



Sustainable Home Kit

MANUAL



Kit contents

Each Sustainable Home Kit contains the following items:



Manual

Provides simple steps to complete each activity safely.



Thermal imaging camera

For locating draughts around your home, gaps in insulation, checking fridge seals, and measuring hot water temperature.



Thermometer

For measuring the temperature of rooms, fridges, and freezers.



Power-Mate

For measuring energy consumption and running costs of appliance.



For more information on Energy Saving head to www.hepburn.vic.gov.au/climate-change



If you'd like to share your experience of this Sustainable Home Kit, we'd love to hear from you! sustainablehepburn@hepburn.vic.gov.au



A special thanks to Glen Eira City Council for sharing content from their manual to be used for this Sustainable Home Kit Manual. This manual has been created with support from City of Greater Bendigo, Macedon Ranges Shire and Mount Alexander Shire Councils.

Contents

4 Introduction

How to use the Sustainable Home Kit

Safety information

Quick energy and water saving tips

5 Energy audit

6 ACTIVITY: Hot water temperature test

7 Draught detection

9 ACTIVITY: Heating and cooling leak test

10 Insulation

ACTIVITY: Insulation gap check

11 ACTIVITY: Refrigeration temperature test

12 Appliance energy use

ACTIVITY: Measuring electricity usage of appliances

14 Energy saving tips

15 Water audit

16 ACTIVITY: Shower head and tap flow rates

17 ACTIVITY: Toilet cistern leak test

ACTIVITY: Property leak test

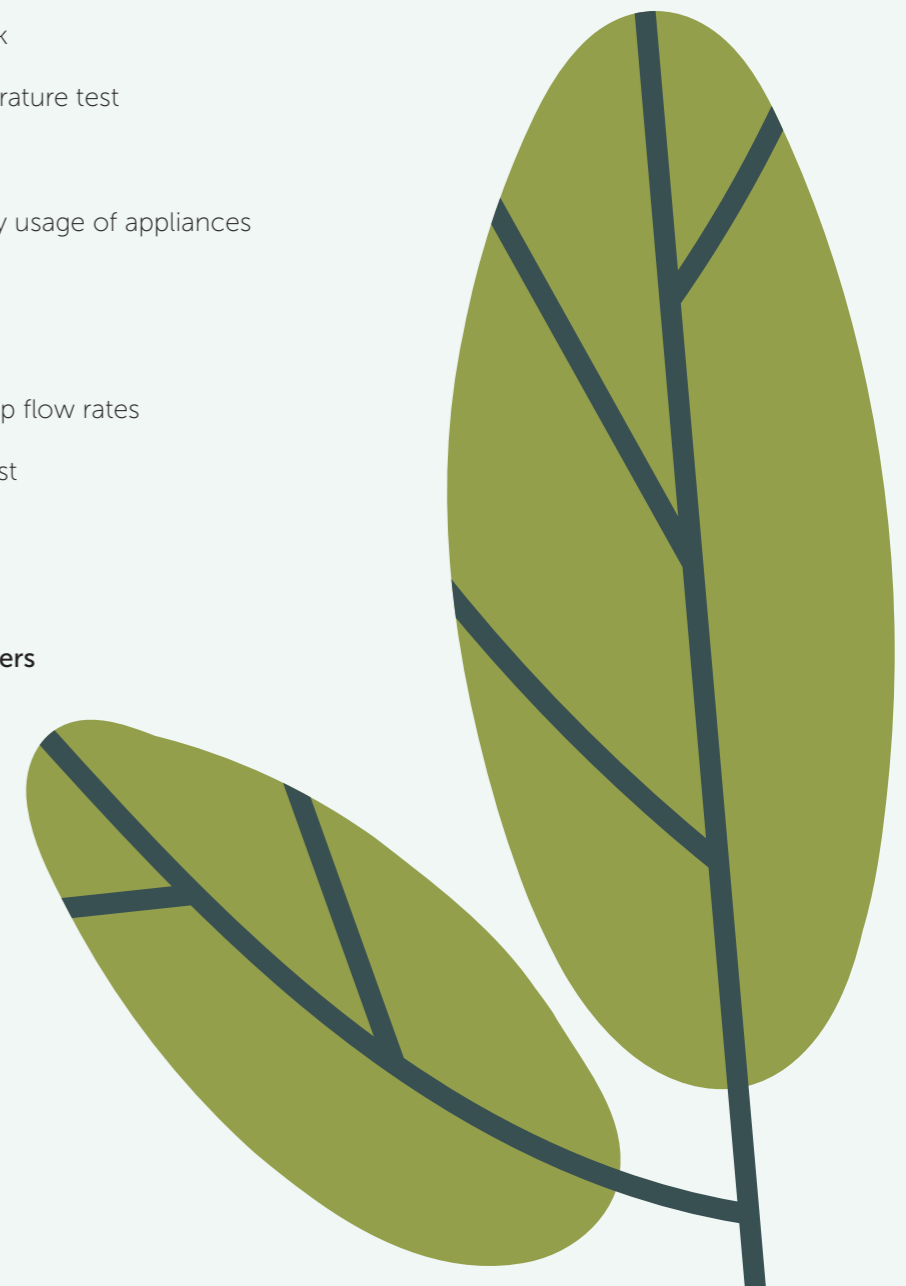
18 Water saving tips

19 Information for Victorian renters

20 Action Plans and next steps

22 Take advantages of rebates

22 References



Introduction

The Sustainable Home Kit enables you to:

- understand where in your home you are using power and water;
- measure your usage; and
- identify actions you can take to improve your home's efficiency.

