

Upgrading your boiler

More heat for your money

How old is your central heating boiler? If it's more than 10 years old, it may be time to think about replacing it with a new high efficiency model.

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. In fact, if your boiler is over 10 years old, then it's probably worth investing in a new one. In most cases the savings you make from a more efficient boiler over the years will pay for the outlay.

Building regulations stipulate that if you are replacing an old boiler, the new appliance must be **A-rated** for energy efficiency. This means it must be at least 88% efficient (most new boilers score over 90%), and to reach this level it will almost certainly be one of the new-style **condensing** boilers.

The technical bit

Condensing boilers are more efficient because they extract the heat from the exhaust gases (or 'flue gases') that all boilers produce. What makes this possible is a second heat exchanger where the water vapour in the flue gas condenses into droplets of liquid water, releasing heat as it does so. The condensed liquid water drains away through a pipe installed specifically for this purpose. Non-

condensing boilers simply expel the 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' (actually a mixture of water vapour and



other gases). This is perfectly normal and is an indication that the gases are cooler than those vented by non-condensing boilers.

'Combi' boilers

Condensing boilers come in both **combination** and **regular** 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 regular boiler will do your central heating, but rather than produce hot water as and when required, 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 which case an electric immersion tank or another form of water heating is required.

In a typical semi-detached property that uses mains gas for heating you can reduce your heating bills by around £300 per year if you upgrade from an old G-rated boiler (less than 70% efficient) to a new A-rated condensing boiler with full heating controls (e.g. timer/programmer, room thermostat and thermostatic radiator valves). The savings are even greater for larger properties and for heating systems that run on oil which is more expensive than gas.

So, what do I do now?

If you decide to go for a new boiler, you should get at least three quotes from qualified heating engineers who should be on the Gas Safe Register or registered with OFTEC for oil-fired systems. Both Gas Safe and OFTEC have lists of registered installers which you can access by phone or online (see details overleaf). An installer registered with a competent person scheme will also be able to self-certify that the work is compliant with the building regulations. It's worth asking friends, family members or neighbours for recommendations.

continued overleaf ►



Stay safe. It is illegal and also potentially extremely dangerous for someone who is not fully qualified to fit a central heating boiler.

Your new boiler should have a power-flush (or a mains pressure flush for some models) to remove sludge and other deposits from the system which could damage the new boiler. The installer may also add limescale inhibitors or water softeners to prevent the build up of limescale. 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 waiting for it to break down. It also means that you can take your time to shop around for quotes rather than having to get an emergency replacement in a rush. And remember, heating engineers tend to be busier in the winter so if your boiler breaks down then, you may have a long wait before someone can come to your home to install a new one.

But before you spend money on a heating system, you should make sure that your home is well insulated. This is



Broken boilers are no fun

because an insulated home keeps the heat in better, so you may be able to meet your heating needs 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 through savings on your heating bills.

To find out if there is any financial assistance available to help you replace your boiler or for advice on insulating your home and other energy saving measures call the Home Energy Team free on **0800 082 2234** or email **home.energy@cse.org.uk**

Gas Safe Register

Gas Safe Register is the official list of gas engineers who are registered to work safely and legally on gas appliances. Always check your engineer is on the Gas Safe Register.

0800 408 5500 | **www.gassaferegister.co.uk**

OFTEC

OFTEC represents the interests of homeowners, registered technicians and trade association members, providing advice and information on oil-fired heating and cooking.

0845 65 85 080 | **www.oftec.org**

Competent Person Schemes

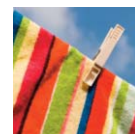
Competent Person Schemes were introduced to allow individuals and enterprises to self-certify that their work complies with the Building Regulations as an alternative to submitting a building notice or using an approved inspector.

www.competentperson.co.uk

Tips for lower energy bills

Happy paying more for your electricity and gas than you need to? Course not. So here's how you can cut your bills:

Give your clothes a day in the sun and give your tumble drier a break. Clothes dried in the fresh air feel great, and there are drying days in winter, too.



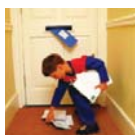
Catch 'em young. Encourage your children to switch off electric toys and lights that they're not using. They'll soon get the hang of saving energy.

Be a friend to your freezer. Defrost it regularly to help it run more efficiently.

Buying a new washing machine, TV or dishwasher? Look out for the Energy Saving Trust logo.



Don't over-fill the kettle (but do make sure you cover the metal element at the base).



Dodge the draught! Fit draught-excluders to your front door, letter box and key hole, and draw your curtains at dusk to keep the heat in.

Turn your heating down by 1 degree. You'll hardly notice the change in temperature, but it'll make a big difference to your heating bill.

Sleep tight. Make sure all the lights are turned off when you go to bed. If you want to light a child's room or a landing, use a low-wattage night light.



The Centre for Sustainable Energy's **Home Energy Team** offers free advice on domestic energy use to householders in Bristol and Somerset (including the unitary authorities of North Somerset and Bath & North East Somerset).

Call us free on **0800 082 2234**, email **home.energy@cse.org.uk** or follow us on twitter **@cse_homeenergy**

More energy advice leaflets at **www.cse.org.uk/advice-leaflets**



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Charity 298740
Founded 1979

We are a national charity that helps people change the way they think and act on energy