

South Australia's

Net Zero Strategy 2024–2030



Acknowledgement of Country

We acknowledge Aboriginal people as the First Peoples and Nations of the lands and waters we live and work upon and we pay our respects to their Elders past, present and emerging. We acknowledge and respect the deep spiritual connection and the relationship that Aboriginal and Torres Strait Islander people have to Country.

We work in partnership with the First Peoples of South Australia and support their Nations to take a leading role in caring for their Country.





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Foreword



South Australia's Net Zero Strategy is a key pillar of the South Australian Government's response to the declaration of a climate emergency by the South Australian Parliament in May 2022. The declaration reaffirmed our commitment to restoring a safe climate by transforming the economy to net zero emissions.

The world is on the path to a greener net zero future. Over 90% of the world's gross domestic product (GDP), and around 88% of global emissions, are now covered by net zero commitments.¹

These substantive reductions in greenhouse gas emissions are required to limit global warming and avert catastrophic climate impacts which have the potential for significant disruption to our economy and society.

Reducing our state's emissions to net zero will be a substantial challenge. It also provides enormous potential to increase the prosperity and quality of life for South Australians. Investment and market changes here and overseas are increasing demand for low or zero emissions goods and services.

South Australia is a world leader in adopting renewable energy and is establishing the state as a world-class renewable hydrogen supplier. Our energy system has transformed from 1% renewable electricity generation in 2007 to 74% in 2023 – almost twice as much as any other mainland Australian state.

South Australia is building on our renewable energy success and local advantages to build new green industries and tackle hard-to-abate emissions beyond the energy sector. We can support decarbonisation beyond our borders by exporting renewable energy and low and zero emissions products, such as green steel and copper.

Recognising the economic opportunities of the global green transition, this Net Zero Strategy is a key initiative under the South Australian Economic Statement.

This strategy outlines the government's objectives, policy priorities, programs and initiatives across sectors to reduce greenhouse gas emissions, harness new economic opportunities and support an equitable and orderly transition to a net zero economy.

The strategy builds on South Australia's already world leading position in tackling greenhouse gas emissions and supporting an economically positive transition to a net zero future for our state. South Australia has already achieved a 57% reduction in emissions from 2005 levels.²

All parts of the economy and society must reduce emissions to reach net zero. The actions in the strategy recognise and build on the significant efforts from industry, business, other governments, researchers, communities, and individuals to reduce emissions and support positive economic and social transformation. Our government will continue to work collaboratively with relevant organisations and individuals to implement this strategy and to encourage further action across our economy and society.

New knowledge, technology and opportunities, unknown now, will continue to emerge over the next 5 years and beyond. The actions in the strategy are just a starting point for the next stage of our journey to a net zero future. The strategy will be reviewed and updated regularly.

Hon Susan Close MP

Deputy Premier
Minister for Climate, Environment and Water



South Australia's Net Zero Strategy: at a glance

The strategy sets out the government's objectives, policy priorities and actions to reduce greenhouse gas emissions for South Australia and improve the prosperity and wellbeing of South Australians. Implementation of the strategy will help achieve South Australia's interim emissions reduction targets and drive progress towards net zero emissions by 2050.

Objectives

4 key objectives will guide government policy priorities and action.



Accelerate emissions reduction across government, business and community

Promote low emissions economic opportunities and support global decarbonisation

Support a sustainable, inclusive and equitable net zero transition

Lead by example through early decarbonisation of South Australian Government operations and infrastructure

Priorities

Sector	Policy Priorities	Sector outcomes
Energy generation  Actions 1.1 - 2.5	<ol style="list-style-type: none">1. Accelerate sustainable development and deployment of renewable energy including energy storage, smart demand management technologies and transmission infrastructure.2. Develop a clean, innovative, safe and competitive hydrogen industry to cut carbon emissions and future-proof energy-intensive industries.	<ul style="list-style-type: none">▪ 100% net renewable electricity generation by 2027.▪ World-leading hydrogen facilities in 2026.▪ Increased renewable energy generation facilitated by a world-leading hydrogen and renewable energy regulatory framework.
Agriculture and land use  Actions 3.1 - 4.5	<ol style="list-style-type: none">3. Support primary producers to innovate, reduce on-farm and value-chain emissions, and benefit from decarbonisation opportunities.4. Scale up carbon farming and natural carbon sequestration options in land and marine environments.	<ul style="list-style-type: none">▪ Increased carbon stored in landscapes.▪ Accelerated uptake of low emissions farm practices.▪ Improved capability for primary producers to measure emissions profiles.

Sector

Policy Priorities

Sector outcomes

Manufacturing and resources



Actions 5.1 - 6.3

5. Assist existing industries to transition, and grow green, low emissions industries that leverage South Australia's comparative advantages.
6. Sustainably develop viable carbon capture and storage capability.

- Industry is supported to transition, grow and access green economic opportunities.
- 3 million tonnes of carbon capture and storage by 2030.

Transport



Actions 7.1 - 9.2

7. Accelerate the transition to low and zero tailpipe emissions vehicles and fuels and develop zero carbon fuel production in South Australia.
8. Align transport and urban planning with low emissions transport outcomes.
9. Support a shift to lower emissions modes of transport, including public transport and active travel.

- Adelaide Metro rail and buses are transitioned to zero tailpipe emissions.
- More electric vehicle (EV) charging infrastructure across the state, including at government-owned or government-leased buildings and at public charging locations.
- 5% blending of sustainable aviation fuel by 2030.
- South Australian transport strategy aligned to net zero emissions.

Built environment



Actions 10.1 - 11.3

10. Support low emissions development, including energy efficiency, lower embodied emissions, electrification and a switch to low emissions fuels and appliances in new and existing buildings.
11. Develop infrastructure to support a low emissions, sustainable economy that capitalises on South Australia's competitive advantages and opportunities.

- Increased energy efficiency in new and existing buildings.
- Public housing energy upgrades.
- A 20-year infrastructure strategy that considers decarbonisation and low emissions infrastructure.

Waste



Actions 12.1 - 12.5

12. Support innovative waste management, recycling and resource recovery to increase circulation of materials and reduce emissions.

- Organics and food waste are used at their highest value.
- Increased circularity of materials.
- Increased capability for households, business and government to implement practices for waste reduction and keeping material in use for longer.

Cross sectoral initiatives



Actions 13.1 - 15.4

13. Support emissions reduction and adoption of circular economy business practices across South Australian businesses.
14. Enable, coordinate and support research, education and innovation in new critical technologies.
15. Government to lead by example through embedding emissions reduction in policy and practice.

- Enhanced business capability to reduce emissions and implement circular economy and sustainable business practices.
- Increased number of businesses with emissions reduction plans.
- Progress towards net zero emissions in South Australian Government operations.



Introduction

South Australia's Net Zero Strategy (the strategy) will guide the state's transition to a net zero emissions future. This strategy outlines the government's objectives, policy priorities and actions to reduce greenhouse gas emissions across the economy while creating new jobs, developing new industries, supporting wellbeing, and enabling decarbonisation beyond our borders.

Reducing greenhouse gas emissions and mitigating climate change is no longer a choice – it is a necessary basis for our economic, social and environmental future.

This strategy will accelerate emissions reduction to 2030 and put in place foundational programs and initiatives to progress towards net zero emissions by 2050. Acting now for the long term is necessary because transitioning the economy and society will take time.

The strategy builds on a solid foundation of existing action in South Australia from governments, the private sector, research organisations and the community, including the high levels of renewable energy generation and recycling efforts that support our state's transition to a net zero and circular economy.

As global demand shifts towards low-emissions products, South Australia can be more globally competitive and expand our industries by reducing emissions and taking advantage of our abundant renewable energy and other resources.

The South Australian Economic Statement envisages: 'An economy that is fit for the future, improving the wellbeing of all South Australians. An economy that is smart, sustainable, and inclusive!' It includes a mission to 'Capitalise on the global green transition'. This strategy is a key initiative to help drive this vision and mission.

The transition to a net zero future will be a journey of unprecedented opportunity and change. Some of the changes and technologies needed are not yet known. The South Australian Government will learn by doing and be flexible, adapting its policies, programs and initiatives to new knowledge, technologies and developments that emerge locally, nationally and globally.



