

Your questions answered?

Helpful info for homeowners.



**Freedom
Project**

Any questions?

We're here to help.

Will the new hybrid heating system cost me money?

No. The **Freedom Project** will fund your brand new full hybrid heating system, including the installation and the first annual service/maintenance. Our approved installation partner will survey your property and give you a quotation which the **Freedom Project** will pay for.

Can I choose my own system?

Relax, that's all taken care of. The **Freedom Project** Team has reviewed 12 hybrid heating systems and chosen three for the project. We'll select the ideal system for your home.

Who might contact me?

If you'd like to take part in the trial you'll be in contact with PassivSystems. You will be contacted by one of our approved partners, who will be installing your hybrid heating system.

You might also be contacted by Delta-ee and City University who will be conducting surveys and interviews. There will be a maximum of 4 surveys (lasting 20-30 minutes) and 2 interviews (lasting 30-60 minutes).

All surveys and interviews are optional, but if you do take part it'll really help the project. We'll even send you a gift card to say thank you.

Who do I call if I need help?

Our approved installation partner will be your support for your hybrid heating system. When you are first introduced to your installer they'll give you contact details in case you need to get in touch.

Once your installation is complete, our approved installation partner will give you all the information you need.

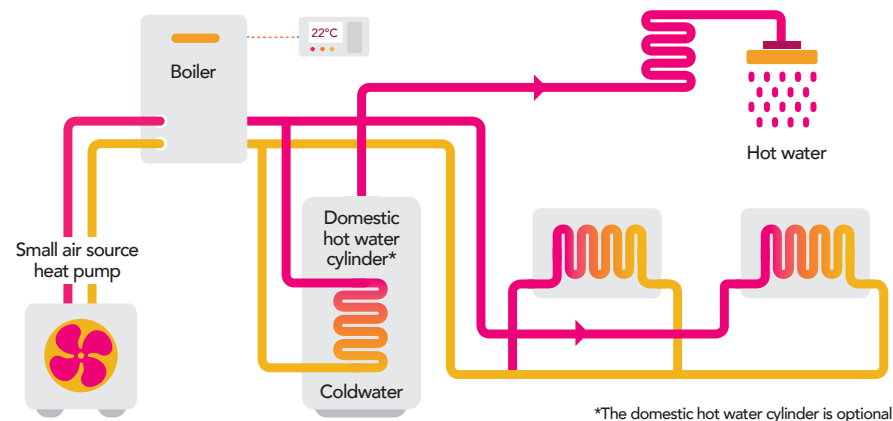
What is an air-source heat pump?

An air-to-water heat pump extracts heat from the outside air in the same way that a fridge is able to extract heat from its inside. It can get heat from the air even when the outside temperature is as low as -15°C . Heat pumps still need electricity to run, but the heat they extract from the air is constantly being renewed naturally.

How does the system work?

A hybrid heating system combines a gas boiler with an air source heat pump to allow domestic heating systems to select a different primary heating fuel based on fuel cost, considering heat demand and system efficiency.

A hybrid heating system automatically selects the most cost-effective heating mode at any time of day or night, all year-round. It takes into account external temperatures and internal heat and hot water demand, as well as the relative cost of gas and electricity.



How much space will it take up?

A typical boiler unit will be installed in your home, but sizes may vary, so please ask our approved installation partner to check carefully. The outdoor unit is connected to the indoor unit by a small pipe system which

we usually bury underground. Space will be needed in your back garden for the outdoor unit – it should not be too close to fences, walls, hedges or neighbouring properties to make sure air can move around it.

Can it heat my home and give hot water?

Yes. The hybrid heating system can provide you with both heating and hot water. Heating is provided by the air-to-water heat pump, supported by the gas boiler on colder days. The boiler provides hot water without the need for a cylinder, making it ideal for homes with one bathroom, or one bathroom plus an en-suite. The systems will also work well with hot water storage tank systems.

Is it a renewable technology?

The air-to-water heat pump in the system uses "air" as a renewable source of energy to provide heating. The heat pump uses electricity to operate the pumps and compressor, but it generates more renewable heat energy than the electrical energy it consumes so it is classed as a renewable energy. Taking into account its electrical consumption, a portion of heat provided by the heat pump is renewable, whilst additional energy generated by the gas boiler is not renewable.

In the future we expect more renewable electricity and renewable gas to be available in the local and UK integrated energy system and so the carbon footprint of a hybrid heating system could be very low.

Will it work for my home?

The hybrid heating system with its combi boiler is suited to any home capable of being heated by a single gas boiler. It can cope perfectly with higher heat loads in older properties. The system's designed to deliver high flow temperatures and can provide enough heat without needing to change radiators.

Will I save money on my fuel bills?

Yes. The hybrid heating system uses a smart hybrid control that automatically selects the most energy-efficient and cost-effective operation based upon your energy tariff, at any given temperature. You will still have to pay electricity fuel bills with a heat pump because it is powered by electricity, and you will still have a gas bill for the boiler part. But the system maximises use of the heat pump, so overall you will save on the fuel you need for heating.

How much might I save?

We'll need to do a full site survey to assess the operating temperature of your heating system. Our installer partner will then be able to give you a better idea of how much you'll save.

Can it cut my carbon footprint?

Yes. The carbon emissions from electricity are about 2.5 times higher than the carbon emissions from gas. However, the hybrid heating system will only run when it's more efficient than the gas boiler and so could reduce your carbon emissions by up to 35% compared with running a boiler alone.

How quiet is it?

The hybrid heating system units are quieter than you might expect. The outdoor unit creates a similar sound level to a quiet conversation. You can see (well, hear) this first hand at some installers' showrooms and mobile demonstration vehicles. Our approved installation partner will be happy to give you more details and may be able to help you visit an installation near you.

Will it need a lot of looking after?

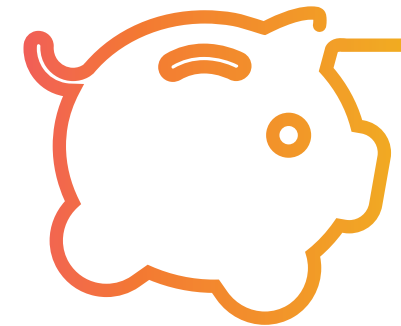
The hybrid heating system pump should be checked and serviced annually by a service company which is both Gas Safe and F-Gas registered. This will help to make sure that both the boiler and the pipework are safely maintained. Your first year's service and maintenance are paid for by the Project.

Will I need planning permission?

Probably not. Planning permission regulations vary across England, Scotland, Wales and Northern Ireland, but in Wales, air-to-water heat pumps are usually considered "permitted development" as long as the installation meets certain requirements – our installer partner will be happy to advise on this. Please ask your local planning office for more information.

Will I get any money for being involved?

There is not a monetary incentive to be part of this project, although as you will be receiving a brand new, state-of-the-art heating system there are potential savings to be made on your bills.





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