



## Submission to “Victoria's emissions reduction target for 2035”

**(close for submissions, Sunday 5 June 2022)**

Dear Independent Expert Panel,

**Lighter Footprints** is a community-based group that aims to influence Australian local, state and national decision makers to take the action necessary to halt global warming as a matter of urgency. For over a decade, we have educated, advocated and brought people together in Boroondara and surrounding suburbs to inform the community and promote a clean energy future. We have 3,200 people on our mailing list.

Lighter Footprints welcomes the opportunity to respond to the Environment and Planning Committee's inquiry into “Victoria's emissions reduction target for 2035.”

Our submission is structured as follows:

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| A) Summary and Key Recommendations | Pages 2 – 5 |
| B) Response to questionnaire       | Pages 6 – 9 |

**SUBMISSION BY:**

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## SUBMISSION: Victoria's emissions reduction target for 2035

### Summary and Key recommendations

As a Melbourne based climate action group committed to facilitating effective climate action, Lighter Footprints shares the Victorian Government's interest in reducing Victoria's emissions.

The Lighter Footprints Energy Transition Group (ETG) welcomes the opportunity to provide a submission to the Independent Expert Panel advising the state government on Victoria's 2035 Emissions Reduction Target and providing ideas for how we can reach that target.

### Background

The Victorian Government has previously committed to achieving net zero emissions by 2050.

All States and Territory governments have now committed to net zero emission by 2050, a non-radical goal to which Australia signed up by revision of our Nationally Determined Contribution (NDC) in October 2021.

The 2015 Paris Agreement involved all countries agreeing to targets that would keep global warming to well below 2 degrees and pursue efforts to limit the temperature increase to 1.5 degrees if possible.

Under Victoria's Climate Change Act 2017, the government is required to set emission reduction targets for 1 Jan 2031 – 31 Dec 2035 by 31 March 2023.

Engage Victoria has opened a consultation "Climate action: Victoria's emissions reduction target for 2035" to gather views on a 2035 emissions reduction target for Victoria, and ideas for how we can reach that target.

The other significant factor that is important to note is that there has been a change of government at the Federal level. We believe that this provides an opportunity for the Victorian government to work with the Federal Government to accelerate that transition to renewables.

### The importance of setting a target consistent with keeping warming well below 2 degrees

The 2021 IPCC report on the climate change science acknowledges that the world will at least temporarily overshoot its much-preferred warming limit of 1.5°C degrees – but it emphasises that we must continue to aim for well below 2 degrees, and as close to 1.5 degrees as possible.

However, the Issues paper glosses over the requirement to keep warming as close to 1.5 degrees as possible. Lighter Footprint's ETG would like to make clear to the Independent Expert Panel that it is their view that taking a soft approach and accepting warming of 2 degrees is unacceptable.

