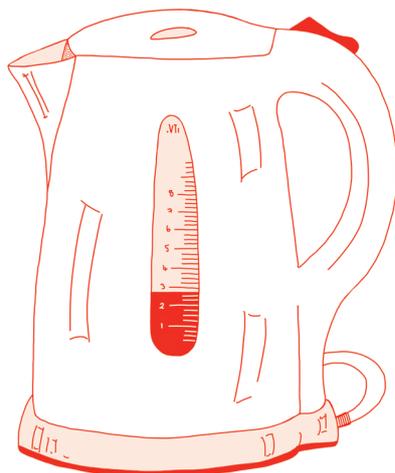


YOUR GUIDE TO

**STAYING
WARM &
SAVING
MONEY**



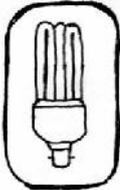
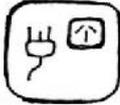
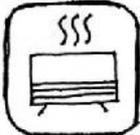
This easy guide to cutting your power bills has been developed by **Sustainable Living Tasmania** (SLT). SLT is a not-for-profit organisation that has been spreading the word on sustainability for 40 years. We deliver programs and advice on home energy efficiency, food security and transport. We also host Tasmania's annual Sustainable Living Festival.

The development of this guide was originally sponsored by the Tasmanian Government. Rights to reproduce and alter the booklet have been granted for the purposes of this project.

For more information visit: www.slt.org.au/gbs

Sustainable Living Tasmania: Level 1, 71 Murray St, Hobart. Ph (03)6234 5566

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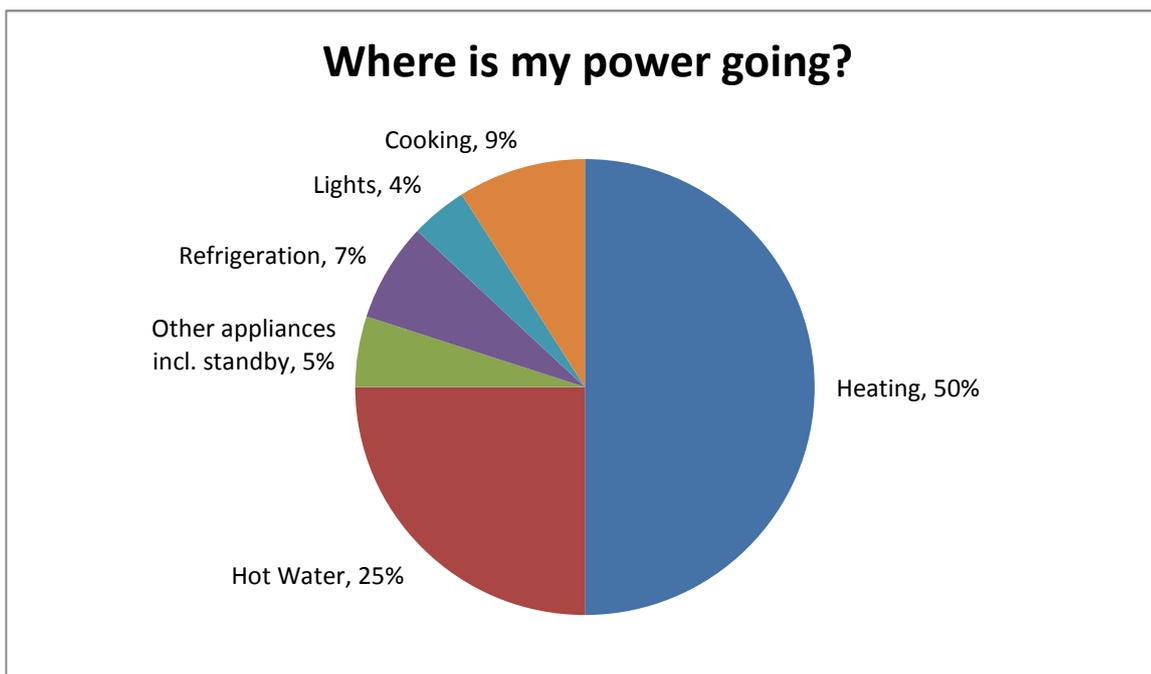
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Save money & stay warm

There are lots of simple ways to reduce power costs – even if you live in a rental house. While each action is small, combined they can help save hundreds of dollars on your power bills.

This booklet can help you to decide which options will work best for you. Not all of these actions will suit each house and some require the approval of the property owner or a plumber.

Heating and hot water are the major power costs for most Tasmanians, especially in the winter months. You can also save money on lights, cooking, fridges and much more. Find out in this book what you can do.



(Information based on average Tasmanian home)

How much energy do I use?

The average 4 person house in Hobart uses around 42 kWh in winter and 27 kWh in summer. That's around \$3100 per year in electricity bills. You can see the average and compare your bill at www.energymadeeasy.gov.au

About your electricity bills

Electricity bills are measured in **kWh**. It is a measure of “power use” multiplied by the amount of “time” that it is used. It equals 1000 Watts for 1 hour.

1kWh =

1 x Incandescent Light bulb for 10 hours



X



1000 Watts for 1 hour

(100W x 10hour = 1kWh)

OR/ A kettle running for 25 minutes



X



(2400W x 25m = 1kWh)

For people on **Quarterly bills** your “**hardwired**” heaters and **hot water** are on **tariff 41** or **tariff 42** and will be charged at a cheaper rate than your lights and fridge on **tariff 31**. To save the most money use hardwired heaters in preference to plug in or portable heaters.

Aurora ENERGY Aur ABN

1.1
Mr A Sample
3 Sample Street
SAMPLE TOWN TAS 7000

36159200 8

Amount due
\$626.18

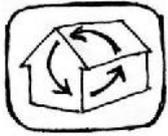
Pay by
25-Jun-2012

STATEMENT FOR THE PERIOD 04-Mar-2012 TO 08-Jun-2012

Credit(\$)

PAYG customers are charged different rates at different times of the day. You can get the chart that shows the times and prices from the place you re-charge. Generally speaking it is **cheaper to run appliances between 11am and 4pm and after 10pm.**

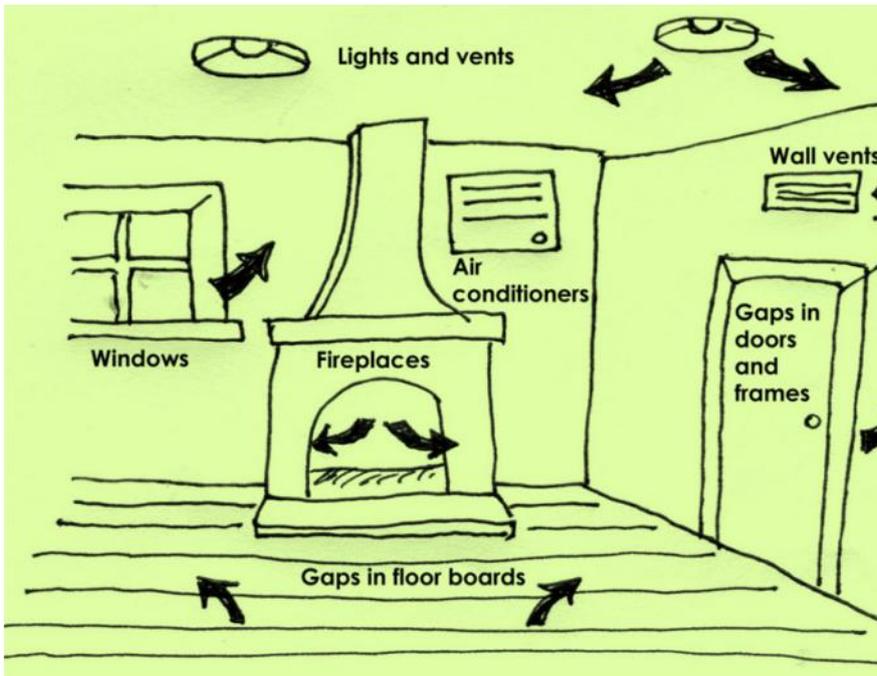
Keep warm



Keep warm

Cold air can creep into your home through gaps and cracks around doors and windows.