Net zero transition opportunities and benefits

New jobs and industries

We can grow our economy by reducing carbon emissions and taking advantage of our renewable energy resources to support expansion in low emissions manufacturing and production such as green iron, steel and copper; low emissions fuels; and low emissions agriculture. Investment in new clean manufacturing, mining and production opportunities could result in up to \$220 billion in additional cumulative gross state product to the South Australian economy by 2050.³

Improved liveability and lower energy costs for households

Energy-efficient homes can be more comfortable, more liveable and healthier. Switching to electric vehicles and appliances, combined with improved energy efficiency measures, can generate significant annual cost savings for South Australian households.

Health benefits

Mitigating climate change can improve human health. For example, actions to reduce greenhouse gas emissions can lessen air pollution (such as by switching to electric appliances and zero tailpipe emissions transport), lower the risk of heat stress, reduce heat-related illness and mortality, and alleviate other health impacts related to bushfires and extreme weather events.

Resilient communities

Reducing emissions will help limit the climate risks faced by communities, such as heat waves, bushfires, storms, floods and rising sea levels. Emissions reduction activities, such as carbon farming and renewable energy projects, can provide First Nations peoples with opportunities for economic development and caring for their Country. Access to clean energy and more energy-efficient appliances can also help make communities more resilient to climate impacts.

Benefits for primary producers

Low emissions primary production can help meet expectations from supply chains and enhance access to export markets, investors and consumers. Carbon farming (carbon sequestration and emissions reduction activities) can improve agricultural productivity and generate new income opportunities. Renewable energy for on-farm use can help lower costs while reducing emissions.

Protecting our environment

Reducing greenhouse gas emissions will help protect our natural environment and biodiversity by lessening the harmful effects of climate change on plants, animals and ecosystems. Protecting and increasing vegetation to sequester carbon and reduce emissions can improve habitats, increase biodiversity and reduce urban heat.

Emissions targets and progress

Emissions reduction and renewable energy targets

South Australia's emissions targets

South Australia's greenhouse gas emissions reduction targets are to:

- reduce net greenhouse gas emissions by at least 60% by 2030 (from 2005 levels)
- achieve net zero emissions by 2050
- achieve 100% net renewable electricity generation by 2027.

To provide a clear pathway to net zero emissions, new interim emissions targets will be set every 5 years to 2050, with a 2035 target to be set before the end of 2030. This strategy will be formally reviewed every 5 years in line with the new interim targets, to develop additional policy and action to keep South Australia on track to achieve our targets.

Progress on reducing greenhouse gas emissions

South Australia is making good progress towards our emissions reduction targets. In 2021–22, our total net emissions were 15.8 million tonnes of carbon dioxide equivalent (MtCO₂-e). This represents a 57% reduction in emissions from the 2005 financial year (Figure 1), meaning emissions are now at their lowest since 1989–90.

Figure 2 shows how emissions have changed between 2005 and 2022 across key economic sectors. Emissions reductions to date have been driven largely by increased renewable energy generation and an increase in carbon stored in land use sinks. Emissions from the resources and agriculture sectors have also decreased since 2005. Other sectors have seen a slight increase since 2005, however there has been a downward trend in transport, manufacturing and waste emissions in more recent years.

Impact of this strategy

This strategy will help achieve South Australia's targets of at least 60% reduction in net emissions by 2030 and 100% net renewable electricity generation by 2027. It will support South Australia to progress towards South Australia's principal target of zero net greenhouse gas emissions by 2050.

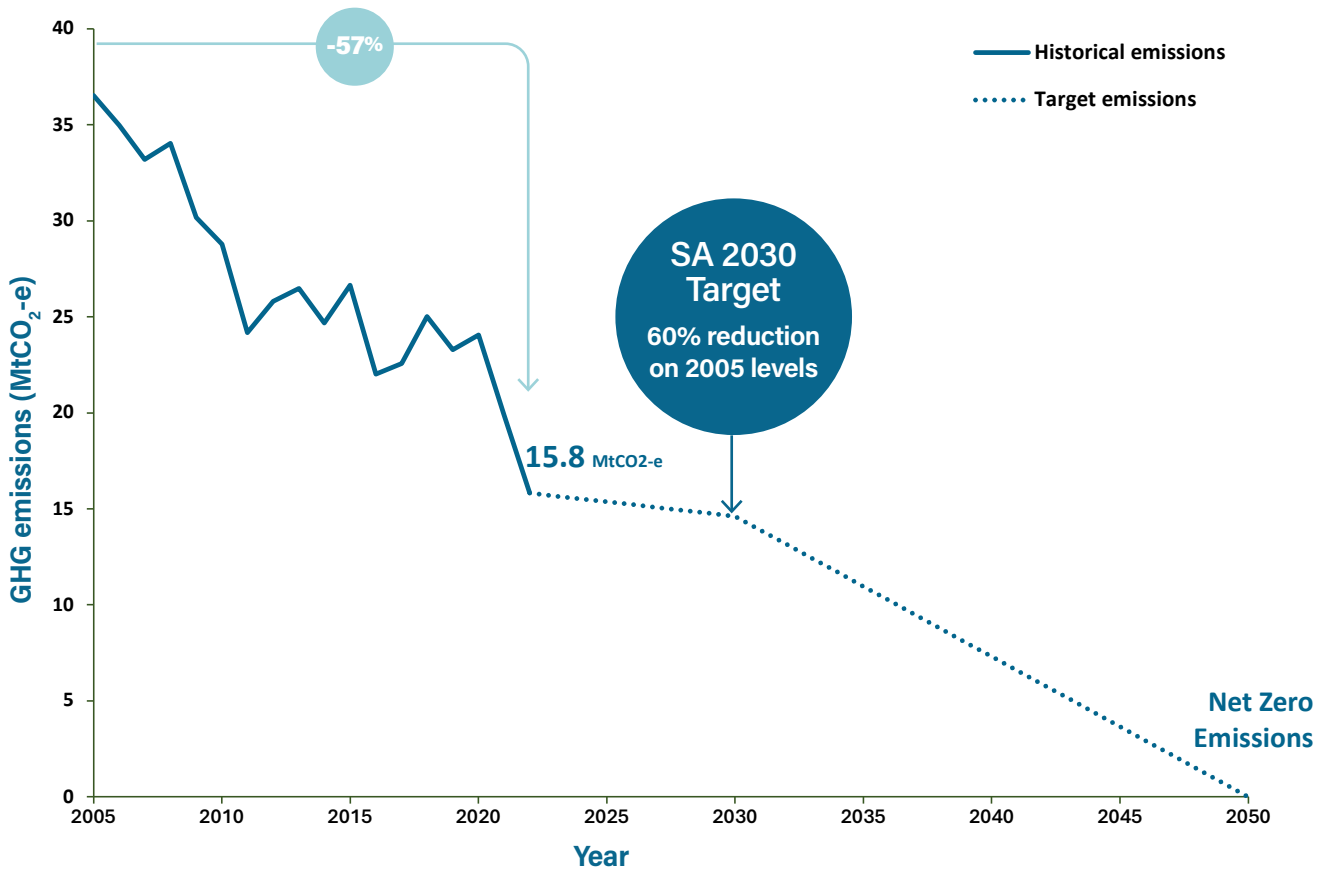


Figure 1: South Australia's greenhouse gas (GHG) emissions reduction

Note: data between 2005 and 2022 is from the Australian Government's State and Territory Greenhouse Gas Inventories (STGGI) 2021-22.

