

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

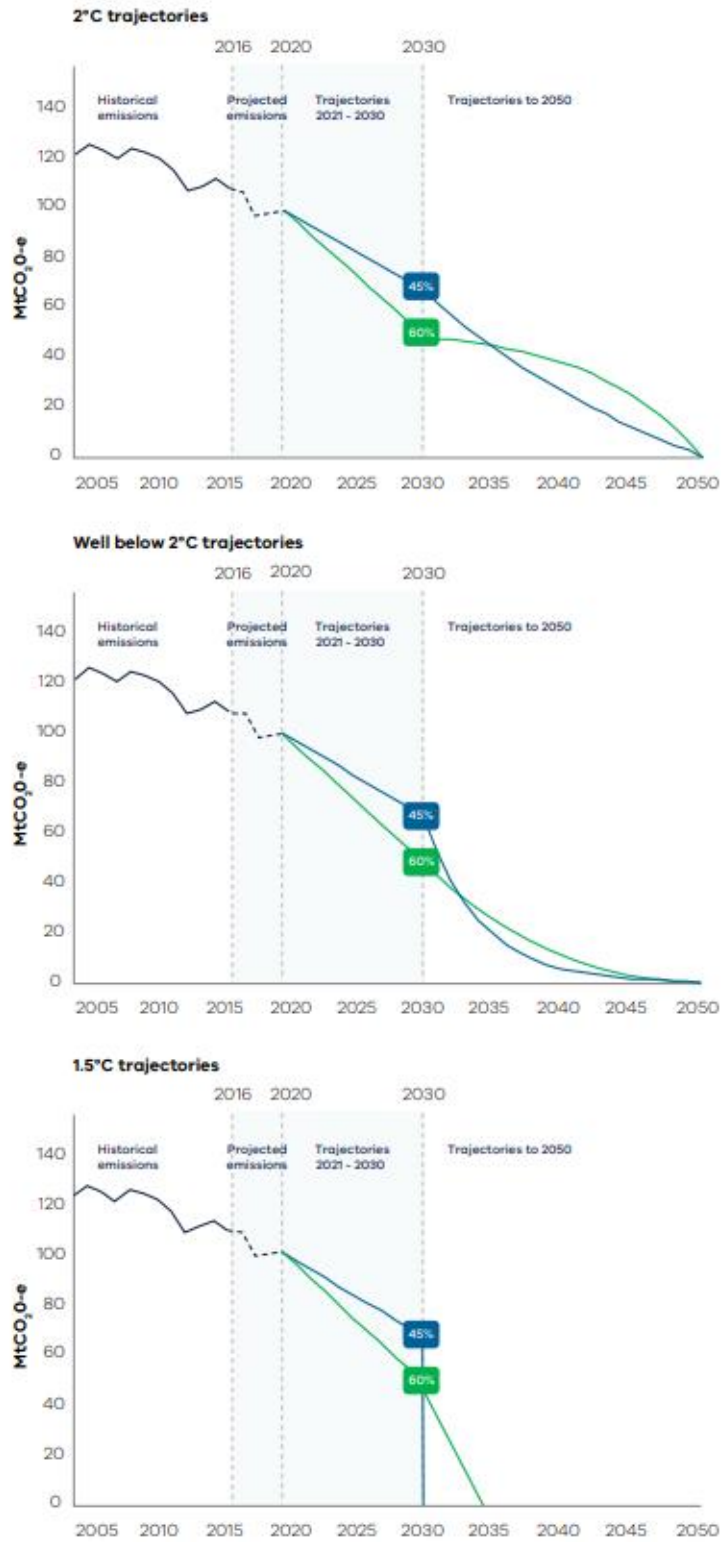


Figure 5.5 from the Panel's report, p57.

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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