

How to cut costs and maximise value when choosing and using appliances

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We are in a situation where everything is significantly more expensive to buy and run. Household budgets are being squeezed like never before. It is crucial to ensure that we are getting the best value for money whenever we buy something. Buying the cheapest version of something is not necessarily the answer to getting the best value. How do we choose and use appliances to maximise the value we get?

There are multiple things that we need to know when buying appliances: which appliances use the most energy, how to buy the right sized product for the required use, how electricity is measured and charged to consumers, how to read energy labels and how to calculate comparable overall costs.

1. Knowing your energy hungry appliances

The two types of electrical product in the house that use the most energy are 'wet appliances', such as washing machines, dishwashers and tumble dryers, and 'cold appliances' such as fridges and freezers. Between them, they account for 27% of electrical energy consumption in the house*. It is important to choose these appliances wisely as they are so energy hungry. All wet and cold appliances have energy standards and as a result, they must display energy rating labels which are helpful in identifying how much the item will cost you to run.

2. What size do you need?

The first thing to do is to select the right size of appliance. What sized drum do you need for your washing machine; how large a fridge or freezer do you need? If you have a large family, then you may

need to look at bigger appliances that can cope with more. Take a look at the [Energy Saving Trust](#) for advice on what sizes might suit your requirements.

These are appliances that you will probably own for ten years or more, so think about how your needs might change in the future and whether to buy for those needs now, or whether you are willing to wait and trade in later. With energy bills likely to stay high for the foreseeable future, you might choose not to buy big now just in case your situation changes.

3. How is electricity measured and charged?

To understand fully how much money can be saved by doing research when you're finding new appliances, it's important to understand kWh – kilowatt hours. This is a measurement of energy usage and refers to how much money you will be charged by your electricity supplier to run an appliance.

Since 1 October 2022, electricity prices have been capped at 34p per kWh for most households in the UK. You can calculate how much an appliance is estimated to cost you to run each year by multiplying the kWh figure for an appliance – generally found on an energy label – by 34 (to get an overall cost in pence). For a washing machine, the kilowatt hours are based on a household completing 220 wash loads per year, at 40-60°C.

Some appliances will not have energy labels, and therefore will not display kWh figures. Instead, to understand how much the appliance will cost to run, you can use wattage as a measurement of energy. Appliances that use this measurement will be outlining the amount of energy that the appliance uses for one hour's worth of usage. All appliances displayed online should have a wattage listed in their specifications.

4. How to use Energy Labels

Appliances that do have energy labels have a rating from A+++ to F. The A rated machines cost the least amount of money to run. It's important to compare like for like – don't compare the energy rating label on a 6kg washing machine with a 9kg washing machine, for example, as this will not be a valid comparison.

5. How to calculate comparable overall costs

When choosing an appliance that is the best value for money, you need to consider all costs involved, not just the initial purchase price. In addition, many manufacturers have warranties to consider. If you buy a product with a shorter warranty, you could be purchasing another appliance sooner. Additionally, while one appliance may be cheaper to buy, it may be more expensive to run per year. If you then keep the appliance for multiple years, you could be losing money without realising.



Example 1: calculating and comparing energy costs with kWh

A 9kg washing machine that costs £429 with a leading UK electrical retailer has a D rating, and its label shows that its energy usage is 76kWh per year. From the same retailer, a machine costing £409 is A rated and its energy usage is 49kWh.

Running the D rated machine will cost £25.84 (0.34p x 76 kWh)

Running the A rated machine will cost £16.66 (0.34p x 49 kWh)

This calculation shows that a homeowner would save £9 per year with the A rated machine (based on completing 220 loads a year – approx. 4 loads a week; the saving would increase with more loads per week). If the washing machine is kept for 10 years, then that totals a saving of £90. This shows that the cheaper washing machine uses less electricity, but it is worth remembering that this is not always the case.

You can calculate costs to run any other appliances with energy labels in the same way. The main household appliances with energy labels are washing machines, televisions, tumble dryers, ovens, fridges and freezers.

Example 2: calculating and comparing energy costs with wattage

Dehumidifier 1 has a 20-litre capacity, which would be capable of looking after a large house, or a medium to large size family or drying lots of washing. It uses 216 watts (at 20°C and 60% relative humidity – a typical UK application). 216 watts is the equivalent of 0.216 kWh, so at 0.34p/kWh, it will cost 7p per hour to run.

However not all 20-litre dehumidifiers have such a low wattage. Every extra 100 watts of energy used will cost 3.4p per hour. Dehumidifier 2 uses 420 watts which will cost 14p per hour to run.

Based on six hours use per day the machines would cost:

Dehumidifier 1 at 7p per hour x 6 hours = 42p per day

Dehumidifier 2 at 14p per hour x 6 hours = 84p per day

Example 3: comparing running costs and price

By using the cost per day figures from example 2, we can calculate the cost of running the dehumidifier for a year, or multiple years. It is important to calculate the overall cost of an appliance to ensure you are getting the best value for money.

Dehumidifier 2 is £100 cheaper to purchase so may appear better value for money, but over one year, it will cost you an extra £153.30 to run. In this scenario, dehumidifier 1's higher price tag will be covered within the first year's running costs. This could total an extra £766.50 spend over five years.

This is a clear example of how careful you have to be: while the initial £100 saving can look tempting, the cost over time is the equivalent of months of food for a family.



These tips and examples can help you be confident that when comparing and purchasing appliances, you know what your costs will be both in the short and long term, and which product is the best fit for your household, budget and requirements.

*data from the Energy Saving Trust.