

For Immediate Release

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Leading UK Nursery Invests in High-Efficiency 1.9MW CIAT Ground-source Heat Pump System

BEVERLEY, England, Aug. 10, 2021 – A 1.9MW heating system powered by highly efficient CIAT ground-source heat pumps is providing low-cost, low-carbon renewable heating for Coletta & Tyson, one of Europe's largest independent nurseries. CIAT is part of <u>Carrier Global Corporation</u> (NYSE: CARR), the leading global provider of healthy, safe, sustainable and intelligent building and cold chain solutions.

Coletta & Tyson are a major grower of garden bedding plants with nurseries covering 400 acres in East Yorkshire. The company commissioned Ebtech Energy Systems, a leading specialist in large water-source heat pump projects, to investigate options to replace an existing oil-fired boiler used for heating its main growing site near Beverley, Hull.

Options considered included biomass boilers, biomass-fuelled combined heat and power (CHP) and ground-source and air-source heat pumps. Reflecting the space available on site, and the favourable underlying geology, a ground-source heat pump system based on CIAT units was chosen as the most efficient and cost-effective option to provide for the year-round heating requirements of the centre's growing areas.

Ebtech's design is based on three DYNACIAT water-to-water units, supplied by Cool Solutions Distribution Ltd, linked to open-loop boreholes drilled into the underlying chalk aquifer.

The system pumps ground-water from four abstraction boreholes up to 30 metres deep, passes it through the heat pumps to capture and upgrade its thermal energy, and then returns it to the ground via four re-injection boreholes. With a diameter of 450 millimetres, the boreholes can supply up to 45 litres per second of water to the heat pumps.

The installation supplements an existing 2MW ground source heat pump installation completed two years ago, also based on CIAT units, to provide the majority of heat across the site with the existing oil boiler retained for back-up and extreme peak-load requirements.

Equipped with an electronic expansion valve and high performance components, the recently launched DYNACIAT range of compact water-to-water heat pumps is highly energy-efficient, achieving a European Seasonal Energy Efficiency Ratio (ESEER) of up to 6.22, and Seasonal Coefficient of Performance (SCOP) of up to 6.37.

"Installing this super-efficient, large scale heat pump system is another important step in our journey towards zero carbon heating in our growing facilities," said John Tyson, Director of Colleta & Tyson.

"Ebtech's solution is outstandingly efficient and makes excellent use of 'free' renewable energy as a replacement for the previous high carbon-emitting and expensive-to-run oil-fired system," said Paul Smith, Sales Director for Applied Products, Toshiba Carrier UK. "DYNACIAT's combination of performance, reliability and competitive pricing delivers a rapid return on investment for such projects, which is good for the environment and dramatically cuts end users' running costs."

For more details on the DYNACIAT range of heat pumps, visit the <u>product page</u>.

About CIAT

CIAT is one of Europe's leading names in cooling, heating, and indoor air quality. Renowned for its capacity to create innovative, durable and high-performing products, CIAT offers a complete range of equipment that is designed to work together. CIAT's latest innovations have been specially designed to meet the most demanding requirements. CIAT is part of Carrier Global Corporation, the leading global provider of healthy, safe, sustainable and intelligent building and cold chain solutions. For more information, visit www.ciat.com/en/eu/.

PICTURES



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