

Environment Victoria submission to the Independent Expert Panel's recommended targets survey

July 2019

TARGETS AND TRAJECTORIES (Questions 1 and 3)

The Panel's recommended targets are too low.

The next decade will be crucial in the pursuit of efforts to hold the global average temperature increase to well below 2 C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5 C. It is disappointing that the recommended targets fall short of this level of ambition.

Victoria has amongst the highest per capita emissions on the planet. By adopting targets compatible with limiting global temperature increase to 1.5 degrees, we would set an example, influence other jurisdictions internationally and encourage them to be equally ambitious.

Figure 5.5 in the Panel's report (copied and inserted below) makes evident a number of key points:

- Aiming for 45% reductions by 2030 is fundamentally incompatible with a 1.5 degree budget. It would then require emissions to fall to zero immediately, which obviously will not happen.
- Aiming for 45% reductions by 2030 is barely consistent with a "well below 2 degrees" trajectory. For these reasons, 45% as the lower bound of 2030 targets should be treated as unacceptably weak.
- Aiming for 60% reductions by 2030 then requires reaching zero emissions in the subsequent four years to be consistent with a 1.5 degree outcome. This scenario for emissions reductions between 2030-2034 must be considered extremely unlikely, as emissions from some sectors will be difficult to completely eliminate in that timeframe.

Figure 5.5 2°C, illustrative well below 2°C and 1.5°C trajectories associated with emissions reduction of 45% and 60% in 2030

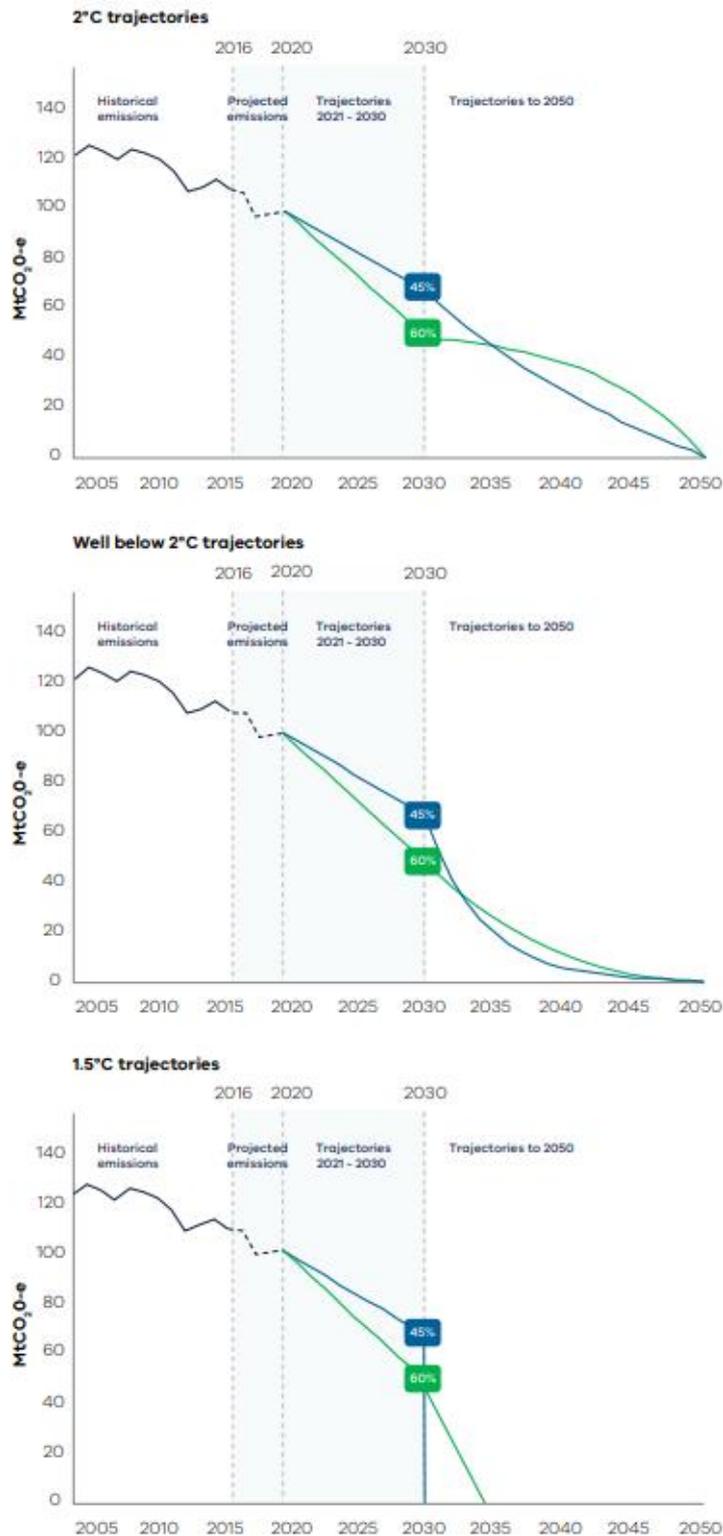


Figure 5.5 from the Panel's report, p57.

As the Panel’s own analysis makes clear (in Figure 5.2, below), to play our part in limiting global warming to 1.5 degrees, Victoria’s 2025 target must be at least a 43 percent reduction on 2005 levels and the 2030 target should be at least 67%.

This is more in-line with the recommendations based on the analysis conducted by Environment Victoria as part of our original submission to the Panel:

- 45-50% by 2025
- 65-80% by 2030

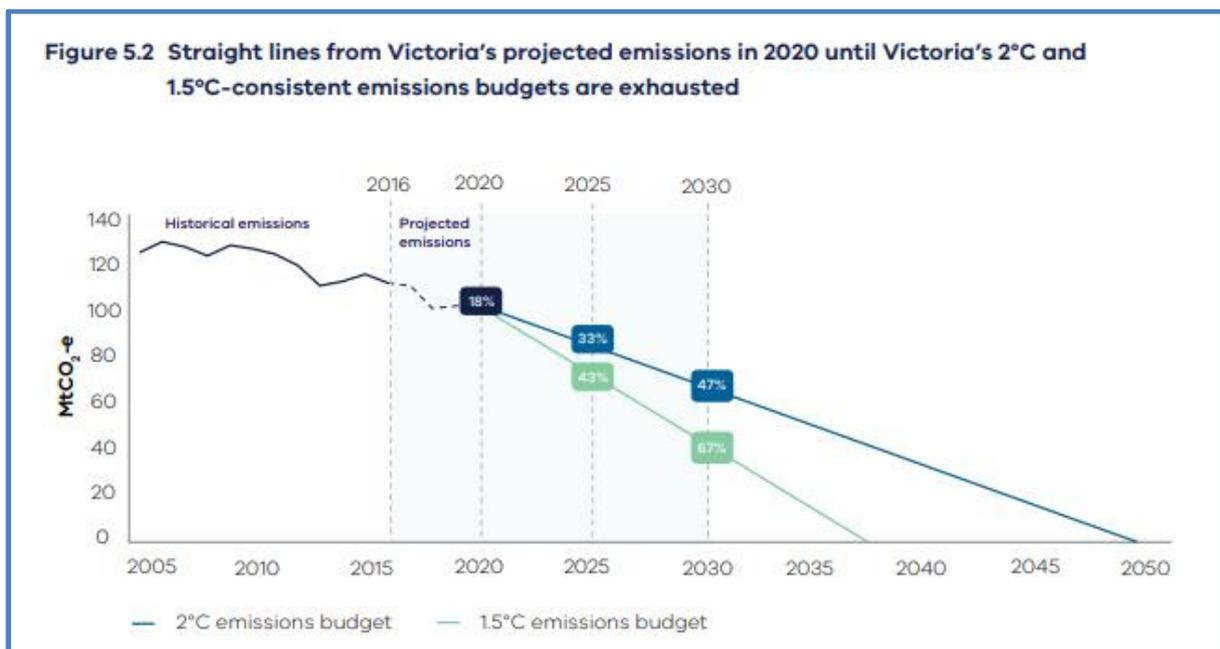


Figure 5.2 from the Panel’s report, p53..

