Climate Change Team
Department of Environment, Land, Water and Planning

22 July 2019

Dear Sir/Madam,

Independent Expert Panel on Interim Emissions Reduction Targets for Victoria (2021-2030)

The Australian Energy Council ('AEC') welcomes the opportunity to make a submission on the Independent Expert Panel's ('Expert Panel') advice on *Interim Emissions Reduction Targets for Victoria (2021-2030)* ('Final Report').

The AEC is the industry body representing 23 electricity and downstream natural gas businesses operating in the competitive wholesale and retail energy markets. These businesses collectively generate the overwhelming majority of electricity in Australia and sell gas and electricity to over 10 million homes and businesses.

The AEC recognises the need to de-carbonise the Australian economy over time and that energy will play a major part in this. To that end, the AEC has consistently supported efficient emissions reduction mechanisms that are technologically and geographically neutral. This submission does not provide any commentary on the level of the proposed interim targets. Rather, it seeks to discuss the issues that arise in pursuing sub-national mitigation actions in the energy sector.

The submission also seeks to correct some of the inaccurate or misleading data contained in section 7 of the Final Report, which purports to identify co-benefits Victoria can receive from transitioning to non-carbon based fuels in reference to public health and water availability. It is the AEC's view that these issues are unrelated to the objective of carbon target setting, and that its gratuity, combined with these inaccuracies, diminish the overall credibility of the report and require correction.

The AEC's submission to the Victorian Interim Emissions Targets Issues Paper ('Issues Paper') raised concerns about similar misleading claims in that paper.[1] Specifically, the Issues Paper had cited figures about water consumption and the costs of air pollution that were 'misrepresentative' and presented 'out of their due context'.[2] The AEC is disappointed to note that these concerns do not appear to have been taken into account when formulating the Final Report.

National Context for Carbon Reductions

As stated in our Issues Paper submission, the AEC firmly believes emissions abatement is a policy that should be engaged at the national rather than sub-national level. Actions taken at the sub-national level are inherently less efficient, ultimately costing the Victorian economy more and can lead to investor disruption, increases in customer prices and falling energy supply reliability. They can even be environmentally ineffective due to "carbon leakage" effects.

The AEC also recognises that the Panel has recommended targets with much greater environmental ambition than those presently adopted at the Commonwealth level. The AEC recommends that instead of "going it alone", the Victorian government should be prosecuting its view, informed by the

[1] Australian Energy Council, *Submission on Victorian Interim Emissions Targets Issues Paper*, 1 May 2018, https://s3.ap-southeast-2.amazonaws.com/hdp.au.prod.app.vic-engage.files/4815/3621/5328/Australian_Energy_Council.pdf.

[2] Ibid at 3.

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Panel, at the national level. This should be directly to the Commonwealth, and to all jurisdictions via the Coalition of Australian Governments.

By working at that level, it may be possible to achieve the Panel's objectives in a way that is lower cost, less risky to Victorians and ultimately more environmentally effective.

Emissions Reduction Opportunities

With respect to opportunities in the energy sector, it must be recognised that Victorian customers are supplied by part of a wider Eastern Australian gas and electricity market. For this reