



Review of Progress to Achieving Targets Under Section 7 of the Climate Change and Greenhouse Emissions Reduction Act 2007

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Executive summary

The Government of South Australia (SA) *Climate Change and Greenhouse Emissions Reduction Act 2007* (the Act) includes as one of its requirements under Section 7 (5) that a report be prepared to assess the extent to which any determination or target made or set under Section 5 of the Act is being achieved and, if it appears relevant, should be revised.

The report that follows is Commonwealth Scientific and Industrial Research Organisation's (CSIRO) independent assessment to meet this requirement. On 27 March 2025, the Act was amended to strengthen requirements around government planning, risk assessment and action on climate change; to amend the objects; and to reflect the updated targets for South Australia. Relevant sections of the Act 2007 can be found in Appendix A.

The Act was amended in March 2025 to update South Australia's legislated climate targets. These include:

- (1) The principal target under this Act (the **SA target**) is to achieve zero net greenhouse gas emissions within the State by 31 December 2050.
- (2) The following are related targets under this Act:
 - (a) to reduce net greenhouse gas emissions in the State to an amount that is at least 60% below 2005 levels by 31 December 2030 (the **2030 target**);
 - (b) to achieve 100% net renewable electricity generation in the State by 31 December 2027 (the **renewable electricity target**).

The purpose of this report is to assess the extent to which the greenhouse gas emissions and renewable electricity targets established under Section 5 of the Act are being achieved and to provide recommendations for revision, if appropriate. In assessing SA's target as required under the Act, the report also analyses current state, national and global greenhouse gas emissions and electricity targets policy relevant to SA.

The Minister is required, on a two-yearly basis, to prepare a report on the operation of the Act. The first report, and thereafter every alternate report, must incorporate a report from the CSIRO that:

- Summarises CSIRO's assessment of the extent to which any determination or target made or set under Part 2 of the Act is being achieved and, if it appears relevant, should be revised; and
- Provides advice on the method for calculating the 2005 baseline for the greenhouse gas target consistent with Sections 5 (4) (b) and Section 5 (4) (c) of the Act.

This document reports the assessment of CSIRO in relation to the fifth of these four-yearly reports.

In terms of greenhouse gas emission targets, SA's interim and net zero targets are broadly in line with those of other states and territories, as well as global trends. Additionally, according to data available from the Commonwealth Department of Climate Change, Energy, the Environment and Water, SA's net greenhouse gas emission reduction is 54.9% below 2005 levels in the latest inventory year of financial year 2023. If current trends continue, SA is on track to achieve at least a 60% below 2005 levels by 31 December 2030 (the **2030 target**) and reach net zero greenhouse gas emissions by 31 December 2050.

South Australia's target of achieving 100% net renewable electricity generation by 31 December 2027 is notably more ambitious than targets set by most other Australian jurisdictions and many global counterparts. As of 2024, publicly available data indicates that the state has reached 69.7% net renewable electricity generation.

Continued progress to the target will depend on several factors. These include coordinated power transmission infrastructure development, continued construction and commissioning of renewable electricity generation and energy storage, and the management of technical challenges related to grid integration of variable renewable energy.

Given the pace of progress and the evolving national and international policy landscape, regular review of South Australia's current targets ensure that targets remain credible, science-aligned, and achievable, while continuing to support the state's leadership in clean energy and climate action.

As of FY2023, net greenhouse gas emissions in South Australia have decreased by 54.9% compared to 2005 levels.

- In recent years, energy sector greenhouse gas emissions have been declining mainly due to the increased deployment of large-scale renewable generation and rooftop solar photovoltaic (PV) systems, especially residential based systems.
- Since 2007, net greenhouse gas emissions from Land Use, Land Use Change and Forestry (LULUCF) have been negative (greenhouse gas emissions sequestered by LULUCF sinks exceeding greenhouse gas emissions from LULUCF sources), contributing to the decline.

As of FY2024, the proportion of South Australian electricity generation from renewables was 69.7%.

- Using data compiled by the Department for Energy and Mining (DEM) and publicly available Australian Energy Market Operator (AEMO) datasets, renewable electricity generation in SA shows a clear and sustained upward trend since 2001.
- In relation to the 100% net renewable electricity generation target, the state generated 69.7 % of its electricity from renewable sources in 2023-2024. DEM calculates progress towards renewable electricity generation targets based on the amount of renewable electricity generated in SA as a proportion of total electricity generated in SA plus net electricity imports from interstate.
- Based on 2023-24 data, SA exported 750 GWh and imported 1,677 GWh of electricity, and gas (fossil fuel) generation in SA was 3,303 GWh.
- SA will need to further increase renewable electricity generation and exports, and reduce gas (fossil fuel) generation to achieve 100% net renewable electricity generation target by 31 December 2027 (the **renewable electricity target**).

Many jurisdictions and nations have, or are considering, legislating long-

- Pledges of net zero greenhouse gas reduction targets are becoming more prevalent. In assessing SA's target as required
-

**term net zero greenhouse
gas emission and renewable
electricity generation targets**

under the Act, CSIRO has done an analysis of other targets set by other Australian jurisdictions and nations.