These fast cuts by 2025 and 2030 are essential, because earlier deep cuts give us the best opportunity to resolve harder-to-eliminate emissions after 2030. It is dangerous to assume that harder-to-eliminate emissions could reach zero very quickly after 2030. It is much safer to assume a longer tail in emissions trajectories (for example as shown in Figure 5.5 for the 45% by 2030 target, though obviously for a stronger 2030 target).

The government’s targets need to be higher to ensure we are doing our part to deliver on the objectives of the Paris Agreement, to prevent the worst impacts of climate change and to allow Victoria to benefit from the economic and social opportunities of new clean technology industries.

The difference between 1.5 and 2 degrees of warming is significant. It is the difference between saving the world’s coral reefs and millions of people losing their homes to rising sea

levels and lives to extreme weather events. The world has already warmed 1 degree and we are already feeling the impacts in Victoria, from severe drought to people dying in heat waves. The Panel's report itself makes note of these differences.

Chapter 2 describes the severity of climate change related impacts and the substantial difference in the impacts between a 1.5 and 2.5 degrees Celsius global temperature increases. It is troubling that this information was overridden by other concerns (such as lack of international leadership) when developing indicative trajectories to 2050. The Panel's trajectories to 2050 (virtually) close the window for Victoria to stick to a carbon budget compatible with limiting the global average temperature increase to 1.5 degrees Celsius.

Chapters 6 and 7 of the report show that there are enough cost-effective abatement opportunities for Victoria to rapidly reduce its emissions. Further, Table 7.1 from the report shows that a 65% emissions reduction by 2030, the most environmentally effective pathway included in the model, is also the least costly under a wide range of scenarios.

Victoria's trajectory must aim to achieve close to a 45 percent cut *by 2025* to keep alive the possibility of limiting warming to 1.5 degrees. The targets recommended by the Panel fail to do this.

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

Yes, the Panel correctly identified key issues that should influence emissions reduction targets for Victoria. The problem is that it failed to adequately prioritise these issues according to their importance and urgency.

As the report correctly conveyed, the stakes are high for climate action, and we think that issues such as environmental effectiveness and intergenerational equity should have been considered as higher priority.

For example, even though a 7.0% discount rate is recommended by the Australian government for general policy appraisal, it is troublesome to see it included by the Panel in its modelling on the costs associated to carbon emissions reduction.

Applying a 7.0% discount rate when facing an intergenerational threat implies that the importance of future generations' well-being is not on par with ours. This assumption is incompatible with intergenerational equity, especially considering the irreversible and catastrophic nature of climate change consequences.

OPPORTUNITIES TO REDUCE EMISSIONS

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

While the panel properly identified the categories of greenhouse gas emissions reduction opportunities, the Panel's modelling was too conservative. For example, despite South

Australia's plans to reach net one hundred percent renewable electricity generation by 2030, the Panel estimated that the opportunities for Victoria were limited to emissions cuts from electricity in the 16-52% range.

A faster phase-out of coal generation and a faster roll-out of renewable energy would enable much greater cuts from the electricity sector (which is approximately 40% of Victoria's total emissions), and would in turn unlock GHG emissions reduction opportunities in other sectors through displacing direct combustion processes (such as transport and residential gas usage).¹

5a: Across the Victorian economy, which activities do you think the Victorian government should prioritise in reducing Victoria's greenhouse gas emissions?

The two factors that the Victorian government should prioritise are cost-effectiveness (highest reduction activities with the lowest cost of abatement) and whether an activity unlocks further greenhouse gas emissions reduction opportunities.

Decarbonising the electricity grid is one of the most cost-effective solutions available. Additionally, it unlocks further emissions reductions opportunities which if adopted could put us on an emissions trajectory compatible with a 1.5 degree objective.

The shift from coal-burning power stations to renewable energy is directly linked to eliminating 40 percent of Victoria's emissions (produced by coal power stations). It is also indirectly linked to eliminating a further 35-40% of emissions, caused by other fossil fuel usage which could be eliminated by electrifying those processes and using renewable electricity. This applies to emissions from transport and heat (currently direct combustion), and would also eliminate the approximately 3% of Victoria's emissions caused by fugitive emissions from gas and oil usage. **This adds up to almost 80% of Victoria's emissions that can be eliminated by converting from a coal-dominated grid to 100% renewable energy.**

5b: What policies or programs are needed to drive these emissions reductions?

The Victorian government should be actively planning an accelerated replacement of coal power stations with renewable energy and energy storage, coupled with incentives and standards to dramatically improve energy efficiency across the full range of consumers, from low income households to large-scale industrial users. This should be accompanied by economic diversification policies to support the Latrobe Valley.

There are many policy tools that can support the transition to a decarbonised economy. Rather than re-writing our thoughts on policy opportunities, we attach as Appendices to this submission two documents: (1) Our original submission to the Combet Panel, (2) Our

¹ For example, see modelling by the Institute for Sustainable Futures at the University of Technology Sydney: Teske, S., Dominish, E., Ison, N. and Maras, K. (2016) 100% Renewable Energy for Australia – Decarbonising Australia's Energy Sector within one Generation. Report prepared by ISF for GetUp! and Solar Citizens, March 2016. <https://www.uts.edu.au/research-and-teaching/our-research/institute-sustainable-futures/our-research/energy-and-climate-5>

submission to the Victorian Government's 2019 Budget process. These articulate a range of options that we encourage the government to consider and adopt.

We encourage the Victorian Government to pursue policies that also address the uneven distribution of the costs and benefits of this transition.

6: Are there any emissions reduction opportunities identified by the Panel that you would not support Victorian government action on? Why not?

Based on the existing evidence and international experience we urge the Victorian government to adopt a cautious approach towards carbon offset schemes. Only once all feasible abatement practices have been adopted should a local, high-standard carbon offset program be considered.

To secure the integrity of any carbon offset projects, only domestic Australian projects should be considered. This would enable the Victorian government to play a role in monitoring the projects to ensure real reductions of greenhouse gas emissions. The adoption of a rigorous standard that can guarantee the quality of carbon offsets, such as the "Gold Standard", would be necessary to avoid environmental and/or social harm associated to these programs. The development of any offset projects should also involve local communities to maximise the potential for offset projects to deliver local benefits.

As noted by the Panel, the text-book arguments for international credits might sound compelling but in reality international carbon credits or offsets have failed to deliver effective emissions reductions, with a study² estimating that only 2% of Certified Emissions Reductions projects have a high likelihood of ensuring that alleged emission reductions are additional and are not being over-estimated.

Projects should meet the principles and requirements of the National Carbon Offset Standards.

BARRIERS

10: Of all the barriers, which are the most important to address and why?

The most significant barrier to reducing emissions in Victoria has been the lack of a comprehensive and integrated energy transition plan which involves rapidly increasing renewable generation while at the same time managing an accelerated phase out of coal-burning power stations and improving energy efficiency. As noted above, delivering such a plan could eliminate up to 80% of Victoria's emissions.

We acknowledge that Victoria has some significant policies to deliver renewable energy and has strengthened the *Climate Change Act*, amongst other achievements, but these do not yet form part of a comprehensive strategy to decarbonise our electricity, transport and the

² Öko-Institut (2016) How additional is the Clean Development Mechanism? Retrieved on 1 July, 2019 from: https://ec.europa.eu/clima/sites/clima/files/ets/docs/clean_dev_mechanism_en.pdf

energy needs of our buildings. Further, there has been no comprehensive plan to tackle emissions from other sectors, such as industrial emissions, waste, agriculture or land use.

Current policy processes can play important roles in filling part of this void. The Circular Economy Policy and Action Plan should drive emissions reductions from waste and industrial processes (in addition to delivering abatement from reduced energy consumption). For emissions from land use, the Regional Forestry Agreement renewal process is an opportunity to shift management objectives toward protecting carbon and other ecosystem services. These are opportunities that must not be missed.

The *Climate Change Act* and its requirements for interim emissions targets and sector pledges are key components of completing such a comprehensive plan. This is why these processes, and the setting of interim targets, are so important.

Another important barrier that must be addressed is the legitimate concerns from communities tied to industries which will have to be phased out as part of the decarbonisation of the Victorian economy – chiefly, the Latrobe Valley. We welcome the Panel's open acknowledgement that the transition to net zero will involve significant change for the Latrobe Valley. This is not, however, a reason to delay the necessary emissions cuts to give us a chance of keeping warming below 1.5 degrees. It is a reason to do everything possible to ensure the Latrobe Valley can thrive in a zero carbon future.

