Australian Government

Australian Office of Financial Management

AOFM

Australian Government Climate Change commitments, policies and programs

A guide for AGS investors

November 2022

Government Commitments to Climate Change

Australia has committed to achieve net zero emissions by 2050

Australia will reduce greenhouse gas emissions by 43% below 2005 levels by 2030

Each Australian state has stated or made a commitment to reach net zero by 2050, or earlier. In addition to Australia's 2030 emissions reduction target of 43 per cent below 2005 levels, each state has also set interim emissions reduction targets by 2030:

**NSW: 50%; Victoria: 50%; Queensland: 30%; South Australia: at least 50%;
Western Australia: 80% below 2020 levels; ACT: 65-75% (on 1990 levels);
Tasmania: achieved net zero in 2015.**

On 16 June 2022, Australia lodged an updated Nationally Determined Contribution (NDC) with the United Nations Framework Convention on Climate Change (UNFCCC) secretariat. The updated NDC commits Australia to a more ambitious emissions reduction target of 43 per cent below 2005 levels, and reaffirms Australia's commitment to net zero emissions by 2050.

Source: State government websites

Australia's Emissions Strategies and Plans

Recent updates

The new Department of Climate Change, Energy, the Environment and Water (DCCEEW) was established on 1 July 2022. It has two senior ministers: Minister for Climate Change and Energy and the Minister for the Environment and Water.

The Government's Climate Change Bill passed the Senate in September 2022 and is now law. The Bill:

- outlines Australia's greenhouse gas emissions reduction targets of a 43% reduction from 2005 levels by 2030 and net zero by 2050
- requires the minister to prepare and table an annual climate change statement
- requires the Climate Change Authority to give the minister advice in relation to the annual statement and future greenhouse gas emissions reduction targets
- provides for periodic reviews of the operation of the Act.

Australia's Emissions Strategies and Plans

Australia's key strategies

Rewiring the Nation (RWN) – The government plans to invest $20 billion to rebuild and modernise Australia's electricity network via its Rewiring the Nation plan. (Powering Australia Plan)

- RWN will upgrade Australia's energy grid to allow and grow the renewables share of the National Electricity Market (NEM) to 82% by 2030. The government will:
  - Invest $224 million in 400 community batteries across the nation to maximise benefits of roof top solar
  - Invest $102 million to deliver 85 solar banks around Australia for households unable to access rooftop solar.
- **National Electric Vehicle Strategy –** the government has commenced a consultation. The EV strategy will:
  - encourage a rapid increase of EVs in Australia by making them more accessible and affordable.
  - establish and support the infrastructure to support EV use
  - Establish a $500 million Driving the Nation Fund
- **The National Reconstruction Fund (NRF)** is the government's plan to build Australia's industrial base. Up to $3 billion from the $15 billion NRF will be directed toward clean energy investment such as:
  - Wind Turbine Manufacturing
  - Battery and Solar panel supply chain and manufacturing
  - Modernising steel and aluminium manufacturing
  - Hydrogen Electrolysers
  - Bioenergy and bio mass
  - Innovative packaging solutions for waste reduction

Australia is pursuing the majority of its climate, emissions, energy and technology polices and initiatives through the following government departments

Key Government Agencies

- Department of Climate Change, Energy, the Environment and Water (DCCEEW)

  The following agencies report to DCCEEW

  - Australian Energy Market Operator (AEMO)
  - Clean Energy Regulator (CER)
  - Clean Energy Finance Corporation (CEFC) world's biggest 'green bank'
    Clean Energy Innovation Fund
  - Australian Renewable Energy Agency (ARENA)
  - The Climate Change Authority
  - Bureau Of Meteorology
- Department of Industry, Science and Resources (DISR)
  - CSIRO Climate Science Centre
- Department of Agriculture, Fisheries and Forestry (DAFF)
- Department of Foreign Affairs and Trade (DFAT)

Progress Reporting

- Emissions Reporting
  - Quarterly Update of Australia's National Greenhouse Gas Inventory
  - National Greenhouse Gas Inventory – Paris Agreement Inventory
  - State and Territory Greenhouse Gas Inventories
  - National Inventory by Economic Sector
  - Australia's National Inventory Report
- National Greenhouse and Energy Reporting Scheme (NGERS) (CER)
- Quarterly Carbon Market Report (CER)

Progress towards Climate Change Commitments

Australia's climate change commitments include:

The Paris Agreement.