- The Australian Capital Territory, Victoria, New South Wales, Tasmania, Queensland and SA have legislated long-term net zero greenhouse gas reduction targets. Western Australia is considering legislating their net-zero and interim targets.
 - Achieving the Paris 1.5 °C pathway requires 40–50% emission cuts by 2030 and global net zero emissions by 2050; despite major neutrality pledges, there has been uneven progress globally, rising demand, and record power emissions which highlights an urgent need for acceleration to reduce emissions.
 - International initiatives, including COP28 and IEA/IRENA pathways, urge tripling renewables by 2030; while clean power exceeded 40% of global electricity in 2024, progress remains uneven globally.
 - Australian states and territories show varied progress: some have reached high renewable electricity levels or are on track, such as South Australia, while others lag depending on policies.
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Part I Assessment of targets

1 Greenhouse gas reduction targets (2030 and 2050 targets)

1.1 Current progress

The SA Government amended the *Climate Change and Greenhouse Emissions Reduction Act 2007* (the Act) (amended on 27 March 2025) to include the following emissions targets:

- The principal target under the Act (the **SA target**) is to achieve zero net greenhouse gas emissions within the State by 31 December 2050
- An interim target to reduce net greenhouse gas emissions in the State to an amount that is at least 60% below 2005 levels by 31 December 2030 (the **2030 target**).

For the purposes of the Act, the target pertaining to “... *greenhouse gas emissions in the State*” requires the establishment of the SA greenhouse gas inventory as a time series from the base year 2005.

Under the Act, net greenhouse gas emissions refer to greenhouse gas emissions after:

- a) determining the amount of total greenhouse gas emissions attributable to the State, including any removals of greenhouse gas emissions from the atmosphere due to activities within the State; and
- b) deducting from the amount described above, any emissions offsets from outside of the State.

The Commonwealth Department of Climate Change, Energy, the Environment and Water (DCCEEW) provide annual greenhouse gas emissions data for all states and territories and annually revises the State and Territory Greenhouse Gas Inventories (STGGIs). DCCEEW updates emission factors and methodologies when new information or more accurate methodologies become available, and revises figures back to 1989-90 to ensure time series consistency. Re-calculation is an obligation under the United Nations Framework Convention on Climate Change (UNFCCC).

For this reason, historical greenhouse gas emissions data may change. The progress to target is assessed using the latest data available. The latest inventory year that is available is for financial year 2023 (1 July 2022 to 30 June 2023). Table 1-1 presents total net greenhouse gas emissions in kilotonnes (kt) of carbon-dioxide equivalent (CO₂-e) for SA for recent selected years relative to the 2005 baseline. These emissions estimates are reported using the UNFCCC classifications. The South Australian Government monitors progress against the legislated 2050 target consistent with the Australian Government’s Paris Agreement targets.

Table 1-1 SA net greenhouse gas emissions, 2005-2023, selected years

	2005	2019	2020	2021	2022	2023
Total net greenhouse gas emissions with land use, land-use change and forestry (ktCO₂-e)	36,063	22,545	23,789	19,695	15,936	16,257
Change since 2005 (%)	-	-37.5	-34.0	-45.5	-55.8	-54.9

Source: DCCEEW (data tables downloaded from <https://www.greenhouseaccounts.climatechange.gov.au/> [accessed 19 September 2025])

The SA greenhouse gas Inventory shows that net greenhouse gas emissions have decreased by **54.9%** under the UNFCCC methodology by 2023 compared to 2005 levels.

Figure 1-1 presents total greenhouse gas emissions by headline category for SA since 2005. There has been significant movement in both the energy component and LULUCF emissions over that period. In recent years, energy sector greenhouse gas emissions have been declining mainly due to the increased deployment of large-scale wind and solar generation and distributed rooftop solar PV systems, especially residential based systems. Coal-fired power generation in SA ceased in May 2016 with the closure of the 546 MW Northern power station and the 240 MW Playford power station. Additionally, between 2018 and 2024, SA's energy generation mix has shifted markedly, with gas-powered generation falling from almost 52% to around 24%, while renewable generation has risen significantly (AEMO 2024). Fuel combustion in manufacturing industries has also declined, and fugitive emissions have remained nearly flat over the last five years. In contrast, transport sector greenhouse gas emissions have shown some moderate growth over the period, apart from a reduction during the COVID-19 pandemic.

