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BAM adopts plant-based fuels to help slash UK carbon emissions

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BAM has committed to running all of its UK construction machinery using recycled cooking oil, contributing to goals focused on reducing carbon emissions from its activities.

Hydrotreated Vegetable Oil (HVO) is an advanced renewable fuel derived from waste products. While the fuel currently costs around 15% more than red diesel, it reduces net CO2 emissions by as much as 90%.

In 2020, as part of its work delivering construction and infrastructure schemes across the UK, BAM consumed 7.1m litres of red diesel, around 70% of the company's total direct carbon footprint. HVO fuel will be provided through a new UK-wide contract with Crown Oil, helping to support BAM's broader strategy to make use of sustainable innovations to reduce the CO2 emissions related to its work.

Other measures include the phasing out of diesel generators and increasing use of alternative solutions such as photovoltaic cells to generate power at sites, the rollout of electric vehicles to all levels of the employee fleet, the increasing use of low-carbon materials, such as low cement concrete, in the design, construction and management of net-zero buildings.

Whilst HVO is considered an important stepping stone to a net zero carbon position, the ultimate goal is to eliminate all internal combustion engines and opt for electrically alternatives powered by batteries or hydrogen fuel cells. BAM is working closely with machinery manufacturers to accelerate the deployment of electric equipment that will help power its sites more cleanly and sustainably.

Sarah Jolliffe, Carbon Reduction Lead, BAM Nuttall said: “HVO fuel has been available for several years but it is only in the last 12-18 months that this fuel has been approved by plant and engine manufacturers for use in their equipment.

“HVO differs from gas oil, diesel and petrol as it isn’t derived from crude oil, the main cause of greenhouse gases, including carbon dioxide. HVO is made through the hydrotreatment of pre-existing bio-waste products such as used cooking oil, waste plant and organic matter.

“Many of the projects we deliver and clients we support aim to decarbonise public transport or protect people from the effects of climate change. But the engineering solutions and construction operations have a high carbon impact. We want to reduce carbon throughout the whole lifecycle of a project, from the way the site operates through to the materials used in construction, and the way assets are operated, maintained and dismantled.”

BAM’s clients seeking to reduce the environmental impact of major engineering projects welcome the new scheme.

David Jarman, Programme Manager for Network Rail’s South-East Multi-Disciplinary Framework, said: “We fully support sustainability initiatives on the Southern Multi-disciplinary Framework. The use of HVO fuel as an alternative to red diesel is a fantastic one which we hope will have a dramatic and positive effect on our carbon omissions. Trials that have been run on our stations portfolio have been positive and I am now excited to see it rolled out across all of our sites.”

David Oake, Senior Advisor from the Environment Agency’s Yorkshire Area, said: “On our Kirkstall Valley Farm site, part of Leeds Flood Alleviation Scheme Phase 2, 46% of our carbon emissions come from construction and a further 31% from the supply chain. Therefore, alternative fuels have a vital role to play in reducing our carbon emissions. We have committed to switch our plant on site to HVO, reducing our related net carbon emissions by 90%.”

BAM is also collaborating with its supply chain partners to encourage further use of low carbon fuels and diesel alternatives to its supply chain.

BAM’s chosen HVO supplier is Crown Oil. They only supply HVO which is certified to the International Sustainability & Carbon Certification (ISCC) and meets the UK Government’s Renewable Transport Fuel Obligation (RFTO) standards. You can read more about HVO fuel on Crown Oil’s website.

Photo credit: BAM