

## Heating with electricity

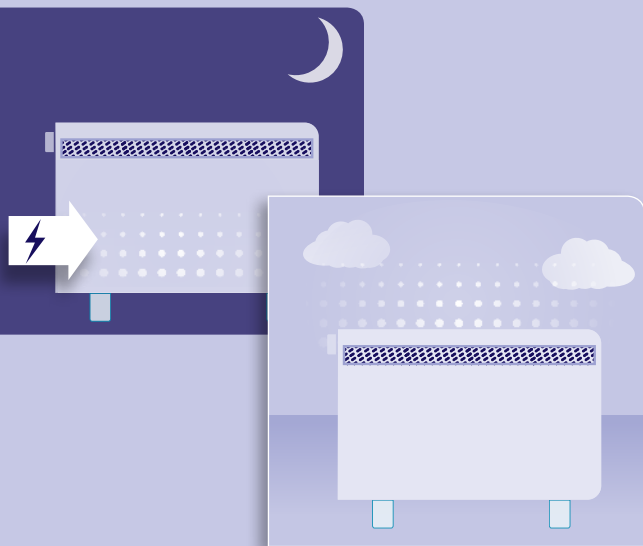
**If electric night storage heaters are the main means of heating your home, you should be on an Economy 7 tariff. This means that you benefit from a cheaper tariff for the electricity you use at night.**

It is important to use this cheap rate to a) heat up your storage heaters and b) heat up your hot water with your immersion heater. The low tariff applies for seven hours overnight. The exact times vary so check with your supplier to confirm. The low tariff is less than half the price of the daytime normal rate.

### How do electric night storage heaters work?

Night time storage heaters are designed to store heat from electricity supplied at the cheaper night time tariff and then release it during the following day.

The 'core' of the heater is made up of electrical elements embedded in insulating material. These elements switch on during the off-peak period. The insulated core stays hot after it is switched off, cooling down gradually as it gives out heat throughout the following day.



**Your storage heaters will usually have two controls: one that controls the amount of 'electrical' energy going in overnight (the input) and one that controls the amount of warm air coming out (the output). However, as long as its warm, the heater will radiate some heat from its outer casing.**

### The 'Input' Dial (sometimes called 'overnight charge')

This sets how much heat to store during the night. Your input will either be manual or automatic.

#### Manual Input

You can vary the setting to store more heat when the weather is colder. It is generally recommended that you follow the seasonal changes rather than trying to reset them on a daily basis. Set it high in the winter and medium in the autumn and spring.

#### Automatic Input (sometimes called 'Auto-Set')

Automatic or 'Auto-Set' means that the input is controlled by a thermostat. In this case you do not need to change the setting when the weather changes. Try out different settings to find out which gives the most comfortable temperatures the following day and evening. Once you have decided on the right setting, leave it at that.

**IMPORTANT!** - If you have 'top up' heat from a gas or electric fire late into the night it could affect the automatic thermostat. It will make the thermostat think the weather is warmer than it actually is and the storage heater won't store up enough heat overnight.



“Once you have set the input controls correctly make sure that other members of the family don't change them

### The 'Output' dial (often labelled 'room temperature' or 'boost')

This controls the amount of heat given out by the heater.

It does this by opening and closing a flap in the heater, controlling the amount of warm air given out. However, as long as it is warm, the heater will radiate some heat from its outer casing.

It is most economical to set the output control to minimum during the night, when the household is sleeping, and to keep it low for as long as you can during the day. That way you will keep as much heat as possible for use later when you may need it the most. When you begin to feel cold, turn up the output a little.

If you find that you are still running out of heat, try turning the input control higher for more heat the next day.



Remember to turn the output down to its lowest setting when you go to bed at night

## Electric water heating

If you heat your water using Economy 7 electricity, you will have a hot water storage cylinder fitted with an immersion heater. This is an electrical element which works like the element in a kettle to heat up the water in the cylinder.

The water heats up at night and is stored for use during the following day and evening.

#### Thermostat

A thermostat in the immersion heater prevents the water from overheating. It will switch off the immersion heater when the set temperature is reached. This is for safety (and energy efficiency!!) and should be preset to 60°C (140°F).

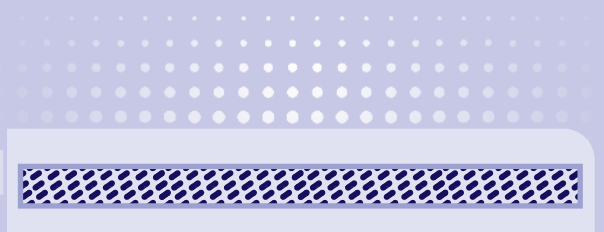
#### Immersion Heater Timer

There should also be a timer, normally found near the hot water cylinder, which is set to heat a cylinder of water during the cheap period. This means that you will have a full cylinder of hot water at the beginning of each day.

It is very important that the controller is showing the correct time, otherwise it will heat up at the wrong time.

You may have two immersion heaters in the same cylinder: in this case the lower one is to heat up a whole tank of water, and should be on at night, while the upper one heats only half a tank and will come on when you use 'boost'.

**IMPORTANT—** Remember that when you use the boost during the day you are using expensive rate electricity!!



## Common makes of storage heaters



**Berry storage heaters** have a switch on the lower right hand side of the casing that can switch between Manual or Automatic Input control. It is better to keep it on Automatic rather than Manual as a thermostat will determine how much heat energy to store overnight.

The output control will work as normal so keep it set on low during the day and turn it higher when you need the heat.



### Automatic Models

Set the right hand automatic dial to between medium and high.

Adjust as necessary, but once you have found a comfortable temperature leave it in this position and don't change it (even when the weather gets colder).

The left hand dial controls the room temperature boost. Set it at '1' and increase it as you need more heat. This dial opens a damper and releases more heat.

### Manual Models

Turn the right hand dial to set how much heat energy you wish to store over night. Set it higher over the winter months and then lower in autumn and spring.



### Automatic Models

Use the trial and error process to find the right temperature for the input control. Once set correctly it shouldn't need changing.

### Manual Models

Set the input dial to medium (1-3) for autumn and then higher as you need it through the winter.

Use the output control to minimise heat release during the day and increase it when you need it. Remember to turn it down at night.

## Greening South West Workplaces

**The South West Trades Union Congress, supported by the South West Regional Development Agency, is running a project using the reach of trade unions to change the way people work.**

- Trade union members can champion environmental issues in the workplace
- The project is training and supporting a network of green reps across the South West
- The project is helping to find practical solutions that reps can bring to the workplace
- Green reps can be the link between staff and management to encourage change through the workforce
- Unions can reach out to new members who feel strongly about the impact on the environment
- Unions can work with employers to improve business performance and reputation.



## Greening the workplace makes good sense for everyone.

To get involved in greening your workplace speak to your union environmental or green representative – or contact your union or the TUC to find out more about becoming a rep yourself.

For further information contact the South West TUC.

Tel: 0117 947 0521

Email: [southwest@tuc.org.uk](mailto:southwest@tuc.org.uk)

[www.greenworkplacessouthwest.org.uk](http://www.greenworkplacessouthwest.org.uk)



For free, independent and local energy saving advice call the Energy Saving Trust.

Tel: 0800 512 012

Special thanks to Severn Wye Energy Agency for the use of their information in the production of this leaflet.

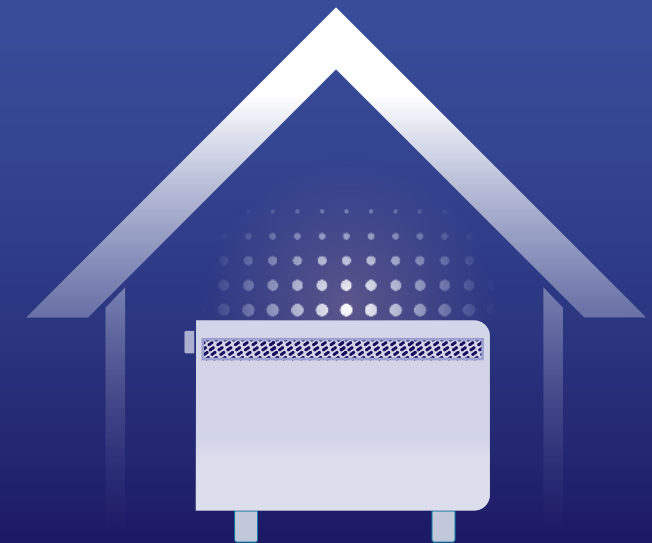
[www.swea.co.uk](http://www.swea.co.uk)

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GREEN UNIONS AT WORK

## Economy 7 and electric storage heaters



TUC energy awareness