11: How can the key barriers you identified in Question 10 be overcome?

We have reached a point where clean alternatives to fossil fuels are well-developed and cost-effective and installing new renewables is cheaper than upgrading or maintaining the coal fleet. Victoria must ensure the pipeline of new renewables and storage capacity continues rolling out at pace, combined with investment in transmission infrastructure, in a way that enables a smooth exit of coal generators over the next decade.

This will ensure there are no supply concerns and energy prices are kept as low as possible for Victorian consumers. Supporting home and business energy efficiency upgrades will also help reduce overall energy costs.

Continued funding of the Latrobe Valley Authority, amongst other initiatives, will help ensure that costs are not disproportionately borne by regional communities affected by the energy transition.

Another opportunity for overcoming the absence of an integrated energy transition plan is for the Victorian government to use the COAG Energy Council to ensure planning across the National Electricity Market is serving to accelerate emissions reductions.

The government should also require the owners of the electricity generation in Victoria, and other large emitters, to publish scenarios consistent with the recommendations of the G20's Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD). This would specifically require generators to publish Victorian generation scenarios consistent with limiting warming to well below two degrees above preindustrial levels.

Using these TCFD requirements would place an onus on the private sector to develop scenarios and options for driving significant abatement, to avoid leaving the entire process to government.

IMPACTS OF REDUCING GREENHOUSE GAS EMISSIONS (Q12-14)

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

13: Of all the impacts, which are the most important to address and why?

14: How can these impacts be addressed?

The most important impact will be ensuring Victoria avoids the devastating impacts of global warming. While other impacts such as regional economic disruption or energy supply challenges need to be monitored and managed, they should not outweigh the need to protect all our communities from long-term climate chaos.

The Panel correctly identified positive impacts of ambitious climate policy such as reduction in air pollution, further availability of water, health benefits and economic benefits as Victoria could provide new opportunities for Victorian communities and businesses such as the Vestas Renewable Energy Hub in Geelong. This has repurposed an old Ford factory and will bring wind turbine assembly manufacturing jobs to the country after more than 10 years.

As noted above, the government should also have a clear focus on issues of fairness. To ensure a fair and just transition, the government must provide support for impacted regions such as the Latrobe Valley and for low-income or vulnerable households.

The panel identified that dedicated support for the Latrobe Valley is needed, such as has already been established through the Latrobe Valley Authority. The government should do what it can to ensure the Latrobe Valley benefits from establishing new clean energy industries and should be a priority location for manufacturing and grid service operations.

As also noted by the Panel, energy efficiency for both homes and businesses will serve to reduce the impacts of any changes in energy prices and make people's homes more livable. Scaling up energy efficiency policy creates a clear win-win situation.

OTHER COMMENTS

It is clear that Australia is facing at least 3 more years of inadequate action on the climate crisis at a Federal level. This cannot be used as an excuse for low ambition at the state level. Indeed, this Federal inaction is precisely why Victoria needs to stand tall and announce targets consistent with keeping warming to 1.5 degrees, and the sector-by-sector policies that will get us there. This is precisely the kind of leadership that Victorians expect, and as examples like the Vestas factory show, will bring additional jobs and investment to our state.

Strong commitments to a 1.5 degree objective and policies to match will also send a loud and much-needed signal to jurisdictions around the world that the leaders we need do exist.

Each time a government, at whatever level, chooses climate targets below what is needed to actually avoid the worst impacts of climate change, it erodes collective ambition internationally.

Victoria has amongst the highest per capita emissions on the planet. While we clearly need to fix this, our role in setting an example, influencing others and encouraging them to be equally ambitious is significant. Setting targets consistent with a 1.5 degree objective will encourage others to follow suit, which gives us the best chance of reducing global emissions at the rate we need.

This could include reaching out to other states and territories with similar climate goals to increase the effectiveness of Victorian climate action. If the Morrison government chooses to abrogate its responsibilities, the Andrews government and other states must lead.

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Submission to Independent Expert Panel on Interim Targets

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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.

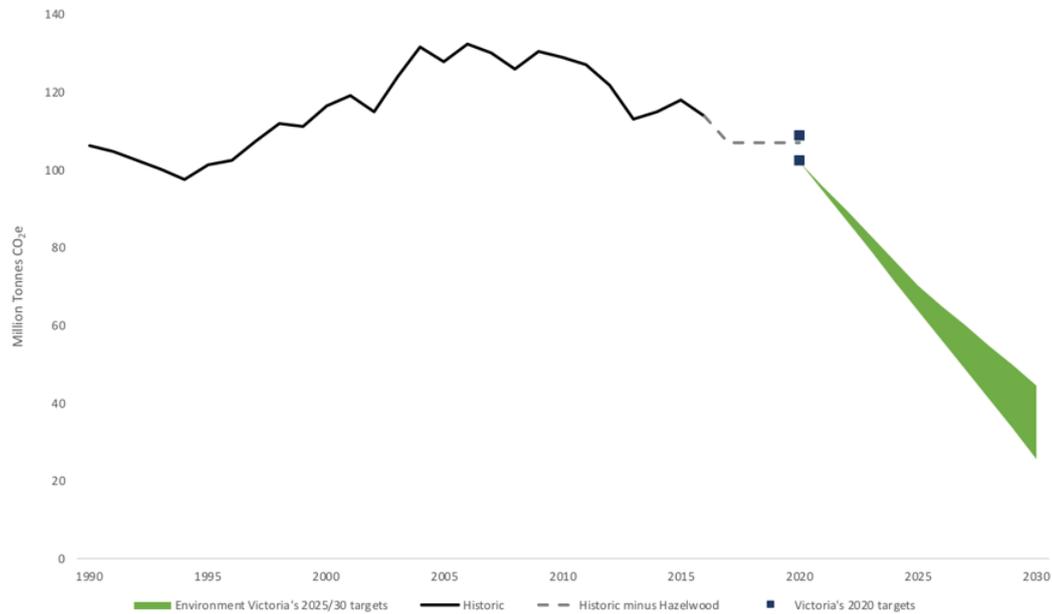
Overall, Environment Victoria is recommending the Panel, at a minimum, recommend targets based on carbon budgets consistent limiting global warming to 1.5-2°C by 2100. This would see Victoria reduce emissions by (Figure 1):

- 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.¹ 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 2040.² 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.³ 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.⁴ 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.⁵ 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?	<p>No. Victoria's targets should be set against the international reference point of limiting global warming to 1.5-2°C by 2100</p>	<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?	<p>Yes</p>	<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 global carbon budget that gives a high chance (>85 percent) of limiting warming to less than 2°C and leaves open the option of limiting warming to 1.5°C 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 >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 transparent and based on a range of possible allocation methods	<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?	Five yearly carbon budgets	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?	Targets should consistent with limiting warming in line with the objectives of the Paris Agreement	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 consistent with the objectives of the Paris Agreement .
Should the target be economy wide or a number of different targets for different sectors?	Economy-wide target	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 carbon budgets consistent with these emissions targets:</p> <ul style="list-style-type: none"> • 2025: 45-50 percent below 2005 levels • 2030: 65-80 percent below 2005 levels 	<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"> • 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>⁶ • 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).⁷

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.⁸ 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.⁹

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."¹⁰

Victoria's three coal power stations are the state's biggest climate emitters, responsible for over 43 million tonnes of CO₂ 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.¹¹ 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 lifetime¹² and a projected 59.9 million tonnes to 2020.

VEUP has consistently met its targets at below expected cost.¹³ 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 2050.¹⁴ 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.¹⁵

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.¹⁶

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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- ¹⁴ ASBEC, 2016, Low Carbon High Performance, Australian Sustainable Built Environment Council, Sydney.
- ¹⁵ Better Renting, 2018, Four in ten Canberra rentals score worst energy efficiency rating, https://www.betterrenting.org.au/energy_efficiency_report
- ¹⁶ Environment Victoria, 2017, Bringing rental homes up to scratch, Environment Victoria, Melbourne.

Environment Victoria Budget Submission 2019

A four year plan for Victoria's environment

February 2019

Who we are

Environment Victoria is one of Australia's leading independent environment groups. With more than 40 member groups and over 100,000 individual supporters, we've been representing Victorian communities on environmental matters for over 40 years.

Our vision is of Victoria as a global leader and national catalyst for solving the climate crisis, and provides a model for a thriving, sustainable society that protects and values nature.

Our mission is to take on the biggest threats to our climate and environment. We inspire, empower and lead people and communities to take action, building power to solve the climate crisis, achieve a healthy environment and secure a fair and thriving Victoria.

Overview

The 2018 election was a resounding endorsement of strong climate change and renewable energy policies. Across the State, Victorians rejected promises of new coal or gas power stations and put their support behind solar and wind.

This term of Parliament presents the Andrews government with both great opportunities and great challenges. The next four years could help ensure the future sustainability and prosperity of our state, replacing dirty, old fossil fuels with renewable energy and establishing strong protections for nature. But, as the IPCC 1.5 degree report from October 2018 makes clear, any delay will expose Victoria to increasingly severe impacts, ecosystem collapse and an exponentially greater mitigation challenge for future generations.

To meet Victoria's climate change goals we need a rapid shift to renewable energy – with clean energy solutions like wind, solar and batteries now the most cost-effective way to provide new power to Victorians. To harness these clean sources of power, we need a reliable pipeline of renewable energy projects and a clear plan to phase out Victoria's three remaining coal-burning power stations, which are responsible for over a third of the state's greenhouse gas emissions.

As we transition away from fossil fuels, we must continue to support workers who are employed in (and who are transitioning out of) the coal industry and the communities in which they live. The announcement of an electric vehicle manufacturing plant in the Latrobe Valley is a leading

example of the kind of interventions needed to bring new opportunities to the Valley. Further, we hope the Andrews Government will continue to support workers and communities by maintaining and strengthening the Latrobe Valley Authority.

The Andrews government also faces a number of vital legislative decisions arising from the *Climate Change Act*. In the next three months the government will receive independent advice on appropriate targets for carbon reductions by 2025 and 2030. We expect that the targets the government adopts based on this advice will be consistent with global efforts to keep warming below 1.5 degrees, and will be coupled with effective industry-specific and economy-wide policies to reduce emissions. One important opportunity that will occur very early in this term is using the EPA's review of coal-fired power station licences to apply limits on how much CO₂ the generators can emit. Given the urgency of the climate crisis, every opportunity to make a difference must be taken. Delay will mean failure.

While the government made significant progress in increasing the amount of renewable energy and creating a strong architecture for action on climate change over the past four years, it made much less progress in protecting our forests, rivers and threatened species. We believe this new term of government presents an opportunity to reset this agenda, with a concerted push to improve the health of the state's natural assets through stronger laws and policies, the creation of new national parks and protected areas, and the protection and recovery of environmental flows. The tone for this term can be set early by moving beyond the stalled forest transition taskforce and declaring a robust process for creating new national parks.

Victorians want their Government to lead on environment issues

In 2018, Environment Victoria ran our largest election campaign on record. We made over 100,000 calls and texts to Victorians which led to thousands of conversations about the importance of using their vote to support clean energy, climate action and environmental protection. We funded billboards - in Mordialloc, Caulfield, Ararat and Bentleigh - highlighting the positives of renewable energy, and ran advertisements promoting renewables on regional TV, in *The Age* and across major regional papers. We also had a significant presence on social media, hitting over four million Facebook impressions.

Throughout the election campaign, climate change and clean energy were prominent issues. Parties promising ambitious climate change policies were rewarded, while promises to build a new coal power station or declare a moratorium on establishing new national parks fell flat.

Polling undertaken during and after the election has confirmed this view. Exit polling undertaken by Galaxy immediately after the election found that one in five voters cited clean energy as a key issue influencing their vote. Similarly, extensive focus groups conducted before the election by Roy Morgan showed that both Labor and Green voters were deeply concerned about Matthew

Guy's lack of climate change policies.¹ Finally, ReachTEL polling commissioned by the Victorian National Parks Association showed that three quarters of Victorians support establishing a comprehensive network of National Parks and conservation reserves and would welcome increased funding and more government action to protect nature.²

This confirmed that Victoria has passed an inflection point where any party that seeks to govern has no choice but to present credible, ambitious climate change policies. Policies to support clean energy and move away from fossil fuels are no longer a 'nice to have' but a necessary condition for winning office.

What does success look like?

In the next four years, the Andrews government has the chance to leave an indelible positive mark on the future of our State. To achieve this, it is important to be clear about what an ambitious but achievable roadmap looks like. To do this, Environment Victoria has identified seven overarching goals that we expect to be achieved by 2022:

- Goal 1: Guarantee a clean energy future for Victoria**
- Goal 2: Make Victoria a leader in tackling climate change**
- Goal 3: Support a just transition in the Latrobe Valley**
- Goal 4: Reduce Victoria's reliance on dirty brown coal**
- Goal 5: Create a step change in energy efficiency Victoria**
- Goal 6: Deliver a fair go for nature**
- Goal 7: Unleash a circular economy**

Priority actions for the 2019-20 budget under each of these goals are detailed below.

¹<http://www.roymorgan.com/findings/7805-concerns-about-next-victorian-government-whether-alp-or-l-np-november-16-2018-201811160740>

² <https://vnpa.org.au/victorian-polling-results/>

GOAL 1: GUARANTEE A CLEAN ENERGY FUTURE FOR VICTORIA

What does success in 2022 look like:

- Renewable energy is providing an increasingly large share of Victoria's energy, with the State meeting its 2025 renewable energy target by delivering a reliable pipeline of 1000 MW of new renewable energy projects each year.
- The Solar Homes program has drastically increased the amount of solar power on Victoria rooftops, giving hundreds of thousands more Victorians access to solar and energy efficiency.
- Victoria's grid is ready to shift to 100% renewable energy through strategic investment in storage, transmission and demand management.

2019-20 budget priorities:

- 1. Ensure the construction of a further 1000 MW of renewable energy by announcing a second reverse auction**

Victoria's transition to renewable energy will rely on a reliable pipeline of large-scale projects being delivered over the next decade. This will ensure that Victorian renewable manufacturers have the confidence to invest in new facilities and workers have reliable employment.

Victoria currently has eleven wind farms and seven solar farms under construction, which are predicted to provide a 2518 MW of clean energy capacity. However, data from Green Energy Markets shows that over 4400 MW of renewables projects in Victoria are currently in development. These projects could be unlocked with appropriate policy settings, providing enough renewable energy to power over 6.6 million homes by the middle of the next decade. This would avoid over 15 million tonnes of carbon pollution every year and create over 11,800 construction jobs and 400 ongoing jobs in Victoria.³

The Andrews government has set a goal to source 40% of Victoria's energy from renewable sources by 2025. To best achieve this, Victoria should provide a clear, transparent timeline by guaranteeing to bring online at least 1000 MW of renewable energy annually. This would provide a smooth, predictable pipeline of new projects and would ensure that Victoria meets the VRET.

This process should start by funding a reverse auction of 1000 MW in the 2019-20 State Budget.

³ <https://environmentvictoria.org.au/2018/10/09/making-sure-the-renewable-boom-delivers-for-victorians/>

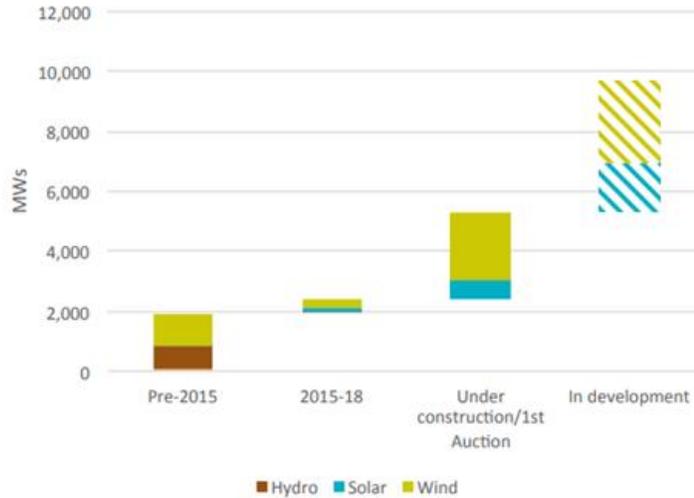


Figure 1: Construction of new renewable energy in Victoria. Data source: Green Energy Markets

2. Fund Solar Homes to ensure at least 10% of the 10-year target of 650,000 homes is delivered in the first year, and embed energy efficiency into the program’s DNA

Environment Victoria strongly welcomed the announcement of the Solar Homes program. The size and reach of the program has the capacity to reshape the energy market and give every Victorian the chance to benefit from renewable energy.

