CENTRAL VICTORIAN Greenhouse Alliance

RE: VICTORIA'S INTERIM EMISSIONS REDUCTION TARGETS

ISSUES PAPER 30TH APRIL 2018

The Central Victorian Greenhouse Alliance (CVGA) welcomes the opportunity to provide a submission on the expert panel issues paper on interim emissions reduction targets for Victoria 2021-2025 and 2026-2030.

The CVGA is a formal network of 12 local governments in central and northern Victoria comprised of the cities and shires of Ararat, Ballarat, Bendigo, Buloke, Central Goldfields, Ganawarra, Hepburn, Loddon, Macedon Ranges, Mount Alexander, Pyrenees and Swan Hill. The CVGA has existed since 2001 and works collaboratively to help drive our region to reduce greenhouse gas emissions and become more resilient to the impacts of climate change.

Question 1a: Should Victoria's interim emissions reduction targets relate to a national reference point?
Yes. This is important to be able to align with global efforts to tackle climate change. Whilst we recognise the need for Victoria to create a target that is nationally equitable, we think this should only be used as a bare minimum for effort that reflects global targets.

Question 1b: if yes, what is the most relevant national reference point?
CVGA considers that the Victorian target should reflect at the very least the Climate Change Authority's recommendation of 45-65% below 2005 levels by 2030 as a national reference point. This is more in keeping with what is needed for Victoria to act in line with the scientific projections for keeping global temperatures below 2 degrees Celsius. We consider that the most relevant framework for setting targets is the Paris Agreement, as this has the best science behind it and allows for Australia to collaborate most effectively with international efforts. The target set by the Australian government is not likely to achieve the result that it itself states is its objective.

Question 1c: If yes, how should Victorian interim targets relate to this national reference point?

i. Direct application of the national figure to Victoria's 2005 emissions.
ii. Recalculated to take into account differences between Victoria and Australia as a whole. iii. Other (please specify

CVGA considers that it should be recalculated to take into account the differences between Victoria and Australia. Additionally, we would recommend that further steps be taken to establish proportional allocation of these targets as a function of Australia's overall target:

- Relative socioeconomic conditions within the state (to reflect community capacity to take action)
- Relative growth of the state relative to Australia overall (to minimize penalization for having high growth)
- Establishing mechanisms that modify target allocations based on our current and projected capacity to take action. Note that we see this aspect to be the most challenging of the proposed modifiers, and is dependent on developing

projections for technology shift. This may be seen as introducing undesirable amount of uncertainty into the target, and this should influence the decision to include it.

The justification for these adjustments is to create a target that leads to the lowest risk pathway to achieving success. Producing targets that best reflect the community's emissions, in addition to considering the capacity of that community in taking action, we feel is the best way to succeed. It creates a platform that supports a robust discussion about how to best apply resourcing and share the load.

However, assessing community capacity to take action is inevitably a political decision. Although it can be informed with projections based on current activities and assessments of a range of regional strategies and plans, the States capacity as a whole is driven by Victorian Government decisions. We recommend that the State be bold and seek to make Victoria a leader in the climate change space.

Q2. What would you recommend Victoria's targets be for 2021-25 and 2026-30, and why?

CVGA recommends a more ambitious target by 2030, recognising that this will both address the urgency of climate change but help to galvanise the opportunities that come from being bold in climate change action. We would recommend that a target be developed along the lines of the provisions outlined above. Climate change is often framed as a problem that will be costly to address, and this way of thinking often leads to governments, organisations and individuals tackling low hanging fruits first and leaving the heavy lifting for future years.

However, we consider that governments setting bold and ambitious targets in the short term can help to galvanise, inspire and motivate communities. Paul Hawken, author of the Drawdown project, at a recent forum in Bendigo stated that "when you make the goals (emissions reduction targets) audacious and bold and encompassing and great, it makes people great and bold and audacious and encompassing".

The CVGA region has a long history of being bold and innovative in the climate change space and our councils and communities continue to proactively seek out the opportunities that climate change presents. Addressing climate change is an opportunity and should be seen as an important catalyst for modernizing the way we build our towns and cities, the way we grow and consume our food and resources, the way we generate and share energy.

Many of the councils in our region have adopted strong targets either as emissions reduction targets or sector based such as renewable energy targets. For example, Hepburn Shire in partnership with Hepburn Wind are working with their community to become a zero net energy shire and the Shire is committed to becoming carbon neutral by 2021. Macedon Ranges Shire Council has committed to becoming zero net corporate emissions by 2030, Mount Alexander Shire Council seek to become carbon neutral by 2025, City of Greater Bendigo are working with their community to become zero net carbon emissions over the next twenty years, and Ballarat City Council are striving towards carbon neutrality and 100% renewables by 2025.

