A fresh approach to people homes and communities

A Guide to Air Source Heat Pumps
Barnsley Homes Standard

If you have any comments or suggestion to improve this booklet please contact Investment and Regeneration Team on 01226 774348
Your new heating system

Berneslai Homes will replace your current central heating system with an Air Source Heat Pump system which will provide both heat and hot water for your home.

The system includes:

- Air Source Heat Pump
- Main Controller
- Room Thermostat
- Slimline Cylinder
- Radiators or Hi-Line Heaters

Installing Your New Heating System

It can take up to a week to install your new heating system. All your existing radiators and pipework, boiler and cylinder will need to be removed before the new system can be fitted. New electrical wires for this system will be installed.

Your hot water will be turned off for a couple of days. You will have no central heating for two or three days. We will provide temporary heaters if needed.
Air Source Heat Pump

An air source heat pump works a bit like a fridge in reverse. It absorbs heat from the outside air and the heat pump compressor then increases the temperature of that heat further to create useful heat. This heat is then transferred into hot water which can be pumped around radiators and your cylinder much like your current system.

The heat pump will generally go outside your home in a cage. The cage must not be covered, air must be able to circulate all round it.

The heat pump is not very noisy, it is fitted with vibration reducing dampeners.

The pipes at the back go to the radiators and hot water cylinder.

The heat pump can release steam that looks like smoke. This is warm air being blown from the heat pump to ensure that the internal parts don’t freeze. It is known as the defrost cycle. This is normal.
Slimline Cylinder

The Slimline cylinder unit contains a hot water tank and various heating parts to complete your heating system, such as water pumps and safety valves.

The slimline cylinder will go inside your home after a survey to find the best place to fit it.

It fits in some existing airing cupboards, but a new cupboard may have to be built for the cylinder to go in, or your existing airing cupboard could be altered.

It is larger than an average hot water cylinder and it heats the water to 60°C. The larger size ensures that adequate hot water storage is maintained.
Radiators

The heat produced is cooler than that from a conventional boiler, which means it takes longer to heat up than conventional systems and we may need to install bigger radiators in your home to get a comfortable temperature in each room. The radiators may have double or triple panels or there could be more radiators than before. **They won’t feel as hot to the touch as you have been used to. This is perfectly normal. They will still maintain the correct temperature in your home.**

The heating system is intelligent, checking the temperature outside and inside to maintain the correct temperature. The radiators will warm up slowly and provide a consistent level of heating. This is unlike a standard boiler which operates at higher temperatures to heat up rooms quickly. It is a much more efficient way of heating your home than short bursts of high temperature.

**Don’t cover the radiators, this will prevent the heat from passing to the air in the room.**

**You must not remove or bleed the radiators as they contain antifreeze, removing them can shut the whole system down.**

You can use the Thermostatic Radiator Valves (TRVs) to turn individual radiators up or down, by turning the top of the valve with the numbers on. The hallway radiator won’t have a TRV.

Hi-Line Heaters

Where there isn’t enough space for a large enough radiator, we may need to fit a hi-line heater. This is usually in small kitchens or bathrooms.

This is a heater which blows out warm air when the radiators in your home are on. Sometimes the air can feel cool when it blows on you, this is because your body temperature is higher than the temperature of the air it blows out. It can sound like a fan while it’s working.

The heater(s) will be fitted with an on/off switch (or pull cord in bathrooms).
Controls – Room Thermostat

You can control the room temperature using the wireless control panel which will be attached to a wall in your home, usually the hallway.

The **bottom temperature** tells you what the room temperature is now; the **top temperature** is the one you set to the temperature you would like.

The heating can be turned up and down using the arrow buttons on the right.

If you press the **tap (hot water button) (top, left)** for 3 seconds, the system will work to get the hot water up to temperature. This takes energy away from heating the radiators and will just heat the water. It won’t stop until the water is up to temperature.

**Holiday mode (the bottom, left button)** turns the system right down so it won’t heat any water and keeps the heating on a minimum. Press the button for 3 seconds until the display flashes, then press the button again. You can choose to put up to 72 hours in or you can leave it until you return and press the button for 3 seconds to turn it off.
Main Controls

Your hot water and central heating system is controlled by the main control panel which is either attached to the front of the cylinder unit or a wall in your home.

The display screen shows the target room temperature. The system will have been programmed by an engineer, but you can change the schedule.

**To set the heating timer:**
Press the Menu button. (Bottom left.)

Press F2 and F3 (the white buttons with arrows above on the display) to move across the options on the screen to schedule.

Then press 🔄

For heating press 🔄

Press F4, all the days of the week should be ticked.

Press 🔄

Press F1 for on, off or temperature. The temperature symbol over the black lines is a thermometer.❄️ Both lines should be black, the heating should always be on at no less than 16°C.

Press 🔄, the arrows will turn white and you’ll be able to turn the temperature up and down.

Move the thermometer across and press 🔄 to add another temperature in. You can have up to 4 different settings.

To delete one press the 🔄 on it and press F4.

Press F4 to save.
This new central heating system has the potential to save you money each year on your heating costs but this really depends on how you use it.

To make the most of these savings it is important that the electricity you buy is the lowest price available which may mean looking at other suppliers. Changing your meter from a pre-payment meter to a standard one is recommended as pre-payment energy is very expensive.

FAQs:

How does the system work?
The pump operates on electricity but due to its high efficiency it produces three units of energy for every one unit of energy it uses to run; giving an efficiency rating of approximately 300%. An A rated gas boiler operates at an efficiency of 90 to 92%.

An air source heat pump works a bit like a fridge in reverse. The process consists of an evaporator, a compressor and a condenser. It absorbs heat from the outside air and the heat pump compressor then increases the temperature of that heat further to create useful heat. This heat is then transferred into hot water which can be pumped around radiators and your cylinder much like your current system.

What happens if there’s a power cut?
As with gas central heating your system will temporarily shut down. It will automatically restart once the power returns.

Who should I contact if my heating stops working?
You can still ring the Repairs Helpline on 01226 787878.

Will I still need a gas supply?
Your home will no longer use gas for heating but we will not remove any existing supply to your home so you will be able to continue to use gas for cooking.

If you have an electric cooker, you won’t need to pay a gas bill. You should contact your gas supplier and ask them to remove your gas meter so you don’t have to pay a standing charge.