

OPERATING COSTS OF ELECTRICAL APPLIANCES

This brochure gives typical running costs for common electrical appliances. They are based on what a typical four person family in Victoria would pay. Of course, your own running costs may vary somewhat from these, depending on factors such as climatic conditions, thermostat settings, family size and the age and efficiency of the appliance.

Wherever possible, hourly running costs have been provided so you can easily estimate your own monthly or annual running costs. Monthly running costs have been provided for hot water systems, refrigerators, heating and cooling systems, as these appliances are run for long periods of time and precise hourly costs are difficult to estimate.

Calculating your own costs

The running costs of a specific appliance can be calculated if you know its **wattage** and your **electricity tariff**.

The **wattage** is usually printed on the appliance or its packaging, along with other technical information. Look for a figure followed by 'W', watts or 'kW' (kilowatts). This tells you how much electricity the appliance consumes. For instance, a 1000 watt radiator would use 1000 watts, or 1 kilowatt, of electricity each hour it runs (this is known as 1 kilowatt hour or 1 kWh). A 100 watt light globe would use 0.1 kW each hour, and therefore consume 1 kWh in 10 hours.

Examples:

A 200 watt TV set used for 6 hours—
Total electricity used: $200 \times 6 = 1200$ watts or 1.2 kWh

A 2400 watt (2.4 kW) fan heater used for 8 hours—Total electricity used:
 $2.4 \times 8 = 19.2$ kWh

The **electricity tariff** is the cost of each kilowatt hour of electricity. There are different tariffs for peak and off-peak usage. The tariff you are on will be found on your bill.

Electricity tariff prices¹

General domestic

This is the most common tariff and applies when using any appliance, during the day or night.

Average Peak rate (GD or GR):

15 cents/kWh

Off-peak rates are charged for off-peak storage hot water or space heating systems (heat banks, midibanks and in-slab electric heating). Your electricity bill will tell you whether you are on an off-peak tariff.

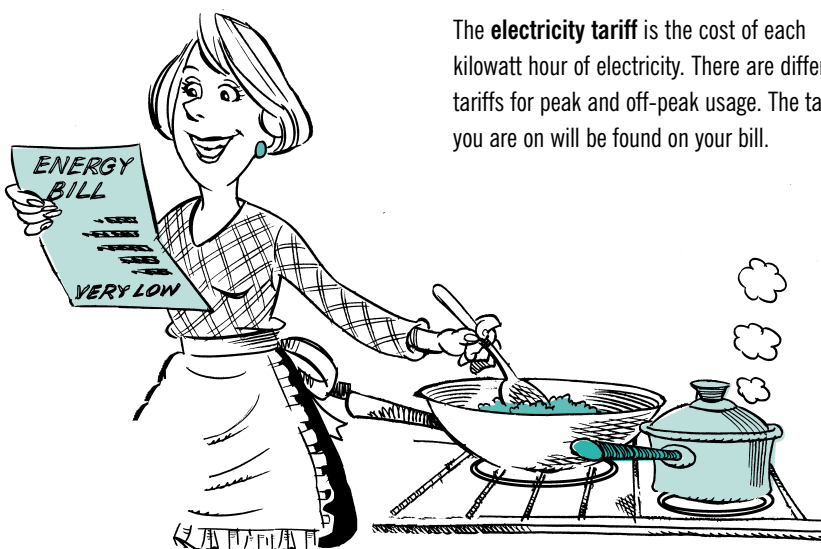
Average off-peak (Y8, J8 or J): 6 cents/kWh

Average off-peak (Y6, YT, J6 or JT): 5 cents/kWh

Appliance running costs listed on the following pages are based on the above prices.

These costs do not include supply charges, which can add up to \$40 to each quarterly bill, or \$14 each month. All costs are GST inclusive.

¹ Tariffs quoted are approximate and may vary slightly between retailers.



Refrigeration

Refrigeration costs are based on current models. Older, less efficient models could have running costs up to 100% higher.

	Monthly cost
Fridge/freezer (2 door, 500 litres)	\$11–\$14
Fridge/freezer (2 door, 350 litres)	\$9–\$12
Fridge/freezer (2 door, 250 litres)	\$8–\$10
Bar fridge	\$4–\$5
Freezer (chest or vertical, 300 litres)	\$8–\$11
Freezer (chest or vertical, 200 litres)	\$4–\$6
Freezer (chest or vertical, 150 litres)	\$4–\$5

Hot water systems

Monthly costs assume a water usage of 180–260 litres/day.

