

Independent Expert Panel: Interim Targets for Victoria (2021 – 2030)

Summary of feedback on Issues Paper

Introduction

The Victorian Government has identified climate change as one of the biggest threats to the future of the state. The *Victorian Climate Change Act 2017* (the Act) establishes a legislative framework to drive action to achieve a net zero emissions, climate-resilient Victorian community and economy by 2050 and to harness the opportunities that this presents.

Section 10 of the Act requires the Victorian Government to set five-yearly interim emissions reduction targets, starting in 2021. Section 12 requires independent expert advice to be sought to inform the setting of these targets.

The Minister for Energy, Environment and Climate Change has appointed an Independent Expert Panel (Panel) to provide advice on the first two sets of interim targets for 2021-25 and 2026-30. The Panel members are:

- The Hon Greg Combet AM (Chair);
- Dr Penny Whetton; and
- Dr Lorraine Stephenson.

The Panel's advice must include:

- interim target recommendations for 2021-25 and for 2026-30;
- indicative trajectories to net zero emissions by 2050; and
- potential emissions reduction opportunities to achieve the targets.

Among other matters, the Panel must consider climate science, technology, existing national and global action on climate change, and potential impacts of interim targets and emissions reduction measures on the economy, environment and community.

On 29 March 2018, the Panel released an Issues Paper that called for submissions to inform the Panel and provide additional input and evidence for the Panel to consider in developing its advice to the Victorian Government.

A total of 417 submissions were received from 48 organisations and 371 individuals (including 267 coordinated submissions from individuals in support of a specific response). Submissions from organisations are published on the Engage Victoria website: <https://engage.vic.gov.au/climate-change-targets-2021-2030>. From the range of submissions received, it was clear that the Victorian community views climate change as a real and pressing issue. This document is a high-level summary of these submissions. The full content of each submission will be considered in developing advice on interim targets.

The Panel will provide its advice to the Minister by 22 February 2019. Under section 13 of the Act, the Minister must subsequently table this advice in Parliament. The Minister and the Premier are responsible for setting the interim targets.



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Target Levels and Trajectories

The Panel's core task is to provide recommendations on interim targets on the pathway to achieving net zero emissions in the Victorian economy by 2050. Submissions provided a range of views on what the target should be and the reasons for setting a target at a particular level.

Relation to national reference point

The majority of submissions agreed that Victoria's interim emissions reduction targets should relate to a national reference point, but views varied on what this national reference point should be.

Most energy and business sector stakeholders such as AGL, Australian Energy Council, Australian Gas and Infrastructure Group and Business Council of Australia stated that Victoria's 2030 target should be aligned to the national target. At present Australia's target, committed to under the Paris Agreement established by the international community in 2015, is to reduce emissions by 26 to 28 percent below 2005 levels by 2030. Reasons provided for alignment include that having different targets at the Victorian and national level could create inconsistent investment signals and additional costs for businesses operating at a multi-state or national level.

The majority of individual submissions and submissions from some stakeholder organisations such as Eastern Alliance for Greenhouse Action (a coalition of local councils) and Farmers for Climate Action supported Victoria's 2030 target being aligned with the recommendation of the Climate Change Authority for Australia of 45 to 65 percent below 2005 levels by 2030. A key stated rationale for this position is that the Climate Change Authority is an independent, expert organisation that recommended this target range based on a view of Australia's fair contribution to global efforts to limit temperature increase to below 2°C above pre-industrial levels and a range of other considerations. Only one individual submission supported alignment with the Commonwealth target of 26 to 28 per cent.

The coordinated set of submissions from individuals recommended that consideration also be given to reference points outside of Australia, such as:

- the United Kingdom's target to cut emissions by 57 percent below 1990 levels (equivalent to around 50% below 2005 levels) by 2032;
- Scotland's target to cut emissions 66 percent below 1990 levels (equivalent to around 59% below 2005 levels) by 2032; and,
- California's target to cut emissions by 40 percent below 1990 levels (equivalent to around 36% below 2005 levels) by 2030.

A few stakeholders such as Energy Australia and Business Council of Australia did not support the setting of Victorian emissions reduction targets, arguing that it was more efficient to act at the Commonwealth level. Business Council of Australia also argued that it was pointless for a sub-national jurisdiction to set emissions targets for a global climate outcome, given that it would not be additional to the national target, and that state-based targets added cost and complexity for business.

Target level and implied timing of emissions reductions

Submitters proposed a wide range of target levels, from 26% to 100% below 2005 levels in 2030.

The majority of submissions (primarily from individuals, non-government organisations, councils, peak bodies and community organisations) argued for 2030 target levels within or stronger than the Climate Change Authority's target range of 45 to 65 percent below 2005 levels. For example, the following organisations proposed 2030 targets towards the upper end of the Climate Change Authority's target range: the Climate Council (61%); Doctors for the Environment (50-60%); and Lighter Footprints (a group of about 2000 concerned residents from the Boroondara and Whitehorse municipalities in Melbourne) (63% below 2005 levels). Organisations proposing 2030 targets



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stronger than the range recommended by the Climate Change Authority included: Beyond Zero Emissions supported by Port Phillip Ecocentre (100%); Darebin Climate Action Now (85-100+%); and Environment Victoria supported by Environmental Justice Australia (65-80% below 2005 levels). Friends of the Earth and the coordinated submissions from individuals did not propose a specific target, but argued that Victoria must reduce emissions by as much as possible as quickly as possible, and not defer meaningful cuts until after 2030.

A key reason provided for a target of 45% or greater in 2030 is that this is necessary to be consistent with a global emissions pathway to limit warming in an effort to avoid the worst impacts of climate change. Submissions put forward a range of other reasons for pursuing strong emissions reductions to 2030, including:

- early action limits the future costs of abatement (and possibly of adaptation/response to extreme weather events), and reduces the risks of stranded industries and assets, while delayed action may require unfeasibly steep reductions later;
- early action can provide regulatory certainty for business and industry and allow stakeholders across sectors to identify measures and interventions to start reducing emissions;
- delaying action would place an unfair burden on future generations to reduce emissions;
- early action provides greater flexibility in the future to vary emissions reduction trajectories; and
- strong action to 2030 is an opportunity for Victoria to demonstrate leadership on climate change.

Business and energy sector groups generally proposed setting a target that required fewer emissions reductions by 2030, e.g. in line with the Commonwealth's 26-28% below 2005 levels, with deeper reductions post-2030. In addition to reasoning about national coherency as explained above, submissions argued that a stronger Victorian target than the national one may hurt the competitiveness of Victorian industry; Alinta Energy called this a "leadership premium". These groups also argued for this emissions reduction trajectory to provide time to develop technologies that will bring down the cost of emissions reductions, to allow for an orderly, just transition in the electricity generation sector and associated communities, and to allow the market to adjust. In contrast, some businesses involved in energy efficiency and renewable energy supported stronger emissions reduction targets.

Emissions budgets

The majority of submissions, across individuals and all stakeholder groups, expressed support for using an emissions budget as a tool for setting emissions reduction targets. Reasons for this included to ensure that interim targets were informed by climate science, ensuring that Victoria contributes its fair share towards the global goal of keeping warming to well below 2°C above pre-industrial levels, and linking short-term action with the achievement of long term emissions reduction goals (e.g. net zero emissions by 2050). Many submissions from individuals and environmental non-government organisations expressed a preference for using an emissions budget consistent with 1.5°C of warming. The majority of submissions suggested estimating Victoria's share of a global emissions budget using a population-based approach (i.e. on a per capita basis), while a few suggested an approach based on economic indicators such as Gross Domestic Product or Gross State Product.

