



## Case Study **RIVER ENERGY**



## Fruit Grower Harnesses River Energy to Extend Growing Season for English Strawberries

This 8.8MW renewable energy project in the South of England uses CIAT heat pumps to harness river energy to help a fruit grower produce bigger crops and extend the growing season.

The plant uses five HYDROCIAT water-source heat pumps to capture and upgrade energy from the River Loddon, reducing the end user's carbon emissions and enabling berries to be grown outside the UK's normal production window. The system, based on a cascade design, provides heating for 110,000 square metres of fruit crops produced by grower Hall Hunter Partnership.

As part of its carbon reduction programme, Hall Hunter Partnership commissioned Ebtech Energy Systems to carry out an evaluation of the potential of the river as a year-round energy source. Key to the project's viability was to ensure that the peak heating requirement during the coldest winter days could be met.

Once viability was proven, Ebtech, supported by CIAT UK and Cool Solutions, produced a detailed design proposal for the client, which was accepted.

### Great success

In the first six weeks of operation, the system delivered some 5,000MWh of renewable, low carbon heating, with peak load being maintained despite operating during the coldest temperatures recorded in the UK for a decade. As a result, the client hailed the project a great success.

The project's pumping station has capacity to supply 640 litres per second of river water to the heat pump system.

The upgraded hot water generated is circulated around the growing space by 160km of distribution pipe work.

The system is anticipated to save some 44,000 tonnes of carbon over the next 20 years, when compared with an equivalent gas-fired heating system. As a result of the success of the scheme, the grower is installing a further scheme to deliver 11MW of renewable heating.

Installer Ebtech says it selected HYDROCIAT units as they are the most energy efficient on the market.

**To learn more, visit [www.ciat.uk.com/product/hydrociat/](http://www.ciat.uk.com/product/hydrociat/)**

### EQUIPMENT

5 x CIAT HYDROCIAT water-source heat pumps