

Under2 MOU Appendix: Victoria, Australia

The Victorian Government is committed to delivering strong and lasting action on climate change by driving emissions reductions and ensuring our communities and economy are well prepared to adapt to the impacts of climate change.

Profile

Victoria has a population of over 6.3 million people (approximately 25% of Australia's population)¹ and a strong, growing economy. Victoria's Gross State Product grew by 3.3% in the 2016-17 financial year, driven by growth in the professional, scientific and technical services industry.² Melbourne, Victoria's capital city, is projected to be Australia's largest city by 2030.

Victoria's emissions were 120 Mt CO₂-e in 2015, with the electricity sector contributing 61 Mt CO₂-e to this total.³ Victoria has already started to demonstrate that it can maintain economic growth while reducing its emissions. The state has had an average annual economic growth rate of 2.2% over the last decade⁴ and over the same period its per capita emissions have decreased by 2.1% every year on average.

Around 17% of Victoria's electricity is generated from renewable sources⁵ and approximately 15% of Victorian dwellings now have rooftop solar PV installations.⁶ Victoria has a developing wind power industry, with 18 major wind farms providing a combined generation capacity of 1480 MW. An additional 3100 MW of generation capacity has been approved for new wind power projects that are not yet operational.

Legislation

The *Climate Change Act 2017* provides Victoria with a strong legislative foundation to manage climate change risks, maximise the opportunities that arise from decisive action, and drive our transition to a climate resilient community and economy.

The Act:

- Legislates a long-term greenhouse gas (GHG) emissions reduction target of net zero emissions by 2050 and a duty on the Premier and the Minister responsible for the Act to ensure that it is met.
- Requires five yearly interim targets⁷, to keep Victoria on track to meet this long-term target.
- Requires the government to develop a Climate Change Strategy every five years from 2020, which will set out how Victoria will meet its targets and adapt to the impacts of climate change.
- Requires Adaptation Action Plans every five years from 2021, for key systems that are either vulnerable to the inevitable impacts of climate change or essential to ensure Victoria is prepared for the impacts.
- Establishes a pledging model to reduce emissions from state and local government operations as well as from key emitting sectors of the economy.

¹ Australian Bureau of Statistics 2017, Cat No. 3101.0, *Australian Demographic Statistics, June 2017*.

² Australian Bureau of Statistics 2017, Cat No. 5220.0, *Australian National Accounts: State Accounts, 2016-17*.

³ Commonwealth of Australia 2017, *State and Territory Greenhouse Gas Inventories 2015*.

⁴ Australian Bureau of Statistics 2016, Cat No. 5220.0, *Australian National Accounts: State Accounts, 2015-16*.

⁵ Data based on NEM Review, Metered generation (As generated) and DELWP estimates.

⁶ Australian PV Institute (APVI), *Mapping Australian Photovoltaic installations*, accessed from pv-map.apvi.org.au on 20 November 2017.

⁷ Including seeking independent expert advice to inform the setting of interim targets, taking into consideration up-to-date climate science, technologies relevant to climate change, as well as economic, environmental and social circumstances and impacts.

- Introduces a new set of policy objectives and an updated set of guiding principles to embed climate change into government decision-making.
- Establishes a system of periodic reporting to provide transparency and accountability, and ensure the community remains informed.
- Retains the existing legislative framework for the recognition of forestry rights, carbon sequestration and soil carbon rights, ensuring that the natural resource and agriculture sectors can access economic incentives for storing carbon on public and private land in Victoria.

The Act commenced operation on 1 November 2017.

Specific actions and commitments

The Victorian Government has introduced a number of climate change and energy initiatives to reduce GHG emissions and build the state's resilience, to ensure the future prosperity and liveability of Victoria. Key initiatives are outlined below.

Victoria's Climate Change Framework

Victoria's Climate Change Framework was released in January 2017 and sets out:

- Our shared vision for a net zero emissions, climate-resilient Victoria in 2050 and our approach to achieving it.
- The steps the Victorian Government is taking in the period to 2020 to commence the transition.
- How the *Climate Change Act 2017* will drive action to 2050.
- The transition required across the economy – and some of the challenges to be addressed – to 2050.

The Framework identifies four pillars which underpin Victoria's transition to net zero emissions while maintaining economic prosperity:

- Increasing energy efficiency and productivity across the economy, including in our homes, offices, industry and transport.
- Moving to a clean electricity supply by increasing renewable energy generation.
- Electrifying our economy and switching to clean fuels by increasing the use of electricity to power our homes, cars and public transport and using biofuels and gas in freight, air travel and industry.
- Reducing non-energy emissions and increasing carbon storage through industrial processes improvements and improving carbon storage in trees, plants and soil.

