

# Room heaters

## What are your best options for extra heat?

Room heaters are used to heat a small space and are normally portable or fitted to a wall. Most room heaters use gas or electricity.

Room heaters are convenient appliances that provide focused and localised heat which is particularly suitable in a room for people that are elderly, ill or with limited mobility. But they can be expensive. They consume a lot of gas or electricity if used to heat up a space quickly, and are likely to cost a lot more than a central heating system.

Ideally, room heaters should only be used as a secondary or supplementary source of heat. Even then, you should use the right heater for the space you want to heat, and carefully control the temperature and the time you have the heater on. Heaters that have these controls are often cheaper to run.

### What kind of room heater?

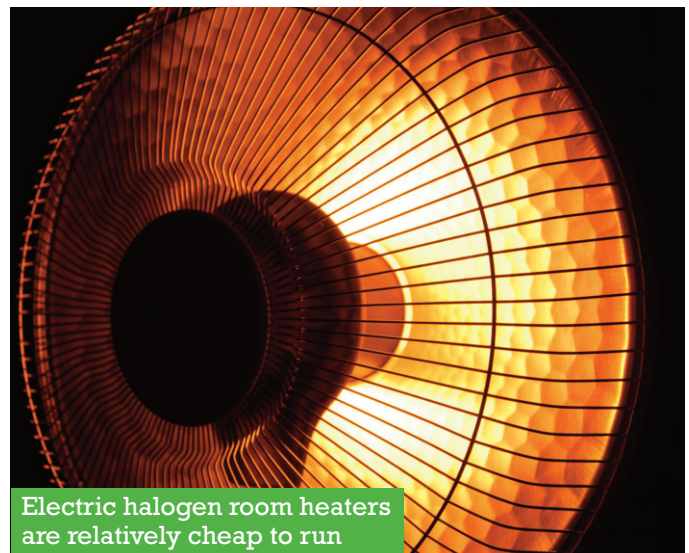
When you're deciding on what room heater to use, consider first what purpose you want it to serve.

#### 1) Heating a whole room for a few hours or more

For this, you should use a *convector heater*. These work by warming the air immediately next to them which then naturally circulates relatively evenly around the room. Convector heaters are a good choice if you need a supplementary heating source to warm up a room for a few hours at a time. They take a little longer to work, but this type of heater can be easily controlled with a timer and thermostat, so you don't overheat the room and you save money. You can get both electric and gas convector heaters, and oil filled radiators are also a type of convector heater.

#### 2) Heating a room for a short period of time

For a quick blast of warmth, or for more directional heating, you should use *radiant* or *fan heaters*. These work quickly and are useful if you want to warm up only part of a room for a short period. Unlike convector heaters, they don't achieve an even level of heat throughout the room,



Electric halogen room heaters are relatively cheap to run

so don't bring the same level of comfort. They rarely have thermostats or timers which is likely to make them a more expensive option over time. Halogen heaters, electric bar fires, open gas fires and bottled gas fires are forms of *radiant heater*. Technically speaking, they don't heat the air (like convector heaters) but transfer heat through electromagnetic waves in the same way that a log fire warms a room and the sun warms the earth.

### Electric room heaters

These include 'radiant' bar fires (below, picture 1), warm air heaters (2), oil-filled radiators (3), fan heaters (4), and halogen heaters (5). They are all expensive to run and not appropriate as a *main* heat source.

#### Hot parade (electric)

- 1) radiant bar fire,
- 2) convector heater,
- 3) oil-filled radiator,
- 4) fan heater,
- 5) halogen heater.



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Electric heaters are all considered to be 100% efficient (i.e. they turn all the electricity they use into heat), but some are more expensive to run than others because they provide more heat. Electric heaters with a higher power rating (in watts) provide more heat but cost more to run.

The cheapest electric heaters to run are halogen heaters and oil-filled radiators, whilst bar fires and fan heaters are the most expensive. If you have to use an electric room heater, use it only when necessary and consider the following:

- Use a timer if it has one, if not, you can buy a timeswitch for the plug from a hardware shop.
- If the heater has a thermostat make sure it's not turned up too high.
- If you are on Economy 7, avoid using electric room heaters during peak hours if you can. Better to use night storage heaters that are charged at night.



**If you're on mains gas, then gas central heating is the best way to heat your home. If your only heating option is electricity, then use a night storage heater on Economy 7.**

### Electric room heaters

	Typical heat output	Running cost per hour		
		Standard meter	Economy 7 meter	
			Night	Day
Radiant bar fire	2 kW	28p	13p	36p
Halogen heater	1.2 kW	17p	8p	22p
Convector heater	2 kW	28p	13p	36p
Fan heater	2 kW	28p	13p	36p
Oil-filled radiator	1.5 kW	21p	10p	27p

NB costs vary as electricity prices change

### Gas room heaters

These include traditional gas fires (6), convector heaters (7), open gas fires (8) and bottled-gas heaters (9). All can be run on mains gas or liquid petroleum gas (LPG). Bottled gas heaters, gas convector heaters and paraffin stoves don't need flues (chimneys). However, the water vapour they produce can cause condensation which will lead to damp and mould problems if the room is poorly ventilated.



**Hot parade (gas) 6) radiant gas fire, 7) gas convector heater, 8) open gas fire, 9) bottled gas fire**

### Gas room heaters

	Heat output	Efficiency rating	Running cost per hour		Cost per unit of heat	
			Mains gas	LPG*	Mains gas	LPG*
Radiant gas fire (on full)	5KW	63-81%	25-32p	41-54p	5-6p	8-10p
Radiant gas fire (on low)	1KW	40-65%	6-10p	10-17p	6-10p	10-17p
Gas convector heater (on full)	3kW	60-85%	14-20p	23-33p	5-7p	8-12p
Open decorative gas fire	2.5kW	20-50%	20-50p	33-84p	8-20p	13-33p
Closed gas fire	4kW	60-80%	20-27p	33-45p	5-6p	8-10p
Bottled gas fire	4Kw	100%*	n/a	66p	n/a	17p

\* assuming LPG propane supply except for bottled gas where assumed to be using 15Kg Butane cylinder

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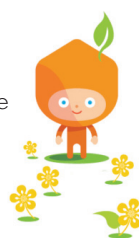
3 St Peter's Court  
Bedminster Parade  
Bristol BS3 4AQ

0117 934 1400  
[www.cse.org.uk](http://www.cse.org.uk)  
[info@cse.org.uk](mailto:info@cse.org.uk)

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The **Centre for Sustainable Energy** 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 the unitary authorities of North Somerset and Bath & North East Somerset).



### For energy advice:

Phone **0800 082 2234**

Email [home.energy@cse.org.uk](mailto:home.energy@cse.org.uk)

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