Seal the gaps to keep warm air in and cold air out.



Where's the draught?

Can you feel cold air coming in? Find the draught by holding an incense stick near doors, windows and other joins. Does the air move the smoke?

Cover gaps

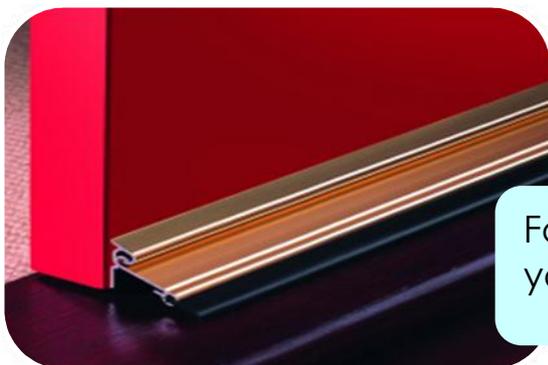
Block a gap at the bottom of your door with a **door snake** or rolled-up towel.





Use tape to seal around the sides of doors and windows. You can buy this at a hardware store.

If the gap is uneven, use a **weather strip**. It has a rubber seal (like on your fridge)



For the bottom of outside doors, you can use a **weather seal**.

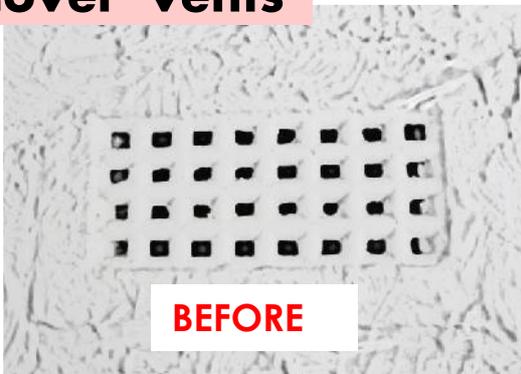
Keep warm

Cover your floor

Rugs or carpet help to keep floors warm.



Cover vents



Cover old vents with cloth tape or contact adhesive.
Don't try this if you already have condensation issues

How much could I save?

Mike and Jane live in a weatherboard home. They stopped draughts from doors and windows by using door snakes, putting sealing tape on windows, and covering vents. This made a big difference to their heating costs.

