

## Submission to Independent Expert Panel on Interim Targets

May 2018

### Summary

The Victorian Climate Change Act (2017) was an important step forward in re-establishing the state as a climate change leader. The next critical step is setting the state's 2025 and 2030 emissions targets. Building on the state's target of net zero emissions by 2050, the interim targets begin the establishment of a zero-carbon economic development plan for the state. These targets will be a critical underpinning of Victoria's sectoral emissions reductions strategies. These strategies can help manage the risks of the transition to zero carbon emissions and unlock the opportunities that will come from a plan to modernise the Victorian economy.

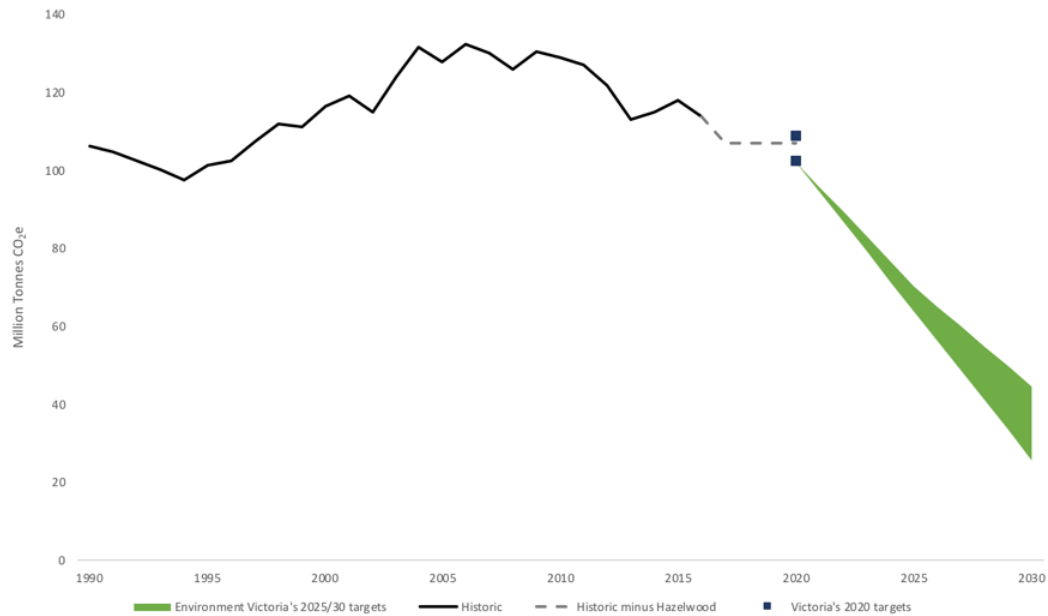
Overall, Environment Victoria is recommending the Panel, at a minimum, recommend targets based on carbon budgets consistent limiting global warming to 1.5-2°C by 2100. This would see Victoria reduce emissions by (Figure 1):

- 45-50 percent below 2005 levels by 2025
- 65-80 percent below 2005 levels by 2030

Priority policies that need to be implemented to achieve interim and long-term targets include:

- Bringing 1,000 MW of new, large-scale renewable energy online every year for the next four years
- The Environment Protection Authority (EPA) implementing limits for carbon pollution on major emissions sources that decline over time in accordance with the state trajectory
- boosting the Victorian Energy Upgrades Program (VEUP) to drive efficiency investment in homes and businesses across the state
- setting efficiency standards for rental homes, and;
- ensuring a just and fair transition to a sustainable Victorian society and economy.

Figure 1: Environment Victoria’s recommended 2025 and 2030 emissions reductions targets. Recent changes in Victoria’s emissions, including an illustration of the impact of the closure of the Hazelwood Power Station, and the states 2020 targets are also shown.



## Introduction

Environment Victoria welcomes the opportunity to submit to the Independent Expert Panel on Interim Targets (the Panel).

Environment Victoria is an independent and not for profit organisation that has been campaigning to look after Victoria’s environment since 1969. With more than 40-grassroots member groups and 150,000 individual supporters, Environment Victoria is a growing community of Victorians standing up for a safe climate, healthy rivers and a sustainable future.

