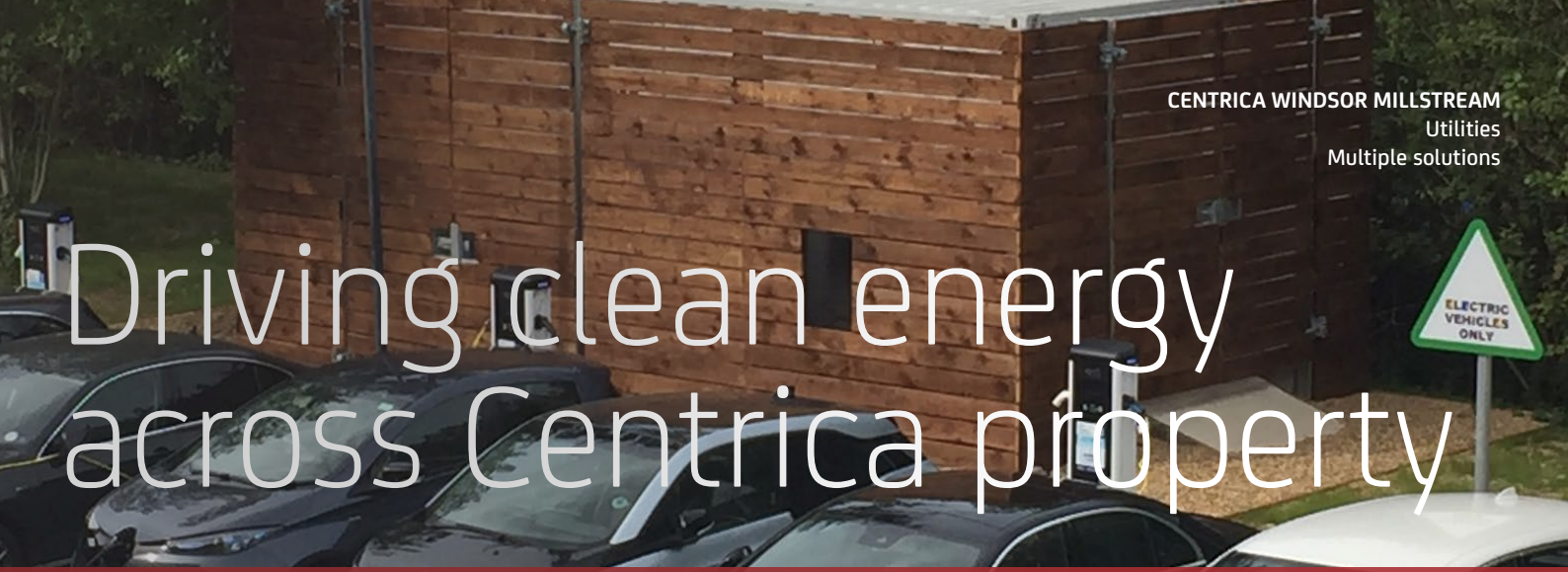

CENTRICA WINDSOR MILLSTREAM
Utilities
Multiple solutions

Driving clean energy across Centrica property

Centrica Business Solutions reaches ambitious carbon reduction targets with a range of distributed energy solutions at its UK headquarters and across Centrica's wider property portfolio.

Committed to cutting carbon

Centrica set itself aggressive carbon reduction targets. It wanted to deploy a range of measures through Centrica Business Solutions at its headquarters and UK property portfolio.

Utilising a range of clean-energy technology

Early initiatives focused on the Windsor headquarters. Work started with smaller initiatives, such as pipework insulation and lighting controls, before progressing to biomass boilers and solar PV systems.

The 198 kWh capacity biomass boiler uses UK sourced wood pellets to generate a heat supply throughout the year. It reduces impact on the environment because the carbon released from biomass is part of the natural cycle which has led to £13,000 in subsidies via the UK Government's Renewable Heat Incentive (RHI).

Three solar PV arrays provide an injection of renewables for office consumption as well as fuelling onsite electric vehicle charge points. The headquarters is also home to a solar thermal array which provides the building with hot water. Together, these solar arrays have generated over 4,750 kWh of energy and saved around 8,700 kg of carbon.

Over 150 electric vehicle charge points have been installed across all the company's UK offices, making it possible for employees to charge their electric vehicles at work. At the Windsor building, over 20 charge points are available, with the 44 kW model achieving full charge in half an hour.

As part of the site's lease renewal, a Turbocor chiller was installed which is 30% more energy efficient than the previous cooling system.

The results

Combined, the projects have made a significant impact. The Windsor site has slashed emissions by 45% over the last decade which equates to 320 tonnes of carbon.

320 TONNES
Decrease in carbon emissions over 10 years

42% DECREASE
Reduction in electricity consumption over 10 years

4.8 KWH
Solar power generation

> "By using and testing distributed energy solutions at our sites, we can maximise cost efficiencies and make sound progress against our carbon reduction targets, while helping decarbonise the energy system."
>
> **Jim Rushen, Group Head of Environment, Centrica**

A new 1 MW battery plant became fully functional in 2018. The battery will help balance the grid by storing energy during off-peak periods and releasing it when demand increases.

Electricity generated at peak times has the highest carbon intensity as more fossil fuels need to be switched on to meet demand. The battery will help counter this by lowering the site's carbon emissions, boosting energy resilience and decarbonising the grid by providing flexibility and the ability to accommodate a greater concentration of renewables in the market.

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