Using the equipment and taking the tests included in the kit will provide an opportunity for you to reduce your energy bills and feel more comfortable at home.

The information provided in this manual is intended as a guide only. If you have any further questions or are unsure please seek professional advice.



How to use the Sustainable Home Kit

STEP 1

Follow the instructions for each audit test, using the equipment as instructed.

STEP 2

Record your results and use the action plan to identify where you can make improvements and what your next steps are.

Safety information



Care should be taken when using hot water or when near water pipes/hot water service.



Installation and repair of electric and gas appliances should be completed by a licensed professional.



Energy saving measures should never compromise the health and safety of household members.



Open flued and flueless gas appliances require fixed ventilation and ventilation openings should not be blocked. Please consult a licensed gas fitter before completing draught proofing.



Thermal imaging camera contains a laser. DO NOT point the laser toward anyone's eye or allow the beam to strike the eye from a reflective surface. DO NOT use the laser near explosive gases or in potentially explosive areas.

Energy audit

Household gas and electricity use is the largest user of electricity and gas within our municipality (Ironbark Sustainability, 2024).

These emissions mostly come from:

- Room heating and;
- Appliances; and
- Water heating (Milne & Reardon, 2020).

There are many ways to significantly reduce these energy uses in your home. Explore the following activities to ensure your home is more energy efficient.



Hot water

There are two main types of water heaters:

1. Storage Systems

Water is stored in an insulated tank for use as required. For health reasons, Australian Standards require storage tank systems to be set to no less than 60°C.

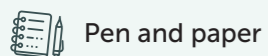
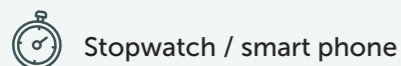
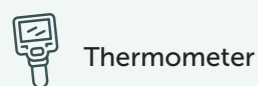
2. Continuous Flow/Instantaneous Systems

Water is heated as required. Temperatures can be set closer to end use requirements, usually 50°C.

The most energy efficient way to heat water in your home is with a heat pump hot water system. They use 60–75 per cent less energy than older-style electric resistance hot water systems.

Hot water temperature test

What you will need:



Process

1. Turn on the hot tap nearest to the hot water system and let it reach full temperature.
2. Carefully fill a cup with hot water.
3. Sit the thermometer in the cup and set the timer for one minute.
4. After one minute, read the thermometer and record the temperature.

Action plan →

If the temperature is over 60°C and you have a storage hot water service, you can adjust the temperature down to 60°C on the external unit.

For instantaneous systems, it is recommended to adjust the temperature to 50°C.

*Additional activity:

Check hot water system temperature

1. Use the thermal imaging camera to measure the temperature around different parts of your hot water system.
2. If there are uninsulated areas, for example around hot water pipes, investigate commercial products and relief valves that could be installed to improve the system's efficiency.

*Additional activity:

Adjust timer if electric

1. Consult your user manual to find out if your system has the capability to adjust the timer.
2. If you have an electric system (such as a heat pump), adjust the timer to operate during off-peak times to reduce electricity costs. Check your electricity plan for off-peak times.
3. If you have an existing solar system, adjust your heat pump timer to operate when the system is providing free energy (approximately 9.30am – 4pm depending on the time of the year)

Draught detection

Draught-proofing stops warm air from escaping your home in winter and hot air from entering in summer, making your home much more comfortable.

Up to 25 per cent of winter heat loss from dwellings is caused by air leakage, also known as draughts. As many as 9 out of 10 homes in Victoria have unwanted draughts.

Safety

It's essential to consider the type of gas appliances in use when draught-proofing your home.

Open-flued gas heaters (see image on page 8) draw air from the room for combustion and release the gases outside. These heaters require a supply of fresh air to operate safely. Similarly, wood heaters also require a fresh supply air for combustion. It is not recommended to draught proof the room open-flued gas heaters or wood heaters are in. Additionally, you should get a licensed gas fitter to check the safe operation of these appliances before they are used and to service them regularly. Note: Victoria now bans the installation of open-flued gas space heaters that do not meet strict safety standards.

Other indoor gas appliances, such as internal open flued gas water heaters or ducted heaters should also be regularly serviced by a licensed gas fitter (Sustainability Victoria, 2025).