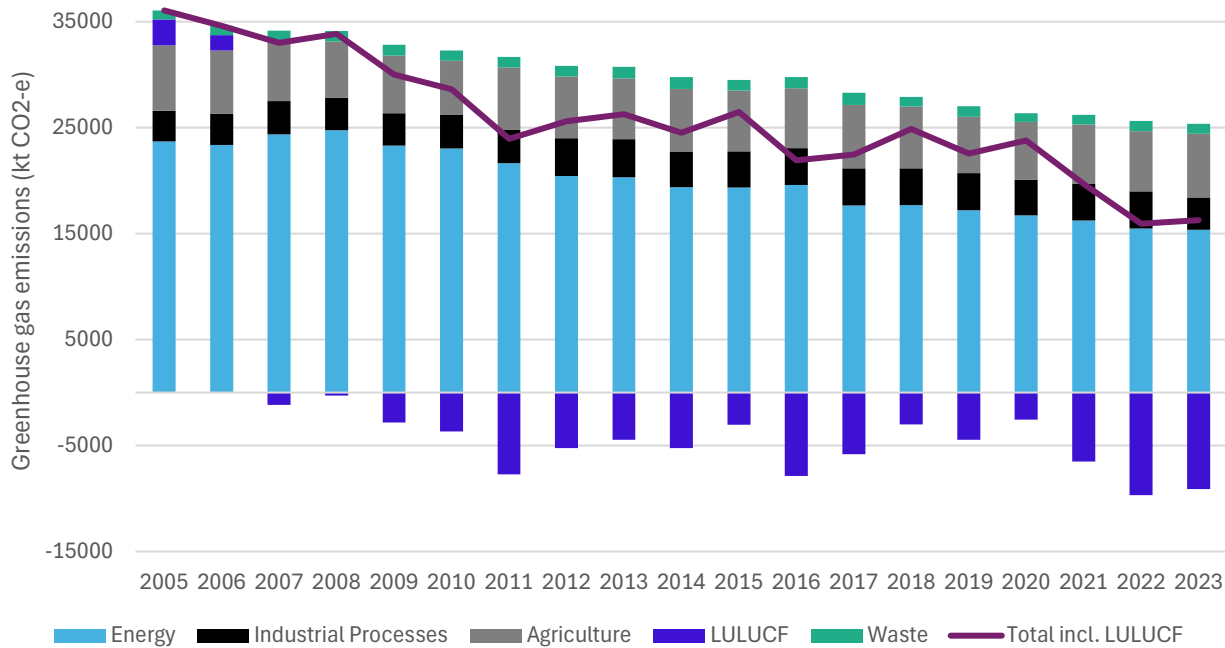


Figure 1-1: Greenhouse gas emissions by headline category for South Australia since 2005

Source: DCCEEW (data tables downloaded from <https://www.greenhouseaccounts.climatechange.gov.au/> [accessed 21 September 2025])

1.2 Progress towards the 2030 target by 31 December 2030 and the SA target by 31 December 2050

Assessing SA’s progress toward the SA target of achieving zero net greenhouse gas emissions target by 31 December 2050 remains challenging, given the significant uncertainties around technological change, future state and national policies, investment behaviour, and their effects on consumer demand. Nevertheless, the state has already achieved a 54.9% reduction in net greenhouse gas emissions from 2005 levels (based on the latest inventory year). If the current trajectory continues, SA is on track to achieve its interim target of at least 60% below 2005 levels by 31 December 2030 (the **2030 target**).

As of May 2025, the status of greenhouse gas reduction targets in the Act is as follows.

Table 1-2 Status of the SA target and the 2030 target

Target	Status
To achieve zero net greenhouse gas emissions within the State by 31 December 2050.	A 54.9% reduction in net greenhouse gas emissions from 2004-05 levels was achieved in 2022-23 (no offsets were used from outside the State).
To reduce net greenhouse gas emissions in the State to an amount that is at least 60% below 2005 levels by 31 December 2030.	SA will need to reduce approximately a further 5% to achieve the net emissions reduction target of at least 60% by 2030.

2 Renewable electricity target

2.1 Current progress

The renewable electricity target under the Act is “to achieve 100% net renewable electricity generation in the State by 31 December 2027 (the **renewable electricity target**).” The Department for Energy and Mining (DEM) calculates progress towards the renewable electricity target based on the amount of renewable electricity generated in SA as a proportion of total electricity generated in SA plus net electricity imports from interstate.

As of May 2025, the status of renewable electricity targets as stated in the Act is as follows:

Table 2-1 Status of renewable electricity targets

Target	Status
To achieve 100% net renewable electricity generation in the State by 31 December 2027 (the renewable electricity target).	In 2023-24, SA exported 750 GWh and imported 1,677 GWh of electricity and gas (fossil fuel) generation in SA was 3,303 GWh. SA will need to further increase renewable electricity exports and reduce gas (fossil fuel) generation to achieve the 100% net renewable electricity generation target.