To drive mitigation efforts prior to the legislated targets, the Framework includes a commitment to reduce Victoria's emissions by 15-20% below 2005 levels by 2020 and reduce emissions from government office-based operations by 30% below 2015 levels by 2020.

TAKE2 - Victoria's climate change pledge program

In June 2016, the Victorian Government launched TAKE2 - Victoria's climate change pledge program. TAKE2 gives individuals, businesses, local government, education institutions and community groups an opportunity to commit to taking actions to keep the global temperature rise below 2 degrees Celsius and share their progress. It is the first state government-led climate change pledging program in Australia. As of December 2017, over 8800 individuals, businesses, community groups, councils, local government groups and education institutions are participating in TAKE2.

Victorian Renewable Energy Targets (VRET)

The *Renewable Energy (Jobs and Investment) Act 2017* legislates the [Victorian Renewable Energy Targets \(VRET\)](#) of 25% of electricity generated in the state by 2020 and 40% by 2025. Currently, about 17% of Victoria's electricity comes from renewable sources.

These targets will cut the average cost of power for Victorians by around \$30 a year for households, \$2,500 a year for medium businesses and \$140,000 a year for large companies, while driving a 16% reduction in Victoria's electricity sector GHG emissions by 2034-35.

The targets will be supported by the [Victorian Renewable Energy Auction Scheme](#). The scheme is designed to:

- Deliver between 3400 MW and up to 5400 MW of new large-scale renewable energy capacity in Victoria.
- Support capital expenditure of up to \$7.2 billion in renewable energy projects, which would result in up to \$2.1 billion of additional economic activity in Victoria.
- Create 1250 construction jobs over two years and 90 ongoing roles, particularly in regional Victoria.

Victoria's Renewable Energy Action Plan

Victoria's [Renewable Energy Action Plan](#), released in July 2017, outlines further actions that the Victorian Government is taking to encourage investment in our energy sector and to ensure Victorians continue to benefit from a sustainable, affordable and reliable energy system into the future.

The Renewable Energy Action Plan invests \$146 million across three focus areas:

- Supporting sector growth by creating new jobs and investment.
- Empowering and engaging households, businesses, and communities.
- Modernising our energy system.

Key initiatives include:

- \$48.1 million for renewable energy certificate purchasing, including large-scale solar energy to power Victoria's tram network.
- \$25 million to deploy grid-scale battery storage facilities in the west of Victoria.
- \$15.8 million for smart grid, microgrid and renewable energy storage demonstration projects across Victoria.

Victorian Energy Upgrades

The [Victorian Energy Upgrades](#) program, established under the *Victorian Energy Efficiency Target Act 2007*, is helping Victorians cut power bills and reduce GHG emissions by giving households and businesses access to discounted energy efficient products and services. These products and services are delivered through providers accredited by the [Essential Services Commission](#).

These discounts are granted through yearly GHG emissions reduction targets that the Victorian Government has set for energy retailers. Energy retailers are required to buy sufficient Victorian Energy Efficiency Certificates to match the target for that year, at a rate of one certificate per tonne of GHG emissions.

Year	Amount of Victorian Energy Efficiency Certificates (VEECs)	Target in tonnes CO ₂ -e GHG abatement
2017	5.9 million	5.9 million
2018	6.1 million	6.1 million
2019	6.3 million	6.3 million
2020	6.5 million	6.5 million

To create a certificate, accredited Victorian businesses sell (or install) Victorian Energy Upgrades-approved products or services to households and businesses. These approved products or services are awarded a GHG emissions reduction score; the more emissions avoided, the more certificates are created. Accredited businesses are then able to sell these certificates in a free market, where energy retailers purchase certificates to meet their targets. The program is legislated to 2029, with future targets to be set in 2020 and 2025.

Energy Efficiency and Productivity Strategy

In November 2017, the Victorian Government released its [Energy Efficiency and Productivity Strategy](#). It sets out actions designed to:

- 1) Create and maintain Victorian jobs through best practice energy efficiency and improved productivity.
- 2) Support Victorians to live in comfortable healthy homes with affordable energy bills.
- 3) Transition to high efficiency, low emissions buildings.

