energyefficiencycentre

Energy Usage Guide

Hot water (37%)

Take shorter showers

Hot water could account for up to a third of your annual energy usage. Installing a low flow shower head can reduce your energy costs by up to $100 a year.

Switch to gas, solar or heat pump. Switching from an electric hot water system to gas, solar or heat pump can reduce greenhouse gas emissions by up to 75%, which is equivalent to leaving a small car at home for almost a year.

Hot water system type	Tariff	Estimated 7 min shower (cents)	Estimated annual running cost
Electric storage	Off Peak 1 Off Peak 2	16.8 25.6	$250 $400
Electric storage - small	Domestic All Time	39.1	$610
Solar with electric boos	Off Peak 2	8.9	$140 ✔
Heat pump	Off Peak 2	8.9	$140 ✔
Gas storage - 5 star	Natural gas	18.9	$280
Gas instantaneous - 5 star	Natural gas	18.9	$280
Solar with gas boost	Natural gas	6.6	$100 ✔

Lights (9%)

Energy efficient light globes

When buying new light globes, make sure you opt for energy efficient compact fluorescent lamps (CFL's) as they are 80% cheaper to run and last up to fifteen times longer than incandescent globes.

Lights	Estimated hourly cost (cents)	Estimated annual running cost
Standard (75W incandescent bulb)**	13	$19
Halogen standard type bulb (52W)**	0.9	$13
Compact fluorescent lamp (15W)**	0.3	$4 ✔
Tubular fluorescent (45W)	0.8	$11
Halogen (50W down/spot)	0.9	$12
Outdoor security light (150W)	2.6	$26
Bathroom heater light	18.9	$18

*Assuming a light is on for 4 hours a day.
**These three bulbs fit into a standard fitting and produce the same amount of light, with a different wattage.

Heating and Cooling (22%)

Gas heating

Gas heating emits only a third of the greenhouse gas emissions and has lower running costs than portable electric heaters.

The right temperature

Avoid over-heating or over-cooling your home. Set your room temperature to a comfortable 23-25 degrees in summer and 19-21 degrees in winter. Setting it colder or warmer by one degree can increase heating and cooling energy use by up to 10%.

Appliance	Estimated hourly cost (cents)	Estimated annual running cost
Portable air conditioner	25.7	$93
Large wall air conditioner	60.1	$216
Ducted air conditioner	10.3	$371
Fan - ceiling	1.5	$6 ✔
Fan - pedestal	0.9	$3 ✔
Gas space heater	27.7	$100 ✔
Large fan/radiator heater	41.2	$148
Large oil column heater	41.2	$148
Under floor heating	61.8	$222

*Based on an average of 4 hours a day for 90 days each year. Reverse cycle air conditioners can be used for both heating and cooling.

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Kitchen appliances (9%)

Full loads

A half full dishwasher uses the same amount of energy as a full one, so wait until you have a full load before starting.

Appliance	Estimated hourly cost (cents)	Estimated annual running cost
Coffee machine	10.3	$21
Dishwasher (new) – 3 star*	13.3	$28
Dishwasher (old) – 2 star*	33.8	$70
Electric cooktop – large hotplate	37.8	$28
Electric frypan	29.2	$15
Microwave oven	17.2	$17
Electric oven	36	$54

*Costs are per cycle and are based on a dishwasher being used 4 time a week on average.

Refrigeration (7%)

One fridge, not two

Fridges run all day so are large consumers of electricity. Running an old second fridge can cost over $300 a year, so consider getting rid of it or switch it off when not in use.

Appliance	Size / type	Estimated annual running cost
Refrigerator (new)	150 litre bar fridge	$57
	400 litre – 3 star	$102
	500 litre – 3 star	$117
	500 litre – 4.5 star	$79
	650 litre – 3 star	$139
	650 litre – 4.5 star	$94
Refrigerator (20 years old)	400 litre – 3 star	$282 ✗
Freezer (new)	200 litre (upright)	$76
	400 litre (chest)	$108

Lifestyle appliances (4%) & standby (6%)

Standby mode

Appliances left in standby mode are using power and can add up to 10% of household energy consumption. Make sure you turn off appliances like your TV, computer and printer when not in use.

Appliance	Estimated hourly cost (cents)	Estimated annual running (cents)	Estimated annual standby cost*
Computer & monitor	1.7	$12	$7
Printer	1.7	$2	$7
Standard TV	1.3	$18	$6
Large flat screen LCD TV	2.6	$36	$3
Plasma TV	5.1	$72	$3
DVD player	0.3	$2	$7
Stereo system	0.3	$2	$7

*Based on 5 watt standby except for LCD and Plasma TV's which are based on 2 watt standby. A typical home may have over 20 appliances in standby mode.

Washing & drying (3%)

Cold water wash

Washing your clothes in cold water can reduce energy use by up to 80% when compared to a warm wash load.

Front-loading machines

Front-loading washing machines use less water than top loaders, which means that on a warm wash they use less energy.

Appliance	Size / type	Estimated cost per cycle (cents)	Estimated annual running cost
Washing machine (6kg size)	Top loader – 3 star* warm wash	14.9	$31
	Top loader – 3 star* cold wash	3	$6 ✔
	Front loader – 4 star* warm wash	8.8	$18
	Front loader – 4 star* cold wash	3	$6 ✔
Clothes dryer	5 kg size – 2.5 star*	68.5	$71

*Based on a washing machine being used four times a week on average and dryers being used twice a week.

Things you should know

Average household energy usage is based on a typical 3 person household in Sydney with all electric appliances, a 500-litre fridge, reverse cycle air conditioning, clothes dryer, dishwasher and incandescent bulbs. Hot water usage is based on a 7-minute shower per person per day with a standard showerhead on an off peak tariff. Actual energy useage will vary depending on appliance usage, model and type. Running costs are based on Energy Australia's Domestic All Time tariff (2009-2010) for the first 1,750 kWh per quarter and NSW AGN alinta Network Residential Gas tariff for the first 5,500 MJ per quarter. Running costs do not include electricity or gas service charges (around $157 per year for electricity and $194 per year for gas for 2009-2010). Estimated annual cost have been rounded to the nearest dollar and include GST. Greenhouse gas emissions calculations are based on the NSW factors in the National Greenhouse Accounts published by the Federal Department of Climate Change.