The following considerations should be front of mind when determining Victoria's emissions reduction pathway:

- 1.5°C should not be considered safe. As outlined in the Panel’s discussion paper, limiting global warming to 1.5°C would significantly reduce the risks of climate change to Victoria. However, even at this level of climate change, the Australia faces serious climate change risks.<sup>1</sup> Over the long-term and to avoid the very worst impacts of climate change every tonne of carbon we release from now on will need to be drawn down and sequestered for geological timescales.
- Victoria is making progress to a cleaner future and starting to reap the benefits. The state’s 2020 emissions and 2020 renewable energy targets are likely to be already met. The recent auction under the Victorian Renewable Energy Target has seen unprecedented interest from

project developers and investors. The Panel has clearly articulated the benefits of taking further early action to reduce emissions and stimulate zero carbon investment.

- Clean energy is dominating the future of the global electricity sector due to steep declines in costs, innovation and government policy. Bloomberg New Energy Finance conclude that new solar is already at least as cheap as new coal in Australia, Germany, the USA, Spain and Italy and costs are forecast to fall by another two-thirds by 2040.<sup>2</sup> Over the same period onshore and offshore wind are projected to fall in cost by over 45 percent and 70 percent respectively. Overall, more than 70 percent of the US\$10 trillion spent in the power sector over the next 20 years will be invested in new wind and solar plants. This will be supported by new smart grids, and utility and small-scale batteries increasingly competing with gas to provide system flexibility at times of peak demand.
- Victorians see the benefits of a clean energy future. The polling commissioned by state government agency Sustainability Victoria found that over three-quarters of Victorians believe that climate change is an urgent issue that needs action now and 84 percent of Victorians support the Victorian Renewable Energy Target.<sup>3</sup> Ninety-three percent believe the state government should be acting on climate change (with 48 percent saying the state government should be leading, and 44 percent saying the state government should be contributing).
- The lack of credible national action on climate change is damaging Victoria's interests. The absence of clear national policy to meet the objectives of the Paris Agreement increases the risk and cost of power sector investment in Australia.<sup>4</sup> Credible state action can help manage the risks to Victoria from ineffective national action. It reduces the risk of stranded assets and economic shocks in later years and attracts lower cost zero emissions investment to Victoria.

Even with credible national action the case for state-based action would remain. Consistent signals between state and federal targets would strengthen investor confidence (each acts as back-up against future target change) and gives clear direction to state-based policy making which will not be materially impacted by federal policies (e.g. state-based planning decisions).

## **Environment Victoria's response to the Panel's Paper**

This submission is structured in two parts.

The first provides answers to specific questions from the Panel on the setting of Victoria's interim targets. Overall, Environment Victoria is recommending the Panel, at a minimum, recommend targets based on carbon budgets consistent limiting global warming to 1.5-2°C by 2100. This is in line with the objectives of the Paris Agreement.<sup>5</sup> This would see Victoria reduce emissions by:

- 45-50 percent below 2005 levels by 2025
- 65-80 percent below 2005 levels by 2030

The second part of the submission outlines the priority policies that need to be implemented to achieve interim and long-term targets.

## Section 1: Setting 2025 and 2030 pollution targets

Question	Environment Victoria's response	Comments
Questions: Targets and Trajectories		
Should Victoria's interim emissions reduction targets relate to a national reference point?	<b>No.</b> Victoria's targets should be set against the international reference point of limiting global warming to 1.5-2°C by 2100	<p>Targets should be set against the environmental outcome they are seeking to achieve.</p> <p>A clear link to the Paris Agreement also gives clear long-term signals to investors. This reduces costs, the risks from more rapid transitions in the future, and ensures investments don't flow to other jurisdictions.</p> <p>It also increases the credibility of the State in arguing for national action consistent with its long-term interests.</p>
Do you think a Victorian emissions budget should be used as a tool in the Panel's analysis?	<b>Yes</b>	<p>Setting the target based on a carbon budget is more scientifically robust as the limiting of long-term cumulative emissions is a strong indicator of respecting an agreed global temperature limit.</p> <p>Using the long-term carbon budget also provides a strong link between short-term emissions and longer-term climate goals. That is, it provides a framework against which to assess the adequacy of short-term targets and ensure that they don't prohibit the achievement of the long-term goal.</p> <p>Finally, it provides a clearer longer-term investment signal to guide investment decisions on emitting activities.</p> <p>We have conducted our own emissions budget analysis to</p>