Other

A common theme across submissions was the notion of flexibility with setting and meeting targets – for example, through setting target ranges, allowing the use of offsets, using five-yearly carbon budgets or allowing "carry over" between periods. Flexibility was emphasised as important for Victoria to be able to tailor its emissions reduction pathway to its economic and social circumstances to ensure ongoing prosperity, and to be able to ratchet up the strength of the targets in light of new information over time. Some stakeholders such as the Climate Council and Farmers for Climate Action emphasised that any target should be set as a minimum amount to be achieved, or a "floor", and that there should be no upper limit to reducing emissions.

Most individual submissions, and many stakeholder submissions (e.g. from Beyond Zero Emissions, the Climate Council, Environment Victoria and a range of local councils) expressed a sense of urgency to significantly reduce



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emissions by 2030 to help avoid the worst impacts of climate change. Some drew attention to a poll led by Sustainability Victoria in 2017 that found that 93 percent of Victorians believe that the Victorian government should be acting on climate change.

Some stakeholders, such as the Climate Council, suggested setting sector-specific emissions reduction targets to encourage investment and facilitate an orderly transition, while others, such as the Australian Industry Group, explicitly advised against sectoral targets because they may be too inflexible and conflict with other national policies.

Opportunities and Barriers to Reduce Emissions in Victoria

General

Decarbonising electricity generation, reducing transport emissions, and improving energy efficiency were three key areas identified by individuals and stakeholder organisations as holding the most significant opportunities for reducing Victoria's emissions. Opportunities in agriculture and forestry were also identified.

Individuals and stakeholders identified a wide range of barriers, including political will, awareness and information, upfront costs and stage of technology development.

Many submissions included policy proposals or advice. Policy development lies outside of the scope of the Panel's work; therefore, specific policy options are not included in this summary of submissions. Stakeholders' policy proposals can be read in their submissions, available online. Policies will be considered during the preparation of "sector pledges" (sections 43 to 45 of the *Climate Change Act 2017*) by Victorian government departments to meet the interim targets.

Energy supply

The large majority of stakeholders and individuals identified the decarbonisation of the electricity generation sector as the single most important emissions reduction opportunity in Victoria to 2030. Emphasis was placed on the range of readily available, cost-effective low emissions technologies (e.g. wind, solar, battery storage), particularly in comparison to other sectors that have fewer cost-effective options, with some submissions also noting the need to ensure security and reliability of supply or raising concern about potential electricity price impacts. Community energy solutions were also encouraged by a number of submissions. The Global CCS Institute argued that carbon capture and storage could play a significant, complementary role in a fully decarbonised Australian electricity market.

Beyond electricity generation, the Australian Gas Infrastructure Group noted the potential role of gas to help with the decarbonisation of the energy sector, and that existing gas networks could be used to transport net zero emissions gaseous fuels such as hydrogen and biogas.

As noted above, most energy industry submissions argued that additional time was required to ensure an orderly and just transition for the sector and communities.

Transport

Submissions stated that one of the biggest opportunities for the transportation sector was electrification of both private and public transport. It was noted that widespread uptake of electric vehicles, when coupled with the decarbonisation of the electricity grid, presents a substantial opportunity to deliver emissions reductions. Electrification of public transport such as commuter V-Line services and (battery) electric buses, and electrification of municipal service vehicles such as rubbish collection were also presented as opportunities for emissions reduction. A number of individuals and stakeholders such as the Rail Tram and Bus Union, WestWind Energy, Friends of the Earth and the Climate Council also proposed powering public transport with renewable energy (before the electricity grid is decarbonised).



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Many submissions from individuals, environmental groups and councils also encouraged increasing planning of, investment in and incentives for public and active transport. The potential benefit of integrating transport and urban planning policies including increasing urban density and zoning more areas for mixed use developments to reduce the need to travel was also noted.

