

The benefits of

Ground Source Heat Pumps

Heat your home with energy absorbed from the ground

Costs and savings

Costs of installing

a typical system range from about £9,000 to £17,000.

Running costs will depend on a number of factors - including the size of your home and how well insulated it is.



		Ground source heat pumps	
		Savings from typical performing system 250%	Savings from good performing system 300%
Gas	£/yr	-£40	£70
	kgCO2/yr	280	750
Electric	£/yr	£420	£530
	kgCO2/yr	4,985	5,455
Oil	£/yr	£50	£160
	kgCO2/yr	1,085	1560
Solid	£/yr	£260	£370
	kgCO2/yr	4,860	5,330

Ground source heat pumps use pipes buried in the garden to extract heat from the ground. This is usually used to heat radiators or underfloor heating systems and hot water.

Beneath the surface, the ground stays at a fairly constant temperature, so a ground source heat pump can be used throughout the year - even in the middle of winter.

How does a ground source heat pump work?

A ground source heat pump circulates a mixture of water and antifreeze around a loop of pipe - called a ground loop - which is buried in the garden.

Heat from the ground is absorbed into this fluid and is pumped through a heat exchanger in the heat pump.

Low grade heat passes through the heat pump compressor and is concentrated into a higher temperature useful heat capable of heating water for the heating and hot water circuits of the house.

Ground loop fluid, now cooler, passes back into the ground where it absorbs further energy from the ground in a continuous process while heating is required.

For more information on home energy generation technologies, contact your local Energy Saving Trust Advice Centre on Tel: 0800 512 012.