Flueless gas appliances are now banned from installation in Victoria. These are those appliances which do not need to be connected to a flue pipe or chimney and release combustion gases back into the room the heater is in. These appliances require a certain amount of fixed ventilation to operate safely and expel the products of combustion from the home. We recommend that you don't use these appliances and don't draught proof these rooms. If you have one, it should be replaced with a safer, electric alternative as a matter of priority.

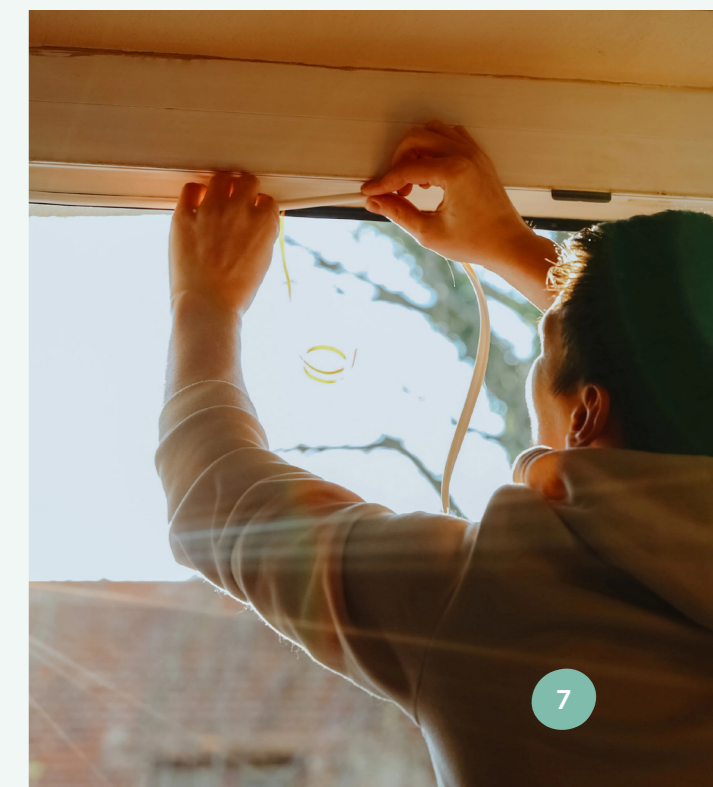
We also recommend that you install a carbon monoxide monitor in bedrooms and

in rooms with gas heating appliances. For more information please go to <https://www.energysafe.vic.gov.au/industry-guidance/gas/gas-information-sheets/gis-36-carbon-monoxide-alarms-domestic-use>

Transitioning from gas appliances to electric heating such as split systems, improves indoor air quality, reduces emissions and lowers the risk of carbon monoxide exposure.

For more information go to: www.energysafe.vic.gov.au/community-safety/frequently-asked-questions/open-flued-gas-space-heaters

www.sustainability.vic.gov.au/energy-efficiency-and-reducing-emissions/building-or-renovating/build-for-energy-efficiency/key-principles-of-energy-efficient-design/insulation/draught-proofing



OPEN-FLUED HEATERS

Draw air from the room to feed the fire.

Inadequate ventilation and use of exhaust fans can draw carbon monoxide (and other exhaust gases) back into the room in certain circumstances.