Australia submitted its revised National Determined Contribution (NDC) to the UNFCCC in June 2022.

This included:

- Reaffirming a target of net zero emissions by 2050.
- Committing to reduce Greenhouse gas emissions by 43% from 2005 levels.
- Committing to providing an annual statement to parliament on progress towards these targets.

Paris Agreement Emissions Reduction Target:

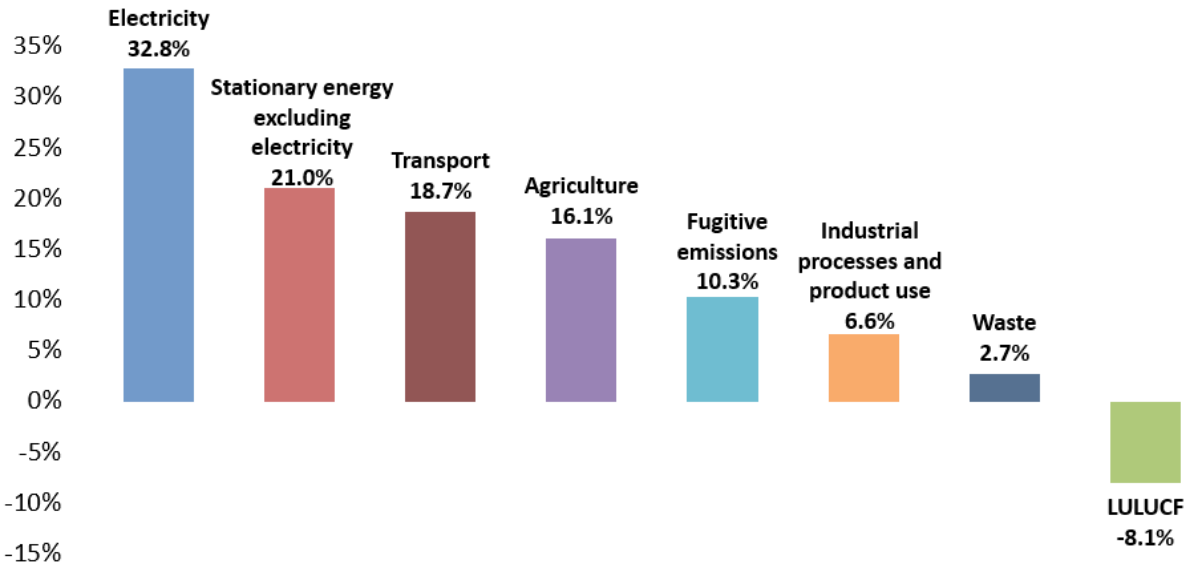
- To reduce emissions by the above levels Australia will need to reduce emissions to around 350mt CO2-e.
- Australia will not use over-achievement (otherwise known as carryover) from its 2020 and Kyoto Protocol targets to meet its Paris Agreement targets.

Progress to date

Emissions Reduction Target:

- The National Greenhouse Gas Inventory Quarterly Update March 2022 shows Australia's annual emissions at **487mt CO2-e, 21.6% lower than 2005 levels.**
- The 1.5% or 7.4 Mt CO2-e increase in emissions over the year to March 2022 reflects annual increases in transport, agriculture and stationary emissions; offset by a reduction in the electricity sector.

Share of total emissions by sector for the year to March 2022



Source: Department of Climate Change, Energy, the Environment and Water

Progress towards Climate Change Commitments cont .....

Domestic programs:

The Clean Energy Regulator manages a number of programs aimed at accelerating carbon abatement. These include:

The large scale Renewable Energy Target (LRET)

- Encourages investment in large scale renewable power stations. CER hit its 2020-2030 target of 33000 GWh in Jan 2021.
- The CER continues to support large scale renewable projects.

The small scale renewable energy scheme (SRES):

Encourages the adoption of small scale renewables such as household PV and solar water heaters.

Australia has the highest uptake in the world of rooftop solar, with over 3 million solar systems (1 in 3 households) installed across Australia.

Safeguard Mechanism

The Safeguard Mechanism requires Australia largest greenhouse gas emitters to keep their net emissions below an emissions baseline.

The SM applies to all facilities that emit more than 100k tonnes of CO2e a year. Only Scope 1 emissions count towards the facilities compliance.

About 215 large industrial facilities are covered by the SM. These facilities contribute 28% of national emissions.

The SM is currently under review with an Amendment Bill planned in 2022

- The Clean Energy Finance Corporation (CEFC) is the world's largest government owned 'green bank' and has mobilised over $10.7 billion for clean energy projects with a total value of around $37.2 billion.
- Australian Renewable Energy Agency (ARENA) has contributed $1.9 billion in funding to 628 renewable energy projects with a total value of over $8 billion since 2012.

International Climate Framework

Australia is a member of many international working parties on climate change, partnerships and related agreements:

Australia will be participating in COP 27 at Sharm El Sheik in November 2022

- **Paris Agreement (joined in 2016)**, Kyoto Protocol (signed 1998, ratified in 2007) & Cancun Pledge (2010)
    - United Nations Framework Convention on Climate Change (UNFCCC)
    - Latest submission to UNFCCC NDC Registry June 2022
    - Intergovernmental Panel on Climate Change (IPCC)
- Asia-Pacific Rainforest Partnership
- International Partnership for Blue Carbon
- International Coral Reef Initiative
- Global Oceans Alliance
- Mission Innovation (global clean energy initiative)
- Leadership Group for Industry Transition (committed to achieve the Paris Agreement)
- International Solar Alliance
- At the G7 Summit in June 2021, Australia joined the High Ambition Coalition for Nature and People.

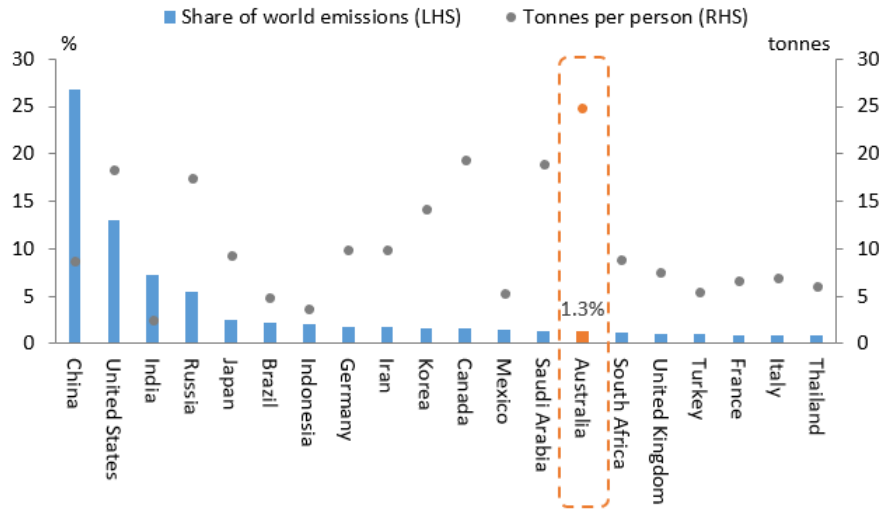
Australia's Bilateral Technology Agreements

Recently finalised:

- Australia - Japan Partnership on Decarbonisation
- Australia - Germany Hydrogen Accord
- Australia - Singapore establishment of a $30 million partnership to accelerate the deployment of low emissions technology fuels and technologies
- Australia-UK partnership to drive low emissions solutions
- Australia-Republic of Korea Low and Zero Emissions Technology Partnership
- Australia - Fiji partnership on high integrity carbon offsets to reduce emissions
- Australia - Indonesia Joint Statement on Cooperation on the Green Economy and Energy Transition
- Australia - Papua New Guinea work together on carbon offsets
- Australia - Vietnam Joint Statement on Commitment to Practical Climate Action and Enhanced Economic Engagement Strategy.

