

CUTTING VICTORIA'S EMISSIONS 2021–2025

Whole of Victorian Government emissions reduction pledge

Minister's foreword

The Victorian Government has a critical role to play in tackling climate change. This includes setting five-yearly interim targets to get us to net-zero emissions by 2050, and supporting the resilience of our communities and economy to the impacts of climate change.

The role also involves shaping policies and programs through sector emissions reduction pledges and Adaptation Action Plans to encourage action by businesses, households and community groups to help reduce emissions and support adaptation.

As a Government, we will also play our part by taking strong action to reduce emissions from our own operations.

This whole of Victorian Government pledge describes the practical actions we are taking to set the direction for a climate-neutral public sector and to show leadership in Victoria's transition to net-zero emissions. Central to this pledge is our commitment for electricity used in government operations – including schools, hospitals, metropolitan trains and trams and other public services – to be 100 per cent renewable by 2025.

Our government fleet will start the transition to zero emissions with 400 clean, green cars hitting the road by 2023. And from 2025, every new public bus will be a modern, quiet, zero emissions model, boosting local transport equipment manufacturing businesses.

We will continue to improve the energy performance of government buildings by strengthening the environmentally sustainable design of new buildings and public facilities, and upgrading the energy efficiency of existing buildings including schools and hospitals.

These actions will ensure government is at the forefront of the transition to net-zero emissions while supporting jobs and growth for Victoria's industries that provide low-carbon products and services.



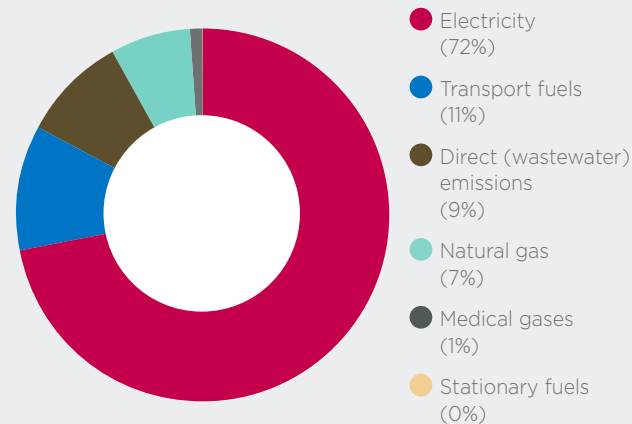
The Hon. Lily D'Ambrosio MP
Minister for Energy,
Environment and Climate Change
Minister for Solar Homes

Overview of emissions from Victorian Government operations

Greenhouse gas emissions from Victorian Government operations amounted to approximately 3.7 million tonnes of carbon dioxide equivalent (Mt CO₂-e) in 2018-19.¹

Almost three quarters of these emissions were from electricity used in hospitals, schools and offices, and to power the metropolitan train network and Victoria's water corporations.

Victorian public sector greenhouse gas emissions in 2018-19



The remaining emissions were mainly related to fuels used in cars, buses and regional trains, natural gas used for heating, and treatment of wastewater.

The transition to net-zero emissions by 2050 will require increased action across every part of the economy – including business, local government, communities and households. Victorian Government emissions account for a relatively small proportion of the state's total emissions (approximately four per cent). However, it is important for the Victorian Government to play its part and lead by example. Actions to reduce government emissions will have far-reaching effects and, importantly, visibility – due to the size of the Victorian public sector workforce, and its delivery of services across every part of the state.

The whole of Victorian Government emissions reduction pledge underlines and supports our commitment to reduce emissions and provide climate-friendly public services to Victorian households, communities and businesses.

Actions to reduce emissions from government operations will also have broader benefits such as lowering energy costs and improving the comfort of buildings, supporting the jobs of the future, and building markets and supply chains for new and innovative low-emissions products and services.

¹ Encompassing scope one (direct) and scope two (indirect electricity) emissions from the Victorian public service and Victorian public sector as defined in the *Public Administration Act 2004*.

A photograph of a tram traveling down a city street. The tram is white with green accents and has 'PT' on its side. It is moving away from the camera. In the background, another tram is visible. The street is lined with trees and there are pedestrians on the sidewalks. The scene is captured at night or dusk, with streetlights illuminating the scene.

Whole of Victorian Government emissions reduction pledge 2021-2025

The actions in this pledge will reduce annual government emissions by an estimated 2.7 Mt CO₂-e by 2025 compared to 2018-19 levels² through:

- / A major focus on reducing emissions from electricity consumption through the transition to renewable energy
- / Improving the energy efficiency of government operations including government buildings and infrastructure
- / Steps to reduce emissions from public transport operations and the Government's vehicle fleet.

