

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 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,



An efficient boiler will save you money

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.



*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 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 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 Persons 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



This leaflet is one of a series that covers a range of energy efficiency and renewable energy topics, produced by the **Sustainable Energy Across the Common Space (SEACS)** project, for you to view online or download to share in your community.

SEACS brought together three UK and two French local authorities – Devon County Council, Dorset County Council, Wiltshire Council, le Conseil Général des Côtes d'Armor and Lannion-Trégor Agglomération – to tackle the energy challenge that is faced on both sides of the channel.

The aim was to create opportunities for individuals, households, communities, schools and local authority buildings in both UK and France to reduce their energy consumption, implement energy efficiency measures and use clean/renewable energy where possible. The project has raised awareness of climate and energy issues and encouraged long term behavioural change towards energy use. Cooperation was the ethos of the project and participants had the opportunity to exchange and learn from each other.

For further information about SEACS project, to get ideas and view case studies to help you and your community save energy, and to find out which schools and community groups in your area have been involved, visit the SEACS website or the energy pages of your local authority's website.

www.seacs.info

www.wiltshire.gov.uk/sustainability

www.dorsetforyou.com/climatechange

www.devon.gov.uk/energy

This leaflet was first produced by the Centre for Sustainable Energy (CSE) and reprinted in this version on behalf of SEACS.

CSE'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: **0800 082 2234** or **0117 934 1957**

Email: home.energy@cse.org.uk

Web: www.cse.org.uk/loveyourhome

Facebook: www.facebook.com/EnergySavingAdvice

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