Experience of installing a heat pump

Is it time for you to install a heat pump?

Is your house well-insulated?

Do you have central heating?

Do you have an oil-fired boiler, or a gas boiler reaching the end of its life?

Have you already installed solar panels? (Useful for supplying some of the power, though not enough!)

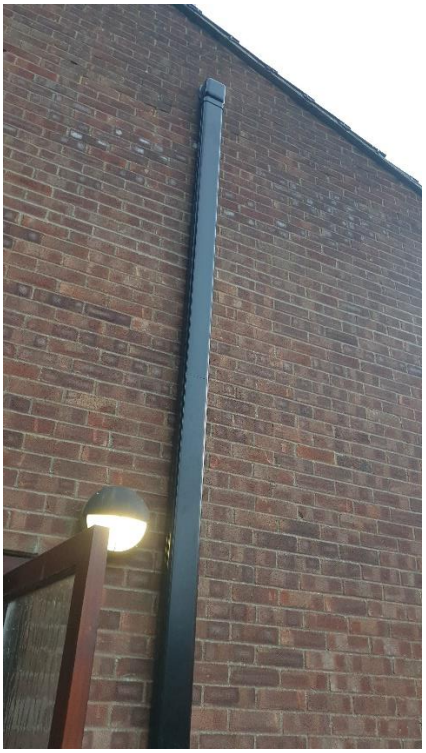
If most of these are true, then maybe now is the time to invest in a heat pump, to help wean the country and the world off fossil fuels.

Do a test this winter

This winter, try running the heating at a lower water temperature (55 or even 45°C) on the boiler (not the hot water for taps, but the temperature of the water in the radiators or underfloor heating). Do the rooms get hot enough on a cold night, if the heating is on for several hours? That's how a heat pump would normally run. If the rooms do not heat up enough, then you may need larger radiators to cope with the lower flow temperature.

What does installing a heat pump entail?

You need a large fan unit outdoors, to take heat out of the air – an Air-Source Heat Pump (ASHP). Or else, if you have enough land (for a borehole or "snake" buried a metre below the surface of your garden), a ground-source heat pump would cost less to run, but a lot more to install.

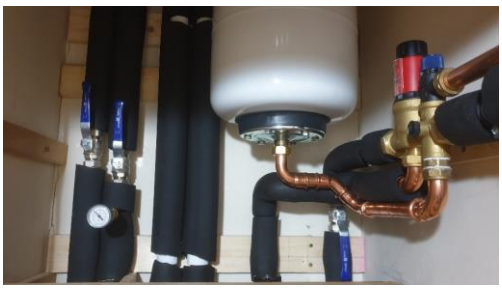


The air-source heat pump a few metres from the house, the pipes under the path and up the side of the house

The pipes from the heat pump go into the house to a small buffer vessel (in the loft, in my case). This stores the heat so that the heat pump does not need to keep turning on and off as often as it would otherwise,

but it makes the heat pump a little less efficient. Then there is a pump and a diverter valve to send water to the central heating or the hot-water cylinder, which is in my airing cupboard (leaving little room for anything else there!) There is a small expansion tank above it.

Buffer vessel (in loft) and hot-water cylinder (in airing cupboard)



Small expansion tank (in airing cupboard)

Installation

The installation took about 10 days in all, with 2 or 3 people working hard most of that time (plumbers and electricians). Finally all was ready and the old gas boiler was disconnected and removed, and the heat pump turned on.

It runs well, and the fans make almost no noticeable noise. This winter will be the big test of whether the radiators are large enough, and whether the heat pump runs efficiently.

There's room for an extra cupboard where the gas boiler was, but at the moment it's just an eyesore, with a bricked-up hole in the wall where the flue was.

The cost?

Mine cost £12,500, less a government grant of £5,000, but I did not change any radiators. It included a second coil in the hot-water cylinder, in case I later add a solar thermal panel on the roof to help heat the water using the Sun. Someone else was quoted £20,000, including radiators.

Apparently the number of grants is limited each year, so there's some risk of missing out! The new starts in April, so maybe that's the best time to install?

Get 3 quotes.

I used Infinite Heating and Energy Limited in Cambourne (infiniteheating.com).

With gas prices rising so sharply, maybe the running costs will be less than with a gas boiler.