The Victorian Government has committed \$55 million to deliver the Energy Efficiency and Productivity Strategy, including:

- \$6.1 million for the Boosting Business Productivity program to help Victorian businesses to reduce their energy costs through energy efficiency assessments and grants to implement upgrades.
- \$16.9 million for the Home Energy Assist package to support home upgrades for Victorians most in need.
- \$5.7 million for the Victorian Residential Efficiency Scorecard home rating tool.
- \$8.9 million to improve the energy efficiency regulations for new homes and promote leading edge sustainable design through volume home builders.

New Energy Jobs Fund

The Victorian Government's \$20 million [New Energy Jobs Fund](#) supports Victorian-based projects that create long-term sustainable jobs, increase the uptake of renewable energy generation, reduce GHG emissions and drive innovation in new energy technologies. Funding to support new energy technology projects will be available through three annual grant rounds. The first round closed in March 2016, the second round closed in March 2017, and the third grant round is open until 1 March 2018. Successful projects to date include:

- Maroondah City Council will install up to 900 solar PV systems in low income and vulnerable households across numerous councils.
- Hepburn Shire Council will implement a waste to energy system which will reduce disposal and utility costs, reduce GHG emissions and create jobs in regional Victoria.
- Energy technology company Greensync will explore how an integrated demand management solution can shave peaks in energy demand and reduce network constraints in the Mornington Peninsula region.
- SEA Automotive will invest in a Commercial Electric Vehicle Manufacturing Facility to produce a range of electric powered commercial vehicles.
- A consortium of five companies, led by innovation company ARVIO, will manufacture and install 200 solar storage energy kits in residences, buildings and community facilities across Victoria to provide electricity during power outages.

Climate Change Adaptation

Victoria's Climate Change Adaptation Plan 2017-2020

[Victoria's Climate Change Adaptation Plan 2017-2020](#), released in February 2017, lays out the priorities for the next four years for the Victorian Government to better understand and manage current and future impacts, and to meet the challenges and act on the opportunities, of climate change.

Over the life of the Adaptation Plan, the Victorian Government will:

- More effectively manage risks to the government's own assets and services from climate change by assessing the government's current capabilities and practices and addressing whole-of-government risks and impacts in a more coordinated way.
- Help the community to understand and manage the risks and impacts of climate change.
- Encourage adaptation action across all policy areas and sectors of the economy, by strengthening the consideration of climate change in health and human services, emergency management, the natural environment, agriculture, water and the built environment.

The Adaptation Plan will prepare the government and the community for sector-based adaptation planning by introducing pilot Adaptation Action Plans (AAPs) in the health and human services, water cycle and agriculture sectors. Pilot AAPs will strengthen and drive adaptation planning and action in these sectors over the next four years, and lessons learned from the pilots will inform mandatory AAPs for all sectors under the *Climate Change Act 2017* from 2020.

Collaboration and capacity building

Virtual Centre for Climate Change Innovation

The Virtual Centre for Climate Change Innovation (VCCCI) has been established to foster action, innovation and collaboration between businesses, industry, researchers and government to help Victoria reduce GHG emissions and adapt to climate change. As part of the VCCCI program, the Victorian Government is providing \$3.8 million for Climate Change Innovation Grants. The grants program is designed to:

- Support Victorian organisations to become local leaders in the development of innovative solutions to the challenges of climate change.
- Drive greater investment into high impact innovations that will enable our communities, environment and businesses to be prosperous in the face of climate change.

Workshops were held across Victoria in September and October 2017 to provide stakeholders with an opportunity to discuss regional climate change priorities and match ideas with funding opportunities.

Climate KIC Australia

The Victorian Government is a core founding partner of Climate KIC Australia, which brings the successful European Union model to Australia to drive innovative solutions to climate change challenges through collaboration with research, business, entrepreneurs, investors and government across jurisdictions. Climate KIC Australia will create opportunities to build skills, investment, jobs and workforce capability in clean energy and climate resilience.

Inter-jurisdictional collaboration

Victoria actively collaborates on climate change issues with other jurisdictions in Australia and internationally. Victoria chairs an inter-jurisdictional Adaptation Working Group with membership from Australian states and territories that seeks to promote knowledge sharing and best practice, and progress policy matters that are best addressed collaboratively. Victoria is also a member of the Climate Action Roundtable, a group of subnational Australian jurisdictions leading the transition to a low-carbon future.

In July 2017, the Victorian Government, along with South Australia, ACT and Queensland, signed a Climate Leadership Declaration which includes a commitment to help Australia meet its obligations under the Paris Agreement and to achieve net zero emissions in their jurisdictions by 2050. The Declaration emphasises the important role of Australia's states and territories in climate change action, and the economic benefits such action will bring.