

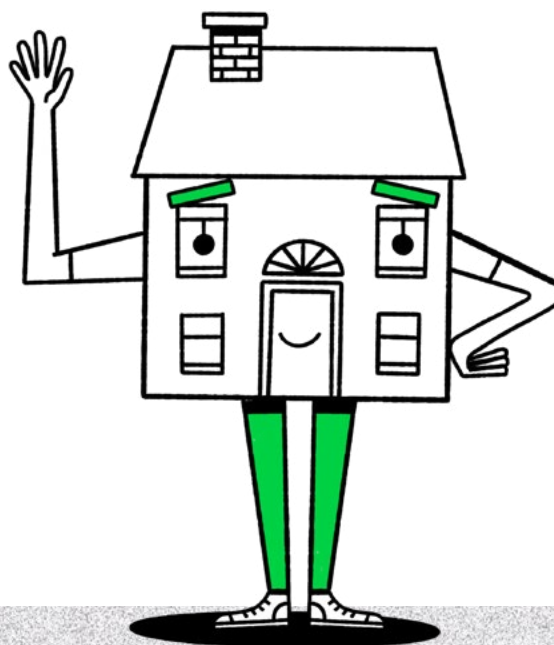
Home Heating Guide

Your complete guide to understanding home heating systems now and in the future



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Let us help you create a more energy efficient home.

Now more than ever, we need to make our homes energy efficient.

We understand there is a lot of information out there on how to reduce your energy consumption, however, we have crafted a concise, user-friendly guide with you in mind.

Our aim is to help you navigate through the important bits so that you can take control of your energy bills.



Understanding energy

Energy use

According to Ofgem, the average household in the UK uses 242 kWh of electricity and 1,000 kWh of gas per month, or 2,900 kWh of electricity and 12,000 kWh of gas each year. But what is a kWh and how does that translate into pounds?

A kWh (Kilowatt hour) is a measure of how much energy you're using. 1 kilowatt hour is the amount of energy you'd use if you kept a 1,000 watt appliance running for an hour. Different appliances use different amounts of energy – for example a lightbulb uses a lot less power than a dishwasher.

New
Energy Price
Guarantee rates,
effective from
Oct 2022

Usage type	Typical usage in kWh*	Average annual cost for gas and electricity	Monthly average cost for gas and electricity
Low (flat or 1-bed house / 1-2 people)	Gas: 8,000 Electric: 1,800	£1,712.25	£142.69
Medium (3-bed house / 2-3 people)	Gas: 12,000 Electric: 2,900	£2,499.87	£208.32
High (5-bed house / 4-5 people)	Gas: 17,000 Electric: 4,300	£3,492.90	£291.08

* Electricity unit rate 34.037p per kWh plus standing charge of 46.356p per day and gas unit rate 10.330p per kWh plus standing charge of 28.485p per day. Values might not match exactly due to rounding. Based on the Government's Energy Price Guarantee rates and customer with typical usage, paying by direct debit. Rates and standing charges are averages and will vary by region, payment method and meter type. Rates are effective from 1 October 2022. Average monthly costs may vary depending on your existing account balance.



Top Energy Saving Tips



Turn down your thermostat by 1°C



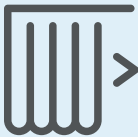
Insulate and draught-proof your home



Use your devices more efficiently, turn off standby and sleep modes, unplug devices when not in use



Drop your washing machine's temperature to 40°C, 30°C or even 20°C for some machines



Close your curtains at night to retain heat inside.