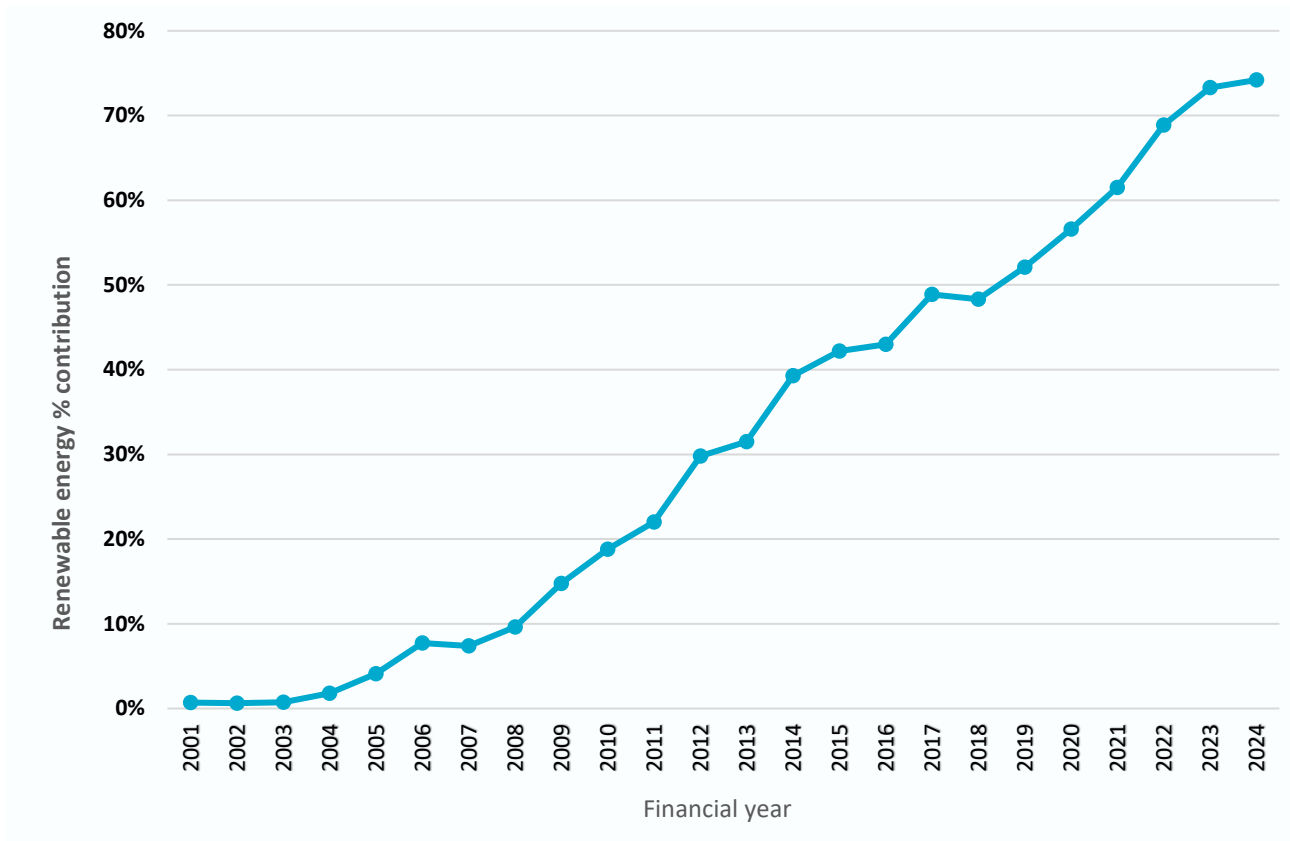
DEM uses adjusted data from the AEMO South Australian Electricity Report (SAER) to calculate renewable electricity generation from wind, solar, and small non-scheduled renewable generation. The renewable component of the small non-scheduled generation figure is not published by AEMO in the SAER.

The Australian Energy Market Operator (AEMO) reports SA’s energy registered capacity and generation figures for 2023-24¹. According to AEMO, SA generated 10,400 GWh of renewable electricity in 2023-24. The share of total gross South Australian renewable electricity generation for the 2023-24 year was 74.3% (noting this figure includes DEM adjusted data).

In relation to the 100% net renewable electricity target, the percentage of generation for 2023-2024 was 69.7% (noting this figure includes DEM adjusted data). This assessment of progress considers electricity flows between the states. SA exported 750 GWh of electricity and imported 1,677 GWh, resulting in net energy imports of 927 GWh.

Based on the data published by AEMO, the proportion of renewable electricity generation has increased significantly over recent years (Figure 2-1). Since 2001, there has been an upward trend of renewable electricity generation in SA.

¹Australian Energy Market Operator (AEMO) South Australian Electricity Report, December 2024.



Source: Department for Energy and Mining²

Figure 2-1: SA renewable energy % contribution, 2001-2024

The generation data in Figure 2-1 shows that the proportion of SA's electricity generation that was generated using renewables in 2024 was 74.3% (gross share).

2.2 Progress towards 100% net renewable electricity generation by 31 December 2027

South Australia has rapidly transitioned from less than 1% renewable electricity generation share in 2001 to about 74.3% in 2023–24 in terms of gross generation. Wind and solar now regularly supply all state demand for short periods, demonstrating high levels of integration. Furthermore, progress towards SA's legislated target of 100% net renewable electricity generation by 31 December 2027 reached 69.7% in 2023–24, indicating continued advancement toward the goal.

Reliability remains a challenge, with gas-fired generation providing essential firming capacity. Achieving 100% net renewables by 31 December 2027 refers to the annual balance, where excess renewable output is exported and imports are used during shortfalls. To support this transition, SA is investing in renewable electricity generation, utility-scale batteries, grid-stability measures, and

² DEM uses adjusted data from the Australian Energy Market Operator (AEMO) South Australian Electricity Report (SAER) to calculate renewable energy generation from wind, solar, and small non-scheduled renewable generation. The renewable component of the small non-scheduled generation figure is not published by AEMO in the SAER.

the development of hydrogen and related products such as low-carbon sustainable aviation fuels (DEW 2024; AEMO 2024).

As of October 2024, there was 163 MW of utility solar generation and 209 MW of wind generation in commissioning, and 204 MW of committed wind generation. There is also the anticipated retirement of Torrens Island B power station (800 MW) in 2026, and Osborne Power Station (180 MW) in 2027. In addition, the planned completion of the Project EnergyConnect interconnector in 2026, will enable increased sharing of electricity between New South Wales and SA, potentially increasing renewable energy exports. Unexpected delays in the final commissioning of these generation, storage and transmission projects, which would delay the retirement of existing fossil fuel generation, present the main challenge to achievement of the renewable electricity target.

