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Electricity

Electricity generation is Australia’s largest source of greenhouse gas emissions, accounting for 33% of total emissions in 2020. Electricity emissions have continued to decrease 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.

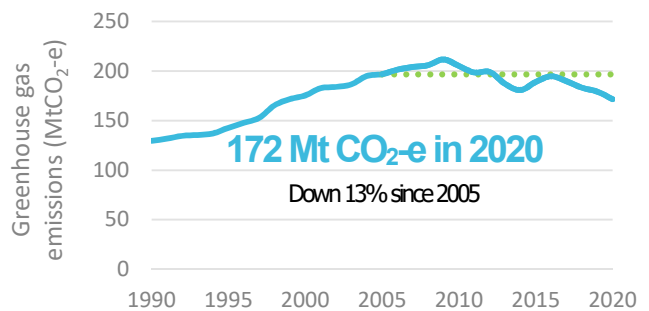
Around 20% of electricity in Australia is generated from renewables including wind, solar, pumped hydro and biomass.

State and territory governments have renewable energy policies with most governments having renewable electricity targets ranging from 50 to 100% by 2030.

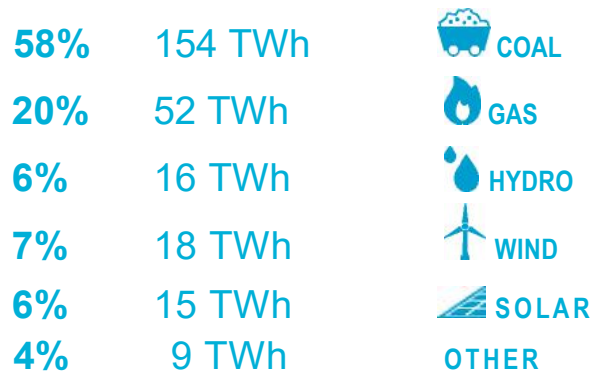
We can reduce emissions further by:

- Optimising energy efficiency in homes and businesses by insulating buildings, using smart meters and energy-saving appliances.
- Replacing ageing coal-fired power stations with low-emissions generation.

Australia’s electricity emissions



Australia’s electricity generation mix 2019



Government policies

The Australian Energy Market Operator’s Integrated Systems Plan (ISP) sets out a roadmap for an affordable, secure, reliable, low-emissions energy future. The Government is providing funding to some of the projects identified in the ISP including a contribution to allow a final investment decision on a second interconnector between Tasmania and the east coast to be able to source more hydro electricity from Tasmania.

See our report [Prospering in a low-emissions world](#).