

HOME eco challenge



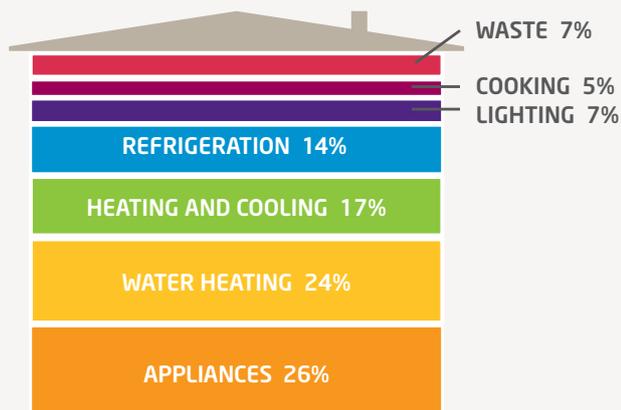
Switch on to Saving Energy

It is now beyond doubt that our climate is changing faster than at any time in human history. The consensus is that human activities - particularly the burning of fossil fuels (coal, oil and natural gas), agriculture and land clearing - are the number one cause of climate change.

The main greenhouse gases generated by human activity are carbon dioxide (CO₂), methane and nitrous oxide. Households in Australia are responsible for 1/4 of all energy use nationwide, so every power saving activity we undertake helps reduce climate change and, if we all take part, we can make a noticeable difference to our environment.



How are greenhouse gases produced in the home?



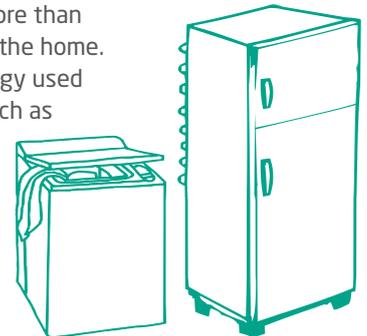
This Eco Challenge focuses on the areas of the home producing the most greenhouse gases.

How much energy we use is influenced by both the design of our home as well as the way we use our home.

This Eco Challenge focuses on the everyday things that you can do to reduce energy use around the home.

Appliances and Refrigeration

Appliances consume more than 40% of energy used in the home. This is made up of energy used by major appliances, such as fridges, washing machines and large TVs, as well as many smaller appliances, including clock radios, electronics chargers and computers.



Tips for Saving Energy on Appliances

To keep your fridge operating efficiently, check the seals around the doors to make sure cold air isn't escaping and make sure your fridge has ventilation space (at least 5cm) around the outside and open space above.

Using cold water to wash clothes can save up to \$95 off your power bill each year. Washing powders are designed to work just as well in cold water and you should not notice any difference in the quality of the wash.

Take advantage of the sun in your garden or balcony - it's free. Hanging clothes outside to dry instead of using a dryer can save more than \$200 off your power bill each year. In wet weather, placing the clothes rack inside under a ceiling fan is a good alternative.



Understanding your power bill

The first step to understanding your power use is to look at your latest electricity bill (and gas bill if you have them).

A good place to start is the graph showing your average daily energy use, and the comparison to your usage in previous billing periods. To understand your bill in detail, visit the Energy Made Easy www.energymadeeasy.gov.au/help/electricity-bill website (or your electricity and gas providers' websites). Some bills will benchmark your energy use against similar homes in your area - if they don't, you can do this at the Energy Made Easy website www.energymadeeasy.gov.au/bill-benchmark.

What does it cost to run my appliances?

If you want to find out the running costs of your appliances you can borrow a PowerMate from Ashfield Library and check them out. Just ask at the Library Information Counter.

Your Home has a list of how much energy the typical appliances in your household use per year. Check it out here: www.yourhome.gov.au/energy/appliances

Standby Power

Leaving your appliances on standby can add up to 10% of your power bill - often powering appliances you're not even using! Items that use standby power if not switched off at the power point include TVs, DVD players, stereos, computers, the microwave and mobile phone chargers left plugged in. Switch off all your TVs at the switch - not with the remote. Always unplug chargers when not in use and switch off items that are not used often at the power point.

Energy Star Labels

Buying new appliances? Check out the energy star ratings. Certain appliances must display a label that shows the star rating (between one and ten stars) and information about energy consumption. The greater the number of stars, the higher the efficiency. This makes it easy to compare the energy efficiency of appliances. All products with star ratings are listed here: reg.energyrating.gov.au/comparator/product_types/

Fridge Buy Back

Fridges are a big energy consumer in the home. Getting rid of your second fridge can slice \$210 a year off your power bill. Contact Fridge Buy Back fridgebuyback.com.au to have your second fridge collected, degassed and recycled for free.

Water Heating

Water heating accounts for almost 1/4 of energy use in the average household, so any savings that can be made in this area can make a big difference to your energy consumption. Taking shorter showers is an easy way to save both water and power. Use a shower timer every time you shower and aim for 4 minutes or less.

Hot Water

By replacing your electric hot water system with solar hot water you can get around 70% of your hot water free.

Heating and Cooling

There are many ways to use energy more wisely when it comes to heating and cooling our homes, from changing the way we heat to stopping heat escape.

Adjust the temperature in your home according to the seasons. Suitable temperatures are 18-21°C in winter or 23-26°C in summer. Heat or cool only the parts of your home that you spend the most time in. Close internal doors to stop the hot or cool air escaping to other rooms.

What is the best way to heat your home? The type of heating you choose will depend on the size and use of space you are trying to heat. As a general rule, gas heating produces less greenhouse gas emissions than electric heating. Where gas isn't an option, reverse cycle air conditioners while more expensive to buy, are much cheaper to run than standard electric heaters. For more detailed information about selecting the right heater visit the Your Home website: www.yourhome.gov.au/energy/heating-and-cooling.

Mind the Gap

If you added together all the likely sources of draughts in a typical home it would be the same as having a 1m square hole in the wall. Check all the windows and doors in your home for gaps and draughts. Seal any you find using inexpensive removable gap sealing foam, draught excluders or other low maintenance makeshift methods.

You can find gaps with tools such as an infrared thermometer or a simple homemade draught finder like the one on this website: energy.gov/energysaver/detecting-air-leaks

You can stop heat escaping from your house in winter and entering in summer by using heavy lined curtains with pelmets. Make sure you always draw your curtains at night or when using the heater in winter. If you don't have curtains, you can rig up some makeshift ones or buy good quality second hand curtains from a charity store. Double glazing is another way to minimise heat loss through windows. This option however is often considered too expensive for the relatively short and mild winters we experience in Sydney - a cheaper alternative is to install DIY secondary glazing: www.greenityourself.com.au/projects/watch-now-secondary-glazing-windows-window-insulation-film

Insulation

Insulation can keep a home cosy and warm in winter and cool in summer - as much as 35% of heat loss from a house is through an uninsulated ceiling. Walls and floors may also be insulated, depending on what they are constructed from. For more about insulation visit these websites: www.environment.nsw.gov.au/households/insulation.htm yourhome.gov.au/passive-design/insulation

Lighting

While lighting only accounts for 7% of the average household energy use, we can still make savings in this area by switching to more energy efficient globes and turning off lights that aren't needed. Lighting technology is continually improving, with new and improved compact fluorescents and a larger range of LEDs now available. For more information about lighting, visit the Your Energy Savings website: youenergysavings.gov.au/energy/lighting/energy-efficient-lights



GreenPower

You can purchase GreenPower through your energy provider. When you do this it increases the amount of electricity your energy retailer purchases from renewable sources and therefore helps increase investment in the renewable energy industry. Visit the GreenPower website for more information: www.greenpower.gov.au/

Monitoring your energy use

If you have a SmartMeter you can get information about your home's daily electricity use through your energy provider's website - readings are taken every half hour so you can see your pattern of energy use over the day.

If you don't have a smart meter there are others ways to monitor your household's energy use. Various wireless energy monitors are on the market - they generally have a unit that clips into the mains at your switch board and a remote display which shows your real time energy use. A free alternative is to read your meter at the same time each day.