Australia's Progress towards Climate Change Commitments

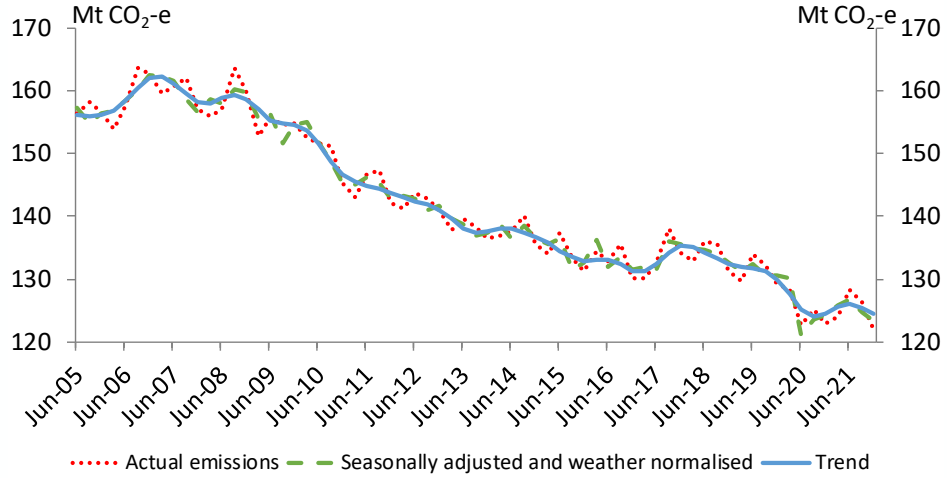
20 largest greenhouse gas emitting countries (ex LULUC)



- Australia produces around 1.3% of global green house gas emission on an annual basis.
- Australia has a revised target of reducing emissions by 43 per cent below 2005 levels by 2030.
- Australia's quarterly emissions have fallen by around 21% since 2005. Australia has reduced its emissions at a faster rate than many similar developed countries.

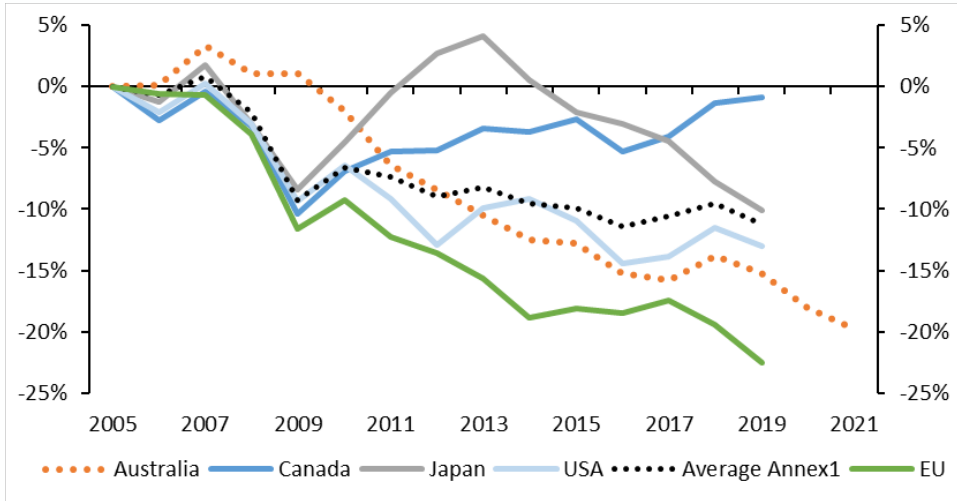
Source: www.climatewatchdata.org; World Bank population (2019)

Australia's decline in quarterly GHG emissions



Source: Department of Climate Change, Energy, the Environment and Water

Australia's decline in GHG emissions since 2005



Source: UNFCCC Annex1 parties. Last inventory year 2019.

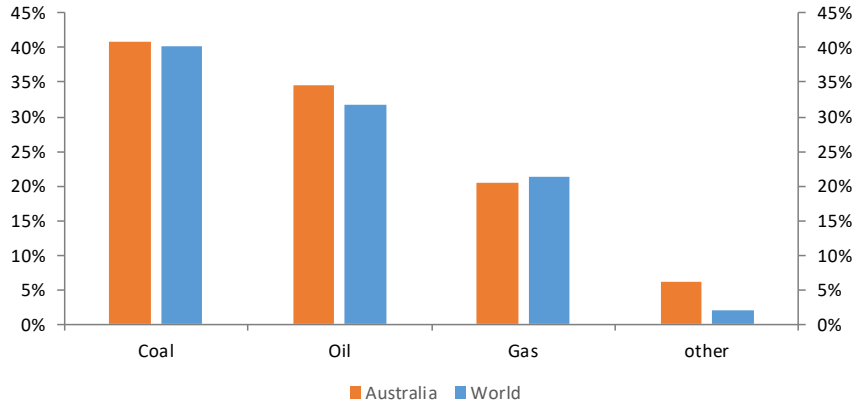
Australia's emissions targets compared to G7

Country	Target
Australia	43% below 2005 levels by 2030
Canada	40-45% below 2005 levels by 2030
France	55% below 1990 levels by 2030
Germany	55% below 1990 levels by 2030
Italy	55% below 1990 levels by 2030
Japan	46% below 2013 levels by 2030
UK	68% below 1990 levels by 2030
USA	50-52% below 2005 levels by 2030

Source: www.climatewatchdata.org

Australia's Progress towards Climate Change Commitments

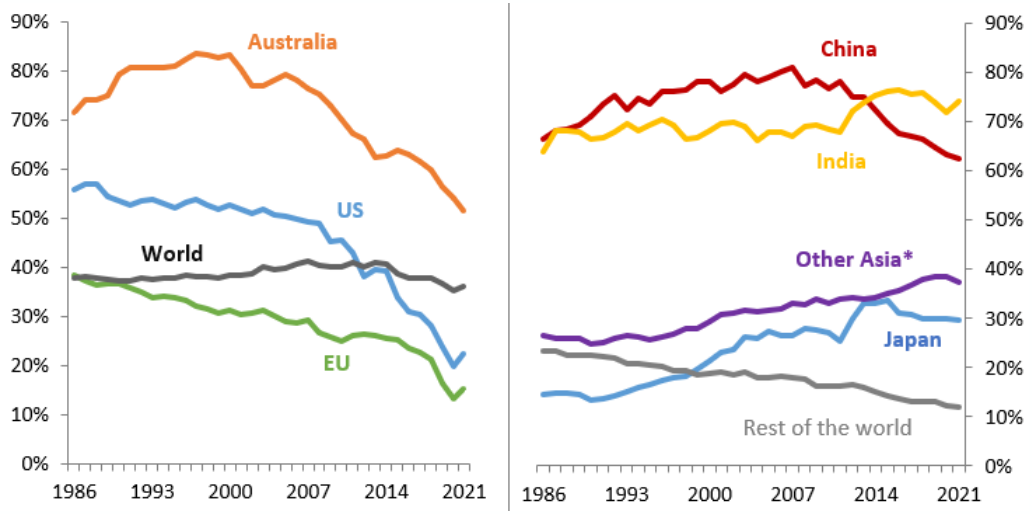
Carbon emissions by fuel source



Source: CAIT Climate Data Explorer via. Climate Watch

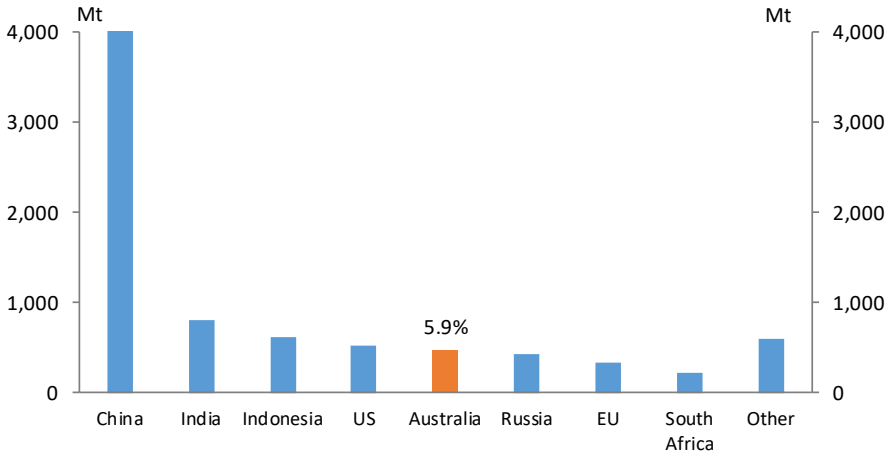
- Australia's overall emissions by fuel source profile is similar to the world average.
- Australia currently generates just over 50% of its electricity from coal, however this proportion is decreasing as the share of renewables increases.