		inform our suggested targets for 2025 and 2030.
If yes, what global temperature outcome should a Victorian emissions budget be consistent with (e.g. 2°C above pre-industrial levels)?	A <b>global carbon budget</b> that gives a high chance (>85 percent) of limiting warming to less than 2°C and leaves open the <b>option of limiting warming to 1.5°C</b> by the end of the century	<p>Budgets focused only on limiting warming to less than 2°C are not necessarily consistent with the totality of the Paris Agreement’s objectives: for example, a budget with a &gt;66 percent chance of limiting warming to less than 2°C would give a low chance of limiting warming to 1.5°C by 2100.</p> <p>The upcoming report from the Intergovernmental Panel on Climate Change on emissions pathways consistent with 1.5°C could be used to define this emissions budget.</p>
If yes, how should Victoria’s share of a global or Australian emissions budget be calculated?	The calculation should be <b>transparent</b> and based on a <b>range of possible allocation methods</b>	<p>Defining a share of a global carbon budget is a matter of ethical judgement. Do Victorians find it acceptable that we do less than people in other countries or parts of Australia? Should Victorians do more than others because we are historically high emitters and vulnerable to the impacts of climate change?</p> <p>In defining its budget, the government should be transparent on its assumptions and choices. It should also not rely on only one method for defining Victoria’s share of the global carbon budget.</p>
What type of target should be set?	<b>Five yearly carbon budgets</b>	Expressing the target as a carbon budget provides flexibility while ensuring the overall environmental effectiveness of the policy is maintained.
Should targets be set as a range or a single point?	<b>Targets should consistent with limiting warming in line with the objectives of the Paris Agreement</b>	The target is not forming a hard cap on emissions like an emissions trading scheme. As such the need to provide a high level of short-term certainty to investors is not required.

		Setting the target as a range would not diminish its effectiveness as long the entire range was <b>consistent with the objectives of the Paris Agreement</b> .
Should the target be economy wide or a number of different targets for different sectors?	<b>Economy-wide target</b>	Sectoral targets, consistent with overall target, should be developed as part of the Sectoral plans under the Climate Change Act. Sectoral targets should also be expressed as carbon budgets.
Would you recommend Victoria's targets be for 2021-25 and 2026-30, and why?	<p>These <b>carbon budgets</b> consistent with these emissions targets:</p> <ul style="list-style-type: none"> <li>• 2025: 45-50 percent below 2005 levels</li> <li>• 2030: 65-80 percent below 2005 levels</li> </ul>	<p>These targets provide a reasonable band of emissions reductions based on climate science and a range of equity considerations.</p> <p>They are based on:</p> <ul style="list-style-type: none"> <li>• At a minimum the Victorian target should be based on the strongest Climate Change Authority national target. As the Climate Change Authority states these national targets: <i>"could be appropriate if, for example, Australia was contributing to global action to limit warming to no more than 1.5 degrees, or a higher (75 percent) chance of less than 2 degrees."</i><sup>6</sup></li> <li>• The convergence of Victoria's per capita emissions in 2030 to levels consistent with the global average under scenarios in line with the Paris Agreement objectives (~3 tonnes per person).<sup>7</sup></li> </ul>

## **Section 2: Priority actions to meet 2025 and 2030 targets**

Targets are signals of intent and future direction. Targets do not directly reduce emissions, rather, they guide the emissions reduction policies that governments implement and inform business expectations regarding the future. In doing so, they play an important role in linking near-term decisions with longer-term timeframes and ultimately, with global climate objectives.

Critically, while the scale of the target will influence the strength of the policies put in place to achieve it, the costs, benefits and distributional impacts of achieving a target are more dependent on the policy mix chosen, rather than the target itself.

Environment Victoria has defined a comprehensive list of policies to ensure Victoria's continued leadership on climate change.<sup>8</sup> Below are the priority actions that Panel should investigate as part of its advice to the Victorian Government on the actions required to meet the states interim and long-term targets.

### **Bring 1,000 MW of new, large-scale renewable energy online every year for the next four years**

Creating a strong pipeline for new renewable energy projects is a crucial step towards ensuring Victoria has a 21st century energy system. To support this, Victoria has adopted the Victorian Renewable Energy Target (VRET). The benefits of this policy stretch across Victoria, with analysis by Ernst & Young showing that procuring 5,150 megawatts (MW) of new renewable projects would create 9,800 jobs, push power prices down and reduce climate pollution by 140 million tonnes.<sup>9</sup>

The government should schedule annual tenders to procure 1,000 MW of renewable energy per year for the next four years. Regular, reliable procurement will give local businesses the certainty to invest in manufacturing while providing a reliable source of new jobs and energy capacity. This procurement will build on projects already under construction to meet Victoria's target.

