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Air Source Heat Pumps

Making heating your home a breeze

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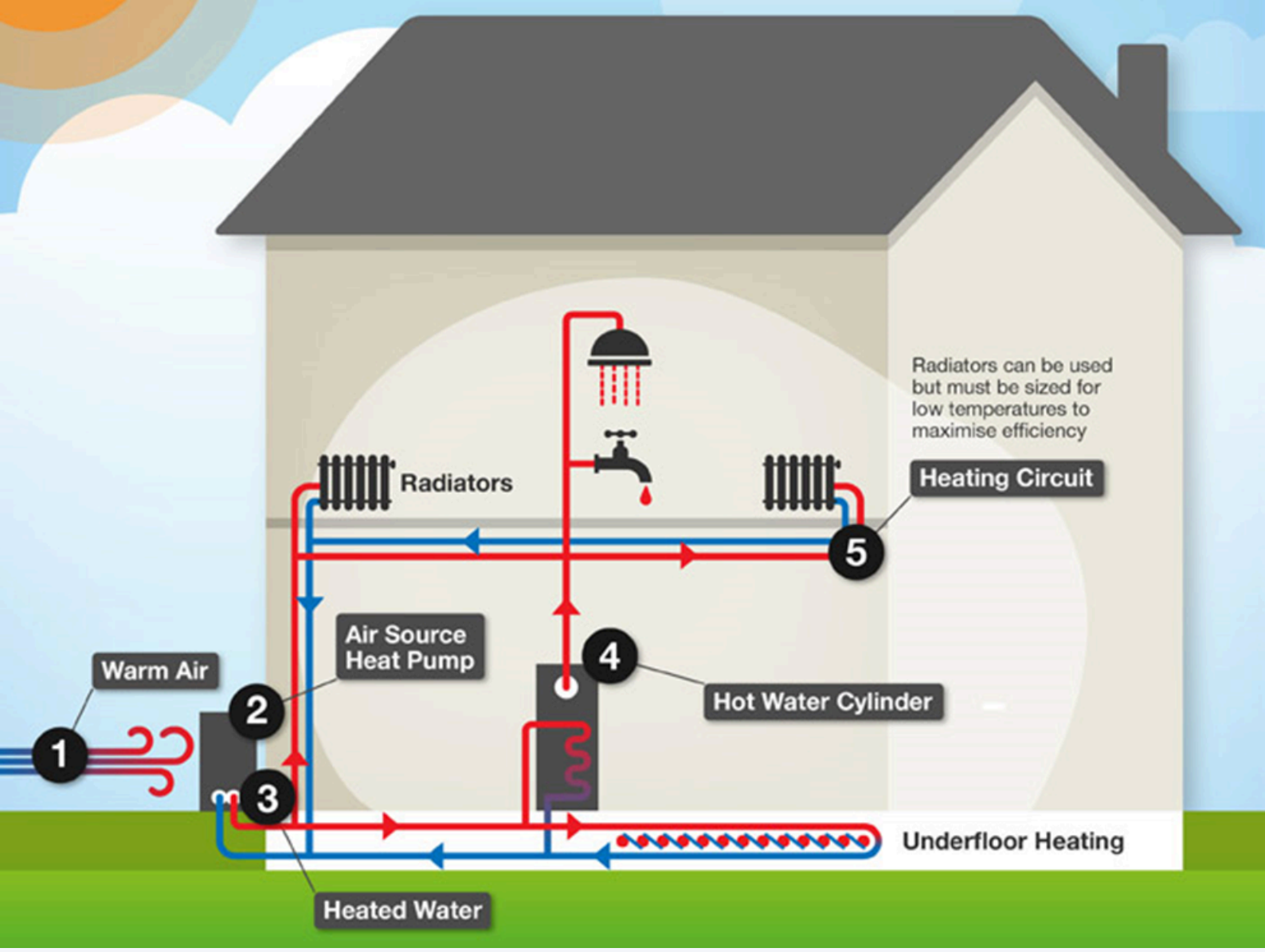

The Future of heating

Air source heat pumps are here and they're revolutionising the way people are heating their homes!

Air source heat pumps use significantly less energy and are quieter than traditional heating systems, they're a doddle to install to your home's central heating and will give you savings from thin air.

What's not to like? Have hot water and heating anytime, night or day without having to remember to set your boiler.

Heat pumps just quietly work their magic for you to keep your home warm and comfortable, all year round.

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How do they work?

Air source heat pumps harness the natural heat in the air, even on chilly days, and use it to warm up your home.

To explain how they work, here are the basics Air source heat pumps harness heat from the outdoor air and transfer it inside your home.