Coal-fired electricity generation as a share of region's total electricity generation



Source: BP statistical review of world energy, June 2022

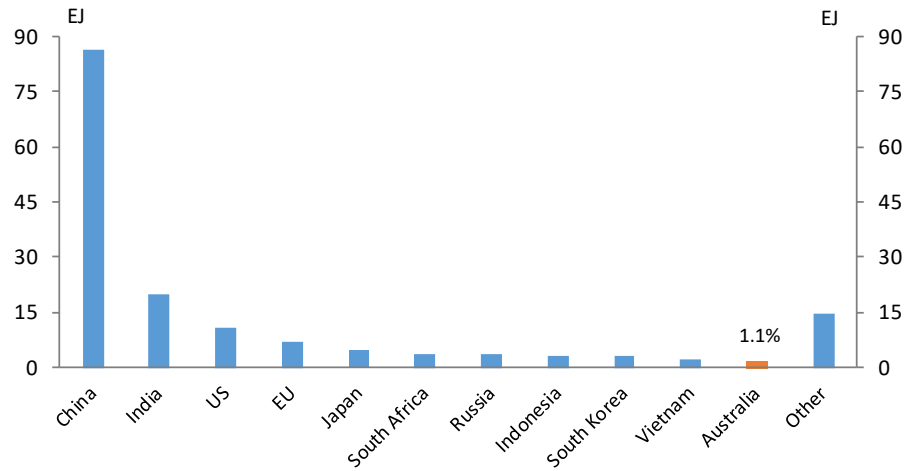
Global coal production (2021)



Source: BP statistical review of world energy, June 2022

- Australia accounts for around 6% of global coal production and around 1% of coal consumption.
- Coal exports comprise a relatively small proportion of global coal production.
- Australia is a significant exporter of coal. It contributes around 20% of thermal coal exports and 50% of metallurgical coal exports.

Global coal consumption (2021)

