



Victoria's 2030 emissions targets

Response to the Victorian Government

Brotherhood of St Laurence
July 2019

Summary

Climate change poses the most profound threat to all of our futures, and poses particular risks to Victorians living on low incomes and those who are already facing disadvantage.

To this end, the Brotherhood of St Laurence recognises the imperative for action and the need to keep global warming below an increase of 1.5 degrees. We welcome the Interim Emissions Reduction Targets for Victoria (2021-2030) Final Report and the Victorian Government's serious attention to this issue.

We cannot afford to wait any longer for climate change action. The costs of inaction are high and will increase. Further, delaying action will require us to make more dramatic cuts in the near future. As with other significant structural adjustments, the impacts of these deep cuts are likely to be greatest on those directly affected and those already suffering disadvantage.

We know that climate action presents challenges. It also presents real opportunities to create jobs as Victoria moves towards clean energy and a low carbon future. It will be essential to have an integrated strategy to ensure economic security and seize the opportunities as we transition to a zero-carbon future. To benefit low-income and vulnerable Victorians there are many opportunities for emissions reductions that will also lead to other benefits (such as improving the energy efficiency of people's homes, or improving public transport).

In reducing emissions in line with a 1.5°C warming limit, the Victorian Government also needs to adopt a clear strategy to engage with and support communities and households affected by the impacts of climate change, and provide timely and targeted support for communities dependent on high-emissions industries during the transition..

The Brotherhood of St Laurence and energy

The Brotherhood of St Laurence is an independent non-government organisation with strong community links that has been working to reduce poverty in Australia since the 1930s. Based in Melbourne, but with a national profile, the BSL continues to fight for an Australia free of poverty. We undertake research, service development and delivery, and advocacy with the objective of addressing unmet needs and translating the understandings gained into new policies, new programs and practices for implementation by government and others. The Brotherhood's Energy, Equity and Climate Change program has been undertaking research, advocating for equitable policies and delivering programs to low-income households since 2007.

1 Introduction

The Brotherhood of St Laurence (BSL) welcomes this opportunity to respond to the Independent Expert Panel's report on the interim emissions reduction targets for Victoria. We commend the Panel for its extensive work, and for taking seriously the urgent threats and opportunities presented by climate change.

Climate change poses grave risks to all Victorians, but particularly households and communities who are already vulnerable to existing stressors (for example unemployment, poor health, insecure or inadequate housing). The risks from human-induced climate change span almost all areas of life, including health, jobs and the economy, the built environment, water and energy supplies, food security and agriculture, migration and our natural environment.

Low-income Victorians, and those who are facing existing stressors or disadvantage, have a reduced ability to adapt to the impacts of climate change. For example, through our energy efficiency pilots and research, we know many low-income Victorian households live in homes that are unhealthily hot in summer, particularly during heatwaves. These households face a variety of barriers to keeping their homes cool. They are often worried about the cost of using cooling systems (if they are even present); many lack capital to upgrade inefficient cooling systems, and renters face a lack of control over the property. Many others live and work in communities that face huge risks, especially those dependent on natural resources, agriculture and tourism. By 2050, losses of \$146 million per year are expected in Victoria by 2050 due to severe heatwaves alone, largely in regional areas (Natural Capital Economics 2018, p. 2), while \$211 billion is expected to be lost due to labour and agricultural productivity losses, Australia-wide (Climate Council 2019, p. iii).

At the same time, communities dependent on high-emissions industries—particularly the Latrobe Valley—are vulnerable to the impacts of reducing emissions. Working people and those not working must be protected through the transition and provided with opportunities to live with dignity. Policymakers should engage with these communities to understand and adapt to their needs.

The Panel's task and the Government's long-term policy responses to it are therefore vital to Victoria's future, and we must act now to ensure a socially just transition to a zero-carbon society. Good policy will both protect Victorians from the impacts of climate change and create employment and other economic opportunities, including for communities historically dependent on high-emissions industries such as coal-mining. The need to act is urgent because climate change is already affecting Victoria, and as the Panel notes, delayed action will be costlier and potentially too late.

This submission provides the Brotherhood's response to the proposed targets. Headings refer to the question numbers in the Victorian Government's consultation survey.

2 Responses

1a & b: Do you support these targets recommended by the Panel? Why/why not?

The Brotherhood supports a target consistent with limiting global warming to 1.5°C.