The actions in this pledge take a significant step towards a climate neutral Victorian public sector. The actions build on substantial action the Government has already taken to reduce emissions from our operations, including:

- / Linking the metropolitan tram network to the Bannerton Solar Park and Numurkah Solar Farm through the Solar Trams program since 2018, reducing emissions by 80,000 tonnes CO₂-e per year
- / Improving the energy efficiency of government operations through the Greener Government Buildings program, which has facilitated \$280 million in energy efficiency and renewable energy projects since 2009, saving \$39 million and more than 173,000 tonnes of CO₂-e each year
- / Achieving a 30 per cent reduction in office-based emissions from government departments in 2020 compared to 2015 levels.

ACTIONS
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² Actions to reduce the Victorian Government's emissions help reduce emissions across the broader economy and vice versa. The emissions reduction of 2.7 Mt CO₂-e in 2025 in the whole of Victorian Government pledge is not additional to the emissions reduction achieved through the sector pledges.

Emissions reduction actions

Greening government electricity

The Victorian Government will derive 100 per cent of its electricity from renewable sources by 2025. This will be achieved by supporting large-scale renewable energy projects to meet government electricity needs, and by installing more renewable energy on government sites.

Supporting large-scale renewable energy projects

The Victorian Government has a legislated target of 50 per cent renewable energy for the state by 2030. To support this goal, the Government will conduct a second Victorian Renewable Energy Target auction that will bring forward at least 600 megawatts (MW) of new large-scale renewable energy projects. 600 MW is enough to power every hospital and school in Victoria, Melbourne's train network and a range of other government infrastructure and services.

This investment will build on previous support for large-scale renewables, including the first Victorian Renewable Energy Target auction in 2017 that will deliver 928 MW of renewable energy – boosting supply, putting downward pressure on electricity prices, and supporting 1,500 jobs and opportunities for local businesses across the state, particularly in regional Victoria.

On-site renewable energy

Producing on-site renewable energy – where it is needed – brings multiple benefits. It generates clean electricity and saves money, eliminates energy losses from transmission, and is a key component in the transformation of our electricity grid.

The Government is investing in on-site renewable energy for Victorian schools, hospitals and other facilities, including through:

The Greener Government School Buildings program

This pilot program has led to solar power being installed at 42 schools, generating an additional 1,369 megawatt hours (MWh) of electricity with an estimated annual emissions reduction of 1,600 tonnes CO₂-e and annual cost savings of over \$300,000. In June 2020, all government schools were invited to submit applications for funding of new on-site solar power systems, with further projects expected to be completed by mid-2021.

The Regional Health Solar program

This \$13.5 million program has resulted in the installation of solar panels in public health services buildings across regional and rural Victoria. This will generate around 11,000 MWh of electricity and up to 30 per cent of the electricity used in some hospitals. It is expected to reduce emissions by an estimated 13,000 tonnes CO₂-e and save \$2.7 million in energy costs each year.

Improving energy efficiency in public hospitals

An additional \$40 million will be invested in public hospitals to install solar panels and upgrade to high-efficiency LED lighting, saving an estimated 19,700 tonnes CO₂-e and \$3.5 million per year.

Victoria's Solar in Prisons program

Implemented by the Department of Justice and Community Safety, this program involves the installation of over 1,200 kilowatts of photovoltaic solar technology, reducing emissions by over 1,800 tonnes CO₂-e and saving around \$240,000 in energy costs every year. The majority of works were commissioned and completed in 2019. Further solar installation is continuing under the department's Environmentally Sustainable Design Guidelines.

100%
renewable electricity
by 2025 for Victorian
Government operations



Reducing emissions from infrastructure projects

The Government is undertaking the largest infrastructure building program in Victoria's history to deliver the roads, rail infrastructure, schools and hospitals that our growing state needs. With \$134 billion of new and existing projects now funded and underway, building works and construction will play a major role in Victoria's recovery from the COVID-19 economic downturn.

Reducing emissions from the construction and operation of major projects will help to lower Victoria's total emissions while supporting jobs and innovation in the state's green building industry. The Government will work with industry and experts to develop strong and consistent sustainability practices for government building and infrastructure projects.

There are already strong precedents, such as the *Recycled First* policy, which optimises the use of recycled and reused materials across all rail and road construction. Rail Projects Victoria's recently-completed Ballarat Line Upgrade achieved a 31 per cent reduction in emissions associated with construction and operation. Sustainable design and construction initiatives involved using materials with less embodied carbon, efficient lighting initiatives and installing solar panels.

More efficient public buildings

The Government owns and leases buildings and public facilities across the state. Improving energy efficiency reduces energy consumption and costs. It also supports jobs and growth in Victoria's green building industry, and helps to improve the comfort and performance of our buildings.

Environmentally sustainable design

From 2021, all new government buildings (including hospitals, schools, correctional facilities and offices) will embed environmentally sustainable design either through an accredited scheme or locally developed robust processes. All new government office buildings and tenancy fit-outs will have a minimum 5-Star energy efficiency rating from 2021 and a 6-Star rating from 2025. Government leases will also preference higher-rated buildings and those with a Green Lease Schedule.