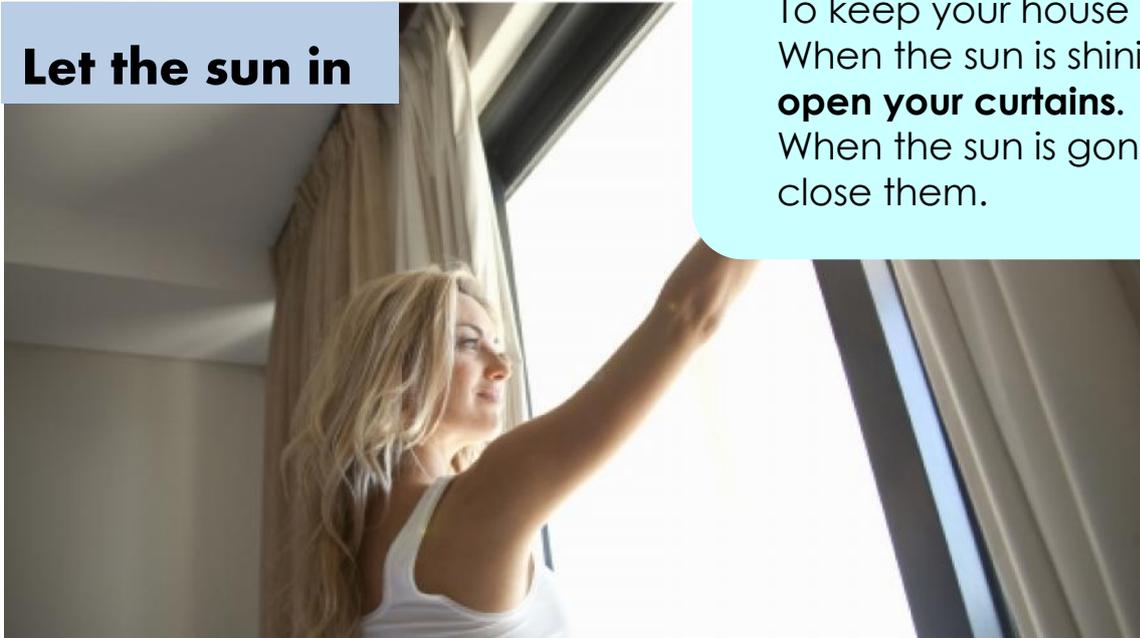
TOTAL SAVINGS PER YEAR = \$74

(based on standard Aurora tariff of 26.807c/kWh)



Windows

Let the sun in



To keep your house warm:
When the sun is shining,
open your curtains.
When the sun is gone,
close them.

Use thick curtains

The best curtains are **full-length** (down to the floor) thick or lined. There should be no gaps.

You can often get good curtains cheaply from op-shops.



Most **blinds** don't keep the heat in because they have large gaps

Use pelmets

Pelmets trap air between the curtains and the window. They help stop heat loss through the window. The most common type is a **wooden box pelmet** that sits over the curtain rail.



A **ledge pelmet** sits on top of the curtain rail, out of sight. It can be made from thick cardboard, foam, or wood – anything that blocks the space

Double glazing the easy way



Window **insulation film** can help keep warm air in. “**Clear Comfort**” is a see-through plastic which you attach to your window frame and then shrink it to fit with a hair dryer. Or try using bubble wrap for instant double glazing!

Another option is to **cover unused windows** with material, especially during winter.



CONDENSATION and MOULD

Condensation is formed when warm moist air touches a cold surface. To reduce condensation try to **reduce** the amount of water vapour released into the air, **vent** the house so dryer air enters and **heat** the home to make the air warmer.

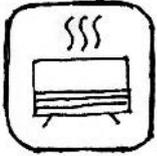
To reduce dampness try the following:

- On sunny days, open up windows and doors
- Use ceiling or wall fans in bathrooms and kitchens, or open windows to let out steam
- Cover pots with lids
- Wipe down wet windows
- Don't dry clothes inside the house, if using a dryer make sure a window is open
- Window insulation film (or bubble wrap) is a great way to stop moisture on windows
- Use a fan heater in damp rooms for a few minutes each day
- Wood heaters are great for drying moist air

Mould can only thrive in moist conditions. In such conditions, mould spores can grow and will continue to grow until steps are taken to both remove the mould and eliminate the source of moisture. Problem areas can be bathrooms, shower recesses, windows, under leaking roofs and near guttering and down pipes.

To clean up mould try the following:

- **Wear safety gear** such as gloves, dust mask and eye protection
- Dilute around 1 teaspoon of **tea tree oil** per cup of water and spray onto the mouldy surface.
- Clean up with **bi-carb soda** and vinegar mix with a cloth.



Heating

Only heat the rooms you use

Why heat your whole house?

If you spend most of the day in one part of the house, just heat that area.

Close the doors to the rest of the house.

If there's no door, **hang a blanket** or curtain in the archway or hall.

How much could I save?