The Brotherhood supports a target consistent with limiting global warming to 1.5°C, because of the importance of limiting the dangerous impacts of climate change, because it is in Victoria's social and economic interests, and because Victoria must contribute a fair share to the global emissions reduction efforts. ¹

The Panel's recommended targets are credible and, according to the Panel, are consistent with Australia's Paris commitment to 'holding the increase in global average temperature to well below 2°C', but less so to meeting 1.5 C° (see Q3 below). According to the Panel's own modelling, a more ambitious target would be both cheaper to implement² and consistent with less harmful warming.

Warming of above 1.5 °C poses substantially greater risks to low-income households and those already disadvantaged.

Two degrees of warming is predicted to create substantially greater risks for Australia and the rest of the world than 1.5 °C (Intergovernmental Panel on Climate Change 2018) and it is imperative to avoid these. Some predicted consequences of 2 °C of warming include:

- For Melbourne: doubling of days over 35 °C; increases to mean, daily maximum and daily minimum temperatures; hotter and more frequent temperature extremes (CSIRO & Bureau of Meteorology 2015a, p. 4). Specific population groups, including those over 75 and infants, are particularly vulnerable to the impacts of heatwaves. Those on low incomes often have less capacity to adapt.
- For south-east Australia: More time in drought, less rain, higher seas and harsher fire weather (CSIRO & Bureau of Meteorology 2015b). Many low-income households are under or uninsured and therefore face specific threats from extreme weather events, where government does not step in as a back-stop insurer. Drought and extreme weather events could therefore push uninsured people into poverty. Droughts in Australia and overseas could also significantly increase food prices (Quiggin 2007).
- For Australia: Every year, a 77% likelihood of a summer similar to the 'angry summer' of 2012–13, which caused severe heatwaves, blackouts and bushfires an increase over the

¹ References to global warming in this submission are relative to pre-industrial levels. Emissions reduction targets are 2030 targets relative to 2005 levels unless otherwise noted. All temperatures are expressed in Celsius.

² 'The expert analysis found that pathways with earlier emissions reduction (i.e. reaching 55% and 65% reductions below 2005 levels in 2030) resulted in lower aggregate economic costs in reaching net zero emissions in 2050 than pathways with fewer emissions reduction to 2030' (p.96).

- likelihood at 1.5°C (King, Karoly & Henley 2017, p. 415). 'Complete loss' of Kakadu (Hare 2003, p. 21) and disappearance of the Great Barrier Reef 'as we know it' (Garnaut 2008, p. 127).
- For the world: The Arctic Ocean becoming ice-free in summer, which is not predicted to occur most years at 2°C (Jahn 2018). Globally, 8 million more people exposed to coastal flooding per year than with 1.5 °C warming (Watson & Le Quéré 2018, p. 23).

More ambitious emissions reduction targets won't undermine growth or increase costs significantly.

Modelling shows that ambitious emissions reduction targets are economically responsible. In a review of 22 reports modelling ambitious targets, Swann and Merizan (2019, p. 3) found that all models showed the cost of climate action to be 'very small compared to ongoing economic growth' and all targets led to 'strong ongoing growth from 2020 to 2030'. The Panel's modelling shows that a 65% target 'consistently implies the lowest or equal lowest loss of [gross state income]' compared with lower targets (2019, p. 138), and that 'pathways that require stronger emissions reduction by 2030 have a lower economic cost to reach net zero emissions than those with weaker reductions' (2019, p. 93). RepuTex (2017, p. 5) found that Australia could meet a 1.5 to 2 °C target at no net cost (or at a net saving) because the financial benefits of implementing the necessary abatement would far outweigh the cost.³ Research commissioned by the Brotherhood and ACOSS showed that 2030 residential electricity prices would be 16% lower than current levels under a 65% target (ACOSS & Brotherhood of St Laurence 2018, p. 35).

A just transition for households, workers, communities and industries is essential.

Decarbonising the economy will lead to significant and uneven impacts on communities and the economy, most notably in the Latrobe Valley; however, other areas are also vulnerable. Transition plans for regions, communities, workers and households will be essential, as will ensuring communities are actively involved in designing the transition plans, within a framework of limiting emissions in line with a 1.5° target.

2: Are these the key issues influencing what the right targets are for Victoria? Are there other issues that should be considered?'