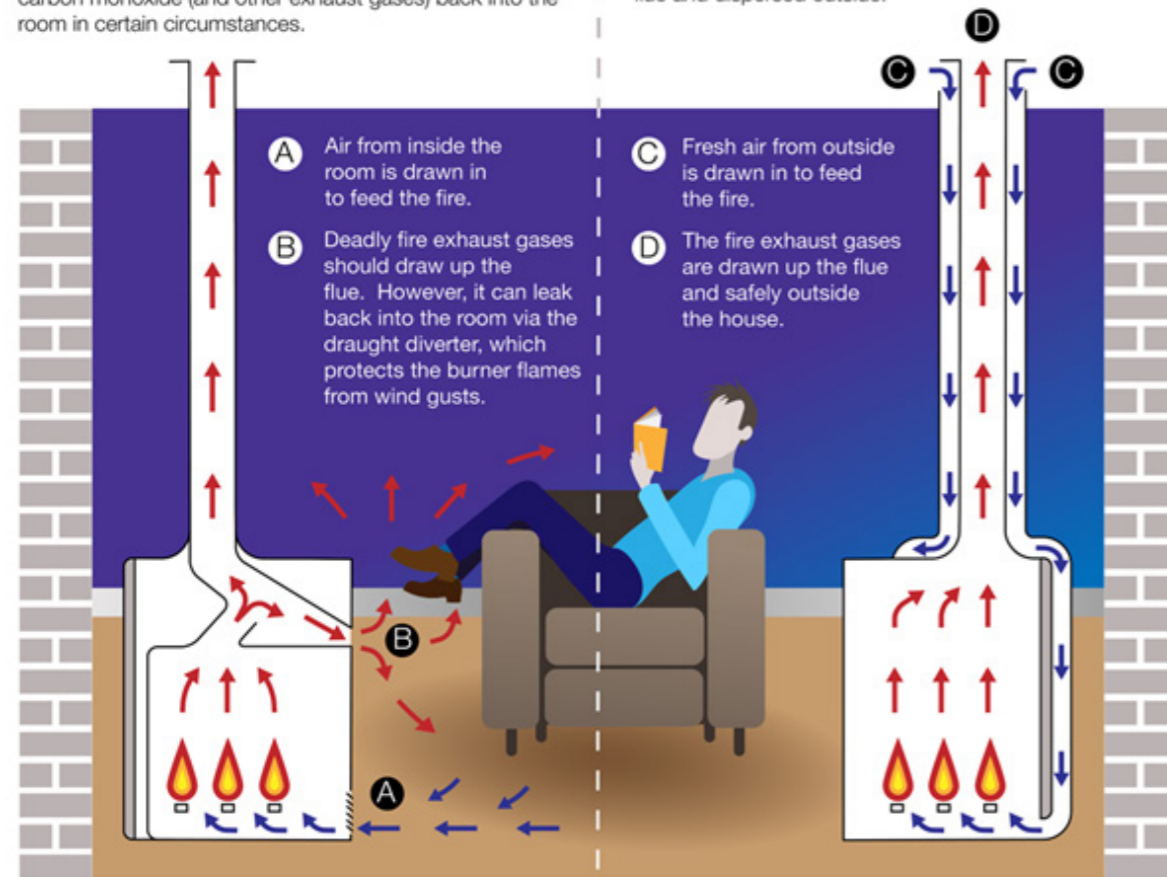


Diagram from Energy Safe Victoria. 2024. Open-flued gas space heaters FAQ.



Safety tip

The thermal imaging camera contains a laser. DO NOT point the laser toward anyone's eye or allow the beam to strike the eye from a reflective surface. DO NOT use the laser near explosive gases or in potentially explosive areas.

★ ACTIVITY

Heating and cooling leak test

What you will need:

-  Thermal imaging camera
-  Pen and paper

Process

1. Select an area in your room to take a reference point reading eg. an internal painted wall.
2. Use the camera to look for temperature variations by standing 1 – 2m back from the surface and compare the colour/temperature with the reference point. If you want you can take a photo to remember.
Note: please delete all photos from thermal imaging camera before it is returned to the library.
3. Pay particular attention to areas where there may be gaps:
 - around doorways and windows
 - where pipes connect to external walls
 - vents or air outlets
 - fireplaces or flues
 - around stairways
 - between floorboards
 - around exposed beams
 - around built-in heating or cooling units
 - along architraves and skirting boards
4. Note down your main leakage locations.

Action plan →

Once you know the main source of your heating and cooling leaks you can take action, including:

- Seal gaps and cracks around windows, skirting boards, walls, and floorboards using readily available sealants or fillers, such as silicon or expanding foam, depending on the size of the gap or hole
- Install sealant tape and draught stoppers around doorways — check your local hardware stores for supplies
- When not in use you can block chimney draughts using chimney dampers, balloons, and screens
- Install a backdraft damper or cover for exhaust fans or upgrade to a self-closing exhaust fan

For renters:

Door snakes can be very effective to prevent cold air coming under a door or hot air escaping.

Apply self adhesive door and window seals as these can be removed, or ask your landlord to install permanent draught stoppers and seals.

Insulation

Insulation in your home reduces the amount of heat that can pass through materials that make up your building, for example glass, metal or plasterboard. Ideally, there should be insulation in your ceiling, walls and floor to reduce the amount of heat that is lost in winter and gained in summer.

Depending on the age and condition of your home, you may have extensive, partial, or no insulation at all. If there is insulation there may be gaps from incorrect installation or tradespeople moving it while working.

Gaps in insulation have a huge overall impact on the effectiveness of the insulation installed. Effective insulation can reduce the costs associated with heating and cooling by 40 – 50% (Sustainability Victoria, 2024).

Insulation gap test

What you will need:



Thermal imaging camera



Smartphone camera

Process

1. This test should ideally be undertaken when the outside temperature is around 10oC higher or lower than the inside temperature (for example, early morning or a hot afternoon when an air conditioner is running).
2. Select an internal wall area in your home to take a reference reading.
3. Use the camera to look for temperature variations by standing 1 – 2m back from the surface and compare the colour/temperature with the reference point.
4. Paying particular attention to:
 - corners of ceiling
 - areas around downlights, cooling or heating vents in ceiling
 - walls that are external facing
5. Gaps can be identified by a colour discrepancy where the insulation is missing with red showing it is warmer and blue showing it is cooler. Make a note or take a photo of your gap locations.

