Energy consumption

Energy powers our world, and NSW is driving the shift to clean energy, towards a net zero emissions goal.

Energy consumption is a critical aspect of modern life. It drives industrial processes, transportation and daily household activities.

Energy continues to be the largest source of greenhouse gas emissions in NSW. About 80% of our total energy comes from non-renewable sources, such as coal and gas.

As our population continues to grow, industry electrifies and more people change to electric vehicles, it will become increasingly important to keep growing the renewable energy sector. This transition to renewable energy sources (such as wind and solar) for electricity generation, transport and industry will help NSW to achieve net zero emissions.

At a glance

How NSW is tracking

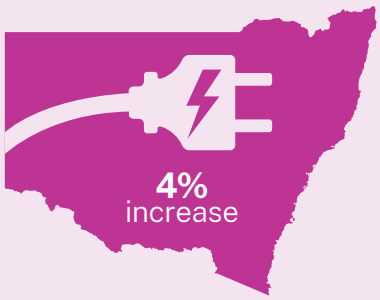
- Declining overall energy consumption between 2020–21 and 2021–22 was dominated by a decline in transport energy consumption. It remains to be seen whether this was a result of COVID-19 pandemic lockdowns. Transport's share of energy increased in 2022–23.
- In 2022–23, there was a major increase in electricity share delivered by renewable energy generation. It comprised about 34% of the State's electricity generation.
- Residential energy use per capita in NSW increased by 2% between 2020–21 and 2022–23.
- Annual demand for electricity from the NSW grid declined by more than 14,000 gigawatt hours, or about 18% of total electricity demand, between 2008 and 2023. This was primarily driven by energy efficiency measures and the strong uptake of behind-the-meter rooftop photovoltaics.

The big picture

Firmed renewables (such as solar backed up by batteries) have replaced coal as the most affordable source of new build energy.

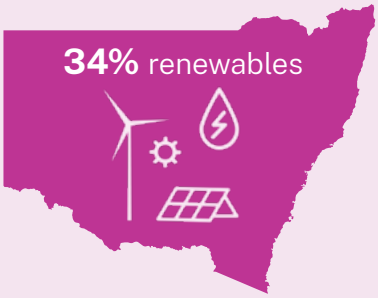
Electricity generation

Total NSW and ACT electricity generation **increased by 4%** between 2018–19 and 2022–23 as the population continued to grow.



Renewable energy

Renewable energy sources provided about **34%** of the State's electricity generation in 2022–23.



Energy consumption

NSW status and trend indicators

These indicators are used to assess the state of energy in NSW.

Indicator	Environmental status	Environmental trend	Information reliability
Total NSW non-renewable energy consumption	 POOR	 Getting better, Stable, Getting worse	 Good
Transport sector use of non-renewable energy	 POOR	 Getting better, Stable, Getting worse	 Good
Renewable electricity generation in NSW	 MODERATE	 Getting better, Stable, Getting worse	 Good
Per capita residential energy consumption	 MODERATE	 Getting better, Stable, Getting worse	 Good

Indicator table scales

- **Environmental status:** Good, moderate, poor, unknown
- **Environmental trend:** Getting worse, stable, getting better, unknown
- **Information reliability:**  Good  Reasonable  Limited

Indicator definitions

Total NSW non-renewable energy consumption – measures the total amount of energy generated from non-renewable sources, used in the State.

Transport sector use of non-renewable energy – measures the total amount of energy generated from non-renewable sources, used by the transport sector.

Renewable electricity generation in NSW – measures the total amount of electricity generated by renewable sources, including hydroelectric but excluding household solar hot water heating.

Per capita residential energy consumption – measures the total amount of residential energy consumed per person, including residential solar generation.