Narelle heats the living room and keeps doors to other rooms shut whenever possible. This means she has been able to turn down the heating from 25°C to 20°C. This has reduced her heating bill by 40%.

Warm up your bedroom **just before you go to bed**.

A **hot water bottle** warms you under the covers, where you need it most (but for safety, always use a bottle cover).



Put on a jumper instead of turning up the heater. Every extra degree costs you money.



Set your heater to below 21°C (use the thermostat or a thermometer to check). A good technique is to lower the temperature until it is "just comfortable" and set the thermostat at that temperature

Use a timer.

Set it to switch the heater on ten minutes before you get up, or arrive home. Set it to turn off at night.



Use the right heater

Which heater is best for you? Use the best heater for your heating needs, and keep costs down. For people on quarterly bills it makes sense to use your "hard-wired" heater before using a plug-in heater

Heat pumps are the cheapest form of electric heating, but can cause draughts.

For best results:

- Turn off overnight or if you are away from the house for more than a few hours
- Turn the thermostat down to 18 – 21°C.



Pureheat “Royal”

Many houses have a “**Pureheat Royal/Belmont**” heater installed. These heaters use quite a lot of energy (up to 8kW). If you have one of these heaters you should use it wisely to keep your power bill down. These heaters have two main settings “**Space Heat**” and “**Radiant heat**”. Each is suited for a task. You can turn both settings on, but you will use more energy!



Space Heat

If you are trying to heat the room or larger spaces turn on the “space heat”. **Make sure you use the fan:** The fan only uses a little energy but helps spread the heat around.

On most models, this part of the heater has a **thermostat**. Turn the “heat control knob” to “hi” when the room is just warm enough, then turn the heat control knob anti-clockwise until it clicks.

Radiant Heat

This is good if you are sitting near the heater. It feels warm and cosy

Fan heaters are “**plug-in**” and warm the air quickly. For best results, run the heater on HIGH until the room is warm. Then turn it to LOW. These heaters dry the air so are good if there is condensation in your home.



Column heaters are “plug in” and slowly heat the air. They are one of the **most costly** ways to heat a space.

For best results:

- stand the heater in the middle of the room
- use the thermostat to set on the lowest comfortable temperature
- turn it off if you're out of the room

If someone in the house has asthma, column heaters may be your best choice.



Wood heaters can be efficient and cheap to run if used correctly. For best results:

- Start with lots of small pieces of wood until you have a big fire. When starting a fire or adding more wood, allow the fire to burn brightly for 20 minutes before turning it down.
- Use only dry wood.
- Wood heaters work best if you don't put too much wood in.

These simple steps will help to reduce smoke and improve health in your community.





Hot Water



Set hot water at 60°C

Ask a plumber, electrician or your landlord to set your hot water temperature at **60 degrees**.

If it's lower than this, bacteria can build up.

How much could I save?

Julie and her two children have a hot water tank outside set at 76°C. The temperature was turned down to 60°C.

TOTAL SAVINGS PER YEAR = \$29

(based on standard Aurora hot water tariff of 16.757c/kWh)

Cover hot water pipes



Use **foam tubing** to stop heat loss from your hot water pipes. Called lagging, this tubing fits easily over the pipes. You put it onto the pipes for a meter or so where they leave the tank. You can get it from a hardware store.

To put it on:

1. cut along the length of the lagging to open it up
2. slip it onto the pipe
3. use electrical tape or cable ties to hold it on snugly.



Wrap up your tank

Keep your **hot water tank warm** by wrapping it up. You can buy a cover for your tank or use insulation batts. **Make sure you don't cover the pressure outlet valve! This is important for safety.**

Short showers

Shorter showers of three or four minutes mean less hot water so less cost. You can use a **timer** to keep track

Have **shallow baths**. Baths use more water than showers.



How much could I save?

Dave and Kaylene each have five minute showers each day. They replaced their old 17L/min showerhead with a water saving showerhead which uses 9L per minute.