By keeping an eye on your daily energy use when trying to improve your energy efficiency, you can see exactly how much energy you are saving. Not only are you reducing greenhouse gas emissions, you are also saving money on your bills.

Planning for the future

The best time to improve the energy efficiency of your home is when you are building, renovating or upgrading major appliances.

These are not things that most people do often so they aren't included in this month's challenges. The **Your Home website** www.yourhome.gov.au/ has some really useful information for anyone looking at building, renovating or undertaking bigger energy efficiency projects. It is also worth taking a look to see whether there are any other changes you could plan for in the future like replacing appliances, installing solar hot water, solar panels, planting shade trees, installing external blinds, improving insulation or getting a rainwater tank.

You can also use the NABERS www.nabers.gov.au/public/WebPages/Home.aspx tool to look at where you use most energy in your home, and identify some ways to help you save energy.

Aiming for carbon neutral energy? The hierarchy of actions are:

- reduce your total energy use though energy efficiency
- switch to renewable energy where possible (solar panels on your own roof or GreenPower through your electricity supplier)
- purchase accredited carbon offsets for any remaining carbon-intensive energy www.choice.com.au/reviews-and-tests/household/energy-and-water/saving-energy/carbon-offsets.aspx

Renewable Energy

Based on the Ausgrid's Community Electricity Reports almost 3000 households in the Inner West LGA now have solar panels.



Use the Our Solar Future website to find out more about installing solar power, solar hot water and heat pump hot water and to get quotes from reputable suppliers. Our Solar Future is an initiative of the Inner West Council in partnership with 4 other local councils. www.oursolarfuture.nsw.gov.au



Be Water-wise

“When the well’s dry, we know the worth of water.” - Benjamin Franklin, 1746

Sydney’s water comes mainly from Warragamba dam in the Blue Mountains, west of the city. Rainfall filling the dam is variable, and with the population of Sydney set to rise from 4.6 million in 2011 to 8.4 million by 2060, we need to be smarter in the ways that water is used, to make sure that our existing dams can continue to provide all the water we need.

Together we can all do our bit to help reduce water consumption. Whether you live in a house, a semi, or an apartment, and whether you are a home owner or renter, there are many ways your household can reduce the amount of water that you use.



Did you know?

- Despite living on the driest inhabited continent on the planet, Australians are one of the highest water users per capita in the world!
- On average, each person in Sydney uses about 300 litres of water each day, of which 5-10 L are for basic survival, i.e. for drinking and food preparation. The remaining litres are used for things like showering, flushing the toilet, washing dishes and clothes, and watering the garden.
- When we waste water we also waste energy as it takes a lot of energy to purify water to drinking quality and transport it to our homes, as well as heat water in our hot water heaters.

In the Bathroom

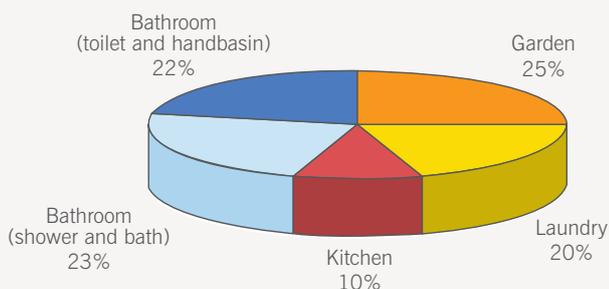
With almost 50% of water being used in the bathroom, it’s an obvious place to start when looking for ways to reduce water use.

Save money on your energy and water bills by being water efficient in the bathroom.

- Have showers instead of baths
- Don’t leave the tap running when you brush your teeth or shave
- Install a WELS 5 or 6 star shower head to halve the water used every time you shower
- Check your toilets for leaks. Put a few drops of food dye in the cistern, wait 15 minutes without flushing, then check the water in the bowl. If the colour appears in the bowl you have a leak and should contact a plumber.
- If you have a single flush toilet that you can’t replace with a dual flush, you can reduce the flush volume with a cistern weight or by adjusting the float valve.
- For more tips see the Sydney Water website: www.sydneywater.com.au/Sw/your-home/saving-water-at-home/bathroom/index.htm

Water Usage in the Home

The average household uses water in the following ways:



Based on this chart, where can you save water in your home? We’ve selected a few Eco Challenges for each water-using area of your home.



