

On average, household electrical appliances account for more than 25% of your power consumption. By improving their energy efficiency, you can easily cut your energy costs. Choosing the right appliances for your home is an important job. Not only will you have to live with the appliances for a long time, you'll have to live with their running costs.

Think about how many appliances you need and how you use them. And consider the efficiency of new rather than second-hand models. A second-hand appliance may seem a great bargain, but older ones often cost more to run and maintain. Try to buy appliances that fit your size requirements – a smaller, well stocked fridge is more efficient than a larger, half-empty one.

Heaters

Home heaters, whether electric or gas, give out heat in different ways depending on the type of heat distribution they use.

Conduction is where heat travels directly from one object to another that is touching it. It is of limited use in home heating.

Convection is the distribution of heat through air currents.

Radiation is the way the sun heats the earth - the energy strikes objects and warms them.

Generally, heaters are either radiators or convection heaters. Some are both.

The type of heat transfer involved affects your perception of comfort. You feel as comfortable at 16-18°C on a warm floor that is radiating heat up towards you as you would in a room with warm air at 18-25°C, but with cold walls and floor.

How much heating do you need?

A simple rule of thumb is to measure the volume of the room (length x width x height, in metres) and divide by 20 to get the kW rating of the heater you need.

So a room 6m long by 4m wide by 3m high will need 3.6 kW of heating.

If the room is uninsulated or draughty it will need more.

Running Costs

This chart will give you an idea of what it costs to run your various household appliances. It won't be completely accurate for your situation, because we've had to estimate average use and wattages, but it works well as a guide.

The usage levels shown in this chart are typical of winter months, when you use the most power.

	Approx. average wattage	Estimated monthly hours of use	Est. monthly units used
Computer	60	50	33
Dehumidifier	350	240	84
Dishwasher (excludes hot water)	2200	30	66
Electric Heater	1000	120	120
Light Bulb (100 watt)	100	180	18
Microwave	1000	30	30
Refrigerator	250	240	60
Stove (oven)	3000	40	120
Television	80	120	9.6
Water bed	400	300	120
Crock-pot	220	50	11
Electric Blanket	140	30	4.2
Compact Fluorescent (100watt)	20	180	3.6
Stereo	80	15	1.2
Washing Machine (excludes HW)	500	20	10
Dehydrator	500	30	15
Chest Freezer (160ltr)	160	200	32
Clothes Dryer	2200	20	44
Stove (elements)	3000	20	60
Compact Fluorescent (100watt)	20	180	3.6
Stereo	80	15	1.2
Washing Machine (excludes HW)	500	20	10
Dehydrator	500	30	15
Chest Freezer (160ltr)	160	200	32
Clothes Dryer	2200	20	44
Stove (elements)	3000	20	60
Hot Water Cylinder	2000	300	600

Simply multiply the estimated monthly units used by the price per unit detailed in your power bill.

Household Hints

Your guide to energy conservation in the home



...we're always working for you

Electric Ovens

When choosing your electric oven consider your family's needs, your cooking style, space and budget.

If available, it is more energy efficient to use the fan option on your oven. The same cooling time is necessary but you reduce the required cooking temperature by 10°C to 20°C.

Handy Hints Clean the inside of your oven regularly. When you have food spills wipe off as soon as the oven is cool. Check door seals for wear and tear.

Cook Tops

Today there is a wide variety of electric cook tops to choose from. Look for quick response elements, accurate heat control and easy cleaning.

Use good quality, flat based saucepans on all modern cook tops. These should also be the same diameter as the cooking area.

Induction hobs are extremely safe to use, especially if you have small children. When a pan comes off the hob, the electricity flow stops. This makes induction hobs even more responsive and energy efficient than gas.

Handy Hints Ceramic glass should be wiped regularly between cooking with recommended cleaning products. Radiant and energy saving elements may be cleaned after use by warming on a low setting.

Microwave Ovens

A microwave oven uses one third less electricity than a conventional oven, and it cooks food much more quickly.

Therefore you should use your microwave as an alternative to stove-top or oven cooking as often as possible.

Be sure to allow plenty of ventilation space around your oven.

Handy Hints Wipe microwaves regularly with a damp cloth as food splatters affect cooking time.