Q 3. Do you think a Victorian emissions budget should be used as a tool in the Panel's analysis?

Yes. A budget approach helps to frame decisions in a context of scarcity, whereby only a certain amount of greenhouse gas emissions can be emitted over the next thirty years to stay within budget. It helps to link to the Paris targets and is more familiar approach for people to understand and integrate. A budget approach can be

more easily linked to government and corporate decision-making. For example if a major development project has a significant impact on the States carbon budget then this may be used in the evaluation of whether the project should or should not proceed.

Q 3b. If yes, what global temperature outcome should a Victorian emissions budget be consistent with (e.g. 2°C above pre-industrial levels)?

A Victorian emissions budget should be consistent with 1.5 degrees C above pre-industrial levels. We support the scientific basis to setting emissions reduction targets and commend the panel on the set of principles outlined in the issues paper. However, we note that the window for keeping global temperatures close to 1.5 degrees Celsius is quickly narrowing. A number of recent studies show that global warming of 1.5 degrees C is imminent, and that we are likely to reach that threshold in just a decade.

Combined with the impacts of the lag time of greenhouse gas emissions in the atmosphere, this points to the urgency of action. The impacts of climate change are already being experienced in our region and have far ranging consequences at even modest global temperature increases, let alone 2-4 degrees.

3c. If yes, how should Victoria's share of a global or Australian emissions budget be calculated?

We strongly believe that targets should be set in a manner that creates the easiest possible pathway to success. In light of this, we feel that fairness is important (in order to drive support from all groups) but is not an overriding requirement. Appropriately allocating according to:

- Representative emissions sources
- Capacity to change
- Fairness

We support the method of determining Australia's appropriate total using the CCA to create the Nationally Determined Contribution, which recognizes the high emissions intensity of contemporary Australia, our history of high emissions relative to the rest of the globe, and plausible pathways for reducing emissions going forward.

Q.4. What do you see as the relative advantages and disadvantages of early versus late action to reduce Victoria's emissions to reach net zero by 2050?

As mentioned above, the advantages of 'front-ending' action to do more earlier, creates new economic opportunities and positions the State as a leader in climate change action. This in turn attracts new forms of investments into the State, and helps communities to join the State Government in acting together. We see the key advantages of early action to be in leadership and avoiding investment in more carbon intensive infrastructure. In particular, some aspects of infrastructure investment, such as urban planning and large roads, embed high-emissions trajectories that would be extremely challenging to undo by even the medium term.

Q5. What lessons can be learned from other state and local governments that have set emissions reduction targets?

We identify two key issues with the ways that targets have been established in the past for local and state governments: failure to establish a target within an appropriate context, and mischaracterisation of responsibility for action.

1) Failure to establish a context-appropriate target.

From our experience working with local government and the history of target setting through the Cities for Climate Protection program there are often 3 different types of targets:

a. Top Down (Science Derived) Targets. These are targets that are imparted from an external source and is independent of any political realities or budget constraints of the stakeholders. The relevant example here is the global budget established by the IPCC
b. Bottom Up (Action Derived) Targets. These targets are developed from aggregating the projected impacts of budgeted actions. Some figures may be speculative, however they are in principle tied to specific actions.
c. Aspirational (Political) Targets. These are targets that do not take into account the considerations for the other two types of targets, and are typically established using easy to communicate figures or concepts (such as '100% renewables by 2020').

   The vast majority of targets that have been established by local and state governments in the past have bee aspirational targets. Because no credible plan has been established to achieve these targets, and there is no connection to the actual requirements as stipulated by climate science, these targets inevitably fail. In many instances, the entity establishing the target has no idea the scale of the challenge, and subsequently have typically not undertaken the necessary work and resourcing required to achieve them.

2) Mischaracterisation of responsibility for action.

   This is an important extension of the previous issue. Basically, we see an important distinction that needs to be made in communicating the roles of targets. When establishing a target for a municipality/region, the government body should be clear that this target is the responsibility of the region overall, not just the government organisation itself. To facilitate how to communicate this, we recommend that it is linked to a Bottom Up target that is based on the what the government body intends to do – this represents their commitment to change, and can be fitted into the broader community target.

Q6. What are the most significant opportunities and technologies for reducing emissions in Victoria during the period 2021-2030 and to reach net zero emissions by 2050?

We consider that all sectors should be given equal attention for reducing greenhouse gas emissions and working to become net zero. However, each sector has different levels of short and longer term abatement potential based on current practices and technologies.