Part II Revisions of targets

3 Greenhouse gas emission reduction targets

3.1 South Australia targets

The main aim of the “Paris Agreement” is to limit global average temperature rise this century to well below 2°C and to pursue efforts to limit the temperature increase even further to 1.5°C above pre-industrial levels. The revision to Section 5 of the Act, includes a target of reducing net greenhouse gas emissions to at least 60% below 2005 levels by 2030, and zero net emissions by 2050.³ The information below indicates this target is consistent with global trends in country targets and with other Australian states and territories.

3.2 State and territory targets

Australia’s states and territories have taken significant steps to address climate change by setting ambitious emissions reduction targets and, in many cases, legislating a clear pathway to net zero by 2050 (Table 3-1). Nearly all jurisdictions, including the Australian Capital Territory, Queensland, South Australia, Tasmania, and New South Wales, have now embedded their targets in legislation, creating a more concrete and enforceable framework for emissions reduction. At the time of writing, the Northern Territory and Western Australia remain the only jurisdictions without legislated targets. Notably, the Northern Territory has removed the existing unlegislated interim target of a 43% emissions reduction by 2030.

Table 3-1 State/Territory net zero greenhouse gas emission targets

Jurisdiction	Net Zero Target Year	Interim Targets	Legislative status	Review Process	Limits on offsets
Australian Capital Territory	2045	Reduction from 1990 levels: 2025: 50 to 60% 2030: 65 to 75% 2040: 90 to 95% by 2040	<i>Climate Change and Greenhouse Gas Reduction Act 2010</i>	<ul style="list-style-type: none"> — Independent report about greenhouse gas emissions and progress to target every year — Review of Act after 10th year of operation 	Yes - Offsets must be located within Australia
New South Wales	2050	Reduction from 2005 levels: 2030: 50% 2035: 70%	<i>Climate Change (Net Zero Future) Act 2023</i>	Independent report about greenhouse gas emissions and progress to 2030 and 2050 targets every 5 years after the first review	No limit specified in the Act (but allows for the use of offsets to meet the state's emissions targets)
Northern Territory	2050	N/A	Not legislated	N/A	Yes - The Minister may establish an environmental offsets framework for the use of environmental offsets under EP Act

³ Net zero emissions means that any remaining greenhouse gas emissions, after emissions are reduced, are balanced out by removal of an equivalent amount of carbon through additional carbon storage or carbon credits generated from a range of emissions reduction activities.

Jurisdiction	Net Zero Target Year	Interim Targets	Legislative status	Review Process	Limits on offsets
					or an Act prescribed by regulation.
Queensland ⁴	2050	Reduction from 2005 levels: 2030: 30% or more 2035: 75% or more	<i>Clean Economy Jobs Act 2024</i>	An annual independent review of progress to targets by an expert panel.	No limit specified in the Act
South Australia	2050	Reduction from 2005 levels: 2030: at least 60% net greenhouse gas emission	<i>Climate Change and Greenhouse Emissions Reduction 2007 Act (amended in 2025)</i>	Minister is required, on a two-yearly basis, to prepare a report on the operation of the Act	Yes – any greenhouse gas emissions removals from the atmosphere due to activities within the state and offsets from outside of the state
Tasmania	2030	N/A	<i>Climate Change (State Action) Act 2008 (amended in 2022)</i>	<ul style="list-style-type: none"> — Annual publication on state-wide greenhouse gas emissions — An independent review of the Act and its effectiveness on a four-yearly basis 	No limit specified in the Act
Victoria	2045	Reduction from 2005 levels: 31 December 2025: 28-33% 31 December 2035: 45-50% 31 December 2035: 75-80%	<i>Climate Action Act 2017</i>	Annual report on the state’s greenhouse gas emissions, which also includes progress towards interim targets	No limit specified in the Act (but allows for the use of eligible offsets as a flexible mechanism to achieve its targets)
Western Australia	2050	Reduction from 2020 levels: 2030: 80%	Not legislated (committed only by WA Climate Policy) ⁵	N/A	Yes – may take into account eligible offsets for the purpose of determining net emissions attributable to WA.

⁴ The recently elected Queensland Government has committed to reach net zero by 2050, with the target to reduce carbon emissions by 75 per cent by 2035 under review.

⁵ Western Australian Climate Policy [accessed 24 September 2025]

3.3 National target

Australia has legislated a target of net-zero greenhouse gas emissions by 2050.

To support this goal, the government has adopted a 2035 target of reducing emissions by 62–70% below 2005 levels, based on independent advice from the Climate Change Authority under the Climate Change Act 2022 (CCA, 2025).

Under the Paris Agreement, Australia and all other parties must submit emissions reduction commitments through Nationally Determined Contributions (NDCs)⁶ to the UNFCCC every 5 years.

Australia’s latest NDC was submitted in September 2025 following the recent government announcement.

3.4 Global targets

The global transition toward net zero emissions is well underway. According to DCCEEW, more than 84% ⁷of global gross domestic product (GDP) is now covered by net zero commitments. The Paris Agreement commits nations to limit global warming to well below 2 °C, with efforts to pursue 1.5 °C (UNFCCC). The Intergovernmental Panel on Climate Change (IPCC) indicates that achieving the 1.5 °C goal requires global emissions to decline by 40–50% from 2010 levels by 2030 and to reach net zero around mid-century. Many major economies, including the EU and the UK, have also strengthened their mid-century carbon neutrality pledges and they continue to lead the world on climate action with ambitious and legislated emission reduction targets (CCA 2025). The Table 3-2 below summarises the emission reduction targets adopted by selected countries and jurisdictions.