### **Implement limits for carbon pollution on major emissions sources**

The Victorian government has undertaken significant reforms of the Environment Protection Authority (EPA), and changes so far have been welcomed by Environment Victoria. While the Climate Change Act confirms that the EPA has the power to regulate greenhouse pollution, to date, the EPA has failed to effectively use these powers.

The independent committee that reviewed the Climate Change Act in 2015 made it clear that EPA regulation of carbon dioxide emissions through licences operations was a clear way for Victoria to achieve its climate commitments:

*"The IRC believes that to be a leader in climate change, Victoria should, like many other jurisdictions, adopt measures that reduce emissions at their source. There are a suite of options for doing so, including imposing emissions limits under Environment Protection Authority (EPA) licences, establishing a state-based emissions trading scheme .... even the accelerated phase-out or upgrade of high GHG emitting facilities."<sup>10</sup>*

Victoria's three coal power stations are the state's biggest climate emitters, responsible for over 43 million tonnes of CO<sub>2</sub> emissions annually. This amounts to over 36 percent of Victoria's contribution to global warming and their EPA licences are currently being reviewed.

The EPA should use its power to recommend new policies and regulations to limit climate pollution through this licence review in a number of ways. For example, through setting annual emission or emissions intensity limits that correspond with Victoria's 2020, 2025 and 2030 emission reduction targets. In the absence of interim emissions reduction targets for 2025 and

2030, generators could be required to reduce emissions by three percent a year, which is the average amount Victoria needs to cut if we are to reach the 2050 target of zero.

The EPA will now be conducting periodic reviews of licences every five years, which provides a good opportunity to amend these licences when Victoria has released a more developed climate change strategy and legislated targets for the year 2025 and beyond.

The EPA can promote emissions reduction at other high polluting, licensed facilities by re-establishing the Environment and Resource Efficiency Plans (EREP) program.<sup>11</sup> This program required large to medium energy users to review and audit their energy use and greenhouse gas emissions, identify measures to increase energy efficiency, and implement plans for actions with a payback period of three years or less. This was an effective program that benefited licence operators as well as the environment. It was only scrapped because it was replicated at the national level with a similar program, which has now also been scrapped. It is appropriate now then that it is re-established by the State Government.

### **Boost Victorian Energy Upgrades Program**

The Victorian government established the Victorian Energy Upgrade Program (VEUP) to drive efficiency investment in homes and businesses across the state. Since its inception in 2009, VEUP has supported the installation of energy-saving measures expected to save 41 million tonnes of carbon pollution over their lifetime<sup>12</sup> and a projected 59.9 million tonnes to 2020.

VEUP has consistently met its targets at below expected cost.<sup>13</sup> For the first six months of 2017 VEUP exceeded its target by 43.5 percent, at a price 50 percent below that expected. The scheme is delivering savings of \$600 million to Victorian homes and businesses a year, supporting more than 2,000 jobs, and has reduced electricity demand by 5 percent – nearly double the contribution by behind-the-meter rooftop solar.

However, activity under the scheme is currently dominated by commercial lighting upgrades, with activity in the residential sector largely stalled despite significant opportunities remaining untapped.

The Victorian government is currently undertaking a process to set targets beyond 2020, which provides an opportunity to significantly raise targets and kick-start residential activity. Measures which would drive uptake by Victorian households include the provision of targeted information at critical decision-making points, and the delivery of geographically-targeted retrofit 'blitzes' for low-income and vulnerable households (including upfront financial incentives for high value items) to lower installation costs for providers. Ceiling insulation should also be re-introduced to the scheme, and incentives for 'whole of house' upgrades should be considered.

### **Set efficiency standards for rental homes**

Efficiency improvements across the building sector using current cost-effective technology could reduce emissions by 23 percent by 2030 and 50 percent by 2050.<sup>14</sup> But the well-known split incentive facing landlords and renters is hindering efficiency investment in rental homes which represent nearly a third of Victoria's housing stock.



Recent data from the Australian Capital Territory showed two in five rental properties have an energy efficiency rating of zero compared with only four percent of homes for sale, and the situation in Victoria is unlikely to be substantially different.<sup>15</sup>

The only way to effectively address the split incentive is to require rental homes to meet minimum efficiency standards before they can be leased.