	Monthly cost
Day rate (instantaneous) systems	\$56–\$78
Off-peak storage (Y8 or J8 tariff)	\$23–\$31
Off-peak storage (Y6, YT, J6 or JT tariff)	\$19–\$26
Solar hot water (electric boosted)	\$8–\$10

Laundry

	Hourly cost
Clothes dryer	35c
Washing machine	13c

Lighting

	Hourly cost
Combined bathroom fan/heater/light	19c
Incandescent globe—100W	1c
Compact fluorescent globe—11W	1c every 6 hours
Compact fluorescent globe—20W	1c every 4 hours
Fluorescent tube—20W	1c every 4 hours
Fluorescent tube—40W	1c every 2 hours
Quartz halogen globe—50W	1c every 2 hours

Cooking

	Hourly cost
Microwave oven	22c
Oven (conventional or fan-assisted)	27c–38c
Horizontal grill	up to 30c
Hotplate (on maximum setting)	19c–31c
Frypan/deep fryer	18c
Toaster (two slice)	10c
Sandwich maker	10c
Blender/food processor	6c
Coffee percolator	9c
Electric jug	23c

Appliances

	Hourly cost
Dishwasher—cold water connection	28c
Dishwasher—hot water connection	24c
Electric blanket—double	2c
Electric blanket—single	1c
Electric clock	1c every 2 days
Electric drill	9c
Electric saw	14c
Hair dryer	22c
Home computer	1c
Iron	14c
Spa bath with 5 kW heater	74c
Stereo system	0.6c
Swimming pool filter pump (1 HP or 750W)	11c
Television—console	3c
Television—portable	1c
Vacuum cleaner	14c
Video cassette recorder	1.4c (in use)
Water bed	1.5c

Standby energy consumption

Most households contain appliances which consume electricity even when they are not operational. This is generally referred to as 'standby' energy consumption, and can amount to over 10% of total electricity used in a typical home.

Appliances and equipment with a standby mode include VCRs, televisions, home entertainment systems, air conditioners, battery chargers, whitegoods (except refrigerators), and any other equipment which consumes power while not performing its primary function.

The following table provides a guide to the standby wattage and average annual standby energy cost for various appliances.

	Average standby energy use (watts)	Annual cost (approx.)
Television	10	\$13
Clock radio	4	\$5
VCR	8	\$10
Stereo	10	\$13
Mobile phone charger	1	\$1
Personal computer	2	\$2
Computer monitor	5	\$7
Printer	8	\$10
Microwave oven	4	\$5
Cordless phone	3	\$4

Heating

All monthly costs assume heating is used for 8 hours per day in Melbourne.

Running costs can vary considerably based on such factors as heater size and efficiency, thermostat setting, length of use and building efficiency.

Portable heaters

	Hourly cost	Monthly cost
Oil-filled column heater or fan heater (1.2 kW)	11c–18c	\$26–\$43
Oil-filled column heater or fan heater (2.4 kW)	21c–35c	\$52–\$85
Bar radiator/strip heater (1.2 kW)	18c	\$43
Bar radiator/strip heater (2.4 kW)	35c	\$85

Space heaters

The following figures are based on heating an area of 60 m² to 21°C. Calculations for the size of your rooms can be estimated proportionately from these. Most older homes would have costs towards the higher end of the range. Lower figures would apply to fully insulated houses.

	Hourly cost	Monthly cost
Reverse cycle air conditioner (1–2 star rating)	21c–27c	\$52–\$65
Reverse cycle air conditioner (4–6 star rating)	12c–15c	\$30–\$35
Off-peak heat bank	15c–19c	\$39–\$54
Day rate fan heater	37c–47c	\$91–\$114

Central heating

All figures are given for homes of 150 m² with 2.4 m ceilings. Calculations for larger or smaller homes can be estimated proportionately from these. Lower figures are for fully insulated houses. Energy smart homes can reduce these costs by up to 30%.

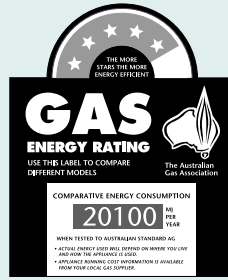
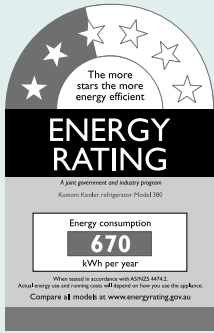
Note: in-slab heating runs 24 hours per day.

