Night storage heaters

Centre for Sustainable **Energy**

A simple guide

Storage-heaters work by storing heat generated by cheap night-time electricity and releasing this heat during the day

Most storage heaters are wall-mounted and look a bit like radiators. They work by drawing electricity over the course of a few hours at night, and storing it as heat in a 'bank' of clay or ceramic bricks to use the following day. The advantage is that they can consume electricity at night, when it's cheap, and give out their heat many hours later.

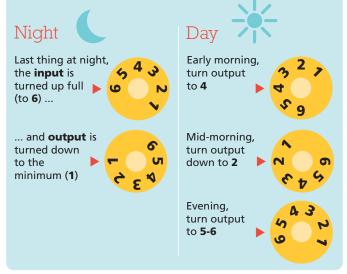
As a consequence they work best if the household is on an **Economy 7**. This is a tariff in which night-time electricity is much cheaper – typically about a third of the price – but day-time electricity is more expensive. The cheap hours are normally from 12 midnight until 07.00 in winter, and from 01.00 to 08.00 in summer, although this can vary. For more information about Economy 7, see our other leaflet.

Jack & Gwen's storage heater

Jack and Gwen are a retired couple whose home is heated with electricity. They have storage heaters to take advantage of the Economy 7 tariff.

In winter, they are in for most of the day. This means they want the storage heater to charge fully at night, so they set the input to 6 and the output to 1 or off.

In the morning, to warm the house up, they turn the **output** to 4. Once the house is warm, they turn it down to 2, and in the evening when it becomes chillier, they turn it up to 5 or 6 to use up the remaining stored heat.





Every storage heater has a set of simple controls. An **input** setting allows you to regulate the amount of heat that the heater stores during the night. This is important because, even though night-rate electricity is cheap, there's no point paying for more than you need. If it's not particularly cold, or you'll be out of the house for most of the day, you don't need to set the input to maximum because there's no point storing so much heat. Most storage heaters will only charge up at night, so there is no danger of using expensive day-rate electricity.

The controls also have an **output** setting that allows you to regulate the amount of heat that the storage heater gives off. It means you don't have to use up all the stored heat at once, but can let it out gradually, saving some for the evening if you want to.

Some storage heaters have a timer that gives you even more control over the output. It allows you, for example, to programme your heater to come on at a time that suits you, for example when you get up in the morning or just before you get back from work. Others include a control that regulates the amount of charge the heater draws at night, depending on the temperature.

Some storage heaters have a 'boost' setting. This doesn't use 'cheap-rate' stored heat, but uses 'peak-rate' electricity directly from the mains, so it should only be used if the stored heat has run out.



Night storage heaters can be a good option where electricity is used to heat the home.

Getting the best from your storage heater

The 'output' setting of your storage heater should be turned off at night; and also turned off when you are out of the room or out of the house.



The **boost** setting can be used to throw out extra warmth. But it uses expensive peak rate electricity. Use all the stored heat first by opening the output fully before using boost.

Avoid using supplementary plugin heaters. It's better to turn up the input on your storage heater and store more heat.

... and a few other ways 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 the fresh air feel great, and there are drying days in winter, too.

Don't leave your phone on charge all night. It only needs an hour or so. And try not to leave the TV and other kit on stand-by.



Encourage your children to switch off electric toys and lights that they're not us

lights that they're not using.

Be a friend to your freezer.

Defrost it regularly to help it run more efficiently.

Dodge the draught!

Fit draught-excluders to your front door, letter box and key

hole, and close 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.



Only fill the kettle with as much water as you actually need (but make sure you

cover the metal element).

Buying a new appliance? Look out for the Energy Saving Trust 'recommended' logo.





Wait until you have a full load before using your dishwasher or washing machine.

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.

More energy-saving advice at www.cse.org.uk/advice



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

Our **Home Energy Team** offers free advice on domestic energy use to householders in Bristol and Somerset (including unitary authorities of North Somerset and Bath & North East Somerset).