TOTAL SAVINGS PER YEAR = \$139

(based on Aurora hot water tariff 16.167c/kWh)

Water saving shower head



Use a **water-saving shower head** that uses 7-9 litres per minute.

Use flow restrictors on your taps

Flow restrictors for all your taps will reduce water use.



Move your mixer tap



Remember to leave your **mixer tap** turned all the way to the **COLD** side.

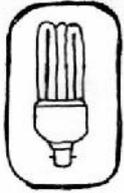
If it's left in the middle it runs warm water. This costs you money.

Fix the drip



Fix **dripping** hot water taps.

A drip every 2 seconds can waste over a thousand litres of hot water every year. This is as much water as 10 baths!



Lights

Turn lights off



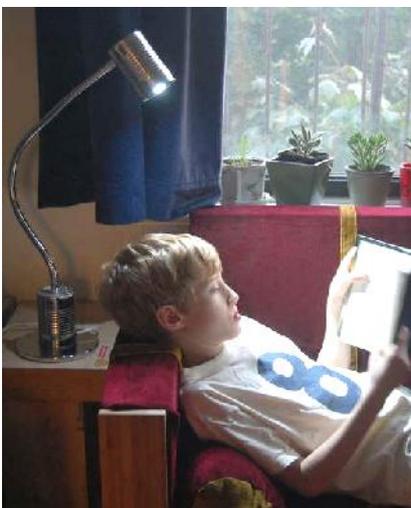
Use energy efficient lights



Compact fluorescent lights (CFL) use about a quarter as much power as “normal” light bulbs. (Keep away from cheap brands as some aren't well made and won't last)

LED lights fit most light sockets. These are energy efficient and last a long time.

Use **low-energy fluorescent tubes**. They don't flicker, have natural light colour and use a lot less energy.



The right light for the job

Use natural light when you can.

If you're reading, **use a lamp** with a lower-power light bulb.

Lights

How much could I save?

Tony changed his security light from a 150W Halogen to a 23W CFL. Using the light 10 hours per night the light payed for itself within 3 months.

TOTAL SAVINGS PER YEAR = \$130

(based on standard Aurora tariff of 27.785c/kWh)

What to do if your energy saving light breaks

Energy saving (fluorescent) lights contain very small amounts of mercury, so it is important to clean up carefully if you break a globe.

If one breaks:

1. Open windows and leave the room for 15 minutes.
2. Wearing rubber gloves, sweep up (don't vacuum) the broken material.

If small pieces are in the carpet, use a damp cloth or sticky tape to pick them up.

3. Put the pieces into a sealed plastic bag. Take it to be recycled or put in outdoor rubbish bin.
4. Wash your hands and face. If you get any pieces of broken globe on your clothes, put clothing in rubbish bin or wash carefully by hand with soap and water.

The first time you vacuum the area where the bulb was broken, remove the vacuum bag afterwards. Put the bag in the outdoor rubbish bin.





Appliances

Buy energy efficient

Large appliances such as fridges, washing machines and dryers cost a lot up-front. But they can last 10-15 years. The energy efficiency of the model you buy will make a big difference to the running costs and power use over its lifetime.

Before you buy, ask yourself – is it energy efficient?

For **any appliance**, ask yourself: can I turn it off when I'm not using it?



Use a **laptop computer**. They use much less power than a PC.

Use a **smaller TV**. Big TVs use a lot of energy.

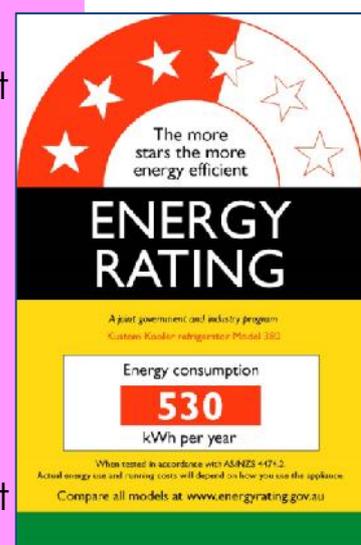
LCD and LED TVs use a lot less power than plasma TVs.