The Solar Homes program also provides an opportunity to improve energy efficiency. Many Victorians are unaware of the benefits of basic efficiency measures, which means they are missing out on lower bills, affordable emissions reductions and improved comfort. They may also be unaware of opportunities to self-consume more solar power, which helps pay-off solar investments sooner.

The Government can maximise the value of Solar Homes by integrating the existing *Victorian Residential Efficiency Scorecard* into the program. This could be done in two ways:

- Offering rebates for Scorecard assessments for eligible households, which would be provided in addition to existing solar power, solar hot water or battery rebates given the complementary benefits that efficiency upgrades add to clean energy investments.
- Requiring households who access no-interest loans to undertake a Scorecard assessment, with the cost of assessment incorporated into the no-interest loan so as to maintain the ‘no upfront cost’ nature of the scheme.

The 2019-20 budget should provide sufficient funding to fully initiate the program and expand the program to include energy efficiency.

3. Develop a strategic investment plan for Victoria's grid

Victoria is rapidly increasing the amount of renewable energy in its grid, which requires a more dynamic grid. At the same time, many new generators are requesting to join increasingly congested transmission lines. To facilitate and smooth the uptake of renewable energy generation and avoid bottlenecks in connections we need to upgrade Victoria's grid, making it more sophisticated, with an increased capacity to store energy, move energy to where it is needed and manage demand dynamically.

In the last term of Government, Victoria made significant investments in batteries and began experimenting with demand management and virtual power plants. This term, the Government should unite these efforts through a system-wide plan that identifies the investments required in Victoria's transmission, storage and demand management capacity. This should be clearly oriented towards ultimately running a 100% renewable energy grid.

4. Develop a roadmap to increase electric vehicle uptake

Australia's uptake of electric vehicles has been slow. To change this, Victoria needs a robust long-term plan to accelerate the adoption of electric cars and charging stations in a way that is as climate-friendly as possible. This plan should ensure that the adoption of electric vehicles supports rather than cannibalises efforts to improve public and active transport.

GOAL 2: MAKE VICTORIA A LEADER IN TACKLING CLIMATE CHANGE

What does success in 2022 look like

- Greenhouse gas emissions in Victoria levels are falling significantly, with the State firmly on-track to reduce emissions by at least 45-50% by 2025.⁴
- The Government has integrated its ambition to reduce emissions to zero by 2050 into both short and long-term Government decision making
- Victoria's departments, government bodies and other agencies are on track to reach zero net emissions from government operations by 2030.

⁴ For more information on climate targets, see our submission to the Independent Expert Panel on Interim Targets (May 2018). <https://environmentvictoria.org.au/2018/05/08/submission-victorias-interim-climate-targets/>

- Victoria has set strong sector pledges that are driving significant emissions reductions in key sectors across the economy.

2019-20 budget priorities:

5. Support, and fund efforts towards, emissions targets of at least 45-50% reductions by 2025 and 65-80% by 2030

Victoria has a strong framework for tackling climate change through the legislated *Climate Change Act*. The Act requires the Government to set two interim targets for emission reductions between 2021-25 and 2026-30 by March 2020. This process is being informed by an Independent Expert Panel, which will hand down its findings to the Minister for Climate Change in February 2019. To ensure this process is successful, the Government should announce its support for strong emissions targets in the 2019-20 budget and earmark funding to start the delivery of policies needed to achieve the Independent Expert Panel's recommendations.

6. Set strong emissions targets for Government operations and key sectors

Victoria's *Climate Change Act* requires the Victorian Government to set emissions targets across Government and in key sectors. These targets should be robust and effective, clearly putting Victoria on a path to zero emissions and reflecting the State's leadership aspirations. The 2019-20 budget provides an ideal opportunity to announce these targets, to demonstrate the level of ambition to be achieved over this term.

- Whole of Government Pledge: The Minister is required to announce the Government's own emissions reduction goal by 1 August 2020. This goal encompasses all emissions produced through government operations, such as energy use, waste and transportation. It is important that this target is both ambitious and can be achieved effectively. Comparable jurisdictions provide an indication of possible targets. For example, both the ACT and the City of Melbourne aim to be carbon neutral by 2020.⁵

To ensure that Victoria delivers a target that is in line with the ambition expressed by the Andrews' Government, the 2019-20 budget should announce plans to reduce carbon emission from government operations by 100% by 2030. As part of this, the budget should provide funding for government departments to undertake rigorous examination of emission reduction opportunities and to implement immediate priorities over the next five years.

⁵ <https://www.environment.act.gov.au/cc/what-government-is-doing> & <https://www.melbourne.vic.gov.au/SiteCollectionDocuments/emissions-reduction-plan.pdf>

- **Sector Pledges:** The *Climate Change Act* requires relevant government Ministers to set emissions reduction goals in key sectors of the Victorian economy and identify actions that can be taken by government to achieve these goals. Sector pledges will be produced by Ministries responsible for the the following sectors: Energy, including stationary energy, transport and fugitive emissions; Industrial Processes and Product Use; Agriculture; Waste; and Land Use, Land Use Change and Forestry. The 2019-20 budget should provide funding and adequate departmental resourcing for Ministries to identify ambitious emissions targets, develop robust sectoral plans and begin implementation of priority actions.

7. Implement international recommendations on climate change reporting and disclosure

The Task Force on Climate-related Financial Disclosures (TCFD) has established a new benchmark for the disclosure and reporting of risks relating to climate change. These reporting requirements are being widely adopted by the private sector, and the government should now apply these standards to its own operations. The government is responsible for a wide range of assets, which the public rely on. Both the government and the broader public need to know how exposed these assets are to (1) the impacts of climate change and (2) the transition risks posed by global decarbonisation and shifting markets.

This will ensure that the government and the public have a clear understanding of its exposure to climate risk. To that end, the state government should add the TCFD framework to the existing requirements under the Financial Reporting Directives used by public agencies in Victoria.

GOAL 3: SUPPORT A JUST TRANSITION IN THE LATROBE VALLEY

What does success in 2022 look like:

- The Latrobe Valley community, together with government and the private sector, is implementing a long-term plan for sustainable economic success, built on creating clean energy jobs, sustainable manufacturing and agriculture.
- The Latrobe Valley Authority has become an on-going, trusted and well-resourced body that is playing a key role in supporting and guiding the community through a just transition journey.
- Rehabilitation of former mines and power stations is being undertaken in ways that maximise community benefit and ensure long-term environmental sustainability.

- The Victorian Government is implementing a plan to transition workers at Victoria's three remaining coal generators to new employment opportunities.

2018-19 budget priorities:

8. Legislate to establish the Latrobe Valley Authority (LVA) as an on-going statutory body, with an expanded remit and resources.

The LVA was established in the wake of the closure of Hazelwood power station, and was provided with \$20m to be spent over four years. The Authority aims to engage the community in the process of managing the consequences of the energy transition, such as coordinating the delivery of worker transition support, financial planning, counselling and training. While the Authority initially faced challenges in winning community trust, it is now delivering tangible results for the Valley. The Victorian Government must build on this success, as the pace, depth and urgency of the energy transition will only increase in coming years.

The Authority's funding is set to expire in 2020, but its task is far from complete. Through the 2019-20 budget the Government should, by providing a new round of funding through the forward estimates, signal the intention to ensure the ongoing operation of the Authority to at least 2030. It should also transition the LVA to a Statutory Authority, which would give it a legislative mandate that reflects the scale and importance of its work. This would allow the LVA to plan and deliver projects with an assured future, attracting high-quality staff, while building on community efforts and knowledge to support the Latrobe Valley through the transition to renewable energy and assist the development of a revitalised and more diverse regional economy.

