our other business in the NDA group. These trials, which may lead to different ways of working, are vital as part of our route to carbon net zero.

Seth went on to say:

In the trial we estimate a saving of over 284,203 kg CO₂e when compared to diesel fuel. This is a significant saving and represents a huge step towards net carbon zero rail freight using existing locomotives.

This could revolutionise how we operate and ensure DRS is at the forefront of environmentally friendly transport, completing the cycle of low carbon electricity when transporting spent nuclear fuel, or ensuring supermarket goods are transported with minimal carbon emissions.

Rail Minister Chris Heaton-Harris added:

This is what building back greener is all about, boosting British business while cutting carbon.

Rail is one of the most eco-friendly ways to transport goods and this trial helps make it even cleaner, helping us hit our net zero targets on transport.