

South Australia

Starting position

Population	1.7 million (2015)
Gross State Product	\$96,977 million (2013/14)
Country	Australia
Greenhouse gas emissions	29.25 million tonnes CO ₂ e (2012/13)
Emissions per capita	17.2 tonnes CO ₂ e (2012/13)

Overview

In 2007, the state introduced Australia's first climate change legislation, which set a target to reduce emissions by at least 60 per cent of 1990 levels by 2050. The state's net emissions in 2012/13 were nine per cent below 1990 levels, while Gross State Product during the same period increased by more than 60 per cent.

South Australia has now set a more ambitious target – to achieve net zero emissions by 2050. This sends a strong signal that more decisive action is needed to reduce emissions and positions the state for a leading role, nationally and internationally, in the transition to a low carbon economy. *South Australia's Climate Change Strategy 2015-2050* provides a framework for action by all sectors to achieve the net zero emissions target.

South Australia now has a strong suite of targets to guide action over the coming decades:

- achieve net zero emissions by 2050
- achieve \$10 billion in low carbon investment by 2025
- generate 50 per cent of electricity from renewable sources by 2025.
- improve the energy efficiency of government buildings by 30 per cent by 2020
- Adelaide will be the world's first carbon neutral city.

A key focus for future action is the state's plentiful supply of renewable energy. This provides a major opportunity for South Australia to be a low carbon electricity powerhouse and net exporter of renewable energy. As a consequence of our supportive policy and regulatory frameworks, 41 per cent of the state's electricity was generated from renewable sources in 2014/15, including 34 per cent generated from wind energy. South Australia will also build on its proven capacity for innovation to attract further investment in low carbon technologies, positioning the state as a leader in the transition to a decarbonised future.

Specific actions and commitments

Leadership

As co-chair of the States and Regions Alliance, South Australia will continue to demonstrate its leadership to build strong sub-national approaches and influence international dialogue on climate change. The state is the first jurisdiction in Australia where the State Government and a city council have both signed international agreements on climate change. Through the Compact of States and Regions and Compact of Mayors, both parties have made a commitment to report annually on greenhouse gas emissions reduction

targets. In a related initiative, the government will partner with the Adelaide City Council to make Adelaide the world's first carbon neutral city.

South Australia will develop a comprehensive net zero emissions engagement programme to engage industry sectors in the move towards a net zero economy, including consideration of cost-effective abatement opportunities for each sector.

South Australia will continue to advocate a strong position to the Australian Government to ensure that national policy frameworks facilitate effective action. This will include advocating for national regulation and policy that sets a carbon-pricing mechanism and robust, long-term emissions reduction targets.

Low Carbon Electricity

South Australia's Low Carbon Investment Plan will underpin achievement of the target to achieve \$10 billion investment in renewable energy by 2025. South Australia already has a high penetration of renewable energy, with \$6.6 billion invested to date.

The state will use government procurement levers to stimulate investment in renewable technologies. Decarbonising the government's electricity supply will be a priority. Expressions of interest are being sought for innovative proposals that will deliver reliable and affordable low carbon electricity to meet up to 100 per cent of the government's electricity supply. Expressions of interest are also being sought to reduce emissions from the government fleet, with a focus on the use of electric and hybrid vehicles.

There will also be a focus on investigating opportunities for high penetration renewable energy and battery storage solutions in regional centres, facilitating the market penetration of renewable energy, and investigating options to expand the state's renewable energy portfolio to ensure diversification and future grid stability. Solar photovoltaic panels will be installed on 200 low income households in the city and on all newly built Housing Trust properties in 2015/16. Energy storage will be critical to realise the state's net zero emissions goal. To this end, the government will support the development of energy storage solutions including the demonstration of cutting-edge solutions in high profile city buildings.

Energy Efficiency

Energy efficiency is recognised worldwide as the largest opportunity to cost-effectively reduce emissions from the energy sector. South Australia will introduce Building Upgrade Finance (BUF) to help building owners access funds to improve energy, water and environmental efficiency of existing commercial buildings, and stimulate jobs in the clean tech sector. The *Local Government (Building Upgrade Amendments) Amendment Bill 2015* has been introduced to implement the BUF mechanism. South Australia will also work with the Australian Building Codes Board to develop improvements to energy efficiency measures included in the National Construction Code, and other jurisdictions to drive improvements to national appliance standards that will help improve the energy efficiency of buildings.

South Australia has a target to improve the energy efficiency of government buildings by 30 per cent by 2020. To progress this target, the state is developing a new energy efficiency investment program that mandates all State Government agencies to identify and implement energy efficiency upgrade opportunities in government-owned buildings. This is expected to further stimulate jobs and facilitate investment in clean technologies.

Decarbonisation of Transport

The transport sector in South Australia accounts for around 22 per cent of the state's total emissions. The government's *Integrated Transport and Land Use Plan*, released in July 2015, outlines initiatives that will be

progressively implemented to reduce emissions and increase energy efficiency in the transport sector, with a focus on electrification and fuel switching.

Electrification of the metropolitan rail network commenced in 2012 and will continue, with a target to achieve electrification of all lines by 2050. Around 20 per cent of the metropolitan bus fleet uses compressed natural gas with the remainder running on biodiesel. Trials are under way using diesel-electric hybrid buses that improve fuel efficiency by 20 to 30 per cent. The bus network will be reconfigured and modernised, including the development of more rapid transit corridors. The tram network will also be expanded to support higher density living along primary public transport corridors.

The *Low Emission Vehicle Strategy* promotes fuel efficient vehicles and the use of renewable and low emission fuels. The uptake of electric vehicles will be supported through a hybrid-electric car share project in the city. South Australia will continue to invest in, and encourage, cycling and walking by extending and improving cycling and walking networks, installing bicycle boulevards and greenways and delivering behaviour change programs in workplaces, schools and communities to encourage safer and more sustainable travel.

Natural Resources, Waste and Green Infrastructure

The land and forestry sectors in South Australia now provide a significant carbon sink as a consequence of regulatory reforms that ended broadacre vegetation clearance and increased revegetation and plantation forestry. The state has a significant opportunity to build on this abatement potential to develop a profitable offsets industry. To this end, South Australia will explore sequestration opportunities across the state, on land, sea and freshwater environments. We will also consider appropriate policy settings for imposing net zero emissions requirements on all major projects using state-based offset mechanisms, including carbon forestry.

The waste management and recovery sector in South Australia has an annual turn-over of \$1 billion, and contributes \$500 million annually to Gross State Product. The state has the highest per capita recycling rate in Australia with nearly 80 per cent of total waste generated being recovered, and has reduced waste to landfill by 27 per cent since 2003/04. South Australia's new waste strategy includes a target to reduce municipal solid waste to landfill by 70 per cent by 2020.

Investment in green infrastructure will contribute to reducing emissions and building greener, more resilient communities. The Adelaide City Council has launched the *Greener Streets* initiative to install demonstration projects in the CBD involving green walls, more trees and shrubs and rooftop gardens. In a complementary project, the *Living Adelaide* initiative aims to increase and link green infrastructure across wider metropolitan Adelaide.

Adaptation

South Australia's collaborative, regional approach to adaptation is recognised nationally and internationally. Guided by the state's adaptation framework *Prospering in a Changing Climate*, five of the state's 12 regions have completed adaptation plans. The remaining seven regions will complete their plans in 2016. A state wide, whole-of-government action plan will be developed to guide future work and priorities action by government agencies.