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Electricity

Electricity generation is Australia’s largest source of emissions, accounting for 34%. Electricity emissions are 180 Mt CO₂-e and have been decreasing since 2009.

Emissions have been decreasing because of:

- increasing renewable generation
- closure of some coal-fired power stations
- energy efficiency improvements reducing electricity demand.

Renewable energy in Australia

Australia has some of the best solar and wind resources in the world.

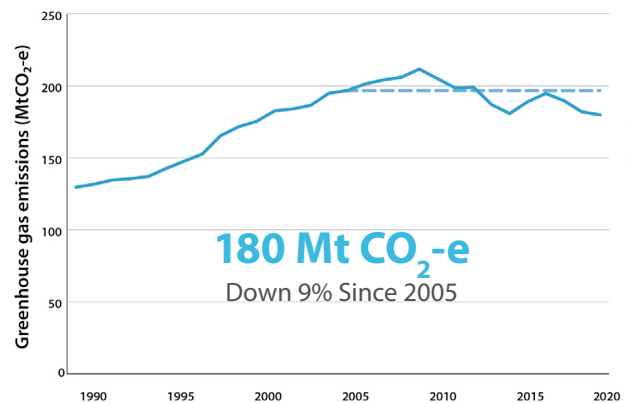
Australia has the highest rate of uptake of residential rooftop solar globally, with 1 in 5 homes having rooftop solar systems.

The ACT is the first jurisdiction outside Europe to transition from fossil fuels to 100% renewable electricity.

Around 20% of electricity in Australia is generated from renewables including wind, solar, pumped hydro and biomass.

State and territory governments have renewable energy targets ranging from 50 to 100% by 2030.

Electricity emissions



Australia’s electricity generation fuel mix, 2018

| | | | |
|------------|--------|--|--------------|
| 60% | 157TWh | | COAL |
| 19% | 50TWh | | GAS |
| 7% | 17TWh | | HYDRO |
| 6% | 16TWh | | WIND |
| 5% | 12TWh | | SOLAR |
| 3% | 9TWh | | OTHER |

How can emissions be reduced?

Optimising energy efficiency in homes and businesses with things like insulation, smart meters and energy-saving appliances.

Replacing ageing coal-fired power stations with low-emissions generation.

Government policies

The large and small scale renewable energy targets together with ARENA and the CEFC, have driven the uptake of renewable electricity generation.

See the Authority’s Stocktake on industry action and our latest report, *Prospering in a low emissions world.*