This process is like how your refrigerator operates but in reverse.
They are made of three main components: an outdoor unit, an indoor unit, and a refrigerant.

• The Evaporator Coil (Outdoor Unit) absorbs heat from the air, even when it's cold, using a refrigerant.

• The Compressor: (Refrigerant) now containing the absorbed air, is compressed, raising its temperature.

• The Condenser Coil (Indoor Unit) releases the heat from the hot refrigerant into your home's existing central heating, hot water and underfloor heating systems.

How much money can I save?

Air source heat pumps generate more energy than they consume. Running costs will vary depending on the size of your home and current central heating system but as air source heat pumps are so energy efficient, you can expect savings on your energy bill as soon as you are connected.

Potential savings are shown below based on installing a standard air source heat pump in a three-bedroom semi-detached home, with radiator upgrades as required. As well as cost savings on your energy bill, air source heat pumps save huge amounts of CO2 production, ranging from more than 1,600 CO2 KG/year against modern boilers, and up to over 7,000 CO2 KG/year against more oldfashioned heating systems such as coal.

Want to supercharge your home's eco-friendly power and save even more? Consider adding Essex Eco's solar package to the mix and create your own energy, for free!

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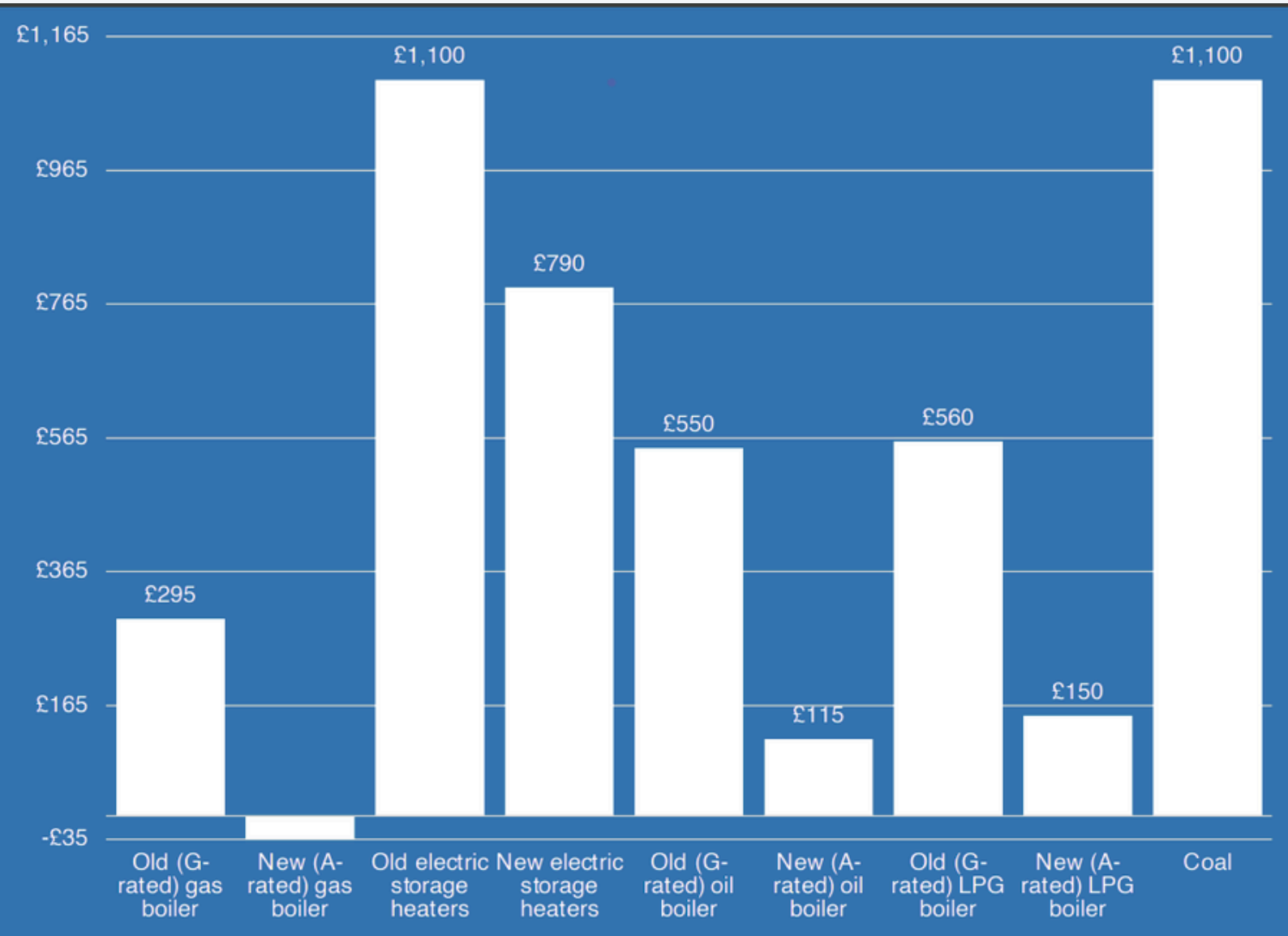

Do they work in winter?