Stationary energy and demand management/energy efficiency

We see battery technology will be the vector that transforms the energy economy. The economic drivers will continue to unlock more opportunities for the application of batteries, which will continue to expand the total scale of take up. At this stage, we anticipate battery and renewable technologies completely dominating the electricity generation sector within the next few decades.

Renewable energy will be the basis for energy supply, comprised of solar, wind, pumped hydro and bioenergy/waste to energy. From this, batteries (of several varieties) will become the medium by which these energy sources are distributed to the grid. Novel forms of energy management will become more viable, and the viability of the transmission, and then high-voltage distribution networks will be challenged for areas away from major urban centres. We anticipate a growth in microgrids and business models to support them, in addition to other energy management solutions such as virtual power stations, virtual net metering, and

demand response applications. These will largely be software and regulatory innovations, with the technology already in place.
To lead investment, we see the role of government to pursue appropriate regulatory intervention to encourage the business case for batteries by

a) cash injection (3-5 year program) and
b) appropriate tariff structures and control options for customers (required options under an opt in process)

7. **What are the key barriers to reducing Victoria's emissions by 2025 and 2030?**

For these milestones, required emissions reductions will be easily achieved through targeting the stationary energy supply, and with some application given to transport. For transport emissions, the only viable pathway that we see towards large-scale emissions reduction within a short time frame is through transition towards electric vehicles and hydrogen fuel celled vehicles for heavy transport (supplied with a commensurate source of renewable energy). If this technology shift is not taking place within a reasonable timeframe, more dramatic steps (such as extensive investment in public transport infrastructure, and substantial review of future urban planning) may be required. Because of the long term implications of investment in transport, technological development in electric vehicles should be closely monitored. Further down the track, we see challenges in reducing emissions from the agricultural sector. This may prove to be an intractable problem that will require net offsetting with other activities in order to be addressed adequately.

8. **What further steps can the Victorian Government take to support emissions reduction opportunities and the uptake of low carbon technologies?**

Stationary energy generation remains the most significant source of emissions, and the Victorian Government should be focused on continuing an aggressive program of reducing these emissions. This program should be publicized, with projections being made available to local government and other stakeholders – these projections are critical for the creation and maintenance of local carbon emissions reductions strategies.
There should be no additional investment in fossil fuel energy generation or distribution (inc. gas distribution networks). This includes projects that involve carbon capture and storage technologies, as this is unproven and after countless global pilot projects has not adequately demonstrated abatement potential.
We strongly believe in the importance of adopting electric vehicles for reducing transport emissions. The Victorian Government should continue the development of investment strategies for EV infrastructure (e.g. charge points). These investment strategies should be shared with local government, who are in an excellent position to facilitate these programs and can substantially increase community engagement.

9. **What lessons can be learned about reducing emissions in Victoria from actions taken in other states and countries to reduce emissions?**

N/A

10. **What additional infrastructure will be required to support low carbon transformation within each sector? (e.g. electricity generation, transport, the built environment, industry, agriculture, other land-based activities)**

N/A

11. **What steps could the Victorian Government take to accelerate turnover of capital assets with significant emissions to deliver emissions reductions? (e.g. old road vehicles, industrial equipment)**

N/A

12. **What are the price and non-price factors influencing business and industry decisions to switch to less emissions-intensive fuels?**

N/A

13a. **Should international and interstate offsets be used to meet Victoria's interim targets?**
We do not think that offsets should be used for meeting interim targets.

13b. **Why?**
The reasoning for this is two-fold:

- Purchasing offsets involves spending money to meet short term reduction targets at the cost of implementing long term reduction trajectories. We think it is appropriate to minimize the risk of future budget decisions negatively impacting overall program delivery. To this end, we believe that focusing on embedding emissions reductions through local investment in long term interventions, even if this reduces the scale of emissions abated in the short term
- It keeps investment money local, which will lead to a more robust development of a carbon emissions reduction industry. Additionally, because many of the measures for reducing carbon emissions also improve other outcomes (such as improved business profitability and improved occupant comfort for households), there will be a lot of ancillary benefits to the community that will further reinforce the benefits

Where offsets are deemed essential we recommend that interstate and international offsets be kept to a very low percentage of the abatement options. There are opportunities for the Victorian Government to address a range of objectives through directing offsets to local projects, for example biodiverse environmental plantings. The state should seek to invest in capacity building for local groups to understand how they can develop and implement abatement projects that can offset local emissions.

However, in this context it can also be argued that Victoria has a significant carbon debt, from two centuries of substantial land clearing. Thus, investments in reforestation and revegetation are not simply additional carbon sequestration that can offset other sectors, but returning carbon stocks that have been lost from previous land uses. Offsets should be created to only offset within the same sector the emissions are coming from

Yours Sincerely

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