Safety tip

It's tempting to save on installation costs by doing it yourself, but there can be electrical dangers. Safety first, get a professional in.

Action plan →

Once you understand where insulation is missing, engage a qualified contractor to fill the insulation gaps.

Resources

www.sustainability.vic.gov.au/insulation

Refrigeration temperature tests

What you will need:



Thermometer



Stopwatch / smart phone



Pen and paper



Thermal imaging camera

Process

1. Place the thermometer in the chosen location:
 - fridge – shut the thermometer in the fridge
 - freezer – shut the thermometer in the freezer
2. Set the stopwatch for five minutes, leaving the thermometer in its chosen location.
3. After five minutes, read the temperature shown on the thermometer.
4. Write down the temperature reading. Compare it with the recommended temperatures and adjust the fridge or freezer temperature control knobs if needed.
5. Repeat the test for each location.

*Additional activity:

Fridge/freezer door seal test

1. Focus the thermal imaging camera on the seals of your (closed) fridge/freezer doors.
2. Check if there is a large temperature difference between the seals and the door. This will be displayed as a colour variation.

Safety tip

Make sure your fridge is not set higher than 5oC, as this can promote the growth of dangerous bacteria.

Action plan →

The recommended temperature for fridges is between 3°C and 5°C. If a fridge is set to be a lower temperature you could be increasing your electricity bills unnecessarily, causing frost build-up, or damaging food quality.

The temperature recommended for freezers is -18°C. Regularly remove frost build-up from your freezer as required and check the seals are not broken or damaged.

If there is a large temperature difference between the door and the seals of your fridge/freezer, it may be leaking cold air through the seal. Try cleaning the seals or replace them if necessary.

Well-maintained seals will save you money.

Tip:

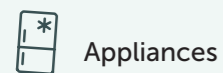
Locate fridges and freezers in cool spots away from direct sun or heat sources, such as ovens. This will reduce the amount of work/energy they need to remain at their set temperature. If you have more than one fridge or freezer operating, consider using it only when needed, such as for large events.

Appliance energy use

Appliances and household equipment, like refrigerators and ovens, collectively account for approximately 25 per cent of a household's energy usage.

Measuring electricity usage of appliances

What you will need:



Appliances



Power-mate



Pen and paper



Electricity bill

Process

1. Check your electricity bill and take note of the 'Rate \$/kWh (or c/kWh)'.
2. Plug the Power-Mate into a wall socket then plug in the selected appliance.
3. Clear the old data by holding the RUN button until you reach the 'Confirm clr data' screen. Then press RUN again for 'Yes', to clear past data. You will need to do this for each appliance tested.
4. Update the electricity cost (\$/kWh) that you have obtained from your bill.
5. Press RUN button again to start the reading.
6. How long you run the reading for will depend on the appliance. Appliances that run all day such as a fridge are better to measure over the full day, appliances that run over shorter periods can either be run from start of use to end of use or for about an hour.

7. After an hour use the MENU button to scroll across to see the costs (real, hour, per quarter and yearly), greenhouse gas emissions, energy usage and meter readings for your appliance.
8. The 'Energy' measurement in watts is the most relevant, showing you the amount of electricity that is being used at a given moment. The higher the watts, the more electricity the appliance is using at that time.
9. The 'Cost' measurement is the easiest to understand. Your computer might only cost you \$50 per year to run but your small electric heater could be significantly more expensive.

Different appliances use different amounts of energy. Larger appliances such as clothes dryers, clothes washers, computer and monitors, dishwashers, fridge and freezers, and televisions are all required to have an Energy Rating Label. The star rating label demonstrates how much energy an appliance uses compared to a similar product. The more stars a product has the more energy efficient it is. You can compare appliances using the Energy Rating Calculator at <https://calculator.energyrating.gov.au>

Other smaller appliances such as toasters and kettles are not required to have an Energy Rating Label. However, you can still consider their energy consumption when purchasing by considering their max power, the size of the appliance and how long you use the appliance for. Or if you have two of the same appliance you can use the Power-Mate to compare the two energy usages.

*Additional activity:

Further tests

Some equipment, such as electric hot water service, air-conditioning and lights, cannot be measured using the plug-in power meter included in this kit. To test them you will need additional equipment such as an energy monitor. These are currently available through a Victorian Government Energy Upgrades initiative.

Process

1. Connect a wireless energy monitor to your energy meter and install the related app on your mobile device.
2. Switch relevant electrical items off individually. Wait to see the change in the 'kW' usage on your app reading. Note down the figure and calculate usage using the app.
3. Use the app to check overnight energy usage and identify what electrical items can be switched off.

Safety tip

This power meter is rated to 10A appliances. It is only suitable for indoor use and is not suited for equipment such as welders and heavy industrial equipment which are typically 15A.

Energy saving tip:

Even when 'switched off', many appliances continue to use energy in standby mode, which can contribute 3–5 per cent of a household's energy use. Other than critical medical equipment, it's important to switch appliances off at the wall when not in use or use timers as appropriate.

