

EARTHENERGY™



Skelton Grange Environmental Centre



This very low energy building was designed by Leeds Environmental Design Agency (LEDA) to incorporate a number of renewable energies including a wind turbine, solar thermal and of course a GeoScience Limited EarthEnergy™ system.

The EarthEnergy ground source heating system incorporates a Viessmann Vitocal 300 water to water, closed loop ground source heat pump, capable of meeting a 14kW_(TH) heating demand.

The EarthEnergy System also contributes along with a solar thermal system to the domestic hot water requirement of the building.

Thermal energy is extracted from the ground via an array of three coiled ground loops (often referred to as 'slinkies') buried in 1.8metre deep trenches. Because the building is located alongside one of the electrical substations serving Leeds, a high voltage cable runs across the site, two of the slinkies are installed alongside this to take advantage of the extra heat emitted from the cable.

Skelton Grange Community Centre is one of the first community schemes in the country to benefit from 50% grant funding towards the costs of the EarthEnergy system, under the ClearSkies renewable energy initiative.

Ground Loop	<i>Trenches</i>
Heat Pump	<i>14 kilowatt Viessmann Vitocal 300</i>
Distribution System	<i>Wet Under Floor</i>
Client	<i>Skelton Grange Environmental Centre</i>
Mechanical & Electrical	<i>LEDA</i>
Commissioned	<i>June 2003</i>