



What is Electric Storage Heating?

If you use electricity as your main source of heating, then an Electric Storage Heating system which uses “**off-peak**” electricity offers lower heating costs rather than “on peak” electric heating.

Off Peak might also be called ***Economy 7*** or sometimes even *Economy 10*

The **Low** meter reading is for recording the amount of energy consumed during the lower tariff periods, (e.g. the 7 hours of electricity at a lower rate per kWh provided by the energy supplier between say 00:00 - 07:00 or 23:00 – 06:00), hence the name “Economy 7”.

The **Normal** meter records how many units of energy are consumed during the **other** 17 hours of the day.

In essence, Economy 7 heats up water in the hot water cylinder tank as well as the “thermal blocks” inside the storage heaters around the property.

How do Electric Storage Heaters Work?

NB: You may find the terminology used below slightly different to what you may find in the storage heating user system manual you have.

Heavy thermal brick blocks inside the electric Storage heaters are heated using electricity provided at the less expensive night time/off-peak electricity tariff. The stored heat (in these blocks) is released during the course of the following day.

The “core” of the storage heater consists of electrical elements embedded in insulating material (in the shape of a brick). These blocks then release the heat slowly. The thermal blocks are designed to keep warm for the whole of the following day.

How is the heat radiated?

Storage heaters give out their heat in two ways:

- By heat “radiating” from the front panel, which is not controllable, as such this cannot be turned down, so the heater will give out *some* radiant heat at night when charging up.
- The heater also provides heat into the room by “convected” heat in the form of warm air (by opening or setting the output dial see below).

Storage Heater Controls

The controls of an electric storage heater normally consist of two dials to be found under a flap (usually found on the top of the storage heater).

The Input Dial

These are sometimes known as the “charge” or “overnight” dial, this control sets the amount of electricity to be input (stored) during the night.

It is best to be set the input dial on a “seasonal” basis: medium for autumn / spring, high for winter.

Should you find that you run out of heat before the end of the day, and the Input is not on maximum, turn the control dial towards maximum to store extra heat for the following day.

It should also be noted that some electric storage heating systems have an *Automatic Input* that sets the charge by the night time temperature of the room - this may be provided by your energy company. If you are not sure it would be best to ask your energy supplier.

External Weather Sensor - this can also control some heaters so that in cold weather the heaters get more electrical input than in milder weather.

The Output Dial

This is sometimes known as the “room temperature” or “boost” dial.

This dial controls the amount of warm air or convected heat given out during the course of the day. This dial opens and closes a flap on the heater - this action increases or decreases the amount of heat that is passed out of the heater.

Economical Use of Your Storage Heater

The Output dial should be set to minimum during the night and “opened” / “turned Up” gradually throughout the course of the day or at the time it is required (e.g. when you arrive in from work in the afternoon).

It should be noted that most households who have storage heaters find that they **do** have to use an additional heating source - most likely in the evening after the storage heater has “used or lost ” all it’s stored heat.

If the room is cold, remember to ensure the Output dial is set to maximum, before deciding to switch on an alternative direct source of heat (e.g. electric convector / oil filler radiator/ 2 bar electric fire).

Remember ! Electricity companies use many local names for the off-peak power they supply, such as: White Meter/Economy 7/ Controlled Circuit Heating - 24hrs at cheap rate/ Total Heating/ Comfortplus Control

Hot water from Off peak or Economy 7 supplies

If you have an Economy 7 tariff, then 1 of the 2 heating elements within the tank will heat up the water during the 'low cost' period during the night to make best use of the lower rates.

Make sure that the hot water tank / cylinder is really well insulated with a well fitted hot water cylinder jacket. If the tank has a foam spray around it (mustard / light green colour) then this can be further improved by adding an extra "insulation jacket" around it.

Remember that the hot water is to last a full day and when hot water is drawn from the tank cold water is drawn into the tank ...thus cooling down the remaining hot water.

If you need hot water during the course of the day then the "boost" hot water switch should be used. However, this will use electricity at the "normal rate" which is often at least twice the cost of the electricity during the low cost hours.

If you need to use hot water, do this during the lower tariff timeframe.

For further information on Economy 7 visit –
www.uswitch.com/gas-electricity/guides/economy-7 .

Switching Suppliers

If you are considering switching energy supplier, make sure that the alternative energy supplier does have a reduced tariff night-time electricity rate available.

Further advice and information

If you are a Council tenant and have any questions regarding your storage heaters or home energy efficiency matters, please contact the Call Centre on 0141 577 3700.

Alternatively, you can contact:

<p>East Renfrewshire Council Energy Efficiency & Carbon Reduction Unit 0141 577 8529</p>	<p>Home Energy Scotland 0808 828 2282</p>
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Please Note: Whist care was taken to ensure that the advice contained in this document is accurate; it cannot replace expert advice. It is intended as a guide only and the Council cannot accept any responsibility for any damage or loss incurred by an individual relying on the accuracy of the information.