Connexus

Ground source and air source heating

This information will help you get the best comfort and value for money from your new ground source or air source heating system.

Heat your home with energy absorbed from outside

Air source heat pumps absorb heat from the outside air. This heat can then be used to heat radiators and hot water in your home. A ground source heat pump absorbs heat from a loop circulating liquid through a borehole drilled up to 120 metres below ground.

Heat pumps extract heat from the air or ground in the same way that a fridge extracts heat from the food stored inside it. It can get heat from the air even when the temperature outside is as low as -15°C.

Heat pumps have some impact on the environment as they need electricity to run, but the heat they extract from the air is constantly being renewed naturally.

How do heat pumps work?

Heat from the air or ground is absorbed at low temperatures into a fluid. This fluid then passes through a compressor where its temperature is increased, and transfers its higher temperature heat to the heating and hot water circuits of the house.

An air to water or ground to water system distributes heat via a wet central heating system, with pipework and radiators throughout your home. Heat pumps work much more efficiently at a lower temperature than a standard boiler system would. This means the system needs larger radiators which give out the same amount of heat at a lower temperature over longer periods of time.

The installer will set up your new heating system to be efficient as possible for your needs, based on when you are at home and the amount of hot water you are likely to use every day. The best thing to do is not to adjust these settings, as this could result in your heating being less efficient and costing more to run.

Are you on the right electricity tariff?

If your property had an Economy 7 or Economy 10 electricity meter before the installation of the new system, you will need to have this changed. This is normally when the old system was night storage heaters or electric boilers.

You will need to contact your existing energy provider and explain that a new heating system has been installed. Ask for a standard meter on the cheapest standard rate. The energy provider will give a date for the changeover. Please make a note of this and inform the contractor that is fitting the new system.

If you experience any difficulty or feel you cannot do this yourself, please contact our **Tenant Liaison Officer**.

Using your heat pump

Unlike solid fuel, gas and oil boilers, heat pumps deliver heat at lower temperatures over much longer periods. During the winter you may need to have your heat pump on constantly to heat your home efficiently.

Radiators will not feel as hot to the touch as you are used to with your previous heating system – and that's OK!

Avoid changing the set temperature

If you regularly turn the temperature up and down to regulate the temperature in your home, your heat pump will use more power. So, it's better to set the thermostat to a comfortable temperature and try not to change it, as your system will require less power to maintain a constant temperature. The radiators aren't designed to get super-hot like gas or oil radiators, do not cover the radiators (with washing) as they won't heat your home as well.

If you change the target temperature on your thermostat, it can take some time to adjust. Try turning the set temperature up or down in one-degree increments until

you're happy with your home's warmth. Optimal temperature settings in winter are between 18-22°C for comfort without excessive energy usage. Setting the temperature too high can lead to increased energy consumption.

Talk to other people in your household so they know that the system doesn't work like gas or oil heating, and that it will cost more if big adjustments are made.

Remember during the winter months to be mindful to keep doors and windows closed as much as possible to avoid heat loss.

Check the water heating temperature

Under building regulations in the UK, hot water cylinders should keep your water at 60°C to protect against harmful legionella bacteria growing.

If your bills are high, it may be because your hot water temperature has been set too high, which means your heat pump will be using more electricity than it needs to get your water to the right temperature.

Keep it clean and free from obstructions

Dirty or blocked filters restrict airflow through a heat pump system, and so making it work inefficiently. Make sure there's no grass, stray leaves, dirt, or other debris around your heat pump.

You may also need to de-ice your unit during winter months. Some models have a defrost setting that gradually melts the ice to help with this issue.

Installation and maintenance

Our contractors will need access to your home to install the new heat pump, hot water cylinder and radiators, and to remove the existing heating system. This will take approximately five days.

Some of the work will be done outside of your home, for example, installing the underground pipes for ground source heat pumps and external heat pump for air source heating systems. This external work will normally take around five days. Usually the external work is finished first, before the contractor needs to come into your home.

The ground around your home will be disturbed, but any mess will be kept to a minimum and access will not be restricted. Any grass that is disturbed will be replaced at the end of the work.

Please ensure any personal items are removed from the areas the contractors will work in are removed before the works starts, to protect them from damage.

Who will carry out the work?

The installation will be carried out by specialist contractors.

What Connexus Does

Connexus have an annual servicing regime for the Heat Pumps which will ensure the system is running as it should for you.

Connexus can also arrange for an engineer to attend your home on installation or when you move into your new home to go through the controls and settings giving best guidance for how to set the system and give you an understanding of what you can expect in terms of efficiency.

More questions? Please **contact us**.

03332 31 32 33 | connexus-group.co.uk | hello@connexus-group.co.uk | @weareconnexus