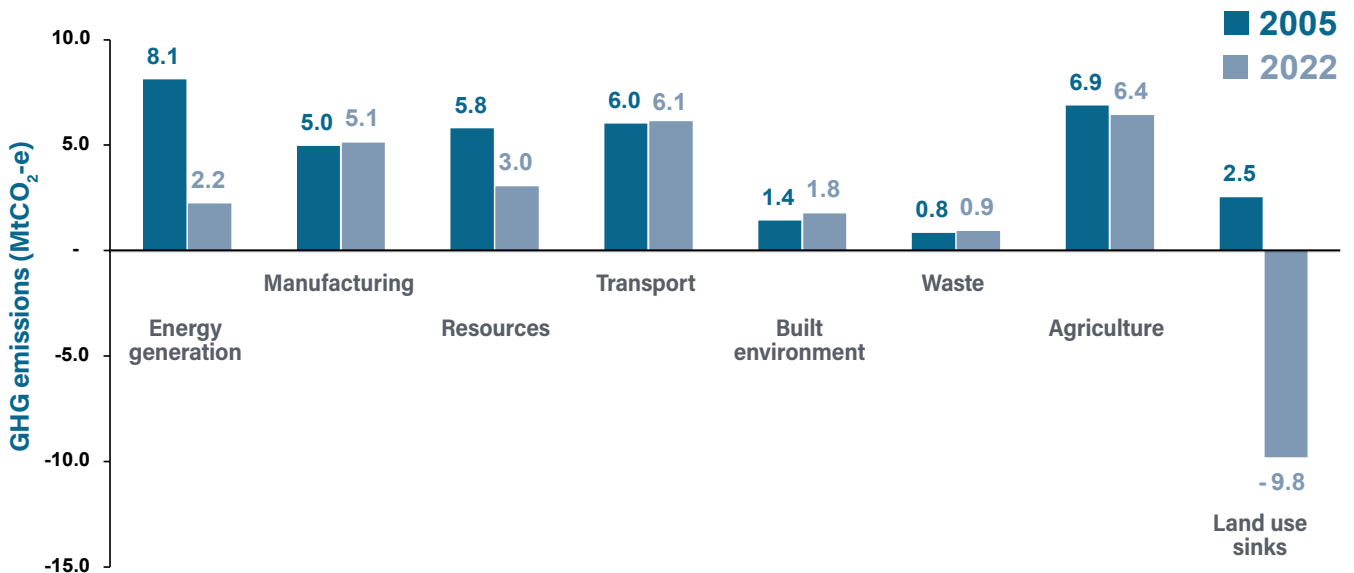


Figure 2: South Australian GHG emissions by key economic sector in 2005 and 2022

Note: data is from the Australian Government's State and Territory Greenhouse Gas Inventories (STGGI) 2021-22 and has been re-allocated from STGGI categories to align with the key economic sectors used in this strategy. Emissions for the waste, transport, energy generation and land use sinks sectors are consistent with STGGI categories. Manufacturing includes the majority of STGGI industrial processes category and relevant fuel combustion emissions from the STGGI energy category. Resources includes STGGI fugitive emissions from fuels and relevant fuel combustion emissions from the STGGI energy category. Agriculture includes STGGI agriculture emissions plus relevant fuel combustion emissions from the STGGI energy category. The built environment sector combines relevant emissions from the STGGI energy and industrial processes categories.

South Australia's leadership



Greenhouse gas emissions reduction: 2021–22 emissions showed a 57% reduction from 2005 levels.



Renewable electricity: The energy system has been transformed, lifting renewable electricity generation from 1% to 74% in just over 16 years.



Renewable electricity: Renewable sources like wind and solar power often provide more than 100% of South Australia's electricity supply.



Renewable hydrogen: South Australia is building a world leading renewable hydrogen power plant, electrolyser and storage facility.



Renewable hydrogen: The Port Bonython Hydrogen Hub is positioned to be South Australia's first large-scale clean hydrogen production precinct.



Hydrogen and Renewable Energy Act 2023: This legislation streamlines the process for companies wanting to invest in large-scale hydrogen and renewable energy projects in South Australia.



State Prosperity Project: This project is unlocking the full potential of renewable energy, critical minerals and green manufacturing, to reindustrialise the Upper Spencer Gulf.



Carbon capture and storage: The Moomba Carbon Capture and Storage project began construction in 2022 and the injection of carbon dioxide will commence in late 2024.



No more coal-fired power: Coal-fired power generation in South Australia ceased in 2016.

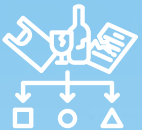




Battery storage: The Hornsedale Power Reserve, the world's first standalone grid-scale battery, was completed in 2017.



Home solar: More than 1 in 3 (40%) of homes in South Australia have solar PV systems installed.



Resource recovery: A national leader in waste management and recycling, diverting over 80% of waste from landfill and into higher-value uses.



Electric vehicles (EVs): South Australia's first border-to-border network of EV charging stations, with 536 chargers powered by renewable energy.



The strategy

The strategy sets out the government's objectives, policy priorities and actions to reduce greenhouse gas emissions for South Australia and improve the prosperity and wellbeing of South Australians. Implementation of the strategy will help achieve South Australia's interim emissions reduction targets and drive progress towards net zero emissions by 2050.

Objectives

4 key objectives will guide government policy priorities and action.

Accelerate emissions reduction across government, business and community

The net zero transition will require innovation and action by all parties across the public, private and community sectors. The South Australian Government will enable and support sharing of knowledge and will foster and stimulate the innovation ecosystem to amplify impacts on the state's green transition.

Support a sustainable, inclusive and equitable net zero transition

The South Australian Government will implement actions in this strategy in ways that are environmentally sustainable and socially just. Affected stakeholders will be engaged to promote shared benefits across regions and communities and to minimise potential disruption and negative impacts for communities, individuals and businesses.

Promote low emissions economic opportunities and support global decarbonisation

Because of South Australia's renewable energy advantage, leadership in resource recovery and rich natural resources, we are in a strong position to support global decarbonisation while benefiting economically from the global green transition. Economic opportunities include clean technologies, renewable hydrogen, low emissions goods and services, circular economy products and practices, and minerals for clean technologies – all of these will be needed to support domestic and global decarbonisation.

Lead by example through early decarbonisation of South Australian Government operations and infrastructure

The South Australian Government will continue to act to reduce emissions from its operations, infrastructure and supply chains.

Policy priorities

Each sector of the economy will play a role in the transition to net zero and the changes are often highly connected. Changes in one sector can directly or indirectly impact others. The government has set 15 strategic policy priorities to guide current and future action at a sector and cross-sectoral level.

Actions and outcomes

This strategy outlines 60 actions over the short, medium and long term. These actions represent policies, programs and other initiatives to reduce, limit or prevent emissions and to realise the objectives and strategic policy priorities.

As an overall outcome the strategy will enable South Australia to achieve its 2030 net greenhouse gas emissions reduction target and its 2027 net renewable electricity generation target as well as make significant progress towards net zero emissions by 2050.

Some key outcomes of delivering the actions are outlined for each sector and for the cross-sector initiatives.

The actions will be implemented over the next 1 to 5 years. Actions will also be updated and additional actions developed during the life of this strategy and in future years, in response to the changing policy, technology, business and social environment.

The strategy will be formally reviewed and updated in 2030 and aligned with setting a new interim emissions target for 2035 as well as further progress towards net zero emissions by 2050.

Delivering the strategy

Partnerships

The South Australian Government will deliver the actions in collaboration with a broad range of partners, including the Australian Government, international partners, other Australian jurisdictions, local government, the private sector, research institutions, First Nations peoples and other community organisations.

Agencies will engage with stakeholders and partners to understand and manage impacts and to explore ways to promote positive outcomes and share benefits across regions and communities.

First Nations peoples

The South Australian Government is committed to working in partnership to close the gap and improve the lives of Aboriginal people in South Australia.

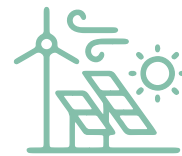
First Nations peoples have been managing land, sea, waterways, and the effects of climate variability for more than 60,000 years. The First Nations peoples continue to steward the diverse landscapes of South Australia and to contribute to mitigating climate change through First Nations knowledge and land management practices.

Actions in this strategy will be delivered in ways that ensure First Nations people's interests, cultural knowledge and practices inform South Australia's transition to a net zero future. This includes initiatives that place First Nations communities at the centre of projects that support the transition to low emissions and renewable energy, including carbon farming and land management that supports emissions reduction.





Energy generation (including transmission and storage)



South Australia's growing renewable electricity and hydrogen industries will support jobs and economic growth and provide the cornerstone for a net zero emissions economic transition. A key focus for government is an energy system that delivers economic, environment and social benefits now and in the future for all South Australians.