The Panel has considered an appropriate range of issues; however we encourage greater consideration of:

the needs of vulnerable communities. Climate change is likely to exacerbate disadvantage, so
a stronger target will promote social justice for vulnerable communities, a policy objective of
the Climate Change Act 2017. We encourage the Government to conduct deliberative
engagement with communities vulnerable to the impact of climate change and those
communities facing existing stressors to understand their needs and devise appropriate
responses.

³ The research relates to Australia, not Victoria, but the authors note that 'the states have a number of "low hanging" policy opportunities available in the event that policymakers seek to take action in the absence of federal policy'.

• the costs of inaction and delayed action. The costs of inaction on climate change are unacceptable, and as the Panel acknowledges (2019, p. 93), early action is cheaper than delayed action. However, prompt action does not seem to be reflected in the Panel's trajectories in which emissions reductions accelerate after 2030 (see below).

3a & b: Do you agree with the Panel's indicative trajectories to 2050? Why/why not?

The Panel's chosen trajectories appear reasonably sound if a 2°C target is the objective, but less so for well-below-2°C or 1.5°C targets.⁴ For a 45% target at 2°C and well-below-2°C, reductions must accelerate after 2030, which is at odds with the Panel's acknowledgement that early action is cheaper than delayed action (2019, p. 93).

The Panel's trajectories show that a 45% target is not consistent with restricting warming to 1.5°C. For a 45% target to be consistent with a 1.5°C rise, Victoria's emissions would need to fall from over 60 MtCO₂-e to zero in one year (see Figure 1), which is not plausible if society continues to function normally.

1.5°C trajectories 2016 2020 2030 Historical Trajectories Trajectories to 2050 Projected 140 emissions 120 100 80 60 40 20 0 2005 2010 2015 2020 2025 2030 2035 2040 2045 2050

Figure 1: 1.5 °C trajectories for the Panel's recommended targets

Source: Reproduced from the Panel's report, p.54.

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⁴ The Climate Council (2018) argue that Victoria's remaining budget is far smaller than the figure given by the Panel, implying a much sharper reduction is necessary to meet 2°C.

As the Panel notes (2019, p. 58), the 60% target theoretically 'could be' consistent with a 1.5 °C rise, although it would necessitate rapid reductions after 2030, and it seems unlikely to occur without substantial investment and policy change. If Victoria's target is to be consistent with limiting global warming to 1.5°C, the 67% straight-line trajectory identified by the Panel (2019, p. 53) is a preferable option.

4: Are there other key greenhouse gas emissions reduction opportunities beyond those the Panel identified?

The Panel has identified a range of appropriate emissions reduction mechanisms.

The Victorian Government should develop an emissions reduction plan, which includes the key mechanisms and initiatives to achieve emissions reductions in the next four-year period. This should include sectoral plans and should be annually updated with progress of initiatives. An independent expert panel could oversee the implementation of the plan.

To this end, we suggest pursuing the following opportunities:

- Consideration should be given to Victorian collaborating with other states to introduce carbon pricing. Carbon pricing creates financial incentives for businesses to reduce their emissions, which often do not otherwise exist. Its absence will continue to undermine efforts to reduce emissions, as has occurred at a federal level, where industrial emissions increases have exceeded the abatement purchased by the Commonwealth (Reputex 2019). Victoria could consider joining with other states/territories to create a carbon pricing scheme.
- Strong minimum energy efficiency standards for rental homes. Many rental homes are very energy-inefficient and therefore create unnecessary emissions, but tenants face systemic barriers to improving them, and landlords generally lack an incentive to do so (as the Panel acknowledges). Mandating minimum energy efficiency standards is the most realistic way to improve these homes and to realise the associated emissions reductions. The Victorian Government is presently seeking to legislate standards for some limited aspects of rental homes' energy efficiency, and we recommend extending the standards to include hot water systems, lighting, solar PV and insulation. This is also likely to help vulnerable renter households adapt to climate change (through improved thermal performance), as well as benefitting their health and ability to afford energy.
- Energy efficiency and solar access programs for low-income households. Even when they
 own their homes, low-income households often struggle to access energy efficiency measures
 and solar PV systems. We recommend that the Victorian Government expand its initiatives to
 assist low-income households to access energy upgrades (including high-efficiency appliances)
 and solar PV and to achieve the related emissions reductions. We are heartened by the
 success of Solar Homes, but this scheme is not specifically targeted at low-income
 households.

5a & b: Across the Victorian economy, which activities do you think the Victorian Government should prioritise in reducing Victoria's greenhouse gas emissions? What policies or programs are needed to drive these emissions reductions?