Take shorter showers



Install multi-room control and save up to 19%



Ask your installer to balance your heating system



Install LED lights



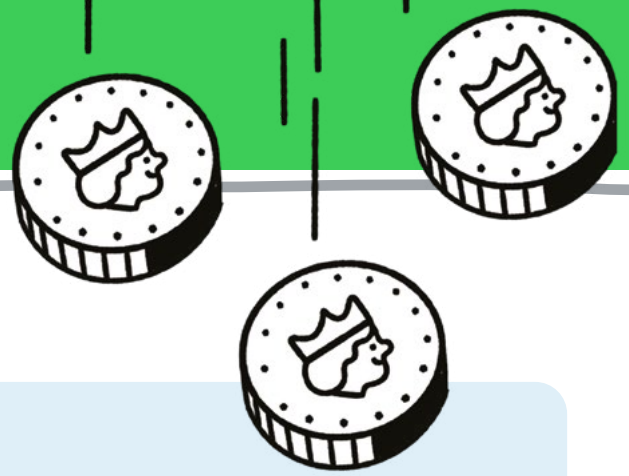
Service your boiler



Upgrade to smart heating and save up to 18%



Turn down boiler flow temperature



Your heating system and how to make the most of it

Quick guide to boiler types

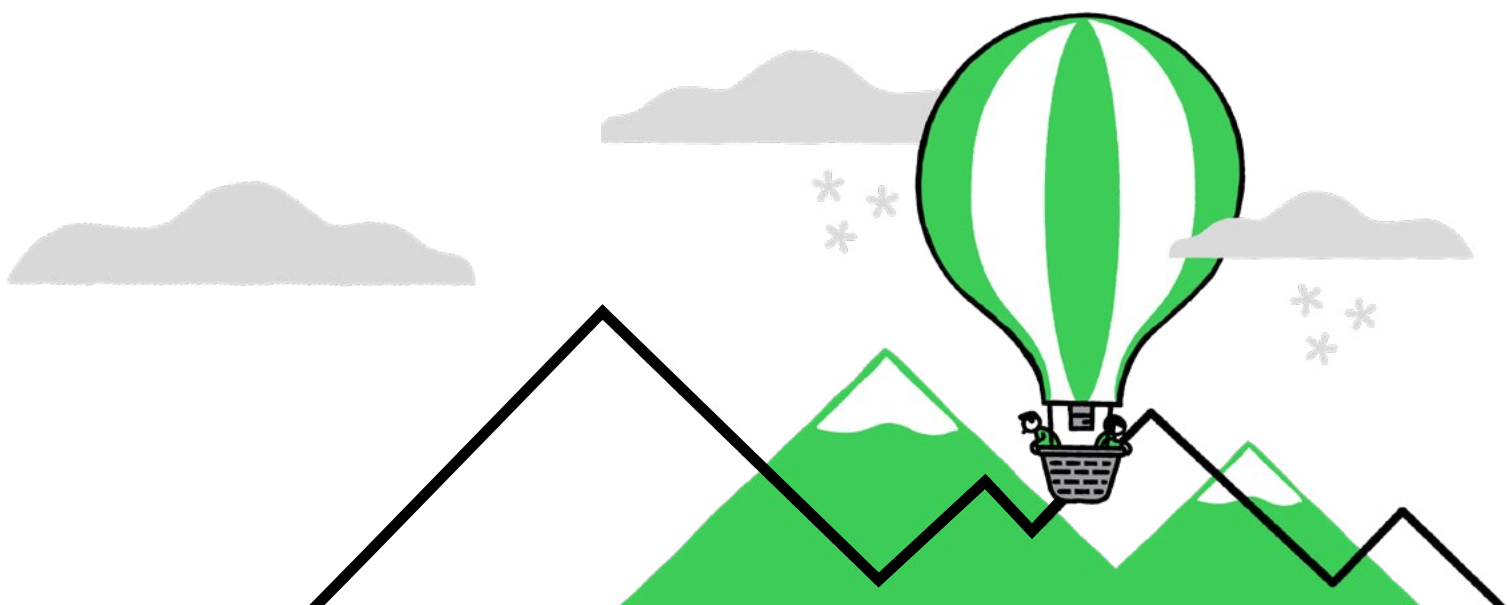
There are three main types of boiler;

- Combi boilers
- Conventional 'heat only' boilers
- System boilers



What is a Combi boiler?

A combination (combi) boiler is a single unit that provides all the heating and hot water requirements for the home in one unit. As there is no need for a hot water tank, fitting these saves a lot of space as they are typically wall hung. For hot water, a combi boiler works by taking a mains water feed and heating it as soon as it detects a hot tap is turned on. This is fine so long as you good water pressure and don't require large volumes of water all at once, as this will impact the flow rate. The central heating gets controlled for both time and temperature most commonly with a programmable thermostat for ease of installation.





What is a Conventional 'heat only' boiler?

