

# EARTHENERGY™



## Penwith Housing Association



The four energy efficient bungalows at this site are heated using EarthEnergy systems. Each bungalow has a dedicated horizontal Slinky coil buried in a trench. The Slinky coil is fabricated from high density, polyethylene pipe, using electrofusion welding for all subsurface joins.

The headers from each Slinky coil are taken back into each bungalow below ground level, and terminate in the utility room. Each coil is connected to an IVT water to water heating only heat pump. This is a fully integrated unit, containing the heat pump and two circulating pumps - one for the ground loop, and one for the indoor circuit.

The heat pump feeds a wet radiator system - with the radiators being appropriately sized for the 50-55°C delivery temperature. The domestic hot water supply is also pre-heated using the heat pump. A top up electric flow boiler is provided in the event that the heat pump cannot meet full load requirements in extreme conditions.

Tenants moved into the bungalows in October 1998, and the EarthEnergy systems have been running since then.

This project is supported by SWEB

<b>Ground Loop</b>	<b><i>Trenches</i></b>
<b>Heat Pump</b>	<b><i>4 kilowatt IVT</i></b>
<b>Distribution System</b>	<b><i>Wet Radiator System</i></b>
<b>Client</b>	<b><i>Penwith Housing Association</i></b>
<b>Mechanical &amp; Electrical</b>	<b><i>Hollands &amp; Long</i></b>
<b>Commissioned</b>	<b><i>October 1998</i></b>