The Victorian Government should develop an emissions reductions opportunities plan and report on it annually. The priorities for emissions reductions should be based on:

- 1. Lower cost abatement
- 2. Enabling a just transition for communities and households
- 3. Maximising co-benefits—such as health benefits, reduced air pollution, increased employment
- 4. Avoiding locking in future carbon emissions in areas where decisions today impact future emissions for example urban design, land-use and major infrastructure projects

Our initial sense is the Victorian Government should prioritise the following activities:

- Decarbonising the energy sector. Given that electricity generation produces the majority of Victoria's emissions, and that renewables are the cheapest form of new-build generation (DELWP 2018a, p. 6; Graham et al. 2018), decarbonising the energy sector is both highly practical and the most important step toward reducing emissions.
- Energy efficiency programs, including specific programs for low-income households (see above), and electrification of residential appliances (i.e. encouraging the use of electric—not gas—appliances for hot water, cooking and heating). Ideally these would leverage the VEET scheme. However, on its own VEET is not sufficient to promote a significant increase in activity in the harder-to-reach segments of the population.
- Deliberative engagement with communities at risk, e.g. the Latrobe Valley, to understand their needs and respond appropriately.
- Strengthened efficiency standards for new and existing buildings, with graduated support for low-income people to meet them.
- Stronger emissions and efficiency standards for light vehicles (cars, SUVs, vans and utilities). Strengthening Australia's weak vehicle emissions standards to meet those of the EU and USA would not only achieve substantial emissions reductions, but would also save the country an estimated \$48.70 per tonne of abatement (Commonwealth of Australia 2016, p. 6). The Victorian Government should advocate to the Commonwealth to implement such standards as a priority.
- Support for low-income households to access electric vehicles. Electric vehicles can provide
 low-emissions transport and low running costs, but they will remain largely unaffordable for
 low-income people as long as their purchase prices remain high. Prices are likely to fall
 naturally as technology matures, but this may take many years, especially for the used car
 market where many low-income people shop.

- Better urban design and assessment of emissions from major infrastructure projects, and consideration of lower-emissions alternatives (e.g. in the extension of Melbourne's urban growth boundary, East West link). Emissions reductions can be achieved by limiting urban sprawl and protecting urban green spaces (Zhang et al. 2014). Major public transport initiatives (e.g. the Melbourne Metro and Airport Rail) may also enable mode shift and lower dependence on cars.
- Social-access solar gardens, whereby people who are normally unable to can access the benefits of solar electricity by purchasing it from a shared facility.
- Supporting community organisations to lower their emissions. Community organisations (from local sporting clubs to large NGOs) can make more effective use of limited funds if they achieve savings from energy efficiency. However, they often need support to lower their emissions and have not been targeted by existing initiatives.

7: In addition to those identified by the Independent Expert Panel (see Chapter 7 of the Panel's report), are there other key benefits of reducing greenhouse gas emissions?

The Panel has considered appropriate benefits, although we also encourage consideration of benefits at the level of individual households, which may be unevenly distributed and not always taken into account. Emissions reductions projects take many forms and individuals may benefit in varied ways, including better health and longer lives (e.g. from reduced air pollutants and more thermally efficient housing), new employment and education opportunities in low-emissions fields, resilience against temperature extremes, protection from disasters and financial risk, quicker commutes as public transport improves, and continued access to nature.

8: Of all the benefits of reducing emissions, which are the most important and why?

We suggest that the following benefits are the most important:

- Avoiding the impacts of dangerous climate change.
- Improving human health, noting that the health impacts from pollution associated with the electricity and transport sectors are conservatively estimated to cost \$1.08–2.1 billion per year (DELWP 2018b).
- Supporting low-income and vulnerable people as we transition to a zero-carbon society.
- Our moral obligation to join the global effort and the lower costs of acting sooner.

9: From your experience, are there any barriers to reducing Victoria's greenhouse gas emissions that the Independent Expert Panel didn't identify?

A range of political and social barriers may increase the difficulty of the emissions reduction task:

- The lack of a Commonwealth emissions target in line with 2 °C of warming or a policy to achieve it will increase the Victorian Government's emissions reduction task.
- The absence of coherent federal energy policy is likely to defer investment in renewable electricity generation.
- The absence of carbon pricing will continue to slow down the transition to a low-emissions economy.
- The political need to convince people that they will benefit from action on climate change, and that renewable energy can deliver low prices and satisfactory reliability.

