

## Choosing between electricity, gas and solar



There are a number of different energy sources you can use in your home. Depending on a number of factors, some energy sources might be more suitable for you than others.

### Electricity, gas and solar—what options do I have?

If you are building or renovating, you have a number of energy options. Depending on where you live you will generally be able to choose from:

- electricity—available to most Australian homes
- gas—widely available in capital cities, though limited supply of piped or main gas in regional and rural areas
- solar—widely available, however, the benefits of installing solar panels will vary depending on a number of environmental factors.

When deciding which energy source to use, it is important to compare the upfront costs of systems against the lifetime running costs.

For further information on your options with new connections to the electricity and/or gas networks, [contact your retailer or distributor](#) and visit our [Moving residence](#) page.

### Advantages and disadvantages

All three energy sources—electricity, gas and solar—have advantages and disadvantages.

**Electricity** is the most widely available energy source and can run all household appliances, but can be a more expensive source of energy.

**Mains gas** can be less expensive than electricity and produces fewer greenhouse gas emissions. It is frequently used for heating water and room heating. Mains gas, however, is not as widely available as electricity.

**Solar energy** is a [renewable energy source](#) and produces no greenhouse gas emissions during the generation of energy. It can be used to either supplement or replace gas and electricity. Solar energy systems, however, require a significant upfront investment and cannot be installed at all premises.

### Choosing the most energy efficient appliances

You can make energy efficiency gains (and help reduce your energy bills) in your household or business by choosing the most [energy efficient appliances](#) for your needs within your budget.

#### Hot water

**Solar hot water systems** can provide between 50 and 90% of your hot water needs. Electric or gas boosters are used when insufficient solar energy is generated.

**Gas hot water systems** burn either natural gas (also called mains or reticulated gas) or Liquefied Petroleum Gas (also called LPG, usually bottled). Gas hot water systems produce about a third of the greenhouse gas emissions of electric storage hot water systems.

#### Heating

**Gas heaters** and **efficient reverse-cycle heat pumps** are cheaper to run than standard electric heaters and produce around a third of the amount of greenhouse gas emissions.

**Hydronic central heating** systems are usually gas-fired but may use a wood-fired heater, solar system or heat pump. If used wisely, they can be an economical and highly effective form of central heating.

**Heat shifters** have a fan and ducting to direct warm air to unheated parts of your home. They can be cost-effective to install and low-cost to run.

#### Cooling

**Fans** are the cheapest cooling appliance to buy and run. You can buy cheap pedestal (standing) fans or have an electrician install ceiling fans.

**Evaporative coolers** are available as portable units, fixed systems (wall or ceiling mounted) or ducted. They work particularly well in low-humidity areas but not as well in humid regions. The running cost for an evaporative cooler is 50 to 75% less than refrigerative air conditioners.

**Refrigerative air conditioners** use a number of different technologies, meaning that some are more energy efficient than others. A common type of refrigerative air conditioner is the reverse cycle air conditioner, which is able to produce both heating and cooling. The Australian Government's [Energy Rating website](#) provides detailed information about refrigerative air conditioners and how they compare to other types of cooling.

## Cooking

**Gas cooktops** are generally cheaper to use, have more responsive controls and produce less than half the greenhouse gas emissions of a standard electric cooktop. Gas ovens are also usually cheaper to run and produce less greenhouse gas than an equivalent electric model.

### Related topics on the Energy Made Easy website:

- [Understand and compare your electricity usage](#)
- [Saving energy](#)
- [What is the 'average' electricity usage?](#)
- [Home appliance energy ratings explained](#)
- [Renewable energy](#)
- [Solar contracts](#)

### Other resources (external links)

[Tips for reducing your energy usage on the Your Energy Savings website](#)

The Australian Government's Your Energy Savings website provides a starting point for information about living more sustainably and reducing your environmental impact.

[Energy efficiency rebates and grants](#)

The Australian Government is committed to developing programs and initiatives to support householders, industry and the community to save energy and reduce emissions.

[Find out about energy ratings for home appliances](#)

The Australian Government's official energy rating website provides a comprehensive overview of appliance energy ratings.

[Find out about choosing energy efficient appliances on the Your Home website](#)

The Australian Government's Your Home website contains information developed to support environmentally sustainable design, construction and renovation.