Make the Switch

Factsheet & Action Planner

Make the switch to an all-electric home

By switching your appliances from gas to electricity, you can save money on your household bills, improve your family's convenience and comfort, and take action to stop climate change.
Do good and feel good!

Why make the switch?

Eliminating your gas bill can save your family hundreds of dollars every year.

Why pay extra for gas supply when you already have electricity that can do everything you need, better and cleaner than gas? Around 70% of most households' energy use is for heating and hot water, so it makes sense to use electric appliances because they are cheaper and more efficient to run than gas equivalents. If you have rooftop solar power, you could save more by using your own electricity.

Improve your family's convenience and comfort.

Removing gas from your home, can lead to better indoor air quality and improved safety for children. Heat and cool your home with **reverse-cycle air-conditioning**. Save time and effort with an **induction cooktop**. Enjoy hot showers knowing your new **hot water heat pump** pulls heat from the air, not from burning gas.

By not using gas, we can tackle climate change and protect our environment.

Natural gas is a fossil fuel that releases greenhouse gases to the atmosphere, and the mining and processing of gas damages our landscapes. Because 100% of the ACT's electricity comes from solar and wind power, **switching your home to electricity is one of the most practical things you can do to help the planet!**

Get social

Talk to neighbours, friends, family and colleagues about your household's plan to go all-electric. Visit maketheswitch.org.au for more information and to share on social media.

maketheswitch.org.au

The Make the Switch website project was developed by the Conservation Council ACT Region to help Canberra households get off gas. It was funded by the ACT Government's 2019 Community Zero Emissions Grants, one of many actions towards achieving the target of net-zero greenhouse gas emissions by 2045.

Your individual circumstances are unique and the Conservation Council cannot be held responsible for the outcomes of your decisions.

The Conservation Council ACT Region is the peak environment body in the ACT and meets on the land of the Ngunnawal and Ngambri people.

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How to make the switch

If you are building a **new home**, take the opportunity to go all-electric and save on energy running costs by not connecting gas.

If you have an **existing home**, you can replace gas appliances one by one to suit your priorities and budget. The energy savings you make after replacing the first appliance can help pay for the next appliance.

Heating

The most energy-efficient way to heat your home is with a **heat pump**, known in Australia as a **reverse-cycle air-conditioner**. Heat pumps are up to four times more efficient than other electric or gas heaters because they use minimal electrical energy to simply transfer heat from one space to another via a refrigerant fluid, rather than create heat by burning gas or heating a resistive element. They are also used for cooling in summer, and are ideal for protecting indoor air quality from bushfire smoke, pollens and other outdoor air pollution.

A **split-system heat pump** has one or more indoor units, usually mounted near the ceiling, connected to an outdoor unit mounted on the ground, wall or roof. A **ducted system** has a large outdoor condenser connected to an evaporator in the roof cavity with ducts that deliver warm or cool air to multiple rooms through vents in the ceiling. Generally, it is cheaper to install and run multiple small split systems than a ducted system.

Heat pumps *are* effective in cold climates, but the efficiency varies with outdoor conditions and the quality of the appliance, so it's important to **choose a model designed for outdoor winter and summer temperatures**.

There are many **other electric heating options** including fixed or portable electric bar or panel heaters, oil-filled column heaters, water-filled hydronic systems, and even ceramic heaters that look like a fireplace. Consider your heating capacity needs and look for features such as thermostats, timers or safety cut-outs.

A reverse-cycle split-system heat pump provides efficient heating and cooling.

Hot water

The most energy-efficient way to heat water is with an **air-source heat pump**. They are up to four times more efficient than other electric or gas water heaters because they use minimal electrical energy by transferring heat from the air to the water via a refrigerant fluid, rather than creating heat by burning gas or heating a resistive element. Hot water heat pumps can either have the tank and compressor unit integrated or separated which allows the tank to be installed in a different location if desired (eg, in a laundry).

Heat pumps *are* effective in cold climates, but the efficiency varies with outdoor conditions and the quality of the appliance, so it's important to **choose a model designed for outdoor winter and summer temperatures**.

There are several **other water heating options**. Instantaneous hot water systems use electricity only when hot water is needed so can be cheap to run and are ideal where there is not enough space for a storage tank. Electric storage hot water systems with a resistive element (like an electric kettle) are cheap to install but cost more to run. Solar thermal hot water systems run water through flat plates or evacuated tubes on the roof, allowing the sun to directly heat the water before being stored in a tank on the roof or the ground. They can be expensive to buy and install, and require a sunny roof.