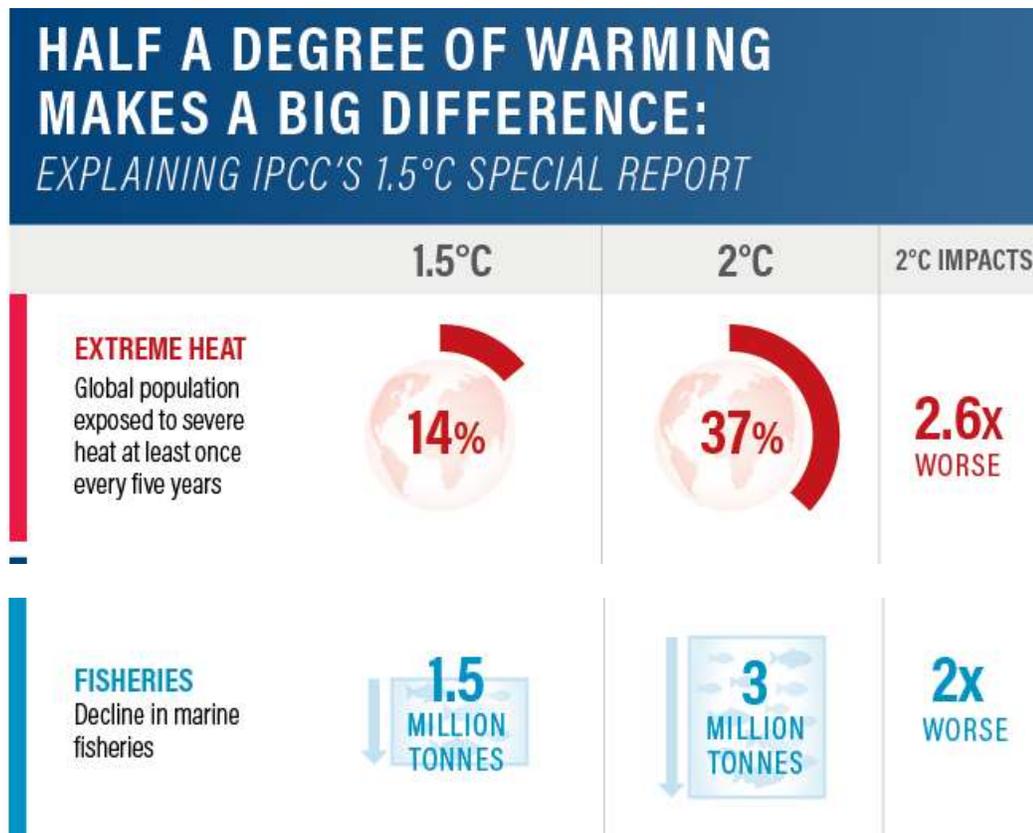


Figure 1. Key impacts, comparing a 1.5°C versus a 2°C rise in average global temperature from the IPCC report.

## How should we determine our targets

### Relevant information

#### 1. A cumulative target or interim targets

There is a large body of consistent information coming from the IPCC, climate scientists and climate groups telling us that it is cumulative emissions that we must concentrate on. This is why we see charts showing different trajectories to 2050. Achieving net zero by 2050 is a meaningless destination if we do not adequately manage cumulative emissions.

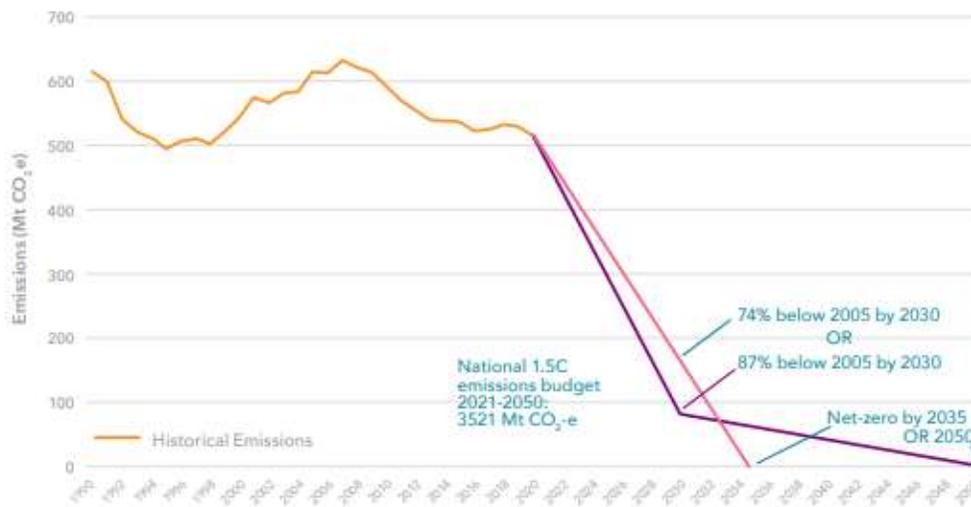
In our submission we will reference the report “Australia’s Paris Agreement Pathways” produced by the Climate Targets Panel, January 2021.

[ClimateTargetsPanelReport.pdf \(unimelb.edu.au\)](https://www.unimelb.edu.au/ClimateTargetsPanelReport.pdf)

The panel under the chairmanship of John Hewson comprised Will Steffen, Lesley Hughes and Malte Meinshausen and used as a basis of their methodology, the renowned 2014 work of the Climate Change Authority which has never been disputed.

The figure and table below show Paris compliant emissions trajectories consistent with limiting warming to 1.5 degrees. These clearly show that early action is necessary if we are to keep cumulative emissions at levels consistent with 1.5 degrees warming (or at least well below 2 degrees).