In the Laundry

The obvious big water user in the laundry is the washing machine. Front loading washing machines are much more water efficient than top-loaders, and are more gentle on clothes. An efficient machine can save you up to 100 litres of water every time you do the washing.

Wait till you've got a full load before you use the washing machine. You'll save up to 10 litres each wash.

Remember that what goes down the drain ends up in our waterways and oceans, so use environmentally friendly detergents to wash your clothes.



- Capture water from your washing machine's rinse cycle to use on your garden. Avoid using on vegetables that you want to eat raw.
- When next purchasing a new washing machine or dishwasher look at the WELS star rating label. The more stars, the more water efficient it is.

Water Efficiency Labelling Scheme

The WELS rating scheme applies to appliances, fixtures and fittings that use water. The more stars the more water efficient it is. For more information see: www.waterrating.gov.au/consumers

In the Kitchen

10% of water usage is in the kitchen, and there are many simple things we can do to reduce our water consumption in this area.

Wash and rinse your dishes with a plug in the sink, instead of under running water. Modern 5-star dishwashers can use as little as 11 litres per wash.



Wash your vegetables and fruit in a bowl of water, rather than under the running tap, then use the water in the bowl on your garden or pot plants. If you normally rinse under a tap for 3-5 minutes you can save about 40 litres of water by doing this!

Save water in the kitchen

- Installing an aerator on kitchen taps can save 50% of water.
- Fill your dishwasher completely before using it.
- Don't use running water to defrost frozen food. Ideally, place food in the fridge to defrost overnight, or use the defrost setting on your microwave.

Outdoors

One quarter of all water used around the average home is in the garden, so reducing water use here could make a big difference to your water bills if you have a garden.

The Water Wise Rules now apply to everyone in Sydney all the time. It's worth knowing that unless you have a rainwater tank, you can only water the garden before 10am or after 4pm and you must use a hose with a trigger nozzle. Fines can apply for those not following the rules. Visit the Sydney water website for more details www.sydneywater.com.au/Sw/water-the-environment/what-we-re-doing/water-restrictions/index.htm

Garden Owners

There are many things you can do outdoors to save water while still ensuring your garden remains attractive and functional. Visit the [Inner West Council website](#) for helpful tips on water-wise gardening.



- Plant native plants that require less watering.
- Install a rainwater tank to use collected water on your garden or in the laundry or toilet.
- Mulch your garden to help retain water.

Keeping Our Waterways Clean

Being water-wise is more than just watching the amount of water we use - it's also about knowing where water goes and making sure that pollutants are kept out of our wastewater and stormwater systems.



Wastewater is the used water and sewage that goes down sinks, toilets and drains inside your home.

This enters the wastewater system. Wastewater from homes in the Inner West is treated at the Malabar Wastewater Treatment Plant, which uses a *high-rate primary treatment process*. This is the most basic type of treatment and only removes solids, sludge and grease. Afterwards the wastewater is released in a deepwater ocean outfall 3.6km off the coast of Sydney. It's therefore important to keep harmful chemicals out of the wastewater system.



Hawthorne Canal, Haberfield

Stormwater is rainwater that falls on roofs, paved areas, roads and other hard surfaces before flowing into stormwater drains.

Most of the stormwater from the Inner West flows into Sydney Harbour either directly or via Dobroyd Canal, Hawthorn Canal, Johnstons Creek or Whites Creek. Stormwater in the the southern and eastern parts Inner West LGA flows to the Cooks River and onward to Botany Bay. It is vitally important to keep pollutants and rubbish out of our stormwater system in order to protect the fish, water birds, plants and other living things that live in our local waterways.

Make a commitment to not pour chemicals, paints, cleaners and solvents down drains either indoors or out. These should be taken to a CleanOut event www.cleanout.com.au

Prevent Stormwater Pollution

- If you own a car check it for oil leaks
- Wash your car on the grass or at a carwash to keep detergent out of stormwater drains

Related links

www.innerwest.nsw.gov.au
www.sydneywater.com.au

CONTACT US

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