Action plan →

- Appliances that are in stand-by mode, such as computers and sounds systems, are still using electricity. Make a commitment to switch them off when not in use
- Compare your appliances' current usage with those that might be newer and more efficient. Do some research and make a plan for when you next upgrade your appliances



Energy saving tips

Heating and cooling

Reverse cycle air conditioners are typically a third of the cost to run compared to gas heating. In winter, keep room temperature between 18°C and 20°C, and in summer between 24°C and 26°C. Changing the thermostat by 1°C (down in winter and up in summer) can save up to 10 per cent on heating and cooling bills.

Switch off appliances

Appliances not in use can still use power. You can reduce this by switching appliances off at the wall. Older, inefficient appliances could also be increasing your power bill. Start investigating more efficient options so that when the time to upgrade comes, you are already prepared.

Fridges and freezers

Check the temperature of your fridge and freezer. Check the temperature of your fridge and freezer. For fridges, aim for 3°C (but no higher than 5°C) and for freezers -18°C.

Lighting

Open curtains and blinds during the day instead of turning on the lights, and replace incandescent lighting with updated LED fixtures that are more energy efficient.

Keep curtains and blinds closed during peak summer heat to prevent the sun from heating up your space.

Install insulation

Insulation is important for keeping your home comfortable. Adding insulation above your ceiling, in your walls, or under your floorboards can help improve the energy efficiency of your home. Ceiling insulation alone can help you save up to 20 per cent on heating and cooling energy costs. You can also install insulation, known as lagging, around hot water pipes which can help with hot water efficiency.

Glazing upgrades

Although windows are important for letting in natural light, they are effectively holes in your walls! Upgrading to double glazed windows, installing Low-E film and using close-fitting curtains and pelmets can help prevent heat loss in winter and heat gain in summer.

Seal draughts

Draughts can have a significant impact on the energy efficiency of your home, accounting for up to 25 per cent of heat loss in winter. Filling gaps around windows and pipes and installing draught stoppers on doorways and exhaust fans can dramatically improve the thermal comfort of your home while reducing your heating and cooling bills. Please see page 7 and 8 for gas safety information.

Improve shading

Shading windows with awnings or deciduous trees on the northern and western sides of your home during summer is a simple and effective way of reducing heat gain into your home.



Water audit

Water is our most precious resource, essential to all life. There are numerous reasons to save water, including:

- reducing the effects of drought and water shortages
- saving energy and money
- helping to keep water in our environment (rivers, wetlands, and water storage basins) and maintain wildlife habitat

Fixture efficiency

Inefficient shower heads have a flow rate above nine litres per minute.

Shower heads that are over ten years old are likely to be more inefficient than newer ones.

A water-efficient shower head has a flow rate of less than nine litres per minute and can use 40 per cent less water. This saves water but also the energy used to heat the water, and ultimately money.


New, water efficient shower heads can deliver the same level of pressure and spray as older inefficient ones through improved aeration.


You may be able to access shower head discounts through the Victorian Government Energy Upgrades Program.




Shower head and tap flow rate test

What you will need:

 Stopwatch / smart phone

 Bucket

 Shower and/or tap

Process for your shower

1. Turn your shower on to your normal temperature and full flow rate.
2. Put a bucket that can capture at least nine litres of liquid under the flow and time for 15 seconds.
3. Calculate how many litres were collected and multiply this by four to get the total use per minute.
4. Result: if your final calculation is over nine litres per minute, then your shower head is less than three-stars.

Process for your tap

1. Turn your tap on to your normal temperature and full flow rate.
2. Put a bucket that can capture at least nine litres of liquid under the flow and time for 15 seconds.
3. Calculate how many litres were collected and multiply this by four to get the total use per minute.
4. Result: if your final calculation is over ten litres per minute then your tap is less than three stars.

Tip

Reuse the water collected from this test! Water some pot plants, your garden, or fill up the kettle.

Action plan →


For a family of four, replacing a shower head that flows at 15 litres per minute with:


- a three-star showerhead (nine litres per minute) will save 70,000 litres and around \$210 each year on water bills
- a four-star showerhead (six litres per minute) will save 105,000 litres and around \$315 each year on water bills



Toilet cistern leak test

What you will need:

 Stopwatch / smart phone

 Food dye

 Toilet



Process


1. Place a few drops of food dye into your toilet cistern.
2. Check the bowl within 15 minutes to see if the colour appears (don't flush the toilet).
3. If the colour has appeared in the bowl there is a leak that should be repaired.


Action plan →


If the food dye shows in the toilet bowl when the toilet has not been flushed there is a leak. Contact a plumber to repair or replace the cistern.


