



Home Energy Advice Team

Heating systems explained

Electric Storage Heating

Electric storage heating systems operate very differently from a 'wet' gas central heating system. The majority of homes heated by electricity have a combination of electric storage heaters and panel heaters with an electric immersion heater for the hot water.

If they are used correctly, electric storage heaters are the cheapest form of electric heating. Although they are bulky, because they use off-peak electricity, they are cheaper to run than electric bar fires or portable electric heaters (such as fan heaters), which can cost a lot to heat only a small space. A well controlled storage heater should give you ten hours of useful heat a day.

Electric Storage Heaters



These operate by storing heat during 'off-peak' periods when the electricity is **much** cheaper, usually overnight. (You can only get cheap night-time electricity if you are on an off-peak tariff such as Economy 7, Economy 10, Comfortplus Control or Comfortplus White Meter.) The electricity is converted to heat inside a core of special firebricks. This heat is then released into the room the following day and evening.

The majority of storage heaters have two controls in the form of dials: an '**input**' (also referred to as 'charge') and an '**output**' (also referred to as 'boost' or 'damper').



Input control

This control determines the amount of electricity used and therefore how much heat is stored during the night. What you pay depends solely on the input control setting: the output control plays no part. If you set it too high for the room or for the season, you will be wasting money.

It is best to be set on a seasonal basis: medium for spring and autumn, high for winter, maximum for the very coldest weather. If you find that you run out of heat before the end of the day, and the input is not on maximum, turn it up to store extra for the following day. When the weather gets too warm to need heating, switch your heaters off at the wall.

Output control

This control operates a flap just inside the vent at the front of the heater: the flap opens and closes to control the flow of heat released into the room during the day.

If this is set at maximum (often at number 6 on the dial), the stored heat is released at a very fast rate and warms up the room very quickly. The danger of setting it at this in the morning is that the heater will release too much heat too early, leaving too little heat to last until bedtime.

It is important to set the controls to reflect the temperature outside and the times that you are in the property. If it is very cold outside, more heat will need to be released to keep the room at a comfortable temperature and so the output control will need to be set higher. If you are going out or to bed, then turn the output down to zero to keep the heat in. Otherwise, you will be pointlessly heating your home while you are asleep or outside.

Other points to remember

Fitting shelves above your heaters is a worthwhile task as this can deflect the heat further into the room.

Please do not cover heaters or dry clothes on them: this will stop heat getting out into the room and can be a fire hazard.

In addition, please do not put furniture in front of your heaters. You will be spending your money heating your furniture rather than heating your home.

Hot water with storage heating

If you have electric storage heating, hot water will almost always be generated by an electric immersion to heat hot water. This usually operates with a hot water timer which is located either in the kitchen or in the cupboard near the immersion. This is set to use 'off-peak' electricity to heat water between, say, 11.30pm and 8.30am.



The Horstmann 7 quartz timer is a common example of this. Setting the switch on this to 'timed' heats the whole tank for about 5 hours overnight. This is a sensible setting for a family. But it yields too much water for a single person: someone living alone may prefer to set the switch to 'off' and use the boost for a short period to obtain hot water.

The water temperature can be boosted during the day, at peak rate, by overriding the timer. If using peak electricity, please switch the immersion on only for the period required to heat the water. It is expensive to keep the immersion on for long periods during 'peak' times and this should be avoided.

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