Table 3-2 Australia’s top 2-way trade and investment partners’ positions on global emission targets

Jurisdiction	Net-zero target year	Interim targets	Comments
European Union (EU)	2050	90% reduction on 1990 levels by 2035 (proposed, 2024) (IEA 2025; Ember 2025)	European Climate Law (legally binding) The EU has ambitious and legislated emissions reduction goals, paired with a carbon border adjustment mechanism (CBAM) that aims to cover 50% of the emissions included in the EU Emissions Trading System (CCA 2025).
United Kingdom (UK)	2050	81% reduction on 1990 levels by 2035 (CCA 2025)	Legally binding under <i>Climate Change Act 2008</i>
United States (US) ¹	2050	52-60% below 2005 (indicative, not yet legislated) Executive Order (non-binding); IRA 2022 incentives	Inflation Reduction Act 2022 was the central policy lever. However, With the Trump Administration now in government in the US, it is unclear to what extent the positive momentum brought about by the IRA will be sustained or stalled.

⁶ International climate action - DCCEEW

⁷ On the first day of his second term, President Trump signed an executive order to withdraw the United States from the Paris Agreement. The withdrawal process takes one year, meaning the U.S. will formally exit in January 2026. This action is expected to reduce global GDP coverage under national net zero commitments to around 74–77 %, unless subnational and corporate pledges help offset the decline.

Japan	2050	46% by 2030, 60% by 2035 and 73% by 2040 on 2013 levels (CCA 2025)	Legislated net zero target and interim targets
South Korea	2050	40% below 2018 levels by 2030	- Legislated net zero and interim targets - Set to announce new interim targets for 2035 in coming months (CCA 2025)
China	2060	Peak carbon emissions before 2030	- Not legislated - Set to announce new interim targets for 2035 in coming months (CCA 2025)
India	2070	45% below 2005 levels	- Not legislated - Pledged net zero target by 2070 in COP26 Summit in 2021 - Set to announce new interim targets for 2035 in coming months (ref: CCA)
New Zealand	2050	- 50% below gross 2005 levels by 2030 -51–55% below gross 2005 levels by 2035 (submitted)	- Legislated net zero target - This net zero target is for greenhouse gases, other than biogenic methane - Biogenic methane is targeted to reduce by 24–47% below 2017 levels by 2050 (CCA 2025).
Canada	2050	45–50% reduction below 2005 levels by 2035 excluding land sector (CCA 2025)	Legislated net zero target (CCA 2025)

4 Renewable electricity targets

4.1 South Australia targets

South Australia's Climate Change Act sets a target of 100% net renewable electricity generation by 31 December 2027. DEM calculates progress towards the renewable electricity target based on the amount of renewable electricity generated in South Australia as a proportion of total electricity generated in South Australia plus net electricity imports from interstate.

Based on 2023-24 data, South Australia exported 750 GWh and imported 1,677 GWh of electricity, and gas-fired generation in South Australia was 3,303 GWh. SA's target of achieving 100% net renewable electricity generation by 31 December 2027 is significantly more ambitious than those set by most other Australian jurisdictions and many international counterparts. As of 2024, publicly available data indicates that the state has achieved 69.7% net renewable electricity generation, reflecting substantial progress toward the target.

Sustaining this trajectory will require continued effort across several key areas. These include the coordinated expansion of electricity transmission infrastructure, ongoing development and commissioning of renewable generation and energy storage projects, and effective management of technical challenges associated with integrating variable renewable energy into the grid. The pace and success of these activities will be critical in determining whether the target of 100% renewable electricity generation by 31 December 2027 can be achieved as planned.

4.2 State and territory targets

State and Territories have also introduced legislated or non-legislated renewable electricity targets. These are summarised in Table 4-1 below.

Table 4-1 State/Territory renewable energy targets

Jurisdiction	Targets	Legislative status	Generation target	Consumption target	DER in target
Australian Capital Territory	Maintain 100% (since 2020)	<i>Electricity Feed-in (Large-scale Renewable Energy Generation) Act 2011 (ACT)</i>	No ¹	Yes ¹	Yes
New South Wales	No % target	<i>Electricity Infrastructure Investment Act 2020 (NSW)</i> <i>NSW Climate Change (Net Zero Future) Bill passed in December 2023, enshrining the state's energy transition targets into law</i>	Yes: 33,600 GWh by 30 June 2030 Capacity targets by 2030: Additional 12 GW renewable generation and 2 GW long-duration storage (≥ 8 hours).	N/A	No
Northern Territory	Formerly 50% by 2030 target—scrapped in March 2025	Not legislated (NT Climate Change Response: Net-Zero by 2050)	No	No	N/A
Queensland²	50% by 2030 70% by 2032 80% by 2035	Energy (Renewable Transformation and Jobs) Act 2024	No	Yes	Yes
South Australia	100% net renewable electricity generation by 31 December 2027	<i>Climate Change and Greenhouse Emissions Reduction Act 2007</i> Amended in March 2025	Yes (net over a year)	No	Yes
Tasmania	100% by 2022 (achieved) 150% by 2030 200% by 2040	<i>Energy Co-ordination and Planning Amendment (Tasmanian Renewable Energy Target) Act 2020 (TAS)</i>	Yes	No	Yes
Victoria	40% by 2025 65% by 2030 (previously 50% by 2030) 95% by 2035	<i>Renewable Energy (Jobs and Investment) Act 2017(amended) (VIC)</i>	Yes	No	Yes
Western Australia	No % Target	N/A	N/A	N/A	N/A

Notes:

1. Renewable generation secured by reverse auction under the *Electricity Feed-in (Large-scale Renewable Energy Generation) Act 2011 (ACT)* does not have to be located within the ACT so is effectively a consumption target.
2. These are legislated targets. However, the Queensland government released its Energy Roadmap on 10 October 2025 confirming its intent to repeat the renewable energy target (Queensland Treasury 2025, p.51).