References

ACOSS & Brotherhood of St Laurence 2018, *Affordable, clean energy for people on low incomes*, ACOSS, Fitzroy, Vic., viewed 24 July 2019,

low-incomes-2019.pdf.

Climate Council 2018, Submission to the independent expert panel on the interim emissions reduction targets for Victoria (2021-2030), Climate Council, [Potts Point, NSW].

—— 2019, *Compound costs: how climate change is damaging australia's economy*, Climate Council, [Potts Point, NSW].

Commonwealth of Australia 2016, *Improving the efficiency of new light vehicles: draft regulation impact statement*, Commonwealth of Australia, Canberra, viewed 20 July 2019, https://infrastructure.gov.au/roads/environment/forum/files/Vehicle_Fuel_Efficiency_RIS.pdf.

CSIRO & Bureau of Meteorology 2015a, *Climate change in Australia: projections for Australia's NRM regions*, CSIRO, Melbourne.

—— 2015b, Southern slopes cluster report, CSIRO, Australia.

DELWP 2018a, *Victorian greenhouse gas emissions report*, viewed 20 July 2019, https://www.climatechange.vic.gov.au/__data/assets/pdf_file/0033/395079/Victorian-Greenhouse-Gas-Emissions-Report-2018.pdf.

—— 2018b, Estimating the health costs of air pollution in Victoria, DELWP, Melbourne.

Garnaut, R 2008, 'Climate change impacts on Australia', *The Garnaut climate change review: final report*, pp. 121–152, viewed http://www.garnautreview.org.au/pdf/Garnaut_Chapter6.pdf.

Graham, PW, Hayward, J, Foster, J, Story, O & Havas, L 2018, *GenCost 2018: updated projections of electricity generation technology costs*, CSIRO, viewed 19 July 2019, https://publications.csiro.au/rpr/download?pid=csiro:EP189502&dsid=DS1.

Hare, W 2003, Assessment of knowledge on impacts of climate change - contribution to the specification of the Art. 2 of the UNFCCC, Wissenschaftlicher Beirat der Bundesregierung Globale Umweltveränderungen, Berlin.

Independent Expert Panel on Interim Emissions Reduction Targets for Victoria 2019, *Interim emissions reduction targets for victoria (2021-2030)*.

Intergovernmental Panel on Climate Change 2018, *Global warming of 1.5°c: summary for policymakers* TW V Masson-Delmotte, P Zhai, H O Pörtner, D Roberts, J Skea, P R Shukla, A Pirani, W Moufouma-Okia, C Péan, R Pidcock, S Connors, J B R Matthews, Y Chen, X Zhou, M I Gomis, E Lonnoy, T Maycock, M Tignor (ed), World Meteorological Organization, Geneva, viewed 19 July 2019, https://report.ipcc.ch/sr15/pdf/sr15_spm_final.pdf.

Jahn, A 2018, 'Reduced probability of ice-free summers for 1.5°c compared to 2°c warming', *Nature Climate Change*, vol. 8, pp. 409–4133.

King, AD, Karoly, DJ & Henley, BJ 2017, 'Australian climate extremes at 1.5 °c and 2 °c of global warming', *Nature Climate Change*, vol. 7, no. 6, pp. 412–416.

Natural Capital Economics 2018, *Heatwaves in Victoria: a vulnerability assessment*, Natural Capital Economics, Melbourne.

Quiggin, J 2007, *Drought, climate change and food prices in Australia*, Australian Conservation Foundation, Melbourne.

Reputex 2019, 'Running to stand still – industry baselines under the safeguard mechanism', viewed 24 July 2019, https://www.reputex.com/research-insights/update-running-to-stand-still-industry-emissions-baselines-under-the-safeguard-mechanism/.

RepuTex 2017, Meeting a 2 degree target: a marginal abatement cost curve for Australia under the paris agreement (summary briefing), Reputex, Melbourne.

Swann, T & Merizan, R 2019, A model line-up: comparing economic models of high ambition emission reduction targets, The Australia Institute, Canberra.

Watson, RT & Le Quéré, C 2018, *The implications of global warming of 1.5°c and 2°c summary report*, Tyndall Centre for Climate Change Research, University of East Anglia.

Zhang, B, Xie, G di, Gao, J xi & Yang, Y 2014, 'The cooling effect of urban green spaces as a contribution to energy-saving and emission-reduction: a case study in Beijing, China', *Building and Environment*, vol. 76, pp. 37–43.

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