South Australia is at the forefront of the global renewable energy transition, having transformed our energy system from 1% to over 74% renewable electricity generation in just over 16 years, compared to an average of 39.4% nationally.⁴

We continue to make excellent progress towards our target of 100% net renewable electricity generation by 2027, while also reducing energy costs and improving energy reliability and security. The Australian Energy Market Operator forecasts that the percentage contribution of renewable electricity could rise to over 90% by 2025–26.

The South Australian Government is developing a comprehensive energy transition white paper to support the state's achievement of net zero emissions by 2050 while ensuring a reliable, secure and affordable energy supply.

A reliable, secure, affordable and net zero energy system will facilitate South Australia's economic ambitions by meeting expected growth in demand for renewable electricity. South Australia is primed to become a first-mover, low-cost renewable hydrogen supplier, due to our vast expanses of suitable land and high-quality wind speeds and solar radiation, coupled with leading-practice regulation and targeted investments.

The state's [Hydrogen Jobs Plan](#) will deliver world-leading hydrogen facilities and a new source of flexible power, providing additional grid stability for homes and businesses.

Hydrogen made with renewable energy, such as solar and wind power, can play a significant role in moving South Australia to a net zero emissions future, by helping to replace fossil fuels in some energy-intensive sectors. The co-location of world-class renewable energy resources and high-quality magnetite reserves with an established steelworks provides South Australia with significant advantages in realising a hydrogen-based steel transformation.

Policy Priority 1: Accelerate sustainable development and deployment of renewable energy including energy storage, smart demand management technologies and transmission infrastructure.

Action	Description	Lead agencies
<p>1.1. Release a comprehensive white paper to guide the energy transition policy for South Australia.</p>	<p>The white paper will set out how South Australia will achieve the goal of net zero carbon emissions in our energy system by 2050, while also growing the power system to ensure that South Australians have access to secure, reliable and affordable renewable energy within a net zero energy system.</p>	<p>Department for Energy and Mining</p>
<p>1.2. Support renewable energy upgrades of remote power stations to provide reliable and sustainable electricity to remote communities and support the transition away from diesel for energy use.</p>	<p>The South Australian Government will continue to support access to renewable energy and charging infrastructure in remote areas to support the transition to renewable energy and reduce community reliance on diesel fuel.</p>	<p>Department for Energy and Mining</p>
<p>1.3. Drive the continued development of renewable energy and energy storage.</p>	<p>The South Australian Government will continue to unlock investment in, and support growth of, renewable electricity generation and storage, to enable South Australia to become a 100% net renewable electricity generator by 2027.</p>	<p>Department for Energy and Mining Department of State Development</p>
<p>1.4. Support investigations into residential electricity demand flexibility that benefits households, industry and the electricity grid.</p>	<p>The South Australian Government is supporting the Energy Masters project to trial smart, flexible energy management in 500 South Australian households. The project aims to demonstrate the benefits to customers and the energy industry of demand flexibility, smart appliances and smart energy management systems in homes. Demand flexibility has potential to lead to a reduction in the amount of additional generation, network capacity and storage capacity that is needed to meet South Australia’s energy demands.</p> <p>The South Australian Government will also support the expansion of the emPowering SA program to locations across South Australia to deliver community batteries to government-nominated households facing cost of living pressures. The continued rollout of South Australia’s Virtual Power Plant, a network of thousands of solar and home battery systems across South Australia is also supported.</p>	<p>Department for Energy and Mining</p>

Policy Priority 2: Develop a clean, innovative, safe and competitive hydrogen industry to cut carbon emissions and future-proof energy-intensive industries.

Action	Description	Lead agencies
2.1. Deliver a Hydrogen Workforce Plan.	The South Australian Government is delivering a Hydrogen Workforce Plan to help bridge the gap between current workforce capability and future demand.	Department of State Development
2.2. Support the scaling up of renewable hydrogen production for domestic use and export.	The South Australian Government is supporting a range of renewable hydrogen initiatives to accelerate the growth of the state's hydrogen economy.	Office of Hydrogen Power, South Australia Department of State Development
2.3. Operationalise the <i>Hydrogen and Renewable Energy Act 2023</i> to implement a fit-for-purpose regulatory system for a sustainable hydrogen and renewable energy industry.	The <i>Hydrogen and Renewable Energy Act 2023</i> will streamline processes for large-scale hydrogen and renewable energy projects while facilitating secure land access and social and environmental benefits, and will put First Nations people at the centre of the transformation.	Department for Energy and Mining
2.4. Deliver the Hydrogen Jobs Plan.	The South Australian Government has committed to building a world-leading hydrogen power plant, electrolyzers and storage facility near Whyalla.	Office of Hydrogen Power, South Australia
2.5. Facilitate design of a Port Bonython Hydrogen Hub with private sector project partners.	The South Australian Government and the private sector are collaborating to deliver the Port Bonython Hydrogen Hub as a multi-user precinct leveraging the state's renewable energy opportunities and enabling export from a clean hydrogen industrial hub.	Office of Hydrogen Power, South Australia

Outcomes

- 100% net renewable electricity generation by 2027.
- World-leading hydrogen facilities in 2026.
- Increased renewable energy generation facilitated by a world-leading hydrogen and renewable energy regulatory framework.



Agriculture and land use



Agriculture will play a key role in South Australia's emissions reduction efforts, through reducing emissions from livestock, fertilisers, soil and manure management, and fuel combustion.

By leveraging our highly innovative agricultural community and our early adoption of renewable energy, South Australian agriculture can be a world leader in reducing emissions and harnessing economic opportunities from low emissions food and fibre.

Carbon dioxide can be removed from the atmosphere (sequestered) through land, forestry and coastal management practices that restore and regenerate soils and vegetation. Around a quarter of South Australia's emissions are currently sequestered through land use activities, and this valuable role could increase in the future. Natural sequestration practices can improve agricultural productivity and achieve positive biodiversity outcomes, and can provide income diversification opportunities for landowners through carbon credits.

The South Australian Government will work in partnership with primary producers to help drive down emissions

and harness the economic opportunities of the transition to a net zero future. This includes undertaking research to identify measures to reduce emissions, supporting the development and testing of emerging tools, and functioning as an independent evaluator of methodologies (e.g. carbon footprint calculators for measuring, evaluating and reporting on individual business emissions). The South Australian Government will also assist with educating and facilitating adoption of tools and best practice to support reduced on-farm emissions.

There will be various challenges to addressing emissions reduction in this sector, including the impacts of the changing climate and extreme weather events on agriculture and sequestration activities, access to commercially available mitigation technologies and long lead times for adoption of new approaches.

The government's policy priorities and actions will help lay the foundation for longer term change to 2050 in hard-to-abate emissions, such as livestock methane, while driving adoption of known emissions reduction practices in the shorter term.

Policy Priority 3: Support primary producers to innovate, reduce on-farm and value-chain emissions, and benefit from decarbonisation opportunities.

Action	Description	Lead agencies
<p>3.1. Undertake a research, adoption and extension program to drive uptake of lower emissions farming systems.</p>	<p>The South Australian Government, through the South Australian Research and Development Institute, will leverage strategic partnerships with key funders to facilitate research, development, extension and adoption of activities that promote best-practice emissions reduction and sustainability across South Australian grains and mixed farming operations. Researchers will collaborate with primary producers to co-design, test and demonstrate practices that reduce agricultural emissions, maintain productivity and enhance resilience to climate change. If successful, a similar approach will be undertaken with other primary industries sectors, including forestry.</p>	<p>Department of Primary Industries and Regions</p>
<p>3.2. Develop a low emissions primary industries foundation program.</p>	<p>The South Australian Government will work with primary producers and supply chains across all primary industries sectors to implement measurement and reporting of emissions profiles and to inform targeted management strategies to reduce emissions.</p>	<p>Department of Primary Industries and Regions</p>
<p>3.3. Undertake an on-farm greening energy initiative.</p>	<p>Situational analyses will be undertaken to explore use-cases and future investment in 3 priority areas to reduce on-farm fossil fuel emissions:</p> <ul style="list-style-type: none"> ▪ low emissions farm machinery ▪ green powering of marine vessels ▪ alternative fuels through pre-farm gate waste. 	<p>Department of Primary Industries and Regions</p>
<p>3.4. Develop and implement a methane reduction program.</p>	<p>The South Australian Government will work with industry to design and implement integrated measures for reducing on-farm methane emissions across the short, medium and long term. This includes supporting research and development on viable emerging technologies and developing adoption and uptake pathways with industry.</p>	<p>Department of Primary Industries and Regions</p>
<p>3.5. Assess low emissions supply chains and markets.</p>	<p>This initiative will assess low emissions supply chain and market requirements, identify products and services to transition to low emissions agricultural supply chains, and provide new economic opportunities. A pilot with a major supply chain operator will be established.</p>	<p>Department of Primary Industries and Regions</p>

Policy Priority 4: Scale up carbon farming and natural carbon sequestration options in land and marine environments.

Action	Description	Lead agencies
4.1. Develop a carbon sequestration potential program.	The South Australian Government will explore the development of a program that identifies South Australia's maximum potential for natural sequestration in privately held land and applies this information to increase actions and projects in various areas: vegetation and forestry, soil, application of composts and soil improvement products, and blue carbon (carbon in coastal and marine environments).	Department of Primary Industries and Regions Supported by Landscape SA boards
4.2. Implement the Carbon Farming Roadmap for South Australia.	The Carbon Farming Roadmap seeks to identify opportunities and remove barriers to the uptake of emissions reduction and carbon sequestration opportunities in soils, vegetation, forestry and livestock management.	Department of Primary Industries and Regions Department for Environment and Water
4.3. Implement the Blue Carbon Strategy for South Australia.	The Blue Carbon Strategy for South Australia delivers practical actions and research to help coastal managers and investors to establish projects to store carbon and protect and restore marine and coastal environments.	Department for Environment and Water Supported by Landscape SA boards
4.4. Develop carbon sequestration opportunities on conservation land and other government-owned land.	This initiative will consider opportunities to facilitate carbon offset opportunities and enhance conservation outcomes from regeneration, blue carbon habitats and planting of native vegetation on parks, reserves and other land vested in the Crown or government agencies.	Department for Environment and Water SA Water Department of Treasury and Finance
4.5. Support First Nations peoples to engage in revegetation activities, carbon farming and land management practices that support emissions reduction.	Support will be provided for Aboriginal Community-Controlled Organisations (ACCOS) and First Nations communities to attract funding and deliver projects in revegetation, carbon farming and land management practices that support emissions reduction.	Department of Primary Industries and Regions Department for Environment and Water

Outcomes

- Increased carbon stored in landscapes.
- Accelerated uptake of low emissions farm practices.
- Improved capability for primary producers to measure emissions profiles.



Manufacturing and resources



Manufacturing and resources includes emissions from manufacturing businesses (almost half of which are food and beverages manufacturing, and machinery and equipment)⁵ and the resources industry (including oil and gas extraction and processing, and mining operations).

The manufacturing and resources industries in South Australia are already taking steps to capitalise on the global green transition, reduce emissions and improve social and environmental outcomes. Further work will be required over the next 5 to 10 years to lower emissions and to capitalise on green growth opportunities.

The South Australian Government is committed to growing green industries and supporting existing industries to decarbonise through well-designed industrial policy and investments such as the [State Prosperity Project](#) and [South Australia's Green Iron and Steel Strategy](#). South Australia can be a key contributor of the minerals, green iron and steel, low emissions fuels (including synthetic fuels) and other products required to support the global energy transition.

A well-managed transition to low emissions will improve South Australia's ability to access global export markets and attract future investment. This includes working with industry on ways to reorientate industry and business strategies to leverage South Australia's renewable energy and capitalise on our comparative advantages in domestic and global decarbonisation.

Under the [State Prosperity Project](#), the South Australian Government aims to unlock the full potential of renewable energy, critical minerals and green manufacturing to reindustrialise the Upper Spencer Gulf and surrounds. Initiatives include the supply of renewable hydrogen products, production of critical minerals, [Northern Water](#) and the development of green steel.

The South Australian Government initiatives complement Australian Government low emissions and industrial transformation initiatives including the [Safeguard Mechanism](#) and [Powering the Regions Fund](#).

Policy Priority 5: Assist existing industries to transition, and grow green, low emissions industries that leverage South Australia's comparative advantages.

Action	Description	Lead agencies
5.1. Continue development of a green industrial transition policy.	The South Australian Government will further supplement the State Prosperity Project through continued analysis of opportunities to build new or transition existing industry to low carbon solutions.	Department of State Development
5.2. Deliver South Australia's Green Iron and Steel Strategy.	The strategy aims to support South Australia to become a leading green iron and green steel producer, using hydrogen-based iron-making processes and electric arc furnaces powered by renewable energy. South Australia's Green Iron and Steel Strategy will supplement the State Prosperity Project.	Department for Energy and Mining
5.3. Develop a critical and strategic minerals strategy to develop processing of minerals needed for low emissions technology.	Develop a critical and strategic minerals strategy to build the critical minerals sector and expand processing for minerals required to support the global energy transition, such as copper, graphite, rare earths and manganese.	Department for Energy and Mining
5.4. Implement South Australia's Advanced Manufacturing Strategy.	South Australia's Advanced Manufacturing Strategy supports industry and government collaboration to grow manufacturing and drive South Australia's economic transition towards a knowledge-based, resilient and greener economy.	Department of State Development
5.5. Explore the concept of a centre of excellence in green technologies.	Explore a centre of excellence in green technologies to be a knowledge exchange hub co-locating government, industry, small to medium enterprises and the research sector. It would coordinate activities, catalyse innovation, drive the development and commercialisation of new technologies, serve as a landing pad for regional industries for the State Prosperity Project, and facilitate connection and collaboration in the green industrial transition.	Department of the Premier and Cabinet
5.6 Support investment in research and development of emerging technologies to drive innovation across all industries and sectors.	Continue to provide government support and assistance (funding and in kind) to cooperative research centres that deliver industry-led decarbonisation research, technology and solutions.	Department of State Development Supported by Department for Energy and Mining

Policy Priority 6: Sustainably develop viable carbon capture and storage capability.

Action	Description	Lead agencies
6.1. Aim for 3 million tonnes of carbon capture in South Australia by 2030.	Work with industry on carbon capture and storage as part of the pathway to net zero, including progressing at least 2 carbon capture and storage projects in South Australia by 2030.	Department for Energy and Mining
6.2. Advocate for development of a national greenhouse gas removal technology roadmap.	Encourage and support the development of a national greenhouse gas removal technology roadmap to provide clear policy direction on regional carbon dioxide removal and storage and to address barriers to large-scale project development.	Department for Energy and Mining
6.3. Develop and implement policies to regulate and facilitate investment in large-scale carbon capture and storage.	Work with industry to develop and implement policies, standards and regulations to facilitate and provide investment incentives for carbon capture and storage. The South Australian Government will promote the potential for carbon capture and storage projects in South Australia.	Department for Energy and Mining

Outcomes

- Industry is supported to transition, grow and access green economic opportunities.
- 3 million tonnes of carbon capture and storage by 2030.





Transport



South Australia's transport sector plays a critical role in supporting our economy and in reducing the state's greenhouse gas emissions.

Emissions from the transport sector include emissions from the direct combustion of fuels in transportation by road, rail, domestic aviation and maritime transport.

Mechanisms to decarbonise include adopting low emissions technologies such as electric vehicles (EVs); increasing uptake of lower emissions travel options such as walking, cycling and public transport; shifting to low emissions fuels; and implementing effective land use planning to reduce transport needs.

Reducing emissions from transport helps supply chains become more sustainable, contributing to the overall decarbonisation of multiple sectors. Emissions reduction presents other associated benefits, such as contributing to energy security through demand management and enhancing public health and local amenity by reducing noise and air pollution. There are also potential economic opportunities in the production of sustainable low emissions fuels, including hydrogen derivatives, for aviation, maritime transport and heavy vehicles.

Several actions are already underway in the transport sector, including a 3-year registration fee exemption for EVs, smart charging trials, co-investment in a statewide EV charging network, and provision of support for EV uptake by private fleets.

