

EXISTING HOMES: CREATING AN ENERGY EFFICIENT HOME

There are many things we can do in our homes to reduce energy usage and bills. Plus it's always nice to have a comfortable home that's not too hot or cold. This flyer talks about the key things you can do to create a comfortable, energy efficient home

Understanding your usage

Understanding the main energy users in your home can go a long way to help you identify where you can reduce your energy use and bills. There are many resources that can help you with this. Consider:

- **borrowing a Home Energy Toolkit** from your local library. The toolkit will help you determine if the appliances in your home are running as efficiently as they can be and identify some energy-saving actions you could consider.

- accessing **My Cool Home**:
mycoolhome.adaptwest.com.au

This tool will help you perform a high-level assessment of how well-designed your home is, and identify potential optimisation actions.



Heating and Cooling

In a typical Australian home, heating and cooling are the biggest energy users. To minimise this, consider:

- installing ceiling **insulation**;
- only heating or cooling the room you are using;
- setting the thermostat to a temperature you can be comfortable at with appropriate clothing to minimise energy use. Every 1°C higher in winter, or lower in summer adds 10% to the running costs;
- having appropriate **shading** to block unwanted sun in summer while still allowing solar access in winter:
 - north facade: fixed or adjustable horizontal shading (such as blinds, curtains, awnings, eaves, and pergolas) wide enough to block high angle summer sun; deciduous vegetation;
 - east and west facade: adjustable vertical shades; deep verandas; deciduous vegetation;
 - heavy curtains and pelmets to prevent heat loss in winter.
- having **heat-reflective paint** on your roof to minimise heating in summer.



Solar Power

Having rooftop solar is a great way to reduce your energy costs in the long run. With current solar system

prices and efficiency, you'll likely get all of your upfront costs back from your electricity bill in 4 years! This payback period is even smaller if you have a home battery too.

However, **increase the efficiency** of your home first to reduce the amount of energy you use. This will then reduce the size (and therefore cost) of the system you need to install.



Efficient appliances

Look out for the **Energy Rating label** on appliances

you buy – the higher the star rating, the more efficient a model is compared with other models of the same size; and the smaller the energy consumption number, the less you'll pay on your electricity bill. A lot of appliances (like TVs, computers, and microwaves) use standby power when not in use and add to your energy bill. Consider **switching them off instead using smart monitoring systems** that can do this for you.



Airtightness and Ventilation

Air leaks through unsealed gaps in doors, windows, ceilings, walls, and building joints can cause 15-25% heat loss in your home in winter. Fresh air is important in a home, but we need to be able to control when and how much air we let in and out. Consider applying **weather strips or other draught sealants** to all windows and sliding doors.



Landscaping

Believe it or not, landscaping is an integral part of keeping your home comfortable and reducing energy use, as breezes that flow over garden plants and lawns can help to cool a home in summer. Consider:

- selecting plants (like **drought-tolerant low-maintenance native grasses**) that require less water and fertiliser;
- avoid synthetic grass;
- trees, vines and creeping plants adjacent to buildings can cool buildings – they not only provide shade, but also cool the air as they evapotranspire.



Bonus Tip

You may be able to receive free or discounted services to help your home be more efficient (e.g. installing energy efficient lighting, or installing water efficient shower heads).

Contact any of the **Retailer Energy Productivity Scheme (REPS)** obliged retailers or third-party contractors to find out if you are eligible!

- having an **all-electric home** powered by renewable electricity is one of the most efficient and cost-effective ways to run your home in the long run. However, replacing everything (including hot water system and gas stoves) with energy efficient alternatives at the same time is not practical for most. The key is to make sure to replace them with energy efficient, electric models as they come to the end of their useful life.

For more detailed and trusted independent information on tips to make your current home more efficient, scan the codes below:



SA energy saving advice



Renter's guide to sustainable living



My Cool Home



Resilient East Climate Ready resources

Existing Homes Checklist

Having a well-designed home can save us some serious energy costs down the line, but some features you may decide to put in will add more costs to the initial construction budget. Discuss with your architect, designer or builder to customise what's best for you. Here's a checklist of some (*suitable for the renters)

Sustainability and Climate Ready Features		Recommended Priority
UNDERSTANDING YOUR USAGE		
Perform a home energy assessment using the Home Energy Toolkit*	<input type="checkbox"/>	Top 10
Assess how well-designed your home is through My Cool Home*	<input type="checkbox"/>	
HEATING AND COOLING		
Apply weather strips to all windows and sliding doors*	<input type="checkbox"/>	Top 5
Install insulation in ceiling and walls	<input type="checkbox"/>	Top 5
Shade the north, west, and east façade in summer	<input type="checkbox"/>	Top 10
Having the temperature between 24°C - 27°C in summer*	<input type="checkbox"/>	
Having the temperature between 18°C - 21°C in winter*	<input type="checkbox"/>	
Open curtains, blinds, and external shades in winter to allow the sun to heat your home*	<input type="checkbox"/>	
Zone heating and cooling (close doors and windows when heating/cooling are on!)*	<input type="checkbox"/>	
APPLIANCES		
Replace gas stove and hot water system with electric systems at end of life	<input type="checkbox"/>	Top 5
Use energy efficient or LED light globes*	<input type="checkbox"/>	Top 5
Replace old appliances with energy efficient ones at end of life (Check the energy rating label)*	<input type="checkbox"/>	Top 10
Clothes Dryer: don't overload the dryer; remove as much water as possible before putting in dryer; clean lint filter after use*	<input type="checkbox"/>	
Fridges: don't open the doors too often or minimise time of having them open*	<input type="checkbox"/>	
Switch off instead of using stand by power*	<input type="checkbox"/>	
Washing machine: use economy or energy saving cycles; wash with cool or cold water*	<input type="checkbox"/>	
WATER		
Install water efficient shower head*	<input type="checkbox"/>	Top 5
Insulate external hot water pipes	<input type="checkbox"/>	
Install water heater as close to wet areas as possible to reduce heat loss through pipework	<input type="checkbox"/>	
LANDSCAPING		
Design for hot summers (e.g. smart water capture and irrigation)	<input type="checkbox"/>	Top 10
Avoid synthetic lawn	<input type="checkbox"/>	
Deciduous tree in north and west façade	<input type="checkbox"/>	
Locate vegetation / fencing to funnel wind breeze from the west in summer	<input type="checkbox"/>	
OTHERS		
Install solar and battery system	<input type="checkbox"/>	Top 10
Contact any of the Retailer Energy Productivity Scheme (REPS) obliged retailers or third-party contractors for access to energy efficiency services*	<input type="checkbox"/>	
Seal exhaust fans to bathroom and kitchen rangehood	<input type="checkbox"/>	