



Guide to Heat Use and Costs

Correct as of January 2021

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1. How much heat can you expect to use each year?

For an average user in a 2/3 bedroom apartment we expect to see between 3,000-3,500 kWh of heat used each year. However, this varies from home to home and customer to customer. Usage depends on factors such as:

- the characteristics of your home e.g. size, orientation, number of external walls etc.
- how hot you like your home
- how long you have your heating on for
- how much hot water you use, etc.

To help give you a guide you can also find anticipated annual heat consumption on your home's EPC, although please bear in mind that this is only a guide and the predicted costs won't be based on the heat tariff which you will be paying.

The below examples should give you an idea of how much heat you can expect to use and how much it might cost you based on our current unit rate of 8.38p/kWh.

2. How much will it cost to take a shower?

A 10-minute shower will cost approximately 21p. If you were only to take a 7.5-minute shower this would reduce the cost to roughly 16p.

So, if you were to have a 7.5-minute shower every day, you can expect this to cost you approximately £60 a year.

The technical bit - how did we work out the above costs?

Data from the Energy Saving Trust shows that the average shower time is 7.5 minutes.

If we assume a 41°C shower with a flow rate from the shower head of 0.12 litres per second, this will require 15kW of heat from the Heat Interface Unit (HIU). A 10-minute shower would therefore use 2.5 kWh's (2.5 units of heat) and a 7.5 minute shower would use 1.875kWh's (1.875 units of heat).

So, for a shower lasting 10 minutes, or 0.167 hours, and with a heat network tariff of 8.38 pence per kilowatt-hour, the cost is calculated as follows:

- $0.167 \times 15\text{kW} \times 8.38\text{p} = \underline{20.95 \text{ pence}}$
(or $2.5\text{kWh's} \times 8.38\text{p/kWh}$)

For a shower lasting 7.5-minutes, or 0.125 hours, the calculation is:

- $0.125 \times 15\text{kW} \times 8.38\text{p} = \underline{15.71 \text{ pence}}$
(or $1.875\text{kWh's} \times 8.38\text{p/kWh}$)

3. How much will it cost to have a bath?

We all love a bath from time to time. Taking a bath will cost more than taking a shower.

For a 43°C bath filled with 85 litres of water, you can expect to pay approximately 27.15 pence.

So, if you were to have a bath every day, you can expect this to cost you around £99 a year.

The technical bit - how did we work out the above costs?

Data from the Energy Saving Trust shows that the average bath volume is 83.3 litres.

Assuming a 43°C bath filled with 85 litres of water, with a flow rate from the tap of 0.2 litres per second, this will require 27kW of heat from the Heat Interface Unit (HIU) for 425 seconds, or 0.12 hours. With a heat network tariff of 8.38 pence per kilowatt-hour, we calculate the cost as follows:

- $0.12 \times 27 \times 8.38 = \underline{27.15 \text{ pence}}$

4. How much will it cost to heat your home for an hour?

For a 75m² apartment (2 bed property) running your heating for an hour will cost up to 18.85pence.

If you were to have your heating on for 6 hours a day during the heating season (October-March inclusive) this would cost around £210.

The technical bit - how did we work out the above costs?

Assuming we have a modern building with low heat losses, a reasonable assumption for the winter heating requirement is 30 watts per meter squared of floor area.

For a 75m² apartment this results in a peak heating requirement of:

- $30 \text{ watts} \times 75\text{m}^2 = 2,250 \text{ watts OR } 2.25 \text{ kWh's}$
(2.25 units of heat).

Based on a unit cost is 0.0838p/kWh, we calculate the cost of running the heating for one hour as follows:

- $2.25\text{kWh's} \times 0.0838\text{p} = \underline{18.85\text{p per hour}}$

5. Contacting us

We hope you find this information helpful. If you have any questions, or are struggling to pay, please get in touch and we'll do our best to help.

- **Telephone:**

0330 324 0018 (local rates apply)

Open for general enquiries Monday to Friday 8am to 5pm. Open for emergencies 24/7.

- **Email:**

help@watkinsenergy.co.uk

You can find lots more helpful information on our website:

www.watkinsenergy.co.uk