Calorex's carbon negative accolade

An indoor swimming pool featuring a Calorex environmental control unit has been praised for its energy efficiency credentials, after scooping a top industry award.

The pool, which features a Calorex Variheat III, took Gold in the sustainability category at the 2016 British Pool & Hot Tub Awards.

Located on the edge of Northumberland National Park, the pool is part of a carbon negative residential property, which means it produces more energy than it consumes.

The Calorex Variheat was specified for the project to control the operation of the heat source and combine it with a highly efficient heat pump dehumidifier to provide air and water heating, humidity control, ventilation and energy recovery.

Typically, for every unit of power that a Calorex Variheat consumes, it will convert more than twice this amount to usable heat. The potential energy savings are huge. In fact, compared to traditional heat and ventilation, considerable energy cost savings can be made and corresponding CO2 emissions can be dramatically reduced.

Mick Guthrie of Sunderland-based pool company Whitewaters, who installed the pool and specified the Calorex Variheat commented: "This scheme proves that properly utilising the very best in renewable technology can allow a pool, which is so often seen as an environmental no-no, to be collaboratively integrated into a significantly carbon negative development.

"We selected the Calorex unit based on our long term relationship and the performance and reliability of the Calorex product."

The pool has a three-tiered heating system designed to optimise the various heat generating systems available on the site. Firstly, the pool water is used as a heat store for the 12kw solar thermal heat system installed on the plant room roof. Secondly, when the solar thermal system is insufficient, the pool system draws heat from a buffer tank under the plant room floor, which has an immersion heater powered by a 10kw wind turbine. Thirdly, the pool system also has the capability of drawing heat from a 3.8kw ground source heat pump, one of five installed on the site.

In addition, the pool consumes no mains cold water as it draws 100 per cent of its source water from an on-site bore hole.