**Figure 4: Paris-compliant emissions trajectory for 1.5°C with net-zero 2050**

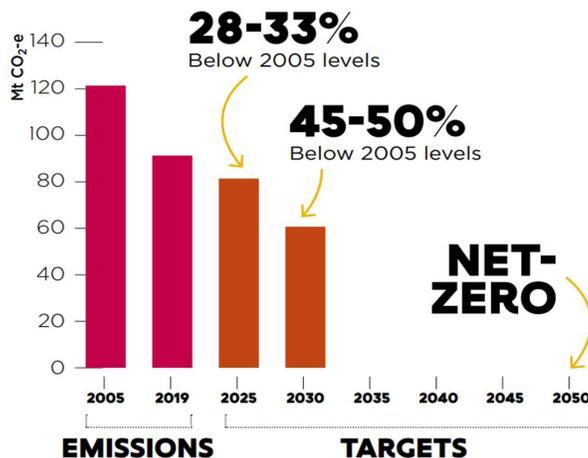


As shown, both the red and the purple trajectories are consistent with a 1.5C carbon budget of 3,521 Mt CO<sub>2</sub>-e over the years 2021-2050.

The Lighter Footprints ETG favours an even steeper trajectory from 2021 down to 87 pct reduction by 2030 (purple line) allowing reductions over the last 20 years to follow a flatter trajectory for emissions abatement in the most difficult sectors. However, Victoria has not set 2025 and 2030 target consistent with this approach (see section below) and this makes a target of 100% necessary.

## 2. Victoria’s emission targets

Victoria has already set emissions targets for 2025 and 2030. Victoria’s emission reduction targets are set out below:



### 3. Federal emissions targets

The Federal Labor party has campaigned with an emissions reduction target of 43% by 2030. While this is not consistent with maintaining cumulative emissions at recommended levels it represents a huge improvement over the previous position where there was no sensible 2030 national target.

It is possible that the new Federal government will have heard the wishes of the people, will be influenced by the Greens party and the independents and will establish a 2030 emissions reduction *ambition* of at least 50%. Alternatively, the Labor Government may maintain their 43% as long as they institute some multi-party mechanism for recommending action to reduce emissions (possibly through Zali Steggall's Bill and her proposed 'Climate Change Commission' modelled on UK practice).

However, even a national emissions reduction target of 43% will represent much improved support from the Federal Government and should enable the Victorian Government to reduce emissions below the existing targets of 45-50% by 2030.

#### Setting our targets

Setting emissions reduction targets is complex and governments tend to target low reductions and overshoot. This has often led to targets being outperformed. However, this is not the way to handle an area as important as climate change where delay can have unfortunate consequences.

In addition, the current targets for 2025 and 2030 are ranges and not specific targets. This makes handling cumulative emissions very difficult.

### Recommendations

Based on the information set out above we recommend:

1. Increasing 2025 and 2030 targets to reflect the urgency of taking action and the increased support from Federal Government; or

If this is not possible establishing an expectation that overshooting mandated targets is not just ok but is to be celebrated.

2. Setting point targets (not ranges) while acknowledging that the targets will be exceeded if circumstances make this possible;
3. Establishing a 2035 target of 100% as that is consistent with keeping cumulative emissions consistent with maintaining warming at 1.5 degrees (or as close to 1.5 degrees as possible).

## Responses to the questions in the questionnaire

Engage Victoria also provided a questionnaire to assist with responses. In answering these Questions, we have had to make a number of assumptions regarding actions that have been taken between now and 2030.

The main assumption is that legislated 2025 and 2030 emission targets have been met or have been exceeded.

The other assumptions relate to priority actions that we consider necessary for Victoria to meet the 2030 emissions target. Clearly, if these actions have not taken place for any reason they would be priority actions for 2031 to 2035. These assumptions are as follows:

- A) There have been no new gas connections to households since around 2024-25
- B) Vehicle emissions standards have been legislated
- C) Vehicle to grid and Grid to Vehicle charging standards have been developed nationally
- D) Further behind the meter, local storage and shared solar solutions have been developed with government support.