Conventional boilers, also referred to as heat only boilers are the older method used for heating the home. Unlike a combi, a conventional system requires a cylinder to store hot water. This requires more space and typically properties with this type of system will have an airing cupboard to house the cylinder and associated controls. The controls for these systems tend to be a bit more complex as time and temperature has to be set for both heating and hot water. Conventional systems are usually vented, so require extra space in the loft for header tanks needed to provide system pressure.






What is a System boiler?

This is the modern method for heating larger properties using stored hot water. Like a conventional system, the domestic hot water is supplied to the taps from a cylinder that is time and temperature controlled. These systems are unvented meaning that they are pressurised from the water main, so header tanks in the loft are not required, freeing up space.



Common heating inefficiencies

Your heating system might not be performing as efficiently as it could do. When we talk about energy efficiency in boilers, we mean the amount of energy that's being used to provide useful heating, rather than being wasted. Find out some more detail below, and what you could ask your installer to help optimise your home heating.

-  Many homes have old, oversized or poorly configured boilers, if you're having a new one installed, make sure your installer selects the most efficient one for your house and sets it up correctly (a modern boiler is likely to be A-rated and +90% efficient, while very old boilers can have a low as 60% efficiency).
-  For modern combi boilers to run at their A-rated efficiencies, they need to run at lower flow temperatures to enable something called 'condensing mode'. Find out more about how to change your flow temperature [here](#).
-  The boiler is just one part of the heating system and for your heating to operate most efficiently, you should also have adequate time and temperature controls and thermostatic radiator valves (TRVs). Research has shown that 70% of UK homes don't have the minimum level of controls for their heating systems.

Common heating inefficiencies - continued

- ❌ Many heating systems are not balanced correctly. Balancing ensures that the correct amount of water flows to all radiators, meaning they all heat up evenly and give out the right amount of heat (you may have cold radiators in some rooms if your system is not balanced properly).
- ❌ The heating system is lacking smart or weather compensation controls. Smart controls allow for remote and closely managed timing and scheduling. Weather compensation controls alter the output of the boiler according to outside temperatures and help it run for longer periods at lower, more efficient outputs.
- ❌ The heating system is not zoned. This means that when your boiler runs, it heats the whole house, even if you're not using some rooms. Add smart radiator thermostats or TRVs to avoid heating empty rooms and wasting energy.



Top things to ask your installer

- ✓ What can they do to help improve your boiler efficiency or if you need a new one, which is most efficient?
- ✓ Is your boiler the correct size for your property?
- ✓ Is your boiler set up for weather compensation and do your controls facilitate this?
- ✓ Has your system been correctly balanced? If not can they do this?
- ✓ Do you have smart controls and multi-room control? If not can they advise and install the best system?

Expert comment

We asked Heating Hero Jo Alsop of 'The Heating Hub' why lowering flow temperatures are so important....