Energy efficiency

Increasing energy efficiency in residential and commercial buildings, in transport and in industrial equipment was a focus of numerous individual submissions and of environmental non-government organisations, local councils and community groups, with a particular focus on buildings. The Green Building Council Australia emphasised that there are currently many cost-effective options available to reduce emissions in the built environment. Environment Victoria highlighted that the Victorian Energy Upgrades Program has consistently met its energy efficiency targets at below expected costs, and suggested expanding the program, as well as setting energy efficiency standards for rental homes. The Climate Council suggested integrating energy efficiency best practice into building codes, mandatory energy efficiency disclosure at point of lease or sale, and support for energy efficiency housing renovations.

Agriculture

Submissions from Farmers for Climate Action and the dairy industry (Dairy Australia, Australian Dairy Farmers, United Dairy Farmers of Victoria) stated that while the agriculture sector's potential to reduce emissions is more limited than that of some other sectors, there is scope to reduce emissions and improve productivity at the same time. Both the dairy industry and the meat and livestock industry have established their own emissions reduction targets: Australian Dairy Farmers have an emissions intensity target, per kilogram of milk solid, of 30 per cent below 2011-12 levels by 2020, while Meat and Livestock Australia has a target of net zero emissions by 2030¹. Opportunities identified to reduce emissions include reducing methane from livestock through feed additives and selective breeding, reducing emissions from crops by the more efficient application of fertilisers and using fertilisers with nitrification inhibitors, capturing methane emissions from manure and using it as a source of energy, and increasing vegetation plantings on farms.

Many individuals, environment groups and councils suggested that a way to reduce emissions is to move towards more sustainable patterns of food production and consumption, and that shifting to a predominantly plant-based diet and re-localising food production could assist with this.

Forestry

Submissions from environment groups suggested that curbing deforestation and retaining and restoring carbon-dense, biodiverse forests as carbon sinks would achieve cost-effective carbon reduction and sequestration. The Victorian Association of Forest Industries suggested that opportunities include carbon sequestration via sustainably managed forests and plantations, and increased use of wood as a construction material and a fuel source.

Offsets

There were varying responses to the use of offsets (i.e. purchasing emissions reductions from outside Victoria's borders) to achieve Victoria's emissions reduction targets.

¹ Note: These industry targets cover both energy emissions (e.g. electricity and fuel use) and non-energy emissions (e.g. from methane and nitrous oxide), whereas the agriculture emissions referred to in the issues paper (making up 12% of Victoria's total emissions in 2016) are solely from non-energy sources, with emissions from energy use by the agricultural industry counted under direct combustion and electricity sectors in accordance with international greenhouse gas accounting frameworks.



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Most submissions from environmental groups, social non-government organisations, local councils, small energy companies and individuals did not support the use of offsets. A common argument presented is that not allowing offsets ensures the economic, environmental and social benefits of a low-carbon transition, such as job and industry creation, remain in Victoria. Many individuals and environmental organisations such as Environmental Justice Australia argued that use of offsets shifted the responsibility to reduce emissions on to others, which was seen as Victoria avoiding its responsibility to contribute to this global challenge, and which was considered to risk generating regional and international injustice. Some submissions also raised concerns about potential human rights abuses and negative environmental impacts associated with some international offsetting schemes.

Business and large energy groups encouraged the use of offsets to minimise the cost and maximise flexibility to meet the interim targets, provided the offsets were of a high quality. Opportunities to develop links between the Australian carbon market and international markets were also highlighted. A minority of individual submissions supported the use of offsets, arguing that as it is global emissions that are causing warming, it does not matter whether the emissions reductions occur within or outside of Victoria's borders.

Impacts and Benefits

Submissions raised a range of impacts and benefits of emissions reductions, which can broadly be categorised as economic impacts, health impacts, and equity considerations. Many individuals also suggested considering impacts of reducing emissions in the context of the significant economic and environmental costs of inaction. The Victorian Aboriginal Heritage Council highlighted that a changing climate is already affecting sites of cultural and spiritual importance to Aboriginal people, who have been custodians of the land and water now known as Victoria for at least 40,000 years.

