

Upgrading and replacing your boiler



Investing in an efficient boiler is likely to save you money after just a few years

If your boiler is more than 10 years old, replacing it with a new high-efficiency model will save you money.

Upgrading your boiler could save you £320 each year on heating bills (figures from energysavingtrust.org.uk/advice/boilers). This is based on a semi-detached home on mains gas, upgrading from a G-rated boiler to an A-rated condensing boiler with full heating controls. The savings are even greater for larger properties and for heating systems that run on oil.

Today's central heating boilers are much better than the old ones. They can heat water more efficiently, meaning they use less gas or oil to do the same job. This saves energy and will save you money.

Building regulations specify that if you're replacing an old boiler the new one must be A-rated for energy efficiency. This will almost certainly be a condensing boiler.

What is a condensing boiler?

Condensing boilers are more efficient because they extract the heat from the hot exhaust gases (or 'flue gases') that all boilers produce. They use this heat to pre-heat the water fed into the boiler so the boiler doesn't have to work so hard to heat it up. Non-condensing boilers simply expel the hot gases into the air and the heat is wasted.

You'll notice that the vapour that comes out of a condensing boiler's flue forms a visible plume of 'steam'. This is actually a mixture of water vapour and other gases. It's perfectly normal and is an indication that the gases are cooler than those vented by non-condensing boilers.

Types of boiler

Condensing boilers come in both combination and system models. A combination (or 'combi') boiler will provide your central heating and produce hot water on



demand, firing up when you turn on a hot tap in the kitchen or bathroom.

A system boiler will do your central heating, but rather than produce hot water on demand, it will heat a quantity of water which is held in a storage cylinder until required.

Some boilers only run the central heating and don't provide hot water at all. In this case an electric immersion tank or another form of water heating is required.

Making your new boiler more efficient

To make your boiler more efficient, make sure it's being installed with heating controls. As a minimum, you should have a room thermostat and a programmer (or a programmable room thermostat) installed, so you can manage your heating temperature and schedule.

You could also have a weather compensator and a load compensator installed. A weather compensator adjusts the boiler temperature in line with the outside temperature, so it uses less fuel when it's warmer outside. A load compensator works similarly but it instead adjusts the boiler temperature in line with the internal temperature of the home, meaning it uses less fuel when it's warmer inside.

Having a new boiler installed

If you decide to go for a new boiler, you should get at least three quotes from qualified heating engineers. These should be on the Gas Safe Register or registered with OFTEC for oil-fired systems. It's illegal and potentially extremely dangerous for someone who is not fully qualified to fit a central heating boiler.

If your engineer is also on a Competent Persons Scheme (labcfrontdoor.co.uk/find-a-competent-person), they can self-certify their installation meets building regulations. If they aren't on a Competent Persons

Scheme, you'll need building regulations approval from the council (see gov.uk/building-regulations-approval) or a registered building control approver.

When your new boiler's being installed, the installer should give the heating system a power-flush (or a mains pressure flush for some models) to remove sludge and other deposits that could damage the new boiler. The installer may also add lime scale inhibitors or water softeners to prevent the build up of lime scale. The boiler should be serviced annually to ensure that it stays in good working order and maintains its efficiency.

Plan for replacement

No one wants to go without heating and hot water in the winter, so it makes sense to plan the replacement of your boiler rather than wait for it to break down. It also means that you can shop around for quotes rather than having to get an emergency replacement in a rush. Heating engineers are busier in the winter, so if your boiler breaks down then, you may have a long wait before someone can fix it.

But before you spend money on a heating system, make sure your home is well insulated; an insulated home keeps the heat in better so you may be able to get by with a smaller (and cheaper) boiler.

Measures like loft and cavity wall insulation are extremely cost effective and can pay for themselves in just a few years. If you'd like to replace your boiler with a heat pump, take a look at the Boiler Upgrade Scheme: gov.uk/apply-boiler-upgrade-scheme.



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Our Home Energy Team offers free advice on domestic energy use to people in central southern and southwest England.

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