6-STAR
NABERS³. All new government offices will have the highest energy efficiency rating from 2025

Greener Government Buildings program

The Victorian Government will invest a further \$60 million in the Greener Government Buildings program on top of the \$280 million already invested since 2009. This new investment will deliver energy performance upgrades and solar installations for government-owned sporting facilities, schools, TAFEs and public transport facilities. Savings on energy bills will be reinvested in further upgrades, creating a \$201 million pipeline of energy efficiency and renewable energy projects. This investment will support jobs for engineers, project managers, suppliers of products and services, electricians, plumbers and mechanical contractors.

Victorian Gas Substitution Roadmap

The economy-wide Gas Substitution Roadmap (also detailed in the energy sector emissions reduction pledge) will establish a pathway to reduce reliance on natural gas across the economy, including in government buildings and public facilities. While natural gas usage is responsible for only around seven per cent of government emissions, this proportion will increase as government operations shift to 100 per cent renewable electricity. Retrofitting public buildings such as hospitals to eliminate natural gas use will be challenging. That's why it is important to advance the development of low and zero emissions alternatives to natural gas such as electrification, biogas and hydrogen.

³ The National Australian Built Environment Rating System measures the environmental performance of Australian buildings and tenancies



Reducing government transport emissions

Emissions from the use of transport fuels across the public sector account for around 11 per cent of total emissions from government operations. This figure includes emissions from government vehicle fleets, emergency services vehicles such as ambulances and fire trucks, and public buses and regional trains.

The Government's goal of meeting 100 per cent of its electricity needs from renewable sources will require all metropolitan trains and trams to be powered by renewables.

From 2025, all new public buses in Victoria will be zero emissions. The Government will run a \$20 million Zero Emission Bus Trial from 2021 to guide this shift. The trial will run over three years and test different technologies on buses across the state. This action will also support the Victorian economy with a boost to the transport equipment manufacturing sector, and encourage local innovation and skill development, including in regional areas where some manufacturers are already established.

The Victorian Government will accelerate the integration of zero emissions vehicles into its fleet with a short-term target of introducing 400 zero emissions vehicles and supporting infrastructure by 2023.

Metropolitan trams and trains powered by

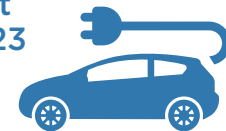
100%

renewable
electricity
by 2025



400

zero emissions
vehicles in the
Government
fleet by 2023





Government agencies taking action

In addition to the emissions reduction actions described above, many Victorian Government agencies are taking further action to reduce their operational emissions.

Victoria's 19 water corporations have committed to reduce their collective emissions by at least 42 per cent by 2025. Water corporations are responsible for a significant portion of total government emissions, largely due to the energy used to pump water, and to the release of greenhouse gases from wastewater treatment. Their commitment will lead to an annual reduction of around 360,000 tonnes CO₂-e from 2025 onwards compared to 2011-16 baseline emission levels.

The water industry's ambitious targets are prompting new and innovative thinking on emissions reductions by encouraging water sector entities to improve energy efficiency, convert waste to energy, increase carbon storage through revegetation programs, and other initiatives.

Ambulance Victoria is one of the first Australian health services to have a climate change action plan. In addition to meeting 100 per cent of its electricity needs through renewable sources by 2025, the organisation has committed to a 60 per cent reduction in its operational emissions on 2015 levels by 2030, and is planning to reach net-zero emissions by 2045.

Several government agencies – including the Environment Protection Authority Victoria, Zoos Victoria and Sustainability Victoria – have already achieved net-zero emissions. Zoos Victoria was the first zoo operator in Australia to achieve carbon neutral certification in 2011-12. It has managed to cut its emissions while expanding visitor numbers, staff, exhibits and programs, including by installing renewable energy and introducing energy-efficient vehicles.

Victoria's water corporations will cut their collective emissions by at least

42%
by 2025



Wannon Water

built an 800 kW wind turbine at the Portland Sewage Treatment Plant

13 water corporations

have come together to buy 78 gigawatt hours of renewable electricity every year from the Kiamal Solar Farm

Yarra Valley Water

runs a waste-to-energy power plant that converts 140 tonnes of food waste daily into clean energy that powers the Aurora Sewage Treatment Plant

Acknowledgement

We acknowledge and respect Victorian Traditional Owners as the original custodians of Victoria's land and waters, their unique ability to care for Country and deep spiritual connection to it. We honour Elders past and present whose knowledge and wisdom has ensured the continuation of culture and traditional practices.

We are committed to genuinely partner, and meaningfully engage, with Victoria's Traditional Owners and Aboriginal communities to support the protection of Country, the maintenance of spiritual and cultural practices and their broader aspirations in the 21st century and beyond.

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This instrument has been made to give effect to the requirements in Division 3 of Part 5 of the *Climate Change Act 2017*.

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