



Fact Sheet

Home energy upgrades in New South Wales



NSW homes waste around \$1.25 billion running inefficient appliances each year

The average thermal efficiency star rating of an existing NSW home is likely about **two out of 10**

About **48%** of NSW homes pay a gas bill on top of their electricity bill

What are the key cost-saving opportunities?

(figures based on a detached home in Sydney)

Hot water

Hot water makes up **28%** of household energy use in NSW

More than **95%** of hot water systems in NSW are inefficient

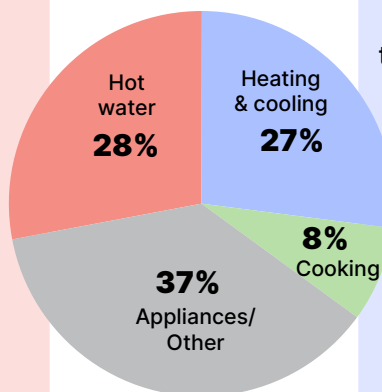
Annual hot water running cost

Electric (resistive)	\$722
Gas	\$378
Electric (heat pump)	\$201

Switching to **heat pump hot water** can save **\$175-500/year**

Heat pump hot water systems can act like a battery – saving money by storing solar power as hot water

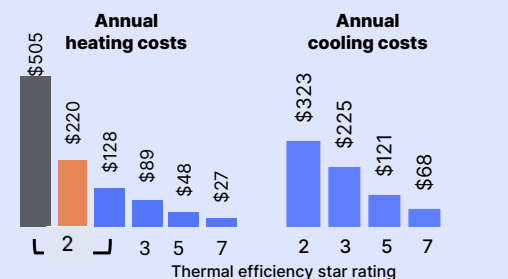
Household energy use in NSW



Heating & cooling

Heating and cooling make up **27%** of household energy use in NSW

Reverse-cycle air conditioners (RCAC) are the most efficient type of heater **and** cooler



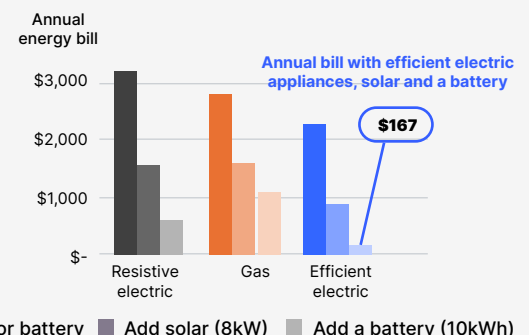
Efficiency upgrades like insulation and draught-sealing can slash heating and cooling costs

Solar and batteries

Solar and batteries can slash energy bills, especially in **efficient electric homes**

Non-solar homes can still benefit from solar in the grid under certain tariffs

Battery savings could be greater with **fairer pricing structures** or **Virtual Power Plants**



Getting off gas

NSW homes with gas pay around **\$270/year** in fixed charges

Efficient electric appliances don't just save on running costs – they enable homes to **disconnect from gas** entirely

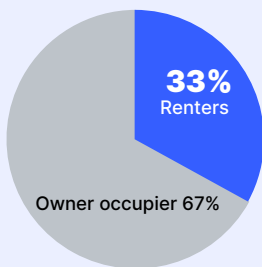
Unlocking the barriers to lower energy bills

- The **upfront cost** of home energy upgrades can be a major barrier, even with fast paybacks
- **Renters** and **apartment dwellers** face some of the largest additional barriers

Ensuring **new homes** are built to be **efficient, electric** and ready for **Consumer Energy Resources (CER)** is critical to reduce future retrofit costs.

Renters

One third of homes in NSW are rented
(And this is increasing)



Renters face the split incentive problem:

Renters can't invest in permanent home upgrades to lower their energy bills

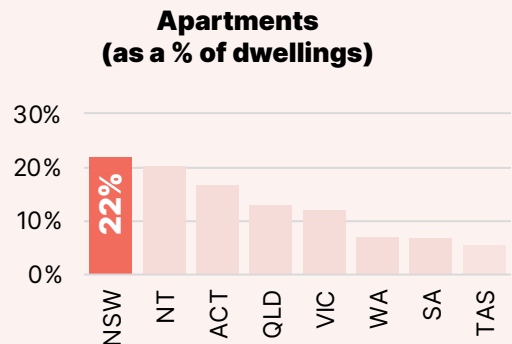


Landlords do not pay the energy bill, so they have no incentive to make upgrades

Minimum energy efficiency standards for rental properties are a critical policy lever

Apartment dwellers

In NSW, apartments make up 22% of homes and 40% of rental properties
(This is more than any other state)



Apartments face unique challenges and can take longer to upgrade:

- ▶ Strata approvals and by-laws
- ▶ Limited / shared rooftop or outdoor space
- ▶ Bulk hot water systems that are costly to upgrade
- ▶ Embedded energy networks

How could the NSW government unlock the benefits?

1

Bolster existing energy certificate schemes* to lower barriers for all upgrades

2

Avoid future retrofit costs by requiring all new homes to be efficient, electric and CER-ready

3

Develop targeted upgrade programs for apartments and continue strata reforms

4

Implement minimum energy efficiency standards for rental properties

* Including the Energy Savings Scheme and Peak Demand Reduction Scheme

READ MORE



Homes, not power plants, could halve energy bills



Key sources and further info behind this fact sheet

About IEEFA

The Institute for Energy Economics and Financial Analysis (IEEFA) examines issues related to energy markets, trends and policies. The Institute's mission is to accelerate the transition to a diverse, sustainable and profitable energy economy.

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