Freezers

For best performance, your freezer temperature should be around -18°C. Anything above this will shorten the food's life span.

Temperatures lower than -18°C will drive your power bill up. A change of 1°C can affect running costs by as much as 5%. As a guide, ice cream should be moderately firm – not block-hard.

Give your freezer some breathing space. Make sure there's plenty of room for air to circulate around the condenser panel. Air must be able to flow in at the bottom, pass through the condenser panel and out the top. Lack of ventilation could add up to 15% to costs.

Locate your freezer away from heat sources such as sunlight, heaters, clothes dryers and ovens.

Handy Hints Defrost your freezer when ice builds up to 5mm. A special scraper will remove the ice without damaging the freezer's liner. You should avoid using a knife or any other metal implement. Check the door seal is clean and unobstructed. Wash it with mild detergent and replace worn or damaged parts.

Every six months, clean the condenser panel located on the back or side of the freezer with the brush nozzle attachment on your vacuum cleaner.

Fridges

The temperature of your refrigerator should be set between 2°C and 5°C. Try the lettuce test. If, after a day, the lettuce leaves have frozen, your fridge is too cold.

Fridge performance varies depending on the make, model and energy saving features.

An energy-efficiency labeling system is in operation for both fridges and freezers. The label shows estimates of average annual energy consumption in kilowatt hours. The lower the kilowatt hour rating, the less energy consumed.

As with a freezer, for maximum efficiency, keep your refrigerator away from sources of heat, particularly sunlight, dishwashers and ovens.

Handy Hints Every six months, clean the back condenser panel with the brush nozzle attachment on your vacuum cleaner. Regularly drain and clean the evaporation tray located at the back of the refrigerator.

Defrost the freezer compartment when ice builds up to 5mm or more. Check the door seal is clean and unobstructed. Keep the interior clean with a solution of warm water and baking soda. Avoid harsh detergents.

To remove food odours, try wiping the interior with a damp cloth containing a few drops of vanilla essence.

Dishwashers

Dishwashers are more efficient when fully loaded, but be careful not to overload.

Use the fast wash and economy dry cycles as often as possible.

If your dishwasher has the ability to heat its own water, use it. It's more economical than using hot water from your cylinder.

Handy Hints Clean door hinges, seals and the interior with a mild detergent once a month. Regularly clean the drainage filter.

Washing Machines

While washing machines use very little energy, using the warm and hot wash cycles will push operating costs up. Use cold water as often as possible and always wait until you have a full load.

Handy Hint If the lint filter is not self-cleaning, remove lint and fluff residues after every wash.

Once every year clean the filters on both hot and cold water hose inlets at the back of the machine.

Keep the drain hose free of kinks and obstructions. Do a hot wash at least once a month to clear the drainage hoses.

Hot Water Cylinders

Hot water accounts for 47% of the power used by an average home. A hot water cylinder wrap can reduce that percentage substantially and save up to 10% on your electricity bill.

Many households use the cylinder cupboard for drying clothes in. Because your unwrapped cylinder loses heat every minute, it is more energy-efficient to install a wrap and dry clothes outside or in the dryer for several minutes than it is to lose heat every minute of the year.

If you install a wrap and switch to using the dryer two hours a week, you can save up to 2.5 times the energy!

And while you are working on the hot water cylinder, check the **temperature setting**. The ideal temperature is 60° Celsius (or 140° Fahrenheit). A higher temperature is usually not necessary, may cause scalding and costs you money.

Clothes Dryers

To avoid lint and moisture problems, your clothes dryer should be vented to the outside of your house.

Avoid over-drying. It wastes energy and wears out your clothes.

Choose the lower temperature setting whenever you can. It uses less energy and is kinder to fabrics.

Handy Hints Clean out the lint filter after each load. Move your dryer regularly and vacuum the surrounding floors and walls. This removes lint and dust, both of which are highly flammable.

Other Energy Saving Tips

Compact fluorescent lamps use a fifth of the energy of ordinary incandescent bulbs, and they last 8 times as long.

Bench top appliances such as crock-pots, electric fry pans and multi-steamers use energy very efficiently.

Your beer fridge may be robbing you of valuable energy dollars. Old, inefficient fridges can use more kilowatts than necessary.