How many stars?

If you're buying white goods, check the energy label to see how many kWh (kilowatt hours) per year it uses. The lower the better. A fridge (or freezer) with a 5-star energy rating uses half as much energy as one with a 1 star.

You can even calculate how much an appliance costs to run. Power costs about 25c per kW. This means that a fridge with energy rating 530kW per year will cost about \$133 per year to run:

$$530\text{kWh by } \$0.278 = \$147.26$$



Appliances

Don't leave on standby

Standby power is the energy used by appliances when they are not in use.

Even though it's a small amount for each appliance, it all adds up. On average, the cost is 12% of your home's total energy use!

Switch appliances off **at the power point** when they are not being used.



It can be a pain to turn off computers because they take a long time to start up again.

Try clicking on **Hibernate**. The computer will switch off completely, but starts up quickly when you turn it back on.

Use an Ecoswitch



For hard to reach power points, use an **Ecoswitch** to turn off appliances. It's great for TVs, and reduces fire risk from appliances on standby.

How much could I save?

Troy and Danni have a 90cm TV, set top box and DVD player that are left on standby for 16 hours per day. They can't reach the power point behind the cupboard to turn them off. They purchased an Ecoswitch so they could turn appliances off easily.

TOTAL SAVINGS PER YEAR = \$24

(based on standard Aurora tariff of 27.785c/kWh)



Fridges & freezers



What's the temperature?

Keep your fridge at around **5°C** and defrost it regularly. Make sure your freezer is set at -15 to -18°C.

Make sure fridge and freezer doors have **good seals** that do not leak cold air.

If you can easily slide a piece of paper or dollar note in your fridge door, the seals need replacing.



Seal fridge doors

How much could I save?

Carolanne has a two door fridge and freezer unit in her kitchen that she often hears running. She checked the seals and replaced them. This made a big difference to the cost of running her fridge.

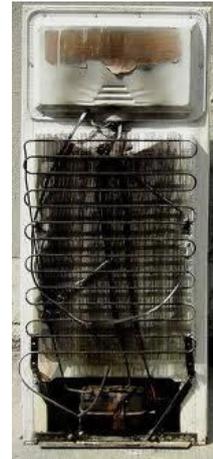
TOTAL SAVINGS PER YEAR = \$27
(based on standard Aurora tariff of 26.807c/kWh)

Fridges

Clean the heat sink

Keep the **heat sink** (the metal grill on the back of the fridge) clean and free from dust and lint.

This will help it to run more efficiently.



Keep ventilated and cool

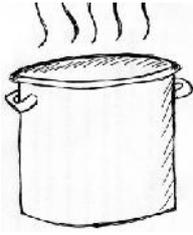
Fridges and freezers are cheaper to run if placed in the coolest part of the kitchen. Allow space at the back and on top for air to circulate and keep the unit cool.

Consider locating fridges and freezers in unheated rooms.

Turn off that extra fridge

Do you really need that second fridge or freezer? Usually these are older models that don't run efficiently. Unplug it or get rid of it.





Cooking

Use lids on pots and pans

Lids keep the heat in so food doesn't take as long to cook. This saves energy.



Think before you fill

It takes a lot of energy to boil water. Fill your kettle with only the number of cups of water needed.

Use the microwave

A **microwave** can reduce cooking costs by up to 75%. Consider using the microwave instead of the oven or stove.



Cooking

Thaw it

Thaw frozen food before cooking (in the fridge). This saves on cooking time.



Washing clothes

Wash with **COLD** water

Washing with cold water gets your clothes just as clean, and will cut your power bills.