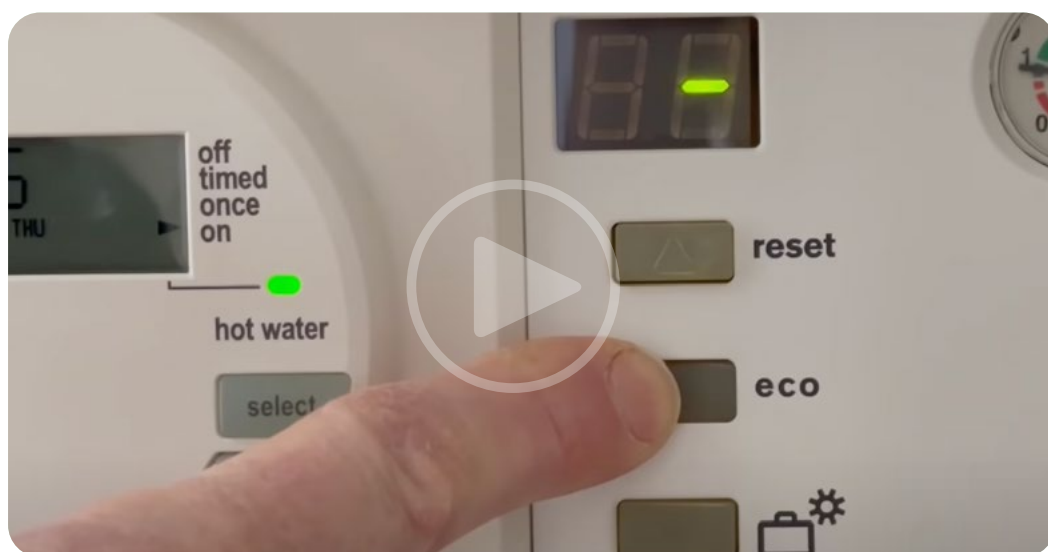
A word from an expert



Jo Alsop
Heating Hero



"Running the boiler at a lower 'flow' temperature can save around 6-8% on your fuel bills. The installer must reduce the flow temperature to give the boiler a chance to run in what is known as 'condensing mode' as much as possible. Only when the flow and return temperatures are 65/45°C or lower will the boiler recover enough heat to reach its efficiency potential."



Watch this Heating Hub video on how to lower your flow temperature on your combi boiler!



Enhancing your heating system with smart heating controls

Smart heating controls give you complete control of your heating. A wireless thermostat will enable you to create heating zones and schedule temperatures all from an app.



Multi-room heating enables you to essentially split your home into multiple areas with individual heating control by using smart heating devices like the Wiser Room Thermostat and Smart Radiator Thermostats.

Independent room control can benefit you with better energy efficiency, resulting in reduced heating bills. With better control over your heating comes better comfort, as you're no longer relying on a single temperature setting across the whole house.

Find out about Wiser Smart Heating controls [here](#)



Smart savings with Wiser



Better control, better efficiency

Save up to 18% on your energy use by upgrading to a smart thermostat thanks to efficient time and temperature scheduling.



Maximise savings with multi-room control

Maximise the efficiency of your current heating system by adding radiator thermostats and save up to 19% on your energy bill by only heating rooms when you need to.



Smarter savings with smart modes

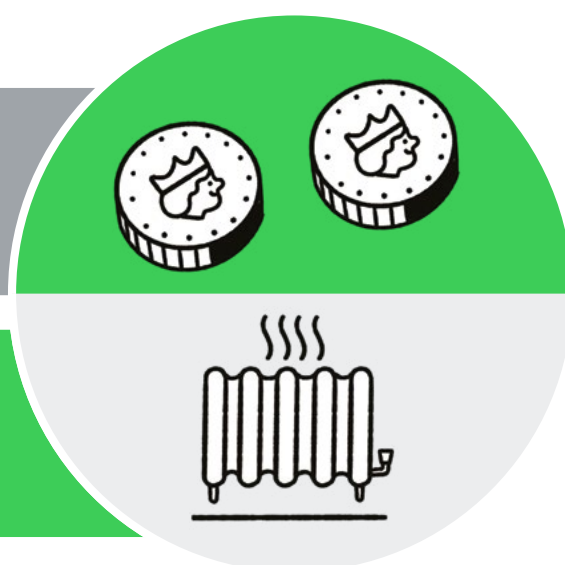
Let Wiser do the work by using Away Mode and Eco Mode to save 16%.

