

Veolia innovation saves 12GWh of gas use using new distillate product to reduce carbon emissions

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The latest innovation from [Veolia](#), the UK's leading resource management company, is now saving 12GWh of gas use per year by using a new distillate product as a fuel for the steam plant that supports the solvent recovery operations at its Garston, Liverpool facility.

By developing and testing the new fuel, and using it as a substitute for fossil fuel, the site now displaces the equivalent of 1.1 million m³ of natural gas, enough to heat over 1,000 houses for a year. Replacing this gas use with fuel derived directly from the solvent recovery operation means the site is now saving 2,500 tonnes of carbon per year from its own energy demand.

The Garston site takes materials from industry and regenerates these into high quality recycled products, displacing virgin materials in the supply chain by using various distillation technologies to make new products for industrial customers. With the growing demand for solvent recovery across the pharmaceuticals, semiconductors, paint and agrochemicals industries, the Garston site needed to expand operations which required a new steam plant to generate the high volumes of steam needed to support production. To support the operations, Veolia wanted to decarbonise the energy use by replacing natural gas with an alternative greener fuel to reduce the carbon footprint.

To develop the concept, the Veolia team used a pilot project to manufacture a fuel and test it to prove that it was better than its equivalent. The project team then designed a burner and burner management system that could handle both liquid and gaseous fuels, to enable a seamless swap-over and ensure the steam plant could remain fully operational and support the re-manufacturing process. Following the

rigorous testing and designing phase, the new steam plant capable of running on multiple fuel types, ranging from solvent based fuels made on site, to future green hydrogen, was installed and started operating in October 2024.

Commenting on this latest innovation, Nicola Henshaw, Managing Director Hazardous at Veolia UK said: “Our strategic GreenUp programme to decarbonise, de-pollute and regenerate natural resources, drives us to look for ways of reducing carbon emissions and this latest innovation does just that. By putting theory into practice, our teams have proved that industrial steam plants can move away from fossil fuel use with no loss of production output or product quality. This milestone marks a significant way forward, dramatically cutting gas use and advancing towards net zero targets.”

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