

# EARTHENERGY™



## Wildfowl & Wetlands Centre



This newly built thatched, round house is used as an education building by the Wildfowl and Wetlands Trust (WWT) at their visitor centre in Arundel, West Sussex.

By designing a closed loop ground source heating system, EARTHENERGY™ were able to provide WWT with an environmentally friendly system which offered far more benefits than the electric heating only system initially specified.

The ground source system comprises of a ground loop heat exchanger buried in a 1.8 metre deep trench and connected to 2 No. reverse cycle water to air ground source heat pumps, providing 3.8kW of heating and cooling (nominal).

During the winter months, a water and antifreeze mixture is circulated around the ground loop to collect heat from the ground which is used to provide warmth, via the heat pump to the building. In summer months the system runs in reverse and the coolth from the ground is used to cool the building down via the heat pump.

The WWT Arundel recently won the South East Tourism 'ExSELLence' award for the 'Best Small Visitor Attraction'. For further information about the Wildfowl and Wetlands trust visit [www.wwt.org.uk](http://www.wwt.org.uk)

<b>Ground Loop</b>	<b><i>Trenches</i></b>
<b>Heat Pump</b>	<b><i>3.5 kilowatt ClimateMaster</i></b>
<b>Distribution System</b>	<b><i>Water to air</i></b>
<b>Client</b>	<b><i>Wildfowl &amp; Wetlands Trust</i></b>
<b>Mechanical &amp; Electrical</b>	
<b>Commissioned</b>	<b><i>January 2005</i></b>