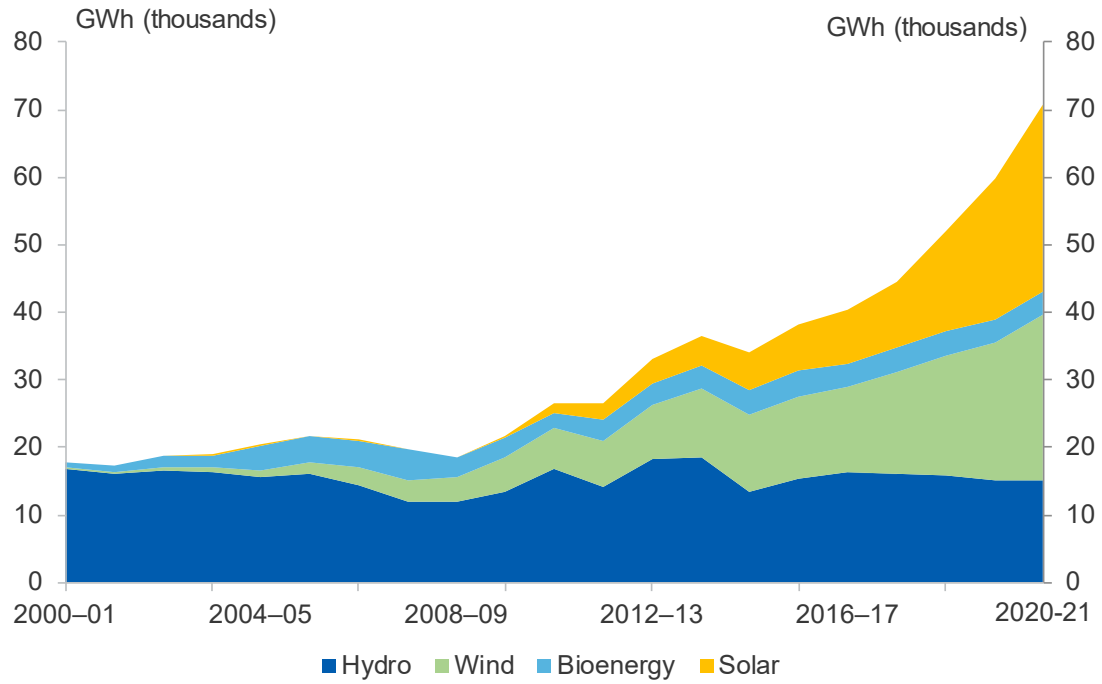


Source: BP statistical review of world energy, June 2022

Australia's technology focus on renewable energy

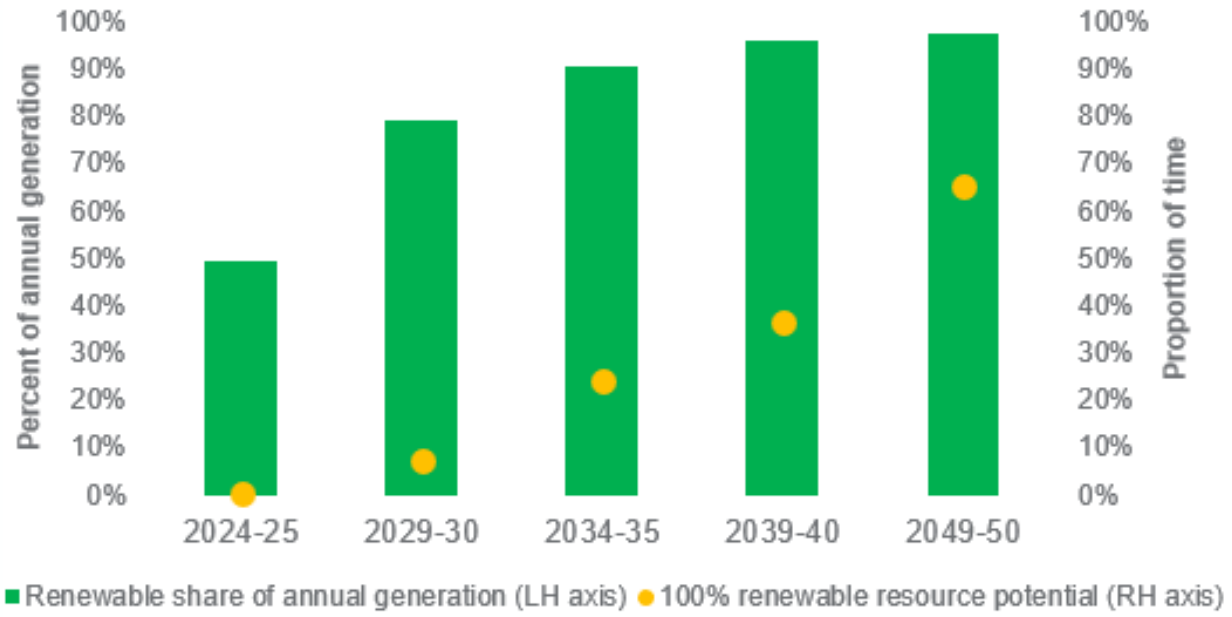
- Australia plans to grow the renewable share of the National Electricity Market to 82 per cent by 2030.
- Australia has the highest uptake of rooftop solar globally, with one in three homes having rooftop solar PV.

Historical electricity generation from renewable sources



Source: Department of Climate Change, Energy, the Environment and Water

NEM annual share of renewable generation and 100% resource potential, 2025-2050 Step Change scenario



Source: AEMO 2022 Integrated System Plan