The South Australian Government is also acting to reduce emissions from the construction and use of its transport infrastructure and from its public transport operations.

South Australian Government initiatives complement national initiatives, including the [National Electric Vehicle Strategy](#). The South Australian Government supported development of the national [New Vehicle Efficiency Standard](#) and continues to support development of the [Transport and Infrastructure Net Zero Road Map and Action Plan](#).

Policy Priority 7: Accelerate the transition to low and zero tailpipe emissions vehicles and fuels and develop zero carbon fuel production in South Australia.

Action	Description	Lead agencies
7.1. Transition Adelaide Metro rail and buses to zero tailpipe emissions.	Undertake planning and business case development for the replacement of Adelaide Metro rail and buses with zero tailpipe emissions models. This will include assessment of the practicality of transitioning by 2040.	Department for Infrastructure and Transport
7.2. Support implementation of the National Electric Vehicle Strategy, including the New Vehicle Efficiency Standard.	The South Australian Government will support implementation of a nationally consistent framework to help transition Australia's road transport sector to net zero tailpipe emissions.	Department for Energy and Mining Department for Infrastructure and Transport
7.3. Support measures to reduce the emissions intensity of freight and heavy vehicle transport.	The South Australian Government will encourage and prepare for low emissions freight and heavy vehicle transport, including through a low and zero emissions heavy vehicles trial scheme and implementation of the Freight and Supply Chain Strategy that supports a pathway to net zero. The government will also work with other jurisdictions in the development of national heavy vehicle decarbonisation initiatives.	Department for Infrastructure and Transport
7.4. Aim for 5% sustainable aviation fuels blending by 2030.	The South Australian Government will work with industry to develop sustainable fuel production economic opportunities in the state, with an ambition to encourage industry to have 5% blending of sustainable aviation fuels in South Australia by 2030.	Department of State Development

Policy Priority 8: Align transport and urban planning with low emissions transport outcomes.

Action	Description	Lead agencies
8.1. Develop a South Australian transport strategy aligned to net zero emissions.	The transport strategy will have a clear focus on achieving net zero emissions in the transport sector and on the need for more sustainable solutions such as public transport and active travel.	Department for Infrastructure and Transport
8.2. Align transport planning with net zero emissions outcomes.	State and government emissions reduction goals will be embedded in transport and infrastructure planning and investment frameworks. This will ensure that investment decisions consider construction and operational emissions, transport user emissions and low emissions mobility technologies.	Department for Infrastructure and Transport
8.3. Plan for development and urban renewal that creates walkable, connected neighbourhoods and reduces the need for car journeys.	Land use policy and planning will provide for neighbourhoods that are more walkable and connected and that support public transport uptake. Relevant approaches will include locating development near areas well serviced by public transport and other infrastructure.	Department for Housing and Urban Development

Policy Priority 9: Support a shift to lower emissions modes of transport, including public transport and active travel.

Action	Description	Lead agencies
9.1. Develop a South Australian passenger transport strategy that positions public transport as a key travel mode of choice.	The passenger transport strategy will include a clear focus on creating a more reliable, safe and accessible service; expanding and decarbonising public transport infrastructure; and integrating new and lower emissions forms of mobility and technology.	Department for Infrastructure and Transport
9.2. Develop an active transport and personal mobility strategy.	The active transport and personal mobility strategy will aim to increase participation, promote better infrastructure, support education, and prioritise strategic investment in infrastructure, to encourage active travel and lower emissions travel modes such as walking, cycling and electric scooters.	Department for Infrastructure and Transport

Outcomes

- Adelaide Metro rail and buses are transitioned to zero tailpipe emissions.
- More EV charging infrastructure across the state, including at government-owned or government-leased buildings and at public charging locations.
- 5% blending of sustainable aviation fuel by 2030.
- South Australian transport strategy aligned to net zero emissions.



Built environment



The built environment, including the construction and operation of commercial, residential and public buildings, represents a significant opportunity to contribute to the state's emissions reduction and to support the ongoing transition to a net zero emissions future. Low emissions products and appliances will also play a role.

Most South Australian buildings were constructed before energy building standards came into effect, resulting in poor overall energy performance, including greater heating and cooling loads than for buildings constructed under these standards. This is reflected in higher energy costs, higher greenhouse gas emissions, a 'peakier' load on the electricity grid and in lower comfort and health outcomes for occupants.

Opportunities for decarbonising building operation include energy efficiency, electrification, low carbon refrigerants, and switching to zero carbon fuels and appliances. Building and infrastructure design, the use of low carbon materials and better management and recycling of materials and resources also contribute to emissions reduction.

Measures to reduce emissions often have other associated benefits for householders, building owners and tenants, such as reduced operating costs and improved comfort and health outcomes. For commercial building owners, energy efficiency can increase property value and attract higher rental returns.

South Australian Government developments, including those at Bowden, Oakden Rise, Aldinga and Lot Fourteen, are delivering nation-leading levels of environmental sustainability. The South Australian Government is also working closely with the Australian Government and other states and territories to deliver consistent national approaches to decarbonising buildings and infrastructure. The development of an energy transition white paper for South Australia will explore further opportunities to improve energy efficiency and reduce emissions in buildings and infrastructure.

South Australia's [20-year state infrastructure strategy](#) will look at infrastructure needs to 2045 and focus on infrastructure planning and investment that considers decarbonisation and new and emerging low emissions industries.

Policy Priority 10: Support low emissions development, including energy efficiency, lower embodied emissions, electrification and a switch to low emissions fuels and appliances in new and existing buildings.

Action	Description	Lead agencies
10.1. Raise awareness of energy efficiency requirements and the benefits of energy efficiency upgrades in new and existing buildings.	Educate and increase awareness of new energy efficiency requirements and the benefits of more energy-efficient homes, including improved thermal comfort and cost savings.	Department for Energy and Mining Renewal SA
10.2. Investigate schemes for mandatory disclosure of energy efficiency and minimum energy efficiency rental standards.	Work will be undertaken to assess implementation of national frameworks for mandatory disclosure at point of sale and minimum standards for rental energy efficiency.	Department for Energy and Mining Attorney General's Department
10.3. Deliver improved energy efficiency in public housing.	This action will invest in improving comfort levels and reducing emissions in public housing dwellings in South Australia, in partnership with the Australian Government. All new public housing homes will be delivered in line with the National Construction Code standard of 7 stars from October 2024.	SA Housing Trust
10.4. Review the Retailer Energy Productivity Scheme (REPS) to ensure it continues to meet its objectives, including establishing updated energy productivity targets.	<p>The Retailer Energy Productivity Scheme (REPS) is a South Australian Government energy productivity scheme that provides incentives for South Australian households and businesses to save energy.</p> <p>The government will set annual energy productivity targets for the second 5-year stage (2026–2030), as part of a broad review of REPS. DEM intends to commence consultation for the review in the latter half of 2024.</p>	Department for Energy and Mining
10.5. Strengthen opportunities to encourage low emissions planning and development outcomes through South Australia's land use planning system.	South Australia's land use planning system will continue to identify and implement improvements in policies, practices and assessments for low emissions planning and development outcomes.	Department for Housing and Urban Development
10.6. Support implementation of relevant Modern Home Standards in the National Construction Code 2022.	Support implementation of energy efficiency standards in the National Construction Code 2022, including state variations.	Department for Housing and Urban Development

Policy Priority 11: Develop infrastructure to support a low emissions, sustainable economy that capitalises on South Australia’s competitive advantages and opportunities.

Action	Description	Lead agencies
11.1. Develop a new 20-year state infrastructure strategy.	The new strategy will consider statewide infrastructure needs to 2045, including the infrastructure planning and investments that will be required to drive a growing economy aligned to a net zero future.	Infrastructure SA
11.2. Develop a South Australian Government infrastructure decarbonisation policy.	<p>Develop a South Australian Government infrastructure decarbonisation policy to manage greenhouse gas emissions across the asset lifecycle and inform government investment decisions.</p> <p>Updates to infrastructure planning and assessment frameworks will consider embodied, operational and enabled emissions, including through application of consistent carbon values to whole-of-life emissions.</p>	<p>Infrastructure SA</p> <p>Supported by Department for Infrastructure and Transport</p>
11.3. Reduce nitrous oxide emissions across the health system.	<p>The South Australian Government will act to reduce nitrous oxide emissions from the health system by focusing on: i. the reduction of nitrous oxide wastage through leaks (by decommissioning, supply replacement, repair and other associated methods), and ii. reduction and phase out (where clinically appropriate) through promotion of lower carbon alternatives, education, and an emphasis on procurement and planning.</p> <p>This will require working across the health system with key stakeholders within the public and private sectors, to ensure that improved patient care is also an outcome.</p>	Department for Health and Wellbeing

Outcomes

- Increased energy efficiency in new and existing buildings.
- Public housing energy upgrades.
- A 20-year state infrastructure strategy that considers decarbonisation and low emissions infrastructure.