4.3 National targets

Australia's national policy aspires to supply 82% of electricity from renewable sources by 2030, a target that underpins Commonwealth–State agreements and market transition programs. According to the government's announcement in September 2025, the economy-wide emissions reduction ambition is 62–70 % below 2005 levels by 2035, with the electricity sector specifically aiming to exceed 90% renewable supply by 2035.

4.4 Global targets

Under international regimes and scenarios (e.g. the IEA Net Zero by 2050 pathway, the COP28 pledge to triple renewable capacity, etc.), many nations set aspirational goals for very high shares of renewables in their electricity systems—some targeting full (100 %) renewable electricity or zero-carbon grids by dates. On average, the share of renewables in global electricity production is rising (which exceeded 40% of global generation in 2024) driven by rapid solar and wind growth, but it remains well short of achieving universal high-share benchmarks. The Table 4-2 below summarises the electricity targets adopted by selected major Australian trading partners and jurisdictions.

Table 4-2 Global electricity Target for the major Australian Trading partners

Jurisdiction	Renewable Electricity Target	Legislative Status	Comments
United Kingdom (UK)	100% clean electricity by 2035;	Legally binding under <i>Climate Change Act 2008</i> ⁸	Fossil generation fell 15% in 2024; record offshore wind capacity; zero-coal power achieved in 2024
United States (US)	100% clean electricity by 2035 (federal target)	Inflation Reduction Act 2022 (IRA Executive Order, non-binding) ⁹ ;	Renewables reached 32% of generation in 2024 While the US Government has weakened the IRA, renewable deployment is continuing. For example, California is targeting 100% clean energy by 2045, while Texas has become the leading US state for solar deployment.
Japan	36–38% renewables by 2030;	Green Growth Strategy (2021) and Strategic Energy Plan (2023)	Renewables near 28% of electricity; increasing offshore wind and solar; nuclear restarts underway
South Korea	21.6% renewables by 2030;	Carbon Neutrality Act 2021	Clean share below 10% in 2024; accelerating offshore wind deployment; dependence on LNG persists
China	33% non-fossil energy by 2025; 80% clean electricity by 2060	Incorporated in 14th Five-Year Plan and Carbon Neutrality Strategy	Clean generation met 81% of demand growth in 2024; record solar (+250 TWh) and wind additions; coal demand falling
India	50% cumulative installed capacity from renewables by 2030	National Electricity Plan 2023 (non-binding pledge)	India is working towards installing 500 GW of zero-emissions electricity capacity by 2030: greater

⁸ Climate Change Act 2008

⁹ IRA was the central policy lever. However, With the Trump Administration now in government, it is unclear to what extent the positive momentum brought about by the IRA will be sustained or stalled

			than the total capacity of the country's grid in 2024.
Indonesia	23% renewables in energy mix by 2025; Net Zero by 2060 or earlier	Presidential Regulation 112/2022; updated NDC	Slow coal phase-down; Just Energy Transition Partnership (JETP) in progress ¹⁰ .
New Zealand	90% renewables by 2025; 100% renewables by 2030	National Policy Statement for Renewable Electricity Generation 2011 (NPS-REG); proposed revisions underway Offshore Renewable Energy Bill (2024)	New Zealand generates 86% of its energy demand through renewables and has a nationwide emissions trading scheme. Achieving 100 % renewable generation by 2030, however, remains aspirational and depends on accelerating new capacity (especially wind and solar), upgrading transmission infrastructure, and ensuring system flexibility.
Canada	90% non-emitting by 2030	Federal target (legislated);	85% clean electricity share in 2024; hydro dominant, expanding solar/wind
European Union (EU- 27)	≥69% renewable electricity by 2030	<i>European Climate Law</i> (legally binding) (IEA 2025; Ember 2025)	Renewables surpassed fossil generation in 2024. The EU has ambitious and legislated emissions reduction goals, paired with a carbon border adjustment mechanism (CBAM) that aims to cover 50% of the emissions included in the EU Emissions Trading System (CCA 2025).

¹⁰ Indonesia Ministry of Energy and Mineral Resources. (2022). Presidential Regulation No. 112/2022 on Renewable Energy & Indonesia - Countries & Regions - IEA

Appendix A

A.1 Part 2 of the Climate Change and Greenhouse Emissions Reduction Act 2007 (the Act)

Part 2 of the *Climate Change and Greenhouse Emissions Reduction Act 2007* (the Act) specifies a principal target to achieve a reduction in greenhouse gas emissions within South Australia, as well as two related targets that promote the generation and use of renewable sources of energy. The Act also instructs the Minister for Climate Change (the Minister) on the operation of these targets. Specifically, the Act states in Part 2:

Part 2 – Targets

5—Targets

(1) The principal target under this Act (the **SA target**) is to achieve zero net greenhouse gas emissions within the State by 31 December 2050.

(2) Two related targets under this Act are—

(a) to reduce net greenhouse gas emissions in the State to an amount that is at least 60% below 2005 levels by 31 December 2030 (the **2030 target**)

(b) to achieve 100% net renewable electricity generation in the State by 31 December 2027 (the **renewable electricity target**)

(2a) Without limiting subsection (3)(c), the Minister must set interim targets under this Act for the reduction of net greenhouse gas emissions in this State to be achieved by—

(a) 31 December 2035; and

(b) 31 December 2040; and

(c) 31 December 2045.

(2b) The setting of an interim target under subsection (2a) must—

(a) be expressed as the extent to which the amount of the State's net greenhouse gas emissions is to be reduced in relation to 2005 levels; and

(b) be such that the interim target set in relation to each date constitutes a greater reduction in net greenhouse gas emissions in the State than a target set in relation to any preceding date (including the 2030 target); and

- (c) include an indicative interim target for the date that next follows the date in relation to which the interim target is being set.

(2c) An interim target under subsection (2a) must—

- (a) in relation to the target to be achieved by 31 December 2035—be set on or before 31 December 2030; and
- (b) in relation to the target to be achieved by 31 December 2040—be set on or before 31 December 2035; and
- (c) in relation to the target to be achieved by 31 December 2045—be set on or before 31 December 2040.

(2d) In setting an interim target under subsection (2a) the Minister must—

- (a) undertake such consultation as the Minister determines to be reasonable and appropriate; and
- (b) have regard to any relevant advice of the Premier's Climate Change Council relating to targets; and
- (c) consider whether zero net greenhouse gas emissions

(3) The Minister may, in connection with the operation of subsections (1), (2), (2a) and (2b) for the purposes of any other provision of this Act—

- (a) determine the method for calculating greenhouse gas emissions for the purposes of setting relevant 2005 levels (the baseline), and then determine a figure that represents that baseline;
- (b) determine the method for calculating any reduction in greenhouse gas emissions;
- (ba) determine the method for calculating the total amount of greenhouse gas emissions attributable to the State, removal of greenhouse gas emissions from the atmosphere and greenhouse gas emissions offsets from outside the State.
- (c) set sector-based targets and additional interim targets.
- (d) set specific baselines for particular areas of activity (as components of the overall baseline);
- (e) make other determinations that assist in measuring greenhouse gas emissions within the State.

A.2 SA greenhouse gas emissions by source and sink category

Table A-1 SA greenhouse gas emissions by source and sink category (levels in kt and change), UNFCCC since 2005

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Energy	23694.3	23370.6	24377.2	24768.7	23303.6	23044.2	21643.7	20445	20326.4	19385.8	19343	19602.6	17653.7	17693.5	17204.8	16715.7	16250.1	15484.3	15352.1
Industrial Processes	2904.1	2924.5	3129.3	3039.2	3070.3	3196.5	3184.8	3559.7	3577.6	3318.8	3407.4	3477.1	3504.9	3473.5	3512.7	3367	3419.8	3504.2	3074.1
Agriculture	6180.5	5992.7	5774.8	5330.9	5431.2	5062.6	5839.9	5816	5759.4	5962.8	5743.4	5640.4	5994.1	5834.8	5302.5	5448.1	5646.2	5673.2	5998.1
LULUCF	2444.1	1448.9	-1172.4	-274.8	-2833.2	-3671.2	-7719.5	-5232.5	-4448	-5246.8	-3027.4	-7863.2	-5807.3	-3021	-4468	-2559.4	-6524	-9693.2	-9111
Waste	839.9	866.8	886.4	981.8	1029	984.2	1007.4	1002.7	1064.7	1093.7	1009.6	1057.8	1130	898	993.1	818.4	902.6	967.2	943.6
Total incl. LULUCF	36062.9	34603.5	32995.3	33845.8	30000.9	28616.3	23956.3	25590.9	26280.1	24514.3	26476	21914.7	22475.4	24878.8	22545.1	23789.8	19694.7	15935.7	16256.9
Change since 2005 (%)	NA	-4	-8.5	-6.1	-16.8	-20.6	-33.6	-29	-27.1	-32	-26.6	-39.2	-37.7	-31	-37.5	-34	-45.4	-55.8	-54.9

Shortened forms

Abbreviation	Meaning
AGEIS	Australian Greenhouse Emissions Inventory System
CO ₂ -e	Carbon-dioxide equivalent
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DEM	SA Department for Energy and Mining
DER	Distributed Energy Resources
DEW	SA Department for Environment and Water
DISER	Department of Industry, Science, Energy and Resources
GW	Gigawatt
GWh	Gigawatt-hour
IEA	International Energy Agency
IRENA	International Renewable Energy Agency
kt	Kilotonnes
LULUCF	Land use, land use change, and forestry
MW	Megawatt
NDC	Nationally Determined Contribution
PV	Photovoltaic
SA	South Australia
SAER	South Australian Electricity Report
STGGI	State and Territory Greenhouse Gas Inventory
UNFCCC	United Nations Framework Convention on Climate Change

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