Our responses to the questions in the questionnaire are set out below:

2. What do you think is most important when setting a Victorian emissions reduction target for 2035?

|   |                                     |   |
|---|-------------------------------------|---|
| 1 | <input checked="" type="checkbox"/> | If the target is a fair contribution to help keep global warming well below 2°C / 1.5°C |
| 2 | <input checked="" type="checkbox"/> | The health benefits (including lower health costs) in meeting the target                |
| 3 | <input checked="" type="checkbox"/> | The environmental benefits in meeting the target  |
| 4 | <input checked="" type="checkbox"/> | If options are available to meet the target   |
| 5 | <input checked="" type="checkbox"/> | How effectively the target drives Victoria's economic growth                            |
| 6 | <input checked="" type="checkbox"/> | If the target will give Victoria an economic advantage                                  |
| 7 | <input checked="" type="checkbox"/> | The cost to reach the target  |
| 8 | <input checked="" type="checkbox"/> | If the target puts Victoria on a sensible pathway to net zero emissions by 2050         |
| 9 | <input checked="" type="checkbox"/> | Other   |

3. What emissions reduction target do you think Victoria should set for 2035?

We recommend a 100% emissions reduction target for 2035.

4. What three things do you think will cut Victoria's emissions the most in the period 2031-2035?

The three things that will cut Victoria's emissions the most in the period 2031 to 2035 are as follows:

1. The closure of all remaining coal-fired generation and transition to renewables. This will require:
  - a. Building or over-building the necessary renewable energy and the associated storage and firming ahead of coal plant closures,
  - b. As per the ISP (Integrated Systems Plan), ensuring electricity Transmission upgrades are built to link the Victorian renewable energy zones (REZ's), and also, to ensure electricity can be exchanged between other States and Victoria.
  - c. The implementation of further offshore wind farms, including floating wind turbines;
  - d. Maximising local generation and storage.
2. Rapidly transitioning away from gas
3. Fast-tracking the transition to renewables-derived transport. This will require building the charging infrastructure for transport/vehicles.

However, these are just some of the necessary actions. Other necessary actions include:

- The cessation of logging of native forests.
- Increasing soil carbon, decreasing livestock emissions, transitioning to regenerative agriculture.

5. What benefits can you see in a low emissions economy for Victoria in 2031-2035?

- The transition will create jobs
- Attract Clean Energy expertise and talent to the State
- Victoria could become the national expert in new technologies (e.g. offshore wind, truck charging infrastructure)
- Increase in low-carbon exports (dairy, meat, grain, aluminum, etc)
- Energy security vis a vis displacing reliance on Oil imports
- Reduce balance-of-trade through reduction in imported oil
- Exporter interstate (NSW, SA, Tas) of wind-generated electricity
- Victoria's Universities can be Tier 1 in Education overseas students on decarbonization
- Victoria may become a preferred trading partner
- Health benefits associated with ceasing mining fossil fuels and ceasing combustion of fossil fuels

6. What challenges might Victoria face in reducing emissions in the period 2031-2035?
- Ensuring that some sectors of the community are not left behind and that the transition is a just transition.
  - Establishing high-energy precincts to support industry;
  - Changing perceptions and educating Victorians regarding gas, ensuring that consumers switch from gas in a timely manner.
  - Educating households who have Reverse Cycle air conditioners (RCAC) that they can use them instead of using gas heating and in-efficient electric heaters (e.g blow heaters).
  - Encouraging high winter gas users to do building upgrades and install RCAC's (refer work by Saul Griffiths, Tim Forcey and Alan Pears).
  - Encouraging non-government car, bus and truck fleets to go electric.
  - Avoiding following unproven un-economic technologies like carbon-capture-storage.
  - Avoiding the pursuit of pathways that are not 'no regrets' pathways (pathways that that actually slow the necessary transition e.g. we oppose blending ANY hydrogen blended into methane gas (natural gas) networks when it is neither economic or materially reducing emissions, and commencing at initially 10% hydrogen in networks is a 'pathway to nowhere').
7. How could Victoria overcome potential challenges to reducing emissions in 2031 - 2035? Refer to the challenges you identified in your response to question 6.
- Assistance in the creation of new jobs in areas affected (particularly the Latrobe Valley)
  - Taking early and decisive action in respect of the transition off gas including:
    - Ensuring that there are no new gas connections. It should be noted that Finding 19 from the Inquiry into renewable energy in Victoria stated that "Current planning, building and plumbing regulations that mandate connection of new buildings to gas infrastructure conflict with the need to transition away from gas."
      - An initial move to remove the mandate followed by a future ban on new gas connections would allow Councils, Builders, industry and appliance manufacturers time to adapt.
    - Directing all water heater subsidies to electric products (heat pumps) only, and not gas products;
  - Assist Fleet purchasing and leasing to go electric through Stamp Duty relief and lobbying Federal Govt for FBT and luxury car tax removal.
  - Develop and support fully renewable hydrogen in key precincts (analogous to Renewable Energy zones) but to meet the needs of industry (feedstocks and high temperature furnaces) and long-haul transport.
  - Refusing to rely on unproven and un-economic technologies like CCS.
8. What can be done to make sure the benefits and costs of climate action are fairly shared? This is sometimes described as a 'just transition'
- Provide assistance to help people transition from gas to electricity.
  - Provide support to regions impacted by the closure of coal powered generation.
  - Assist the workforces impacted by the transition from gas and coal-fired