Waste



South Australia is a leader in reuse, remanufacturing, recycling and composting. We divert more than 80% of all generated waste from landfill to be used for better purposes.⁶ Waste also contributes to greenhouse gas emissions – in particular, food waste in landfill contributes significantly to emissions through the generation of methane gas.

The South Australian Government is committed to reducing methane emissions from landfill. Key measures to achieve this are food waste avoidance programs and segregated organics diversion systems that keep material circulating, to be processed into products, such as compost, that are used to regenerate natural and agricultural systems. This initiative supports local industries and jobs and provides flow-on economic benefits to agricultural production by increasing crop yield and reducing water and fertiliser inputs.

Food waste priorities include avoiding and reducing food waste from households and businesses, including along supply chains; maximising redistribution of surplus food and the recycling of food waste; keeping material at its highest value for as long as possible; and recirculating nutrients back into productive food systems.

Other waste management priorities include reducing waste generated, increasing the circular flow of materials and achieving more considered use of resources. These will help to reduce emissions from landfill and to lower embodied emissions in products that we make and use.

Policy Priority 12: Support innovative waste management, recycling and resource recovery to increase circulation of materials and reduce emissions.

Action	Description	Lead agencies
12.1. Implement policies and programs that use food waste at its highest value.	Deliver a range of measures to drive food waste into source-segregated organics diversion systems, and support the use of clean organics streams for compost and soil additives to improve soil productivity, enhance water holding capacity and reduce landfill emissions.	Green Industries SA
12.2. Develop and implement strategies that support sustainable use of resources and waste management practices within a more circular economy.	Prepare and implement strategies to build on actions to date and help transition South Australia to a more circular and lower emissions economy.	Green Industries SA
12.3. Continue to deliver programs that support waste reduction and resource recovery measures in line with circular economy principles.	Green Industries SA provides a range of support and funding programs to assist South Australian businesses, industry sectors, local government and the community to accelerate sustainable changes, reduce emissions, boost resource recovery and increase circularity of materials.	Green Industries SA
12.4. Update the Environment Protection (Waste to Resources) Policy 2010 to support a more circular economy and reduce emissions.	Update the Waste to Resources Policy to reduce waste generation and the use of raw materials; facilitate highest value circular reuse and recycling of materials; regenerate nature; and keep products and materials circulating in the economy.	Environment Protection Authority
12.5. Update the South Australian Container Deposit Scheme.	Review and strengthen the Container Deposit Scheme to expand the purpose and scope. This modernisation has the potential to return an estimated 73,000 tonnes of beverage containers each year for recycling, with associated emissions reductions.	Environment Protection Authority

Outcomes

- Organics and food waste are used at their highest value.
- Increased circularity of materials.
- Increased capability for households, business and government to implement practices for waste reduction and keeping material in use for longer.



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Cross-sectoral initiatives



Business engagement and support

Government will work collaboratively with business and industry – existing and emerging – to enable the next transformation of our economy.

Business and industry have a critical role to play through investing in low carbon technologies and production, developing new green products, technologies and processes, and reducing emissions in operations and value chains.

In addition to the initiatives already outlined in this strategy, the South Australian Government supports innovation and knowledge exchange, emissions reduction planning, and the adoption of sustainable and circular economy business practices. This support and collaboration will help business and industry make a successful transition to a net zero future, including through new business opportunities and potential cost savings (for example, by reducing waste and keeping materials in use for longer).

Policy Priority 13: Support emissions reduction and adoption of circular economy business practices across South Australian businesses.

Action	Description	Lead agencies
13.1. Commence work to further enhance the regulatory framework under the <i>Environment Protection Act 1993</i> to assist the Environment Protection Authority (EPA) with regulating and supporting businesses to prepare and implement emissions reduction plans.	The EPA will scope a climate-change-specific Environment Protection Policy to secure the relevant Objects of the <i>Environment Protection Act 1993</i> and to provide guidance to support licensees, including businesses and government, on the preparation and implementation of cost-effective emissions reduction plans where required.	Environment Protection Authority
13.2. Deliver business sustainability support programs.	The Small Business Sustainability Support Program assists with building skills and capability for small and family businesses to implement initiatives around environmental, social and governance (ESG); net zero; circular economy; and other sustainable business practices. Green Industries SA's Business Sustainability Program is ongoing, supporting businesses of all sizes and from all industry sectors to 'go beyond compliance' and work towards implementing sustainability, circularity and net zero initiatives.	Department of State Development Green Industries SA
13.3. Deliver the Small Business Energy Grants program.	The Small Business Energy Grants program assists eligible small businesses and not-for-profit organisations to invest in energy-efficient equipment or improvements to reduce and manage their energy usage and costs.	Department of State Development

Policy Priority 14: Enable, coordinate and support research, education and innovation in new critical technologies.

Action	Description	Lead agencies
14.1. Implement the South Australian Innovation Places Leadership Framework.	The South Australian Government will deliver the Premier's 10-year innovation places policy to create a cohesive and coordinated approach to link innovation districts, precincts, hubs, research, business parks and manufacturing precincts in South Australia, with the aim of supporting economic growth, attracting investment, creating jobs, boosting regional connectivity, and linking statewide education, skills and workforce programs.	Department of the Premier and Cabinet
14.2. Support the development and commercialisation of innovative climate smart products and services.	Through the Research and Innovation Fund and other relevant programs, provide support for entrepreneurs and startups that produce innovative products and services that contribute to the low emissions transition and climate adaptation.	Department of State Development

Outcomes

- Enhanced business capability to reduce emissions and implement circular economy and sustainable business practices.
- Increased number of businesses with emissions reduction plans.

Government leading by example

The South Australian public sector will lead by example by engaging in sustainable practices and emissions reduction initiatives. This includes reducing operational

emissions, practising sustainable procurement, and exploring policy, regulatory and planning changes that support the sustainable transition to net zero emissions.

Policy Priority 15: Government to lead by example through embedding emissions reduction in policy and practice.

Action	Description	Lead agencies
15.1. Aim for net zero South Australian Government operations.	The South Australian Government will accelerate emissions reduction to contribute to the state's emissions reduction targets and to achieve net zero emissions in government operations.	Department for Environment and Water All other agencies
15.2. Underpin emissions reduction actions with net zero emissions modelling and research.	Explore opportunities to expand the South Australian Government's expertise to assess emissions outcomes to support net zero policy and programs.	Department for Environment and Water
15.3. Develop sustainable procurement requirements and guidance.	Develop and implement procurement requirements and guidance for government agencies to support greater emissions reduction and adaptation outcomes. The state government's focus is 'procurement with impact' – realising the power procurement has in supporting the broad range of activities to reduce the state's emissions.	Department of Treasury and Finance
15.4. Deliver low emissions infrastructure and operations.	Government agencies will use specifications and contract tools to help drive low emissions design, construction, operation and maintenance of infrastructure. Where feasible, agencies will encourage the use of low and zero emissions technology and materials and will support recycling and reuse as part of a more circular economy.	Department for Infrastructure and Transport Renewal SA Department for Environment and Water

Outcomes

- Progress towards net zero emissions in South Australian Government operations.

