

Hot water cylinders

If your home has a hot water cylinder (as opposed to a combi boiler), fitting it with a thermostat and making sure it is properly insulated are simple and cost-effective ways to save energy.

Thermostats

Cylinder thermostats are well worth having because they mean you don't spend money heating water to a higher temperature than you need to.

Usually installed about a third of the way up the cylinder the thermostat measures the temperature of the water inside and if this falls below a set level, the boiler will come on. Once the water reaches this temperature, the thermostat will turn the boiler off again, ensuring that water is not being heated unnecessarily and no energy is wasted.

The usual setting for a domestic hot water cylinder thermostat is between 60 and 65°C - high enough to kill off harmful bacteria such as Legionella. If you set the thermostat much higher than this the water that comes out of the taps will be too hot; there'll be a risk of scalding and people will have to add cold water which is simply a waste of the energy used to heat the water that extra 5 degrees or so.

Note that the thermostat doesn't control the speed at which water in your tank is heated up. This is governed by the design of the heating system.

All cylinder thermostats should be installed following the manufacturer's instructions and should comply with the Institution of Engineering & Technology [wiring regulations](#).



A cylinder thermostat (left) will stop you wasting money on overheating your water, while to save more on water heating, make sure you get your hot water cylinder and pipes insulated too

Tank insulation

Many houses in the UK have un-insulated hot water tanks which allow heat to escape. Fitting a hot water cylinder jacket will insulate the tank and the reduced rate of heat loss will help maintain the water temperature in the tank for longer. Heat loss from the tank can be reduced by over 75%. This could save you up to £194 per year (based on energy prices at October 2025).

Even if you already have a hot water cylinder jacket, you may want to consider replacing it if it is less than 75mm thick or doesn't completely cover the tank all the way around.

Cylinder jackets typically come in two standard sizes: 900mm x 450mm and 1,050mm x 450mm and they cost around £20. We recommend you buy one that displays the British Standard Kitemark. It will pay for itself in about a year.



Fitting the jacket is simply a case of wrapping it around the hot water cylinder and securing it with string or similar – a DIY job for most people.

For extra savings, lag your hot water pipes too

Foam insulation for pipes, known as lagging, is very cheap, and like fitting the tank jacket, it's a DIY job if your pipes are accessible. Simply measure the diameter and length of your pipes and purchase the correct size and quantity of lagging from a hardware store. If your pipes are difficult to reach then you may need professional help, which will incur some cost.

The cost savings from lagging your boiler and pipework are relatively small compared to other energy efficiency measures, but the materials are cheap, and few improvements pay for themselves as quickly.



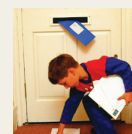
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Tips to cut your electricity use, and save money ...



Give your clothes a day in the sun (and give your tumble drier a break). Clothes dried in fresh air feel great.

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



Only fill the kettle with as much water as you actually need (but make sure you cover the metal element at the base).

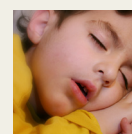
Buying a new appliance?

Remember to check the energy rating label and consider the size.



Wait until you have a full load in your dishwasher or washing machine before doing a wash. Two half-loads use more energy than one full load.

Sleep tight. Make sure all the lights are turned off when you go to bed. You can get low-wattage night lights for children's rooms or landings.



This is one of a series of factsheets on domestic energy use produced by the Centre for Sustainable Energy. See them all at www.cse.org.uk/advice-leaflets



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We're a charity (298740) supporting people and organisations across the UK to tackle the climate emergency and end the suffering caused by cold homes.

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

Contact us:

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See all our energy advice pages at
www.cse.org.uk/advice