

Night storage heaters

A simple guide



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

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 tariff**. This is an arrangement with an energy supplier by which the electricity that a household uses at night is much cheaper than that used during the day – typically about a third of the price.

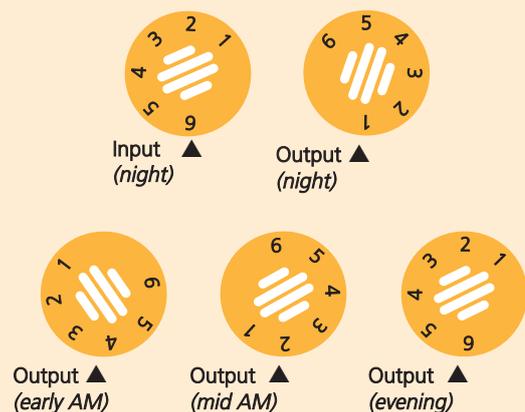
The hours of cheap electricity are normally from 12 midnight until 07.00 in winter, and from 01.00 to 08.00 in summer, although this can vary. For more information about Economy 7, please see our other leaflet.

Jack and Gwen's storage heater

Jack and Gwen are a retired couple living in a rural area. They are off the mains gas network and use electricity for their heating and hot water. They have **storage heaters** to take advantage of the Economy 7 tariff that they have chosen.

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.



All storage heaters have input and output controls

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.



Storage-heater controls vary from model to model, but they all work by storing cheap night-time electricity and releasing it during the day

Turn over for energy saving tips ▶

Tips for 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 on the storage heater can be used to throw out extra warmth. But it uses the appliance's stored heat more quickly, so try not to use it unless you really need to.

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



Tips for lower energy 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.



This leaflet was originally 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).

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