9. Begin preparing for the retirement of the Yallourn power station.

Yallourn is one of the most carbon intensive coal-fired power stations in the developed world. It was commissioned in 1974, and has been operating for 43 years. The plant's operation poses serious health risks for the Latrobe Valley, pumping out dangerous levels of carbon monoxide and PM2.5 particles, which are known to trigger chronic disease such as asthma, bronchitis and other respiratory problems. The plant has not upgraded its pollution reduction technologies since 1973, and Worksafe incident reports show that the plant has serious structural failures that are placing workers at risk.⁶

EnergyAustralia currently intends to close Yallourn in 2032, but given its age and condition, and the profoundly concerning health, safety and climate challenges posed by the plant, there is clearly a need to begin preparing for the likelihood of a much earlier closure date - potentially as

⁶ Environment Justice Australia, 2017, *Toxic and Terminal: How the regulation of coal-fired power stations fails Australian Communities*, Carlton, Australia

early as 2022. The 2019-20 budget should provide funding to assess replacement power needs and work with the community and affected workers to begin transition planning.

GOAL 4: REDUCE VICTORIA'S RELIANCE ON POLLUTING BROWN COAL

What does success in 2022 look like:

- The Yallourn Power Station has been retired, with sufficient replacement energy capacity bought online and a worker and community transition being successfully implemented.
- Remaining coal generators are being regulated in ways that actively reduce toxic air pollution and greenhouse gas emissions, and plans to phase-out the plants by 2030 are being developed.
- A sustainable future for the Portland aluminum smelter has been assured by transitioning the facility from dirty brown coal to 100% renewable energy.

2018-19 budget priorities:

10. Rein in carbon pollution from on coal-fired power stations through EPA-imposed licence limits on greenhouse gas emissions

Victoria's *Climate Change Act* gives the EPA the power to regulate greenhouse gases (GHG) from power stations. However, to date, the regulator has been unwilling to utilise these powers, instead allowing coal generators to pump unlimited greenhouse pollution into our atmosphere. This means that Victoria's environmental regulator is failing to address climate change - the most pressing environmental challenge facing our State.

Despite the extensive reforms to the EPA delivered in the previous term, the EPA's absence from climate change solutions remains a glaring omission that threatens to undermine the credibility of an otherwise respected public agency.

The EPA is currently undertaking a review into the licences of Victoria's brown coal-fired power stations. This is the perfect opportunity to limit greenhouse gas emissions from these polluters. To do this, the Government should ensure that the EPA imposes licence limits that require Victoria's coal generators to reduce their greenhouse emissions. An initial rate that requires reductions of 3% a year is the absolute minimum trajectory consistent with the legislated target of net zero emissions by 2050. As emissions targets for 2025 and 2030 are confirmed, that rate of emissions reductions at the power stations should be accelerated to meet those closer targets.

11. Require Alcoa to transition the Portland aluminum smelter to renewable energy

The Alcoa Aluminum Smelter in Portland is the State's largest energy consumer, drawing approximately 10% of the grid's electricity, and is an important employer in the South-West of Victoria. The plant received a four-year \$200m subsidy from the State Government in 2017, which required the plant to stay open till 2021. This agreement will need to be re-negotiated in the next year.

Over the past decade, global aluminum production has increasingly relied on renewable energy. This is becoming the industry standard, which will leave aluminium produced using dirty fuels such as coal facing a significant reputational and competitive disadvantage. To help ensure the long-term sustainability of the Alcoa plant, the Government should make any future support contingent on the plant sourcing 100% of its energy from renewable sources. This would provide a significant job stimulus in the north-west of the State - as new solar, wind and batteries would be required - and would ensure the long-term sustainability of Portland's facility in an increasingly carbon-constrained global market.

GOAL 5: CREATE A STEP CHANGE IN ENERGY EFFICIENCY VICTORIA

What does success in 2022 look like:

- Victoria has become a leader in energy efficiency, leading to a reduction in energy consumption while maintaining the effectiveness and competitiveness of the Victorian economy. This includes a significant reduction in gas demand, obviating the need for costly and environmentally damaging gas imports.
- All new Victorian homes are built to an 8-star energy efficiency standard, with standards consistently and rigorously enforced.
- Victorian renters are living in safe, warm houses that are cheaper to run and lead to less carbon pollution through the establishment of robust energy efficiency standard for rental properties.
- The Victorian Energy Upgrades (VEU) program is driving deep efficiency investments in Victorian homes and businesses, with a particularly strong focus on low-income earners and vulnerable customers
- Victorian businesses and large industrial energy users have gained national and international competitiveness through efficiency-driven cost-savings.
- Government has implemented deep energy efficiency improvements across Government facilities.

2019-20 budget priorities:

12. Begin the development of an 8-star efficiency standard for new Victorian homes

Victoria was the first state in Australia to set a five-star efficiency standard for new homes in 2004. Since then, the cost of building efficient properties has fallen drastically and it is now cost-effective to build new properties to an 8 star standard. Implementing this standard would reduce bills across Victoria's rapidly growing suburban fringe and would partly offset the transport costs associated with new suburbs, while increasing the ability of residents to stay healthy and safe during extreme weather. It would also help reduce the amount of investment in electricity distribution infrastructure required to service new suburbs. The 2019-20 budget should fund the development of new build standards, bringing together stakeholders, scientists and communities to unleash the next wave of efficient buildings.

13. Fund more compliance officers to enforce residential energy efficiency standards

Victoria's six-star energy efficiency standard for new homes is easily achievable and delivers a range of benefits for homeowners (though it is long overdue to be updated, as noted above). However, too many buildings do not comply with the code and penalties for non-compliance are rarely enforced. Due to this, builders may decide they would rather risk non-compliance given the low chance of detection. To overcome this, the 2019-20 budget should provide funding to increase inspections and pursue stricter penalties in cases of non-compliance.

14. Fund DELWP & Consumer Affairs Victoria to develop a model for energy efficiency standards for rental properties

Renting is becoming increasingly common in Victoria, with nearly one-third of all Victorian households now renting. However, renters often miss out on the benefits of energy efficiency because they have to rely on their landlord to upgrade their property.

In the last sitting of Parliament, the Victorian Government passed the *Residential Tenancies Amendment (RTA) Bill 2018*. This legislation marked a significant improvement in the rights of renters, increasing security of tenure, giving renters more freedom to make modifications and allowing Government to set minimum health, safety and energy efficiency standards. The legislation itself does not set minimum standards, but rather accommodates energy efficiency standards that are set through other pieces of legislation.

With the RTA bill now passed, the Government must now develop, implement and enforce energy efficiency standards. Environment Victoria has developed a model in its report *Bringing Rental*

*Homes up to Scratch*⁷, which provides an affordable, phased approach to introducing efficiency standards. However, further developing this model within government will require funding for both DELWP and Consumer Affairs Victoria to undertake detailed modelling, analysis and legislative development. It is vital that this work be funded through the 2019-20 budget if the Government is to introduce these much-needed standards in this term.

15. Increase the Victorian Energy Upgrade target and set a low-income target

Victorian Energy Upgrades (VEU) program has consistently delivered affordable energy efficiency outcomes, helping 1.7 million Victorian households and 70,000 businesses access energy-saving upgrades. In 2016, the Government set annual targets for the program from 2016 to 2020, which will reduce CO2 emissions by approximately 6.5 million tonnes. The Government also committed \$8.1 million to support this program.

The program has exceeded its savings targets for the last 18 months at significantly lower cost than anticipated. Despite this success, there is still significant untapped potential to increase Victoria's energy efficiency. While the program initially incentivised activity across Victoria's building stock, the current modest goals have seen the program focus on upgrading commercial lighting, which leaves the residential market untapped.

The 2019-20 budget should supercharge the VEU program and re-establish a strong focus on residential properties. This requires a number of steps. Firstly, the Victorian Energy Upgrades target should be significantly increased for 2021-2025. Secondly, a low-income earner sub-target should be introduced, which would force service providers to seek out opportunities to reduce energy usage for Victoria's most vulnerable residents. Finally, the government should reintroduce insulation into the scheme, which is the single most cost-effective measure for reducing energy costs and improving health. These measures would ensure that the program has a significant impact on Victorians' energy bills and reduces the state's carbon and air pollution associated with the Victorian energy sector.

