

Closed loop heat pump costs, savings and earnings

Costs

Installing a typical system costs around £10,000 to £17,000. Running costs will depend on a number of factors - including the size of your home and how well insulated it is.

Savings

How much you can save will depend on what system you use now, as well as what you are replacing it with. You will be fully informed of the expected savings during the design phase of the installation. Your savings will be affected by:



- Your heat distribution system If you have the
 opportunity, under floor heating can be more
 efficient than radiators because the water doesn't need to be so hot. If
 under floor heating isn't possible we recommend using large radiators or
 fan-assisted radiators. FWT can advise on whether your current distribution
 system is adequate.
- Your fuel costs You will still have to pay fuel bills with a heat pump because they are powered by electricity but you will save on the fuel you are replacing. If the fuel you are replacing is expensive you are more likely to make a saving.
- Your old heating system If your old heating system was inefficient, you are more likely to see lower running costs with a new heat pump.
- Water heating If the heat pump is providing hot water then this could limit the overall efficiency. You might want to consider solar water heating to provide hot water in the summer and help keep your heat pump efficiency up.
- Using the controls Learn how to control the system so you can get the
 most out of it. You will probably need to set the heating to come on for
 longer hours but you might be able to set the thermostat lower and still
 feel comfortable. FWT will explain how to control the system so you can
 use it most effectively.

















These are the savings you might make every year when replacing an existing heating system in an average three-bedroom semi-detached home with a typical GSHP installation, the savings are for illustration purposes and FWT hope to obtain an efficiency in excess of 300%.

Existing system		Ground source heat pump performing at 250%	Ground source heat pump performing at 300%
Gas	£/year	£0	£130
	Carbon dioxide/year	350kg	800kg
Electric	£/year	£480	£610
	Carbon dioxide/year	4,820kg	5,270kg
Oil	£/year	£180	£310
	Carbon dioxide/year	1,180kg	1,640kg
Solid	£/year	£200	£330
	Carbon dioxide/year	4,950kg	5,410kg

A zero saving means it could cost you just as much to run the heat pump as the system you are replacing. We've assumed average boiler efficiency for each fuel type; heat pumps produce more energy (as heat) than they use (as electricity), so their efficiency is more than 100%.

















Earnings

You may be able to receive payments for the heat you generate using a heat pump through the government's Renewable Heat Incentive (RHI). This scheme should be launched in 2013.

From August 2011, you may be able to get help with the installation costs of a ground source heat pump through the Renewable Heat Premium Payment scheme of £1250.