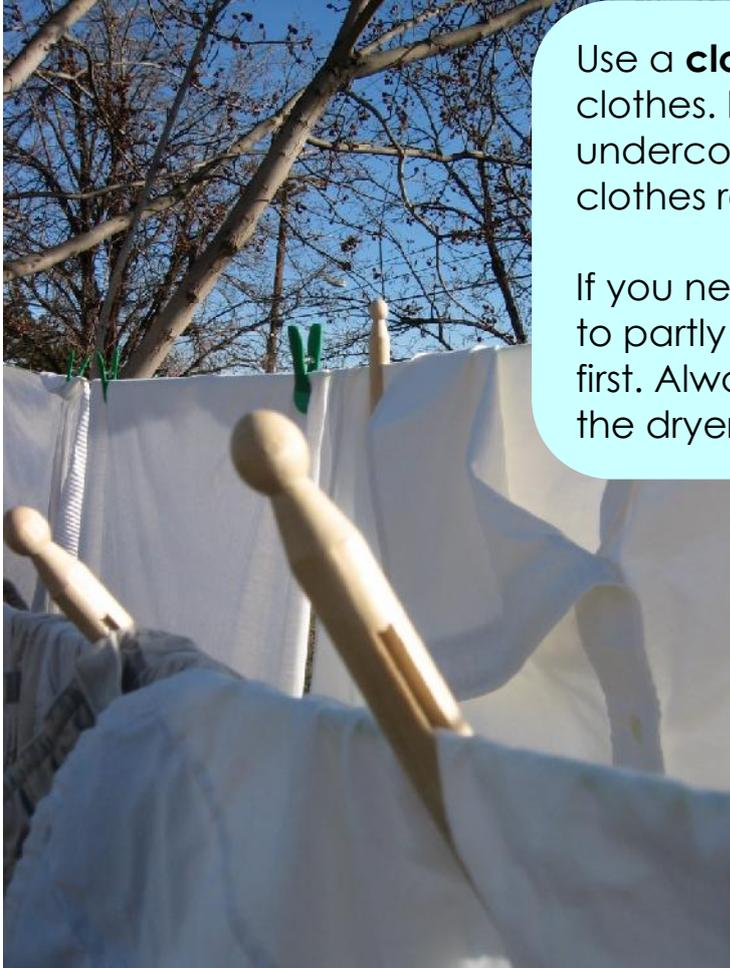


Use front loading

Front loading washing machines are usually more **energy and water efficient** than top-loading machines.

You can compare models by looking at the information on the star-rating stickers. Always check how many kilowatt-hours (kWh) the appliance uses.

Use a solar dryer



Use a **clothes line** for drying clothes. In winter, find an undercover area and set up clothes racks.

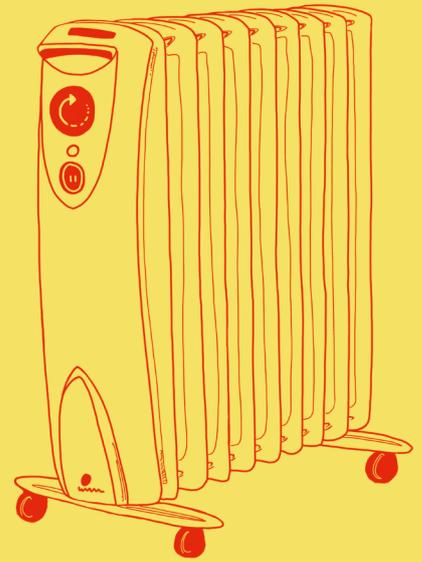
If you need to use a **dryer**, try to partly dry on a clothes line first. Always put a full load in the dryer.

How much could I save?

Linda uses her clothes dryer for four hours every week on average. She changed to the clothes line and a portable clothes rack inside.

TOTAL SAVINGS PER YEAR = \$64

(based on standard Aurora tariff of 26.807c/kWh)



**GET
BILL
\$SMART.**



Australian Government
Department of Industry



**MISSION
AUSTRALIA**



SUSTAINABLE
LIVING
TASMANIA