Ofgem average household
fuel bill as of October 2022

£2500

According to 'Which' 50% of the average
fuel bill is heating and hot water

£1250



Top 5 Smart Heating benefits`

**Individual
room control**

1

**The ability to adjust
temperatures and
schedules anytime,
anywhere on an
app**

2

**Voice control
compatibility**

4

**Flexible
set-ups.
Radiator
thermostats can
be bought one
at a time or as
a multipack.**

3

**Bill reductions
and energy
savings**

5

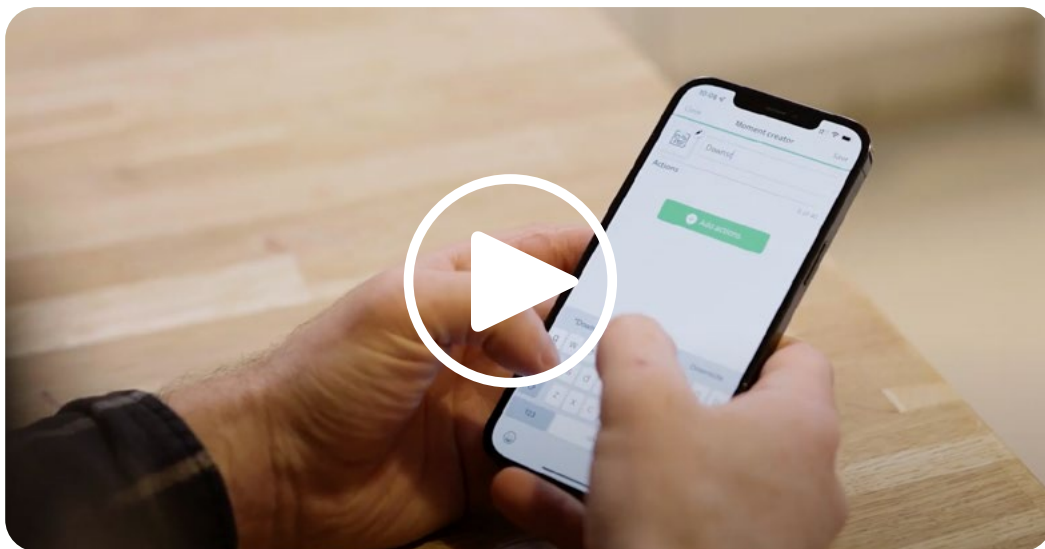


One happy, Wiser customer...

"By installing the Wiser system, it gave me the ability to have more functionality over the heating in my home, controlling every radiator to an advanced level and adding personalisation to suit my lifestyle."