It's true that the efficiency of air source heat pumps decreases as the outdoor temperature drops. This is because there's less heat available in cold air to extract.

However, modern pump installs are designed to tackle this challenge efficiently and can operate effectively in temperatures as low as -15°C.

While an air source heat pump can bring the warmth into your home, its vital that this lovely heat stays there.

Effective insulation plays a significant role, and a well-insulated home will retain the heat and make your air source heap pump more efficient. In cold weather, there is obviously less heat in the air for the heat pump to transfer indoors.

This means it will use more energy to produce the same amount of heat. Just like a furnace or boiler needs more fuel.

Don't worry though, despite the slight decrease in efficiency, air source heat pumps are still more efficient than traditional heating systems because they don't rely on burning fuel to generate heat, which results in less energy wastage and lower utility bills.

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ASHP FAQ'S

What is an air source heat pump (ASHP)?

An ASHP is a heating system that extracts heat from the outdoor air to heat your home's central heating and hot water.

What are the benefits of using an ASHP?

ASHPs are energy-efficient, cost-effective and environmentally friendly, they'll save you money on your bills and make you more self-sufficient and less reliant on the utility companies and their prices for gas.

Are ASHPs suitable for all homes in the UK?

They are suitable for most homes in the UK, but factors like insulation, house size, and existing heating systems should be considered. A heat pump is most effective in a well insulated house.

Can I use an ASHP to replace my gas or oil boiler?

Yes, ASHPs are a green alternative to gas or oil boilers.

Do I need planning permission to install an ASHP?

In most cases, you do not need planning permission, but it's best to check if you live in a conservation area or a listed building.

How much maintenance do ASHPs require?

ASHP will require relatively little maintenance and can be expected to last for at least 20-30 years. Installations require an annual check, and your installer/supplier will give you details of your system's exact maintenance requirements, and also of how to optimise your system's performance.

Are ASHPs noisy?

Modern ASHPs are designed to be quiet, and their noise level is similar to that of a refrigerator.

Do ASHPs work in extreme cold temperatures?

Yes, ASHPs can operate efficiently even in low temperatures.

Are ASHPs energy-efficient?

Yes, ASHPs are highly energy-efficient and can provide significant savings on your heating bills.

Will an ASHP replace my existing heating system?

ASHPs are designed to be fitted with ease and connect up to you existing central heating and hot water system. So you will keep all of your existing radiators and underfloor heating if fitted.

Are ASHPs suitable for older homes?

Yes, ASHPs can be retrofitted into older homes, providing energy-efficient heating.

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ASHP FAQ'S

How long does it take to install an ASHP?

An exact timeline for every installation will vary. On average, the installation can take anywhere between 1 to 4 days depending on the complexity of the installation

Are there grants or incentives for ASHP installations?

Yes. The Boiler Upgrade Scheme offers up to £7,500 towards the installation of an ASHP bringing the cost of an average installation below that of an average new install of a gas boiler. Essex Eco can guide you through the grant application process and help you find out if you're eligible for any other grants.

Do ASHPs work with radiators and underfloor heating?

Yes, ASHPs can work with both radiators and underfloor heating systems.

Can I control an ASHP remotely?

Yes, if your home already has a smart home system, the ASHP can be easily integrated and controlled by your existing system.

Are ASHPs eco-friendly?

Yes, ASHPs produce significantly lower carbon emissions compared to traditional heating systems.

How long do ASHPs last?

ASHPs typically have a lifespan of 15-20 years or more.

Do ASHPs require regular defrosting?

No, the ASHPs Essex Eco installs have automatic defrosting functions.

Can I install an ASHP myself?

ASHPs should be installed by a qualified and certified installer to ensure they function correctly and efficiently.

Will an ASHP reduce my energy bills?

Yes, an ASHP can lead to reduced energy bills, making it a cost-effective heating solution over time.

Where should I put an ASHP?

Ground level is preferable but not essential as this allows ease of access for servicing and maintenance. Shielding of the heat pump with plants and shrubs or a fence is possible providing the minimum clearances set out by the manufacturer are followed.

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