



How the Midland Metro Alliance is transforming the region's metro network

By harnessing the power of greener fuel alternatives and greener equipment, the Midland Metro Alliance (MMA) is helping to triple the size of the existing metro network with our wrap-around support.



Eliminating 725 tonnes of CO₂ emissions



Delivering HVO fuel directly into 30 assets per day, 5 days a week



A suite of greener equipment to drive down emissions further



Eliminating possible fuel spills and risks of theft on-site

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The West Midlands Combined Authority has ambitious plans to regenerate the region, investing over £2.4bn to enhance public transport systems for people of the West Midlands region.

The Midland Metro Alliance is responsible for planning and building extensions to the West Midlands Metro light rail system. The organisation is a unique alliance of nine international partners, including designers, construction experts, and local specialists. It consists of the West Midlands Combined Authority, which owns West Midlands Metro; a consortium of design experts from Egis, Tony Gee and Pell Frischmann; and rail construction specialists Colas Rail – with Colas' sub-alliance partners Colas Ltd, Barhale, Bouygues UK and Auctus Management Group. All are crucial in delivering the extensions to provide better public transport connections and alleviating congestion.

Challenges

Since the project runs directly through the heart of major towns and cities, there are constraints on-site, including not being able to store fuel on the ground, as well as a need to opt for greener equipment to reduce emissions during construction.

Given the level of construction activity taking place five days a week for a projected ten-year period, Midland Metro Alliance enlisted Sunbelt Rentals as an environmentally conscious rental provider to help them meet to their environmental and safety obligations.

“ This project demonstrates the practical use of HVO fuel in a high-demand, urban infrastructure environment. By tailoring a direct-to-asset refuelling approach, we've helped overcome common challenges such as on-site fuel storage, while supporting Midland Metro Alliance in significantly reducing their emissions.

It's been a genuinely collaborative process working closely with the Midland Metro Alliance team to adapt and refine the delivery model to suit the operational needs of the site. Partnerships like this are essential when aiming to deliver sustainable outcomes on complex, multi-year projects.

Carley Hutcheon
Head of Fuel at Sunbelt Rentals

Our equipment and services supplied at a glance

- 250,000L of HVO Fuel Annually
- Accommodation Units
- Battery Storage Units
- Electric Vehicle Chargers
- Lifting Equipment
- Plant Equipment (including stage V plant)
- Rail Equipment
- Safety and Communications Apparatus
- Survey Technologies (including laser survey technologies)
- Construction Tools

Solution

As a UK leader in greener rental solutions, we began by creating a bespoke fuel package that would act as a cornerstone of continuity for the project. Rather than delivering diesel to site, we decided that Hydrotreated Vegetable Oil (HVO) fuel would be a more suitable option. To overcome the fuel storage constraints, we arranged for 950L fuel deliveries five days a week on a continued basis, refuelling up to 30 on-site assets directly rather than into a fuel storage tank. Throughout a 12-month period, this surmounts to roughly 250,000L of HVO. Where possible, the HVO we deliver is transported using vehicles that are also powered by HVO to drive down emissions even further.

Stemming from our greener fuel provision, we also delivered a package of greener equipment to support the construction activity, made up of; accommodation units, battery storage units, electric vehicle chargers, lifting equipment, plant, rail equipment, safety and communications apparatus, survey technologies, construction tools, and more.

Within our greener equipment provision, we delivered numerous innovative technologies to site, including stage V plant and laser survey technology. These forward-thinking technologies ensure that workers on-site are enjoying the very best industry has to offer, helping to deliver a precise finish for the project.

Result

By virtue of our HVO provision, Midland Metro Alliance have been able to continue their construction activities at pace, laying a significant portion of the track so far, maintaining pace with the overall expansion project timescales.

In doing so, they have been able to drive down their emissions by up to 90%, which on the assumption of 250,000L of fuel per year saves them approximately 725 tonnes of CO₂ emissions on an annual basis. Extrapolated out, this is projected to save 7250 tonnes of CO₂ emissions throughout the projected ten-year lifespan if they continue opting for HVO fuel.

To complement this, our greener equipment has proven invaluable to Midland Metro Alliance, ensuring they have the right kit to get the job done on time and to the required quality, all whilst driving down emissions further by opting for environmentally responsible alternatives.