

Kitchen heat keeps customers comfy thanks to Dimplex

A new National Trust restaurant near Truro is using Dimplex air source heat pumps to utilise the warm air from the kitchen fridges to keep customers warm.

Crofters is a new licensed restaurant in the courtyard at Trelissick, the National Trust tiered garden estate at Feock, near Truro in Cornwall, which is home to a superb collection of tender and exotic plants. The restaurant development, which cost around £650,000, features a number of green initiatives in addition to the Dimplex air source heat pumps, including solar panels, environmentally-friendly insulation and a rainwater recovery system to flush the toilets.

Peter Bee, senior building surveyor, National Trust, Devon and Cornwall, says: "Where appropriate we would normally use ground source heat pumps, and Dimplex systems have been used at other National Trust sites. But at Trelissick we wanted to recover the heat from the refrigeration equipment in the kitchen, so air source was the way to go.

"The condensers from the back of the fridges have been remotely sited alongside the Dimplex air source heat pump in an insulated outbuilding. This means the air to water heat pump is given a kick start by the warm air expelled from the kitchen fridges."





Client

National Trust

Products

Dimplex air source
Heat pumps

Partners

EarthEnergy

The heat generated by the system is used for under floor heating in the new Crofters restaurant and there is the additional benefit that the kitchen is cooler with the refrigerators' heat extracted outside the building.

Dimplex air source heat pumps provide efficient heating, have low installation cost, require minimal space for installation, and have excellent levels of performance, making them ideal for both new build and refurbishment projects. The system is normally designed to provide 100 per cent of heating and hot water demand. At Trelissick the 11kW air source heat pump was installed by Falmouth-based Dimplex heat pump installer partner EarthEnergy.

Stephen Hird of SJH Design Services, the mechanical and electrical consultants for the Trelissick development, said: "With all the external fridge condensers from the catering kitchens grouped together with the Dimplex air source heat pumps it means the ambient air temperature is already raised by about 12°C, making the system very efficient.

The National Trust is a very forward-looking organisation which is always keen to use the latest in energy efficient heating solutions. We were very impressed with the technical advice and support we received from EarthEnergy and Dimplex on installing these air source heat pumps and will certainly use them again for future jobs."

Peter adds: "We always include in the brief for any building project that, within reason, the job needs to be as green as possible and to include as many environmentally-friendly solutions as feasible. This means within National Trust properties we have ground and air source heat pumps, hydro-electric and bio mass boilers, but also we're as green as possible where LPG (liquefied petroleum gas) is the only option.

"Trelissick was a complex installation with a combined heat and power plant so we're just about to install monitoring equipment at Crofters to see what outputs we're getting from the various systems."



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