Economic impacts

Submissions highlighted both economic costs and benefits of reducing emissions.

Electricity generators cautioned that the decarbonisation of electricity generation needed to ensure the ongoing security and reliability of electricity supply, while business groups emphasised that attention should be given to the impact on electricity prices and the consequences for businesses and households. Potential negative impacts on competitiveness, particularly that of emissions-intensive trade exposed industries, were also noted.

Individuals and organisations including the Clean Energy Council, Friends of the Earth and Victoria Trades Hall Council underlined the job opportunities presented by a clean energy transition. Improving energy efficiency in buildings was highlighted as a way for Victorian families and businesses to achieve potentially significant financial savings.

Health impacts

Doctors for the Environment highlighted the multiple negative health impacts that unmitigated climate change could bring about, including threats to the supply of adequate food, water, biodiversity and clean air. Many individuals and some environmental organisations highlighted the negative impacts that coal-fired power generation and internal combustion engines of motor vehicles have on air quality, and the respiratory and heart diseases that this can cause. Improving the health of communities in the Latrobe Valley and in major metropolitan centres such as Melbourne were highlighted as key benefits of reducing emissions. Better health was also noted as a co-benefit of improving energy efficiency in homes, particularly in low-income households, and of reducing meat consumption.

Equity considerations

Submissions from individuals and from stakeholders across multiple sectors and affiliations raised the importance of environmental justice, equity and ensuring a fair and inclusive transition for all, with a particular focus on low income households and workers in industries that would wind down as part of a low-carbon transition. Submissions encouraged focusing on retraining and developing alternative employment opportunities for workers currently in



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high-emissions industries, and supporting households who may not otherwise be able to invest in renewable energy (e.g. solar panels) or energy efficiency upgrades, which in turn could help reduce energy bills, increase comfort and improve health outcomes. Doctors for the Environment noted that failure to provide this support could leave low-income households behind in the low-carbon transition and lead to further disadvantage. The Law Institute of Victoria suggested allowing public interest litigation to be brought by people potentially affected by intergenerational inequity.

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Appendix 1: List of organisations providing submissions

Name of Organisation	
AGL Energy	Environment Victoria
Australian Industry Greenhouse Network	Environmental Evolution
Alinta Energy	Environmental Justice Australia
Australian Dairy Farmers (ADF)	Farmers for Climate Action
Australian Energy Council	Friends of the Earth
Australian Gas Infrastructure Group	Global CCS Institute
Australian Industry Group	Green Building Council Australia
Basalt to Bay Landcare Network	Law Institute of Victoria
Bayside Climate Change Action Group	Lighter Footprints Inc
Beyond Zero Emissions	Macedon Ranges Shire Council
Business Council of Australia	National Centre for Climate Restoration
Central Victorian Greenhouse Alliance	Northern Alliance for Greenhouse Action
Centre for Climate Safety	Onsite Energy Solutions Pty Ltd, Energy Makeovers Pty Ltd, Energy Inspection Pty Ltd and Energy Renovations Insulation Services Pty Ltd (trading as Ambisol)
Clean Energy Council	Port Phillip EcoCentre
Climate Council	Rail, Tram and Bus Union
Dairy Australia (joint submission with ADF)	Ryde Gladesville Climate Change Action Group
Darebin City Council	South East Environment Network
Darebin Climate Action Now and 12 community climate groups	Trust for Nature
Doctors for the Environment Australia	United Dairy Farmers of Victoria (joint submission with ADF)
Eastern Alliance for Greenhouse Action	Victorian Aboriginal Heritage Council
Echo Group Australia	Victorian Association of Forest Industries Inc.
Ecocern P/L	Victorian Trades Hall Council
Energy Australia	Westwind Energy Pty Ltd

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