power.

- Resolve how to best to shelter low-income people and tenants from paying high gas bills and a declining customer-base paying for the decommissioning of the gas network.
- Raise Residential energy efficiency star-ratings for appliances that Landlords must implement within for example 3 years.
- Subsidize and support low-income households with specific initiatives such as:

combining household efficiency (insulation, draft proofing, double glazing etc) concurrently with the switch from gas to electricity. This would reduce gas demand & gas winter peak demand, while minimizing the increase in electricity demand, i.e. energy efficiency improvement means the housing needs less heating (and less cooling).

Support for the installation of solar rooftop and heat pump hot water - as solar electricity can be used to make hot water in the daytime.

Subsidizing low-income households to do both at the same time lowers costs dramatically. Refer below.

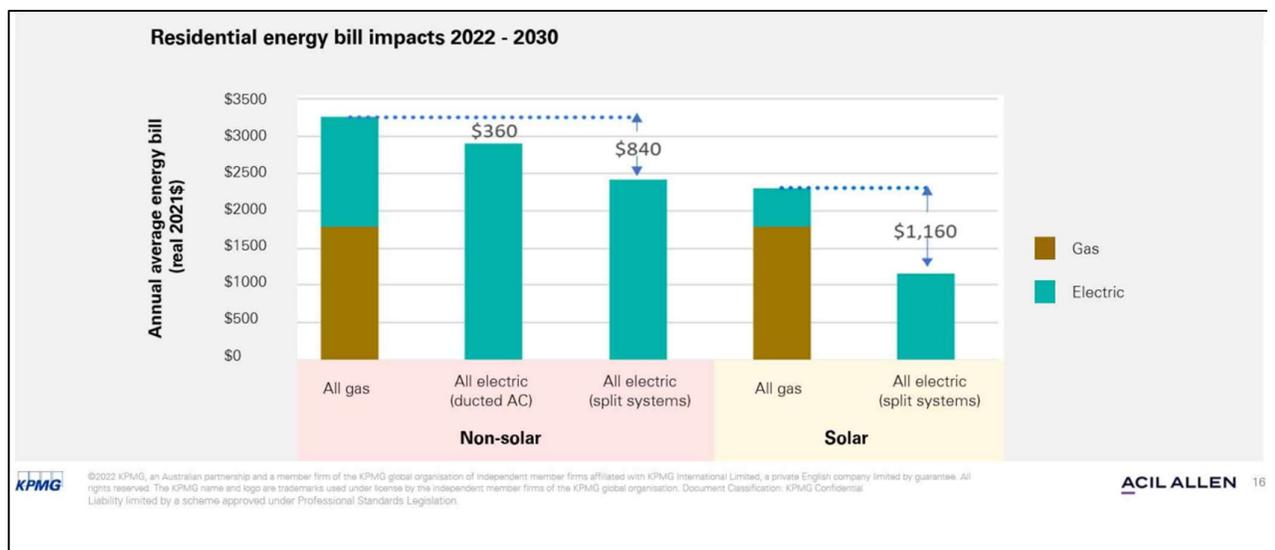


Image: Victorian Government Gas Substitution Roadmap stakeholder forum, February 2022.

9. Is there anything else you would like to share with us?

Councils can play a key role in encouraging approvals for new buildings without gas connection.

Community Power Hubs can play a key and increased role in encouraging households to install rooftop solar, electric heat pump hot water (with timers for using solar), RCAC for space heating.

10. Do you consent to your comments being referenced by the Panel's published report?

Yes