	Hourly cost	Monthly cost
In-slab heating (heating whole home to 18°C)	10c–15c	\$75–\$110
In-slab heating (heating living areas to 18°C, other areas to 16°C)	9c–11c	\$58–\$83
Radiant ceiling heating (heating whole home to 18°C)	43c–60c	\$104–\$151
Radiant ceiling heating (heating whole home to 18°C, other areas to 16°C)	28c–43c	\$71–\$102
Ducted reverse cycle air conditioning (heating whole home to 21°C)	44c–63c	\$109–\$157
Ducted reverse cycle air conditioning (zoned system—bedrooms and living areas heated at separate times to 21°C)	26c–37c	\$63–\$94

Cooling

Monthly costs assume cooling is used for 4 hours per day.

	Hourly cost	Monthly cost
Fan (portable or ceiling)	1c	approx. \$1.60
Evaporative cooler (portable)	2c	approx. \$6.50
Evaporative cooler (ducted)	10c–14c	\$23–\$34
Reverse cycle air conditioner (window/wall or split system, 1–2 star rating)	33c–35c	\$42–\$47
Reverse cycle air conditioner (window/wall or split system, 4–6 star rating)	24c–37c	\$30–\$35
Reverse cycle air conditioning (cooling whole home)	55c–80c	\$71–\$102
Ducted reverse cycle air conditioning (zoned system—bedrooms and living areas cooled at separate times)	32c–47c	\$37–\$55



Energy Rating labels

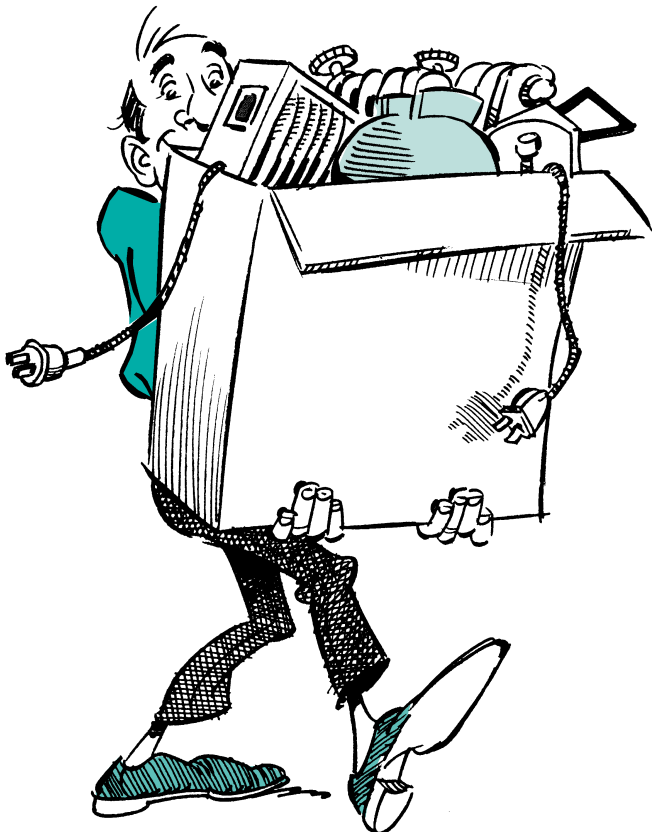
When buying a new appliance look for an Energy Rating label. Energy Rating labels will help you buy an energy smart model which could save you hundreds of dollars over the lifetime of the appliance.

Every energy rating label has from 1–6 stars marked on it—the more stars, the less energy you use, and the more money you will save. They can be found on all refrigerators, freezers, dishwashers, air conditioners, gas space heaters, gas ducted heating furnaces, gas hot water services, clothes dryers and washing machines.

Detailed information including energy star ratings, energy usage and running costs for all whitegoods and air conditioners currently on the market can be found at the website www.energyrating.gov.au

Please note

The running costs in this brochure are based on electricity tariffs correct at time of print. Tariffs will change over time and may vary between retailers. Check with your supplier for the tariff applicable to your home, and adjust running costs accordingly.



Sustainable Energy Authority

Ground floor, 215 Spring Street
Melbourne Victoria 3000

F (03) 9655 3255

www.seav.vic.gov.au

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