

Economy 7

For heating and hot water

Economy 7, is an electricity tariff that means you pay a different price for your electricity at different times of day, a bit like on-peak and off-peak phone calls.

With Economy 7, the electricity you use at night costs about a third of the price of the electricity you use during the day – a big difference. The hours of cheap electricity are normally from 12 midnight until 07.00 in winter, and from 01.00 to 08.00 in summer, although this can vary between suppliers.

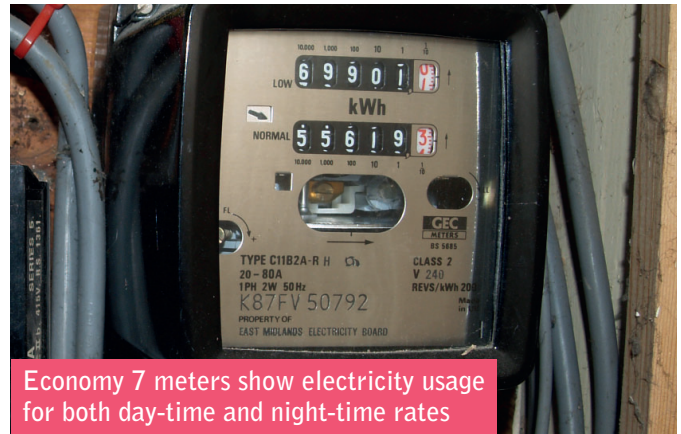
Economy 7 tariffs use a different kind of electricity meter, which, unlike a standard meter, can track the electricity you use during the day and at night separately.

Is Economy 7 right for me?

While Economy 7 gives you seven hours of cheap electricity at night, the downside is that for the other 17 hours the electricity costs more than normal – higher than those on a single-rate tariff. This suits certain customers, but not others. If you are paying more for your day-time electricity, you should think about running appliances like your washing machine and dishwasher between midnight and 7am, depending on your sleep patterns (it's not recommended to run them when you're sleeping).

Tips for saving money if you're on an Economy 7 electricity tariff

- Use appliances like dishwashers, washing machines and tumble dryers during 'off-peak' night hours when electricity is cheaper.
- Understand how your storage heaters and hot water tank controls work, to make sure you don't accidentally use unnecessary on-peak electricity.
- Instead of the electric hob, use a microwave where possible. And consider investing in a 'slow cooker'; they use far less electricity than an oven.
- Fit energy-saving light bulbs where possible.



Economy 7 meters show electricity usage for both day-time and night-time rates

As a rule of thumb Economy 7 will be cost-effective if you use electricity for your heating and hot water (not gas, which is a much cheaper heating fuel) and if you use more than 40% of your electricity at night.

For this to be the case, you're almost certainly using electric **night storage heaters** (inset picture) for warming the house and have a hot water tank that is heated by electricity. This is because both storage heaters and hot water tanks can be timed to use cheap, night-time electricity and store this as heat until needed during the day. (Our night storage heater factsheet covers how to get the best from your heaters.)

If you heat your home with electricity, but don't have storage heaters or a hot water tank, Economy 7 probably won't be cost effective for you, but your electricity supplier can confirm this.



If you are on an Economy 7 tariff, both your electricity meter and electricity bill will show a day-rate and night-rate. If you are in any doubt whether or not you are on Economy 7, call your electricity supplier.



Economy 7 could suit you if your home is off the gas network and can use lots of electricity at night

Wiring circuits

A home using Economy 7 should have two wiring circuits. The main wiring circuit is the same as in any home, connecting to the plug sockets, lights etc. Anything using this circuit will turn on at any time, but if turned on at night you will be charged the cheaper rate.

There will also be a second wiring circuit that is connected to just the night storage heaters and (usually) the hot water tank – and this circuit will only activate when the electricity meter switches to off-peak mode.

Next to your heaters and hot water tank there will often be 1-2 socket switches – but which ones connect to the on-peak or off-peak circuit will depend on your individual home set-up. Any off-peak switches can be left 'on' as they will not actually be heating during the day. Any on-peak switches should only be turned on for a short period of time, if you need to boost the heating or hot water.

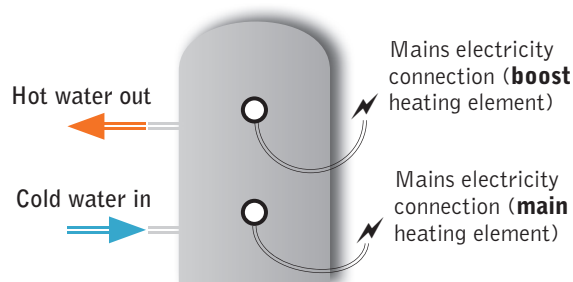
If you ever move off Economy 7 and onto a single-rate tariff (e.g. you get gas heating installed) you need to make sure an electrician checks the wiring in the home, as there is a risk the old Economy 7 wiring circuit will be always active and your heaters and tank are heating continuously.

Hot water tank

An Economy 7 hot water tank will have a slightly different set up than a standard immersion tank, in order to take advantage of cheaper off-peak rates. (See our separate factsheet on tank insulation and water temperature).

On the front of the tank you should see two circular disks, with wires connecting into the wall. These are the two heating elements (see illustration).

The lower heating element is the main one. It should be turning on automatically during off-peak hours, and will heat the whole tank. In some homes you may have additional controls, such as being able to turn it off at the



wall or set a timer so the tank does not heat for the full 7 hours.

The top heating element is a boost. It is intended to heat the top section of the tank and provide extra hot water if you run out during the day. It should always have a control or switch that allows you to turn it on and off. This is because the boost can use on-peak electricity. Only turn it on for 1-2 hours when needed, as it can be extremely expensive if left on for a long period of time (when on continuously it can add several hundred pounds to your annual bill).

Here are two common controls for tanks that are not wired into the off-peak wiring circuit.



Make sure the 24 hour clock is correct against the winter-summer line (based on the time of year), otherwise it may heat up during on-peak hours. For extra hot water during the day turn the boost dial, and the immersion will switch off after the selected period of time.



Set the correct time against the arrow. Push the tappets out for any time you want the water tank to heat (several hours during off-peak times). The switch should be left in the middle (timed), rather than 1 (heating constantly) or 0 (off constantly).



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The Centre for Sustainable Energy is a national charity that helps people change the way they think and act on energy.

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