Property leak test

What you will need:

 Pen and paper

 Stopwatch / smart phone

 Recent water bill

 'Stop tap' on your water meter switched on

Process

1. All water using appliances/ equipment need to be off:
 - don't flush the toilet ahead of this test
 - your dishwasher/washing machine should be turned off
 - any evaporative coolers should be turned off
 - hoses, garden irrigation or sprinkler systems should be turned off
2. Check that the badge number on the water meter matches the number on your bill.
3. Write down your current meter reading (or take a photo on your phone), making sure to record the reading on each dial.
4. Start the stopwatch and time for two minutes.
5. Write down the meter reading at the two-minute mark (or take a second photo) and compare with the original number. You can also watch the dials on your meter to see if they are moving.

Action plan →

Small difference: If the numbers are slightly different between the two readings and the dials have moved slightly, this can either be a small leak or the result of dripping taps or faulty appliances.

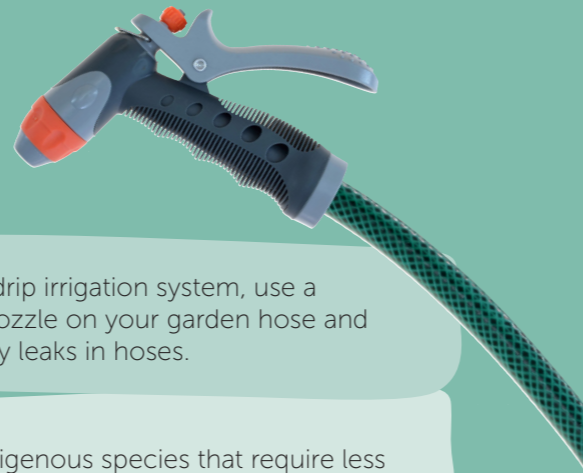
Next step: Check your appliances and taps to see if there are any obvious leaks, fix it yourself if you feel confident, or hire a professional.

Big difference: If the numbers are significantly different and the dials move rapidly, this could indicate a significant leak.

Next step: Hire a licensed plumber to investigate and repair significant leaks at your property.

No change: If the numbers are the same and the dials haven't moved, it's unlikely you have any leaks.

Water saving tips for your house



Collect rainwater for use in the garden. This could be as simple as a rain barrel at the bottom of existing downpipes, or installing a rainwater tank.

When purchasing new dishwashers or washing machines, choose appliances with a 5-star WELS rating. Wait until you have a full load of clothes or dishes before putting the machine on and scrape your dishes rather than rinsing them.

Have a shower instead of a bath and limit shower time to 3–4 minutes (try using a timer or play a 4-minute song). Baths can use over 100 litres of water, whereas a short shower can save up to 35 litres.

Upgrade older, single-flush toilets to dual-flush toilets that are more water efficient. Always use the half flush.

Turn off the tap when brushing your teeth and use a glass for rinsing.



Install a drip irrigation system, use a trigger nozzle on your garden hose and repair any leaks in hoses.

Plant Indigenous species that require less water.

Use greywater or rainwater to water your garden.

Water before 10am or after 6pm when it is cooler to reduce water loss through evaporation.

Prevent up to 70 per cent of water evaporation by using mulch on your garden.

Familiarise yourself with your local water saving rules and follow them.

Install a rainwater tank and consider planting a raingarden to filter stormwater.

Resources

Smart Garden for a Dry Climate - <https://connect.coliban.com.au/smart-gardens-dry-climate>

Coliban Water - <https://connect.coliban.com.au/drip-saving-tips>

Information for Victorian renters:

As a renter, due to rules around installing fixtures and making alterations, it can be challenging to change the physical environment that you live in. However, there are some non-permanent and behaviour changes that you can make to improve the comfort of your home and save water and energy.

As per Consumer Affairs Victoria at January 2025, a renter can:

- Install non-permanent window film for insulation
- Heavy curtains (must keep the original window fittings)

If the property is not listed on the Victorian Heritage Register a renter can:

- Install LED light bulbs if new light fittings are not needed
- Low flow shower heads (must keep the original shower head)

A renter must have the rental provider's permission to:

- Undertake draught proofing at the property including weather sealing and caulking/gap filling
- Make changes that will make sure the renter is not too hot or cold in the property

- Make changes that are needed to reduce energy and water bills

A landlord must have a good reason to refuse the renters request.

Other strategies to improve the comfort of a rental home and reduce energy bills:

- Removable external shade cloths
- Choose an energy efficient appliance when an upgrade is required
- Use door snakes or removable draught stoppers to reduce heat loss through draughts
- Install removable hot water pipe insulation
- Plant shade plants in pots
- Use fans instead of air conditioning when possible
- Turn off appliances when not in use
- Run your washing machine on cold water and only use with a full load.

A renter can also use the information they have found using the Sustainable Home Kit to start a conversation with their landlord about improving the energy efficiency of their rental property.