George Wiser customer

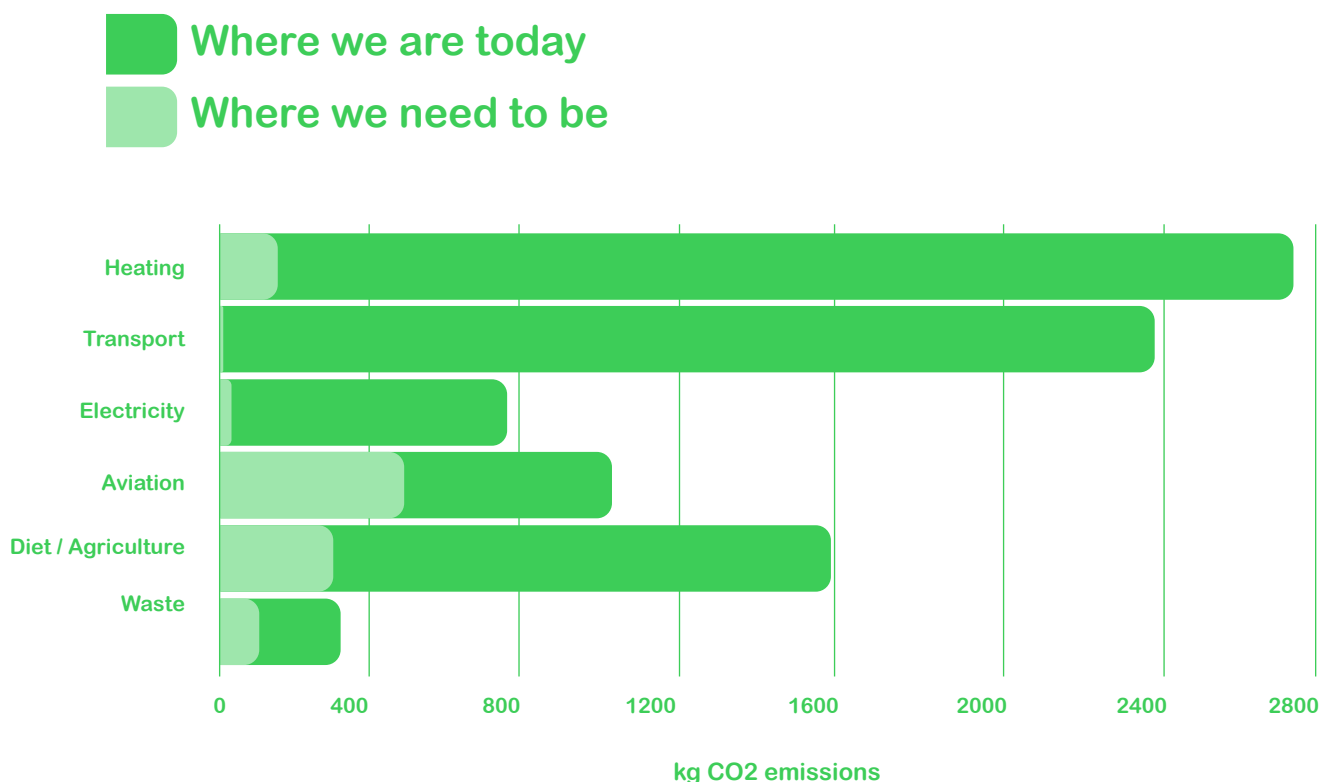


Wiser does the
hard work, so you
don't have to

Future of heating

What is Net Zero?

More and more we are hearing about 'Net Zero' targets – but what does that mean for us? In short this is about completely eliminating the amount of greenhouse gases produced by human activity. To do this we need to drastically reduce emissions generated by our everyday activities, and the target is to do this by 2050.



As you can see heating is one of the main emitters of CO². All the tips we've given you on maintaining and upgrading your heating controls will help immediately, however longer term we will all need to embrace more sustainable solutions. But what are these solutions?

Sustainable heating solutions

Heat Pumps

You may have heard people recently talking more about Heat Pumps? They're basically one of the most sustainable way to heat your home and will play a massive part in the future of heating. Don't panic, you don't need to do this tomorrow, but when your gas boiler comes to the end of its life it is definitely worth looking into the options.

Heat Pumps are not the cheapest option, however over time they will return their value and provide savings, with a reduction in energy consumption of up to 72%.*

The Boiler Upgrade Scheme offer grants for homeowners and in the long term aims to bring heat pump prices in line with gas boilers.

The longer-term solution to sustainable heating

If we want a more sustainable world for future generations, we have to have a plan of action. Doing your bit now will help, but it's good to be aware of the changes in the future so you can consider the implications.

Organisations are planning decades ahead to ensure we all have a greener future. Here's an overview of the plans you can expect to hear about in the coming years.....

* depending on the type of pump you are using and also how insulated your home is. renewableenergyhub.co.uk



Domestic Heating Targets



2026

End installations
of fossil fuel
heating systems
in off-grid
homes

2030

Heat pumps
to cost the same
as gas boilers

2025

All new boilers
are hydrogen
ready

2028

600,000 heat
pumps installed
each year

Advice and Resources

Legislation to be aware of

The Government continually reviews legislation to ensure tradesmen provide homeowners with the most energy efficient heating systems.

Boiler Plus



Boiler Plus was put in place to regulate and improve the way homes use energy by increasing the efficiency of heating systems. When it comes to heating, time and temperature controls are required and in addition to that you need to have one of these three things:



Weather compensation



Load compensation



Smart thermostat with automation and optimisation

Part L

Part L is a piece of legislation ensuring reasonable provision is made for the conservation of fuel. From 15th June 2022 heating systems in new dwellings, or when a heat generator is replaced, such as a gas boiler, it should be combined with a thermostatic room control in each room. This basically means TRVs must be present in each room. Find out about TRVs [here](#)



Add a TRV in each room to comply to legislation



Did you know heating controls are 0% VAT rated?

Help is at hand



If you want to know more these are our top recommendations of where to go for information.

Warm Homes Discount

This scheme re-opens in November and is a discount for low income homes. Find out if you're eligible [here](#)

Boiler Upgrade Scheme (BUS) - for replacing boilers

The government is providing grants to property owners to install low carbon heating systems such as heat pumps. Find out if you're eligible [here](#)

ECO3/ECO4

ECO4 is a government scheme to support low income households. Find out more [here](#)

Energy bills support scheme

Every household will get a £400 deduction from their energy bills this winter, find out more details [here](#)

For information on **our recommended Heat Pump** speak to Panasonic which integrates with Wiser to give you the ultimate system. [Click here](#)

For information on **smart controls that comply to standards and offer savings of up to £575** [Click here](#)