16. Develop and fund a program to assist homes, businesses and industry to reduce their dependence on natural gas

Some forecasts for the gas market on the east-coast of Australia anticipate a tightening in gas supplies. While one possible solution being put forward (by AGL) is to start importing gas into Victoria through Westernport Bay, a better solution is for government to accelerate efforts to help homes, businesses and industry to (1) upgrade to more efficient equipment that reduces gas demand and/or (2) switch away from gas where possible, towards electric alternatives. This provides ample scope for reductions in gas demand, which helps to save consumers money,

⁷ Environment Victoria, 2017, *Bringing Rental Homes up to Scratch*, <http://environmentvictoria.org.au/wp-content/uploads/2017/09/Bringing-rental-homes-up-to-scratch-Sept-2017-online.pdf>

reduce greenhouse gas emissions, keep gas-using industries more competitive, and bypass the need to risk environmental impacts at any proposed gas import terminals.

GOAL 6: DELIVER A FAIR GO FOR NATURE

What does success in 2022 look like:

- Victoria is transitioning the native forest logging industry out of high-conservation value native forests and into plantations, and there has been a significant expansion of area under protection, starting with the Great Forest National Park and followed by other much-needed parks.
- Significant investments have been made to protect our rivers through comprehensive restoration of riparian lands, and 3200 GL of water has been delivered through the Murray Darling Basin plan, with greater transparency and accountability in its implementation and with better assessments of the benefits of environmental water.
- Significant improvement in the protection of threatened plants and animals have been implemented through strengthened laws, institutions and private investment vehicles.
- Victoria has become a leader in joint management of national parks and conservation areas, with authorities working meaningfully and productively with traditional owners to sustainably manage waterways, forests and grasslands while creating employment opportunities for Indigenous Victorians.

2019-20 budget priorities:

17. Establish a Victorian Environmental Assessment Council (VEAC) inquiry to improve public land management in Victoria's Central Highlands

The Forest Industry Taskforce announced in 2014 developed a pathway to resolve logging and forest conservation issues in Victoria. Regrettably government has not acted on the recommendations provided to it by major stakeholders including paper manufacturers, sawmillers, trade unions and forest conservationists.

In the last four years there have been significant developments in the native forest logging industry, including: a continued failure for state government loggers, VicForests, to achieve even the lower-bar Controlled Wood certification with the Forest Stewardship Council; the state government's acquisition of the Heyfield sawmill; an erosion of social licence for the industry with 62% of residents in the Central Highlands and East Gippsland finding native forest logging to be

unacceptable⁸; and serious questions raised about the legality of logging (some of which are currently being tested in the Supreme and Federal courts).

As such, the Andrews government should urgently resolve issues impeding the establishment of the Great Forest National Park (GFNP) and initiate a VEAC inquiry to ensure the best management of the publicly-owned forest estate in the Central Highlands.

The GFNP would provide a new escape within reach of every Victorian, while playing a vital role in protecting Victoria's rare and precious species such as Leadbeater's possum, securing Melbourne's water supply, and helping mitigate climate change through carbon sequestration.

Establishing the GFNP would create 750 new full-time jobs and bring 380,000 new visitors to Victoria's spectacular Central Highlands.

18. Take steps to bring a renewed focus to environmental outcomes in the Murray Darling Basin

Victoria has committed to implementing the Murray-Darling Basin Plan in full and has repeatedly pledged its support for the environmental outcomes of the Plan. The key ingredient for a successful plan is ensuring there is enough water in our rivers for wildlife and communities to survive and thrive in the face of a drying climate.

The rate and volume of environmental water recovery has declined rapidly in recent years due to governments' reliance on expensive and uncertain infrastructure projects as the principal means of water recovery. Both the Productivity Commission and the South Australian Royal Commission have been critical of this approach and the latter strongly recommends a return to buybacks as the principal form of water recovery. There is an urgent need to decouple water recovery from regional transition or climate adaptation programs. The Andrews government should call for an immediate halt to all infrastructure-based water recovery while its effectiveness, costs and benefits are reassessed, and a proper analysis of the cost effectiveness of water recovery through different methods is conducted. An audit of water savings realised through infrastructure projects that accounts for loss of return flows to streams and aquifers is also required.

Recent work by the Wentworth Group of Concerned Scientists⁹ shows that the expected flow outcomes of the Basin Plan have not yet been achieved and there is little improvement on pre-Plan baseline outcomes. A major reason for this lack of progress is the failure to manage constraints, both physical and regulatory, that impede the delivery of environmental water. In fact constraints on the delivery of environmental water through the Goulburn River have tightened at the same time as the river is being damaged by high summer demand from downstream irrigators.

⁸ <https://www.smh.com.au/environment/sustainability/bush-turns-its-back-on-support-for-logging-native-forests-20181113-p50frc.html>

⁹ <https://wentworthgroup.org/2019/02/mdb-flows/2019/>

The Victorian government should be more ambitious in its approach to constraints management. The Royal Commission recommends a compulsory land acquisition program in the public interest with just compensation for land holders. The Victorian government should investigate this approach as a way of resolving the impasse.

The government has commissioned economic studies of the impacts of water recovery on irrigators but has done no comparable analysis of the economic benefits of environmental water recovery or of the costs of continued 'business as usual'. Through the 2019/20 budget, the government should commission a study of the non-market benefits of water recovery in Victoria.

19. Initiate a review into threatened species management

Over the last three years there has been a departmental review of the *Flora & Fauna Guarantee Act*. The findings and proposed legislative reform fell well short of the protection needed by Victoria's threatened species. This reform opportunity should be revived by appointing an independent inquiry similar to last term's inquiries into the Environment Protection Authority and the *Climate Change Act*. The inquiry should identify the shortcomings of our current structures and practices for protecting threatened species, frame new legislation, and set up programs and institutions needed to protect our precious flora and fauna. This inquiry should be announced through the 2019-20 budget to set an ambitious and effective agenda for environmental reform.

20. Increase the Environment Contribution Levy to 7% for metropolitan users and 5% for regional users

The Environment Contribution Levy (ECL) is a modest levy collected from water authorities to fund sustainable water management and improve waterway health. The levy is a vital source of dedicated funding for projects that ensure the sustainable management of Victoria's water resources, such as drought proofing, river restoration, flood mitigation and improved metering and monitoring. This funding is desperately needed, with less than a quarter of Victoria's rivers rated as being in 'good' condition¹⁰. Climate change will exacerbate these existing problems, with water becoming even more precious.

The levy is set every four years, with 5% levied on metropolitan authorities and 2% on rural authorities. In 2016, the Victorian Government committed to a fourth tranche of the environmental contribution, which was used to fund the Government's *Water for Victoria* strategy. The fifth tranche of the ECL is scheduled to begin in 2020. The 2019-20 budget is an appropriate point to increase the levy to 7% for metropolitan users and 5% for regional users. This would provide a new source of funding for water projects and would reduce the inequality between metropolitan and rural users.

¹⁰ Commissioner for Environmental Sustainability Victoria, 2013, *State of the Environment Report*, Melbourne: Australia

21. Invest a further \$60 million into riparian riverbank restoration

Riverbanks are incredibly valuable places. When they are in good condition they stop pollutants entering the water, provide shade to keep rivers cool and prevent flood damage and erosion. As the climate changes, they will become increasingly important, creating refuges and migration opportunities for wildlife. Riverbanks need to be at the forefront of biodiversity conservation.

The number one threat to riverbank health is livestock grazing. To address this, the Government implemented the Regional Riparian Action Plan in 2015. This program has been highly successful, protecting nearly 2,300 kilometres of riparian land – equivalent to the distance between Melbourne and Cairns. The program currently only has funding to 2020. To send a clear signal of ongoing support, the Government should commit to scaling-up the program in the 2019-20 budget by providing \$60m of new funding to be delivered between 2020 and 2024.