Other resources:

- Renew – Renters Guide to Sustainable Living - https://renew.org.au/wp-content/uploads/2018/10/ata_renters_guide_sustainability.pdf
- Sustainability Victoria - Household Energy Action Guide - <https://assets.sustainability.vic.gov.au/susvic/Report-Energy-Households-Energy-Action-Guide.pdf>
- Consumer Affairs Victoria – Renters Making Changes To The Property - <https://www.consumer.vic.gov.au/housing/renting/repairs-alterations-safety-and-pets/renters-making-changes-to-the-property>
- Tenants Victoria - <https://tenantsvic.org.au>
- Victorian Energy Compare – Find the cheapest energy plan for you - <https://compare.energy.vic.gov.au/>

Action plans and next steps

1. Use your measurements from the tests completed above to identify what steps you need to take.
2. Make an action plan and set your short, medium and long term goals. This will help identify what you can do now and what might require more planning and saving.
3. Make changes and start seeing the benefits!

Further inspiration?

Borrow from our range of home energy efficiency library books:

- My Efficient Electric Home Handbook – Tim Forcey (2024)
- The Big Switch – Saul Griffith (2022)
- The Energy-Freedom Home: How to Wipe Out Electricity and Gas Bills in Nine Steps – Beyond Zero Emissions (2015)
- The Sustainable House Handbook: How to Plan and Build an Affordable, Energy-Efficient and Waterwise Home for the Future – Josh Byrne (2020)

Online Resources:

- Sustainability Victoria – Energy Smart Housing Manual
- Geelong Sustainability Energy Tips – energytips.org.au
- Your Home - yourhome.gov.au
- Renew Getting Off Gas Toolkit – gettingoffgastoolkit.com
- SEC Electric Home Planner – SECVictoria.com.au/powerup



Keen to learn more about your energy usage?

Access an In-Home Display through Victorian Energy Upgrades program to see where your energy use is coming from!

WATER		
Action item	Quick win (\$0-\$200)	Save up (\$200+)
Turn down hot-water system to safe temperatures	✓	
Change over shower head to four-star shower head	✓	
Replace washer on leaking hot water tap	✓	
Replace your hot water system with an electric heat pump hot water for your next system		✓

ENERGY		
Action item	Quick win (\$0-\$200)	Save up (\$200+)
Draught-proof around identified draughty places in the home	✓	
Install insulation where missing (roof first priority)	✓	✓
Add outdoor blinds to keep heat out in summer, and heavy curtains and pelmets to keep the heat in in winter		✓
Plant deciduous plants in front of any north and/or west facing windows	✓	
Change bulbs over to LED lights	✓	
Add shade sails or plants to shade external north wall	✓	
Install double glazing or window film		✓
Replace gas heating with an efficient reverse cycle air conditioning system		✓
Only fill the kettle with the water needed and make sure to use the water soon after it's boiled	✓	
Change fridge to the recommended temperature	✓	
Upgrade old and inefficient appliances with energy efficient versions		✓
Install solar panels and consider a battery		✓
Turn off TV at the wall overnight	✓	
Get a wireless in-home energy monitoring device	✓	

Take advantage of rebates

When you are making your plan don't forget to consider the rebates that are available to you. The current rebates in Victoria are available as of January 2025:

Victorian Energy Upgrades

<https://www.energy.vic.gov.au/victorian-energy-upgrades>

If eligible you can access rebates on:

- Heating and cooling
- Hot water systems
- In-home display systems
- Induction cooktops
- Shower heads
- Weather sealing
- Window glazing

Solar Victoria

<https://www.solar.vic.gov.au/>

If eligible you can access rebates on:

- Solar panels
- Hot water systems

And loans for:

- Solar Battery's

You may also be able to access discounted finance products through the Federal Governments Household Energy Upgrade Fund - <https://www.energy.gov.au/rebates/household-energy-upgrades-fund>



References

Sustainable Hepburn Strategy 2022-2026
www.hepburn.vic.gov.au

Hepburn Z-NET (2018) Community Transition Plan 2019-2029
<https://hepburnznet.org.au/resources/>

Milne, G., Reardon, C. (2020). *Your Home Australia's Guide to Environmentally Sustainable Homes*.
<https://www.yourhome.gov.au/energy/heating-and-cooling>

Sustainability Victoria. (2024). *Home Insulation*.
<https://www.sustainability.vic.gov.au/energy-efficiency-and-reducing-emissions/building-or-renovating/key-principles-of-energy-efficient-design/planning-and-design/insulation>.

Sustainability Victoria. (2025). *Draught proofing a home*.
<https://www.sustainability.vic.gov.au/energy-efficiency-and-reducing-emissions/building-or-renovating/build-for-energy-efficiency/key-principles-of-energy-efficient-design/insulation/draught-proofing>





Thank you for borrowing our Sustainable Home Kit. Small actions make a big difference when we all work together.

We hope this kit has given you helpful information to understand what changes will best suit your home to make it more comfortable, cheaper to run and better for the planet.

sustainablehepburn@hepburn.vic.gov.au