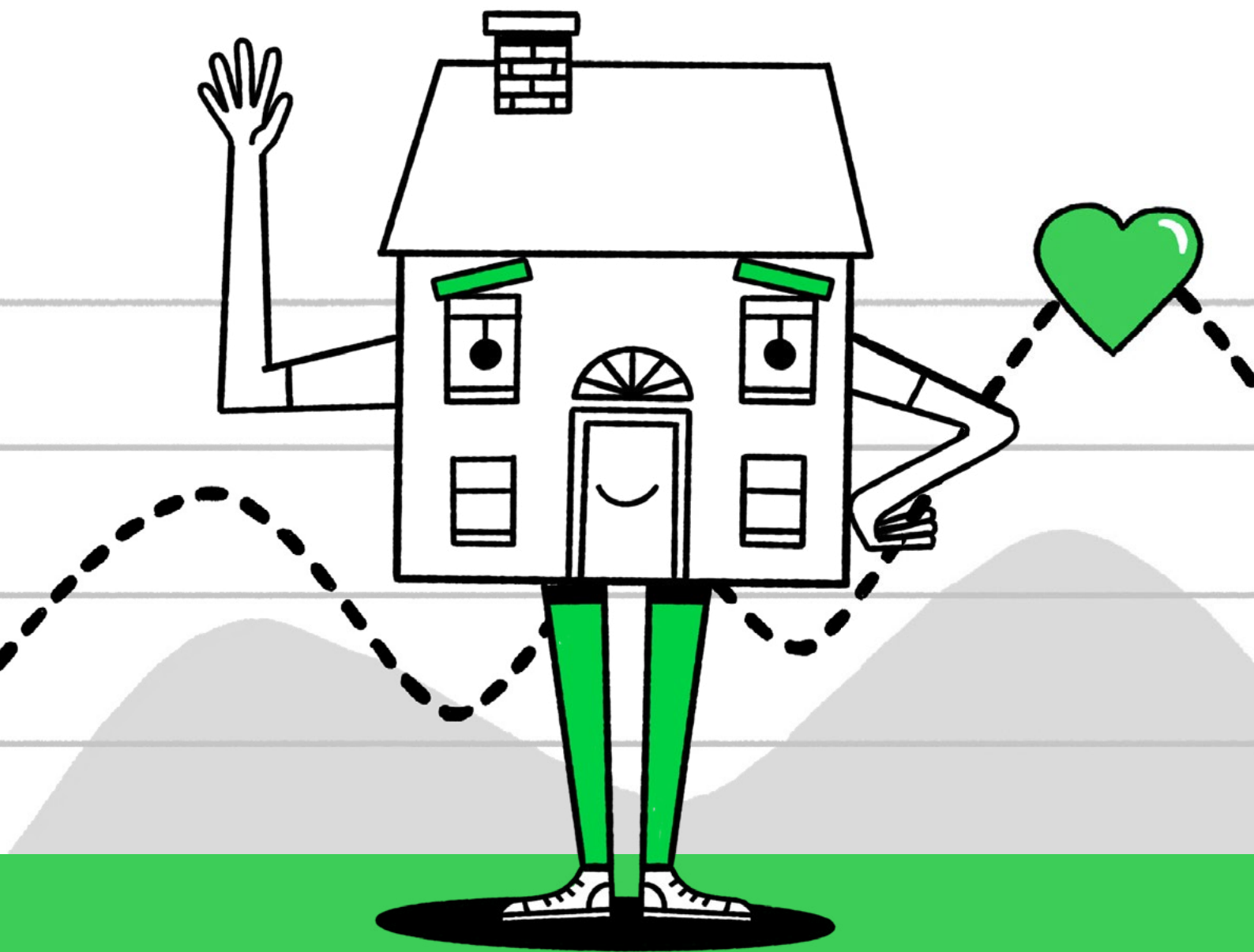
BEAMA is the UK trade association for manufacturers and providers of energy infrastructure technologies and systems. **Find out about their heating standards** [Click here](#) (but be warned it can get heavy)

Need **personalised advice and a home plan?** [Click here](#), these guys are great!

Wiser™

Wiser. At the heart of your more energy efficient home.

Take control of your energy use with
Wiser Kits and save up to £575* per year.



*Smart thermostat system percentage savings based on BEAMA and Salford university research statistics March 2021

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local Wiser installer](#)