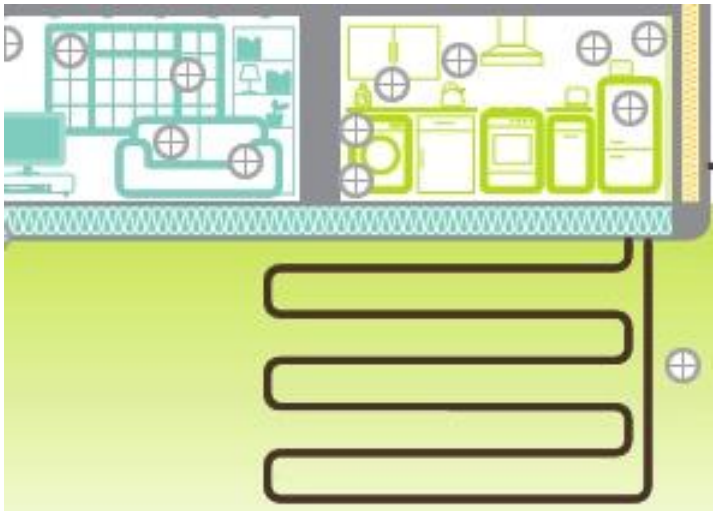
Ground Source Heat Pumps



What is it?
A ground source heat pump is able to extract heat stored in the ground and deliver it as useful heat through a heating system in a house.

How do they work?
A liquid is passed around coils that are laid under the ground. This liquid absorbs heat stored in the ground, after being pre-heated, it is then compressed (using an electric pump) to raise its temperature to the desired level in the house. Once the heat has been given out into the house, the cooler liquid returns to the ground to be pre-heated once again.

What's the benefit?
You can see a reduction in your gas bills, and if you currently use electric heating you can see a reduction in your environmental impact as ground source heat pumps are more efficient than electric radiators. Ground source heat pumps can multiply heat, for every 1 unit of electricity that goes into a heat pump, you can normally get 2 or 3 units of heat out.

If you wish to find out more about energy efficient lighting please contact Actio$_2$n Surrey on 0800 783 2503

At a glance

Annual Savings

<£190 (when you are on mains gas)

0kgCO_2

Costs £8,000-£12,000 (installed)

If your house uses electricity to provide space heating, you could save a significant amount of CO_2 (up to 6 tonnes).

Things to consider:

You will need to dig trenches or bore holes

Your electricity consumption will rise (electricity is three times as expensive as gas)

You will need a space for the pump which is the size of an upright fridge freezer

Your house will need to be very well insulated and draught proofed to benefit from a heat pump