Staged implementation of standards to drive a progressive improvement of rental housing stock over ten years would deliver an estimated 976,000 tonnes carbon pollution a year, unlock \$2 billion of investment, support 3,000 to 5,400 jobs and save rental households up to \$850 a year on their energy bills.<sup>16</sup>

### **Ensure a just and fair transition to a sustainable Victorian society and economy**

The impacts of climate change and the benefits of renewable energy are not evenly spread across our society. People on lower incomes are more likely to live in unhealthy, substandard houses and are less likely to afford the upfront cost of solar panels, which can lower energy bills. Renters in particular are locked out of upgrading the energy efficiency of their homes.

Communities in the Latrobe Valley have borne the brunt of local air pollution for decades, with much higher rates of cancer and respiratory ailments than the state average. These towns also have higher levels of unemployment and entrenched social disadvantage. Transition planning and support to diversify the local economy will reduce impact of future retirements of coal-burning power stations.

Specific policies include:

- **A fully resourced state-wide fund for household efficiency and renewable energy upgrades:** Victorian households most in need of the bill savings and health benefits of efficiency and rooftop solar are often those that can least afford the upfront costs. To address this, the government should establish a state-wide fund to finance integrated efficiency and renewable energy upgrades for priority households. This would allow households to take out loans for solar and energy efficiency and then use energy bill savings to repay loans through their rates. The scheme would also deliver fully funded behaviour change and efficiency upgrades for highly vulnerable households.
- **Make the Latrobe Valley Authority permanent and expand its mandate:** The Latrobe Valley Authority plays a vital role in helping workers from Hazelwood power station while supporting new businesses and community facilities. However, the challenges facing the Valley will not evaporate overnight and we need to plan for the inevitable closure of the remaining coal-burning power stations. To do this, the Latrobe Valley Authority should become a permanent statutory authority that has a mandate beyond coordination – managing planning, budgeting and implementation of major government programs within the Valley. The government can also ensure the Latrobe Valley is able to share in the benefits of the transition to renewable energy by earmarking 500 MW of the Victorian Renewable Energy Target to be developed in the Latrobe Valley and expanding Sustainability Victoria’s energy efficiency retrofit program to 14,000 homes in Gippsland.

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- <sup>1</sup> B. Hare, N. Roming, M. Schaeffer, et al., 2016, Implications of the 1.5°C limit in the Paris Agreement for climate policy, Climate Analytics, Berlin.
- <sup>2</sup> Bloomberg New Energy Finance, 2017, New Energy Outlook 2017, Bloomberg New Energy Finance, New York.
- <sup>3</sup> Sustainability Victoria, 2017, Summary of key findings – Climate Change Social Research, Sustainability Victoria, Melbourne.
- <sup>4</sup> A. Finkel, K. Moses, C. Munro, et al., 2017, Blueprint for the Future, Commonwealth of Australia, Canberra.
- <sup>5</sup> Article 2 of the Paris Agreement.
- <sup>6</sup> Climate Change Authority, 2014, Reducing Australia’s Greenhouse Gas Emissions: Targets and Progress Review—Final Report, Commonwealth of Australia, Canberra.
- <sup>7</sup> B. Hare, N. Roming, M. Schaeffer, et al., 2016, op cit.
- <sup>8</sup> Environment Victoria, 2018, Victoria Leading the Way, Environment Victoria, Melbourne.
- <sup>9</sup> Ernst & Young, 2017, Modelling of the Victorian renewable energy target scheme scenarios, Department of Environment, Land, Water and Planning, Melbourne.
- <sup>10</sup> M. Wilder, A. Skarbek, R. Lyster, 2015, Independent Review of the Climate Change Act 2010, Victorian Government, Melbourne.
- <sup>11</sup> Environment Protection Authority, The EREP program, <http://www.epa.vic.gov.au/our-work/programs/past-programs/erep-program>
- <sup>12</sup> To the end of 2017, from EECCA, 2018, Energy Savings Schemes Industry report 2016-17, EECCA, Melbourne.
- <sup>13</sup> EECCA, 2018, ibid.
- <sup>14</sup> ASBEC, 2016, Low Carbon High Performance, Australian Sustainable Built Environment Council, Sydney.
- <sup>15</sup> Better Renting, 2018, Four in ten Canberra rentals score worst energy efficiency rating, [https://www.betterrenting.org.au/energy\\_efficiency\\_report](https://www.betterrenting.org.au/energy_efficiency_report)
- <sup>16</sup> Environment Victoria, 2017, Bringing rental homes up to scratch, Environment Victoria, Melbourne.