



## Client

Norfolk and Waveney Mental Health Foundation Trust

## Products

Dimplex SI 50 TE  
ground source heat pumps

## Partners

Econic

### Hospital receives £142,000 in grant funding for Dimplex heat pump project

When the Norfolk and Waveney Mental Health Foundation Trust invested £8.2 million in a new hospital unit, it needed to ensure that the building took into account the NHS' target to be zero carbon by 2018, so installing Dimplex ground source heat pumps was a natural choice.

The heating was required for Hellesdon Hospital's award-winning Psychiatric Intensive Care and Low Secure units and the Trust consulted Econic, one of Dimplex's heat pump installer partners, for a low carbon heating solution. Econic developed a system using two Dimplex SI50 TE 50kW heat pumps to draw heat from one of the largest ground collectors of its type in the UK to date. As Dimplex was also able to offer grants of up to 50% under Phase 2 of the Low Carbon Buildings Programme, Econic was able to secure £142,000 in grant funding for the project.

The design of the extensive ground collector system took into account the geological conditions underlying the site, the heat yield available from the ground, and the annual heat load profile of the new building.

The installation of the collectors used hydraulic pushing technology, with a 33 tonne 8 x 8 wheel truck carrying hydraulic rams pushing a steel casing into the ground, into which the collector pipes were inserted. The steel casing was then withdrawn, leaving the pipes in the ground. A total of 120 25-metre deep collectors were installed, which together are expected to produce a total of around 75kW per hour throughout the collector system's lifetime, estimated to be around 25 years.

Rachel Newson, director of business development at the Trust, explains: "We wanted the new facilities to incorporate best practice in low carbon building technology, in readiness for the 2018 zero carbon target, so we were looking for a partner to work with us to achieve our carbon reduction plans. We chose Dimplex, and having found our partner we were able to access grant funding. The heat pumps will help protect the Trust from any future unexpected increases in energy prices."

In addition to the heat pumps, a wide variety of other energy-saving measures have been incorporated into the build, including high levels of insulation to minimise heat loss and energy consumption, low energy high frequency lighting with automatic controls and harvested rainwater for the units' WCs.



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