22. Provide \$30-40 million for the Trust for Nature revolving fund

The Trust for Nature plays a vital role in protecting biodiversity by supporting private landholders to convert their properties to permanent protected habitats. To significantly ramp up this work, Victoria should invest between \$30 - \$40m in a Revolving Fund that purchases properties rich in biodiversity, applies permanent protections and then re-sells the properties. This would protect 60,000 - 70,000 ha of vital conservation land over four years, without affecting the budget bottom line, because the funds are retained as property assets and, once sold, can be reinvested.

23. Increase Parks Victoria's annual funding by \$50 million, with a focus on greater involvement of Traditional Owners and new protections in Victoria's Central West

To protect our national parks, government needs to significantly increase the amount of operational funding provided to Parks Victoria. An initial core funding increase of \$50 million per year in the 2019-20 budget, with subsequent annual increases of at least \$15 million in core government funding (non-tied) over the forward estimates, would bring Parks Victoria back up to an appropriate level of resources. This would provide funding for hundreds of skill-based positions such as rangers, as well as improving long-term land management programs.

As part of this, the government should commit to a comprehensive approach to, at a minimum, joint management of national parks and conservation estates with Traditional Owners, working collaboratively to build on the successful programs already in place across Victoria.

A particular geographic focus for some of this additional funding should be in public land in the Central West of Victoria. The forests and woodlands of Wombat (near Daylesford), Wellsford (near Bendigo), Mount Cole and Pyrenees Range (near Beaufort and Ararat) are worthy of better protection. Their immense natural values include over 350 threatened species such as the powerful owl and sugar glider and eleven significant headwaters of important rivers including the Moorabool, Werribee, Lerderderg, Maribyrnong and Wimmera. If protected, they will importantly

fill the many gaps in Victoria's conservation estate and help us meet global biodiversity targets. While the government has not yet made a decision on the draft VEAC report, provision should be made in the budget to commence park establishment, including relevant infrastructure, staffing, park planning and enhanced ecological management.

24. Complete the Yarra River Action Plan

Following advice from the Yarra River Protection Ministerial Advisory Council, the Victorian Government created the Yarra River Action Plan in 2017. Since then, the Government has undertaken welcome reform such as establishing the Birrarung Council as an independent voice for the River and passing the Yarra River (Willip-gin Birrarung murrn) Protection Bill, which recognises the river as a living, integrated entity and acknowledges the vital role the Wurundjeri people have in protecting the river for millennia. The 2019-20 budget should provide funding to complete the implementation of the Action Plan, including the rehabilitation of the Bolin Bolin Billabong and the establishment of a Taskforce to investigate the benefits of combining waterway management, open space, bay and coastal parkland management for greater Melbourne. The budget should also provide funding to increase environmental and cultural water flows.

The 2019-20 budget should also fund significant improvements in stormwater management, which is one of the greatest threats to water quality in urban areas. Pollution enters stormwater as both dissolved pollutants from roads, roofs, and carparks and as gross pollutants such as vegetation, litter and sediment from sources such as poorly managed building sites and bare lands. There are many options to reduce this pollution, including oil and grit separators, grassed swales, vegetated filter strips, retention ponds, and catch basin inserts, which remove gross pollutants at the source. However, only a small percentage of the stormwater drains feeding the Yarra River have pollutant traps. The Yarra Riverkeeper Association has identified a number of planning improvements which would improve stormwater management¹¹. This should be augmented through the establishment of a dedicated fund for councils to install and maintain gross pollutant traps on major stormwater drains.

GOAL 7: UNLEASH A CIRCULAR ECONOMY

What does success in 2022 look like:

- Victoria has set ambitious targets, policies and programs to move to a circular economy combined with significant economic incentives to drive down the amount of waste going to landfill.
- Victoria has developed world-renowned expertise in recycling, with major projects using a high proportion of sustainable, recycled material.

¹¹ <http://yarrariver.org.au/wp-content/uploads/2018/09/Yarra-Riverkeeper-Election-Statement-280918.pdf>

- The quality of the material we collect to recycle has improved significantly, with steep improvements in contamination rates, handling and management of material.

2019-20 budget priorities:

25. Increase the landfill levy to match the NSW rate

The landfill levy has been a highly effectively tool for incentivising recycling and discouraging landfill dumping. The fund has also raised a significant amount of money for environmental programs. Victoria's levy¹² is less than half of the levy applied in New South Wales¹³ The 2019-20 budget should better capture the full cost of landfill and improve the economics of recycling by increasing the levy in-line with New South Wales. The Government should also introduce a proximity rule, banning the shipment of Victoria's waste to other states to avoid the levy.

26. Supercharge environmental programs through the Sustainability Fund

The Sustainability Fund was set up to fund environmental programs through environmental levies such as the landfill levy. Over time, the fund has accumulated over half a billion dollars, which should be used to drive innovation, reduce emissions and protect our environment. Instead, the fund sat unused for years helping to prop up the state budget. In the previous term, the Andrews government started to disburse the fund, but the rate of investment is still far too low. In the 2019-20 Budget, expenditure from the fund should be accelerated to meet the scale of the environmental challenges that we face

27. Adequately resource the development of a Circular Economy Strategy

The existing linear approach to resource use to support economic activity is having severe and irreversible impacts on the natural environment. We welcome the government's announcement that it will develop a Circular Economy Strategy. To that end, the 2019-20 budget should provide sufficient resources to the development of this strategy, to ensure it does more than provide for basic improvements in waste management and better recycling rates.

A Circular Economy Strategy is an opportunity for Victoria to stimulate new industries, capitalising on our strengths in research and development, following cradle-to-cradle principles for design and the manufacture of products. Efforts elsewhere, most notable the European Union, to move towards a circular economy means that early and committed efforts by Victoria to become a leader in this field will put local innovators and businesses at a strong competitive advantage, all while helping to reduce drivers of environmental degradation.

¹² 2018-19 - Victorian municipal waste: \$64.30 (metropolitan)/\$32.22 (rural)

¹³ 2018-19 - NSW municipal waste: \$141.20 (metropolitan)/\$81.30 (rural)

SUMMARY

The goals articulated through this document will put Victoria on a path towards a more sustainable economy. In all cases, there are specific actions the Andrews government can take in the first year of its second term to help achieve these goals.

The full list of 2019/2020 budget priorities, articulated in greater depth above, are:

1. Ensure the construction of a further 1000 MW of renewable energy by announcing a second reverse action
2. Fund Solar Homes to ensure at least 10% of the 10-year target of 650,000 homes is delivered in the first year, and embed energy efficiency into the program's DNA
3. Develop a strategic investment plan for Victoria's grid
4. Develop a roadmap to increase electric vehicle uptake
5. Support, and fund efforts towards, emissions targets of at least 45-50% reductions by 2025 and 65-80% by 2030
6. Set strong emissions targets for Government operations and key sectors
7. Implement international recommendations on climate change reporting and disclosure
8. Legislate to establish the Latrobe Valley Authority (LVA) as an on-going statutory body, with an expanded remit and resources.
9. Begin preparing for the retirement of the Yallourn power station.
10. Rein in carbon pollution from on coal-fired power stations through EPA-imposed licence limits on greenhouse gas emissions
11. Require Alcoa to transition the Portland aluminum smelter to renewable energy
12. Begin the development of an 8-star efficiency standard for new Victorian homes
13. Fund more compliance officers to enforce residential energy efficiency standards
14. Fund DELWP & Consumer Affairs Victoria to develop a model for energy efficiency standards for rental properties
15. Increase the Victorian Energy Upgrade target and set a low-income target
16. Develop and fund a program to assist homes, businesses and industry to reduce their dependence on natural gas
17. Establish a Victorian Environmental Assessment Council (VEAC) inquiry to improve public land management in Victoria's Central Highlands
18. Take steps to bring a renewed focus to environmental outcomes in the Murray Darling Basin
19. Initiate a review into threatened species management
20. Increase the Environment Contribution Levy to 7% for metropolitan users and 5% for regional users
21. Invest a further \$60 million into riparian riverbank restoration
22. Provide \$30-40 million for the Trust for Nature revolving fund
23. Increase Parks Victoria's annual funding by \$50 million, with a focus on greater involvement of Traditional Owners and new protections in Victoria's Central West

24. Complete the Yarra River Action Plan
25. Increase the landfill levy to match the NSW rate
26. Supercharge environmental programs through the Sustainability Fund
27. Adequately resource the development of a Circular Economy Strategy

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