Saving water will also save energy. Take shorter showers and fit low-flow shower heads. Install hot water systems as close to indoor taps as possible to avoid wasting water waiting for hot water to arrive at the tap.

A heat pump hot water system will deliver hot water cleanly and efficiently.

Induction cooking is fast, responsive, efficient and stylish.

Take advantage of the sun's energy to passively heat your home by maximising north-facing windows.

Cooking

Induction cooktops are more than twice as energy-efficient as gas because they use electromagnetic energy to create heat in your cooking pot rather than via flames that lose heat to the surrounding air. With no flame or hot element, induction cooktops are safer, fumeless and easier to clean. They have a wide temperature range, providing instantaneous and precise control for all cooking needs, from cool-melting chocolate and simmering slow-cooked casseroles, to rapid-boiling water for pasta and rice, and searing-hot steaks or stir-fries.

Induction cooktops range greatly in price depending on brand, efficiency, power levels, number and flexibility of cooking zones, safety features and warranties. They require flat-bottomed, iron-rich cookware. Test your existing cookware with a magnet – if it sticks to the base of the pot, it will probably work. When obtaining quotes, ask the installer for advice about your kitchen power circuit and the size of the hole in your benchtop.

Ceramic cooktops may look like induction cooktops with a smooth glass surface but have resistive elements or hotplates beneath the glass that glow red when hot. They allow use of a range of cookware (glass, ceramic, metal). While ceramic cooktops are cheaper to buy than induction, they are more expensive to run, less responsive and harder to keep clean.

Other electric cooking options include built-in ovens, microwave ovens, and a wide range of portable appliances such as rice cookers and sandwich grills.

Close your gas account

Once you have switched all your gas appliances to electric, you can save hundreds of dollars per year by **closing your gas account** and no longer paying for gas supply. Ask your gas retailer to do a final meter reading and close the account. A small fee (around $20) will be added to your final bill for this service.

You can take further steps to disconnect, but these are not necessary to run an all-electric house:

- **Close the stopcock** or shut-off valve on the pipe that supplies gas to your meter to prevent gas flowing through the meter.
- Have a gasfitter **cap the pipe** from the meter to your house to prevent leakage. This will incur a service charge – ask for a quote.
- **Decommission your meter** and remove the pipes connecting your home to the gas network. This costs around $730 (in the ACT).

Closing the stopcock and capping your gas meter will prevent the risk of gas leaks.

Energy efficiency

Improve the **energy efficiency** of your home by sealing draughts, adding insulation and upgrading your window dressings or glazing. Make the most of the sun's **passive energy** in winter via north-facing windows, and shade west-facing windows in summer. This will make your home more comfortable and reduce the amount of energy needed for heating and cooling.

Make an action plan to switch

Step 1 Prioritise your gas appliances

It makes sense to replace the appliance that uses the most gas (probably heating) first because this has the highest annual running cost.

The appliance that uses the least gas (probably cooking) should be replaced last.

The ages of gas appliances or your lifestyle needs might also influence your priorities.

My gas appliances	Priority
Heating	
Hot water	
Cooking	

Step 2 Choose electric appliances

Assess your needs and circumstances.

Read **Choice** reviews and product specifications of appliances you are considering. Visit **energyrating.gov.au** for energy efficiency data. Obtain multiple quotes, especially if installers are unfamiliar with recent energy-efficient electric technologies.

Visit **energy.gov.au**, **actsmart.act.gov.au** and your electricity retailer for rebates, subsidies and other supports you may be eligible for.

Considerations

Budget $

Any limitations eg space for indoor and outdoor heat pump units

Other criteria important for your family eg safety features

	Heating	Hot water	Cooking
	Number & size of rooms to heat	Number of people using hot water	Number of pots you usually cook with
Preferred brand and model			
Purchase and installation cost			
Financial assistance			

Step 3 Set a timeline

Planning ahead enables you to budget for upfront costs. It can also help you take advantage of sale prices or pre-empt the need for repairs to old appliances.

A good quality appliance might be more expensive to buy, but if it is more efficient and reliable, the savings in running costs will offset some of the purchase price and shorten the payback period. Savings on energy costs in the first few years after switching the first appliance should help you to fund the next appliance replacement.

Use the **Make the Switch calculator** to estimate costs, savings and pay back periods for appliances at different price points.

My plan to replace appliances

Appliance	Month & year
1	
2	
3	
4	
5	
Close gas account	

Goodbye, gas network: hello, all-electric home!