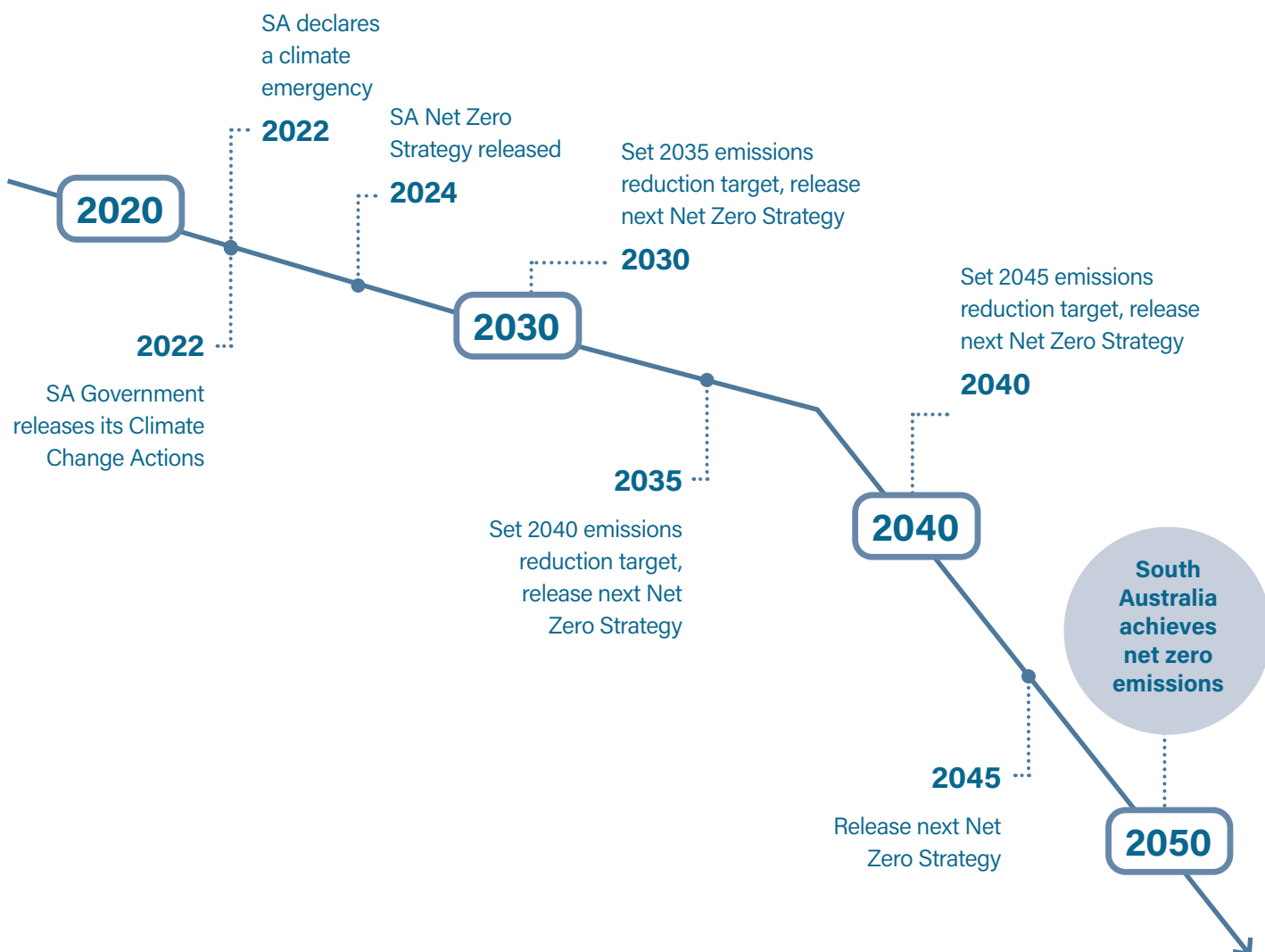
Strategy review and timeline

The South Australian Government will work with industries, businesses, communities, research organisations, local government and the Australian Government to implement the actions in this strategy and to encourage further action across the economy and society.

A detailed implementation plan, cross-agency governance and regular progress reporting will be developed to drive the implementation of this strategy.

Progress on the actions in the strategy will be reviewed annually, with the capacity to update actions if required.

A comprehensive review will occur every 5 years in line with setting new 5-yearly interim emissions reduction targets for the state.



Glossary

Term	Definition
Active travel	Making journeys by physically active means such as walking, cycling, skating, skateboarding and using a scooter.
Australian Carbon Credit Unit (ACCU)	One Australian carbon credit unit (ACCU) represents one tonne of verified carbon dioxide equivalent abatement. ACCUs are created from eligible offset projects and issued by the Clean Energy Regulator in accordance with section 147 of the <i>Carbon Credits (Carbon Farming Initiative) Act 2011</i> .
Biofuels	Fuels, generally in liquid form, made from plants or agricultural or biological waste.
Biomass	Plant or animal material such as wood and food waste that can be used as a source of fuel.
Blue carbon	The carbon captured and stored in coastal ecosystems, including seagrass meadows, saltmarshes and mangroves.
Carbon dioxide (CO₂)	A powerful greenhouse gas. It is naturally part of the air we breathe; however, human activities such as burning of fossil fuels and deforestation have led to an increase in atmospheric CO ₂ that contributes to climate change.
Carbon emissions	Carbon emissions are created when particular gases, including carbon dioxide and methane, are released into the air from activities such as burning fossil fuels for energy and deforestation. 'Carbon emissions' is often used as a shorthand to describe all greenhouse gases.

Term	Definition
Carbon farming	The process of changing agricultural practices or land use to increase the amount of carbon stored in the soil and vegetation (sequestration) and to reduce greenhouse gas emissions from livestock, soil or vegetation (avoidance).
Carbon footprint	A measurement of the carbon emissions linked to a particular activity or product. It includes emissions involved in all stages of making and using a product or conducting an activity. The lower the carbon footprint, the less that a product or activity contributes to climate change.
Carbon neutral	Emitting no net greenhouse gas emissions, in that the net emissions associated with an activity are equal to zero because all emissions have been reduced and/or offset.
Carbon sequestration	The removal of atmospheric carbon dioxide, either through biological processes (e.g. photosynthesis in plants) or geological processes (e.g. storage of carbon dioxide in underground reservoirs).
Circular economy	An economy that realises the best or full value from products and materials produced, consumed and recovered. This involves more remanufacturing, repair and reprocessing than the linear 'make, use, dispose' mode of traditional economies.
Climate change	Change in weather patterns over long periods of time.

Term	Definition
Decarbonisation	The term used for removal or reduction of carbon dioxide output into the atmosphere.
Embodied emissions	Emissions associated with the production, transportation and disposal of materials used in construction, manufacturing and other processes.
Emissions intensity	The emission rate of greenhouse gas relative to the intensity of a specific activity or an industrial production process (e.g. grams of carbon dioxide released per megajoule of energy produced).
Emissions reduction	The measurable reduction of the release of greenhouse gas emissions into the atmosphere from a specified activity or over a specified area, and a specified period of time.
Energy efficiency	When less energy is used to achieve the same result.
Fugitive emissions	Intentional or unintentional release of greenhouse gases that occurs during the extraction, processing and delivery of fossil fuels to the point of final use.
Greenhouse gas emissions	Greenhouse gas emissions are the atmospheric gases responsible for causing global warming and climate change. Greenhouse gases include: carbon dioxide (CO ₂), methane (CH ₄), nitrous oxide (N ₂ O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur-hexafluoride (SF ₆) and nitrogen trifluoride (NF ₃).

Term	Definition
Net zero emissions	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.
Net zero tailpipe emissions vehicles	Vehicles that do not use petroleum fuels and therefore do not emit greenhouse gas emissions from the tailpipe. Battery electric vehicles and hydrogen fuel cell electric vehicles are examples.
Renewable energy	Renewable energy is produced using natural resources that are abundant and able to be constantly renewed, like the wind, sun or biomass.
Scope 1 emissions	The release of greenhouse gases into the atmosphere as a direct result of activities occurring within a responsible entity's control (or geographic boundary).
Scope 2 emissions	The release of greenhouse gases into the atmosphere from the consumption of electricity, heating, cooling or steam that is generated outside of a responsible entity's control (or geographic boundary).
Scope 3 emissions	Greenhouse gases emitted because of a responsible entity's activities (other than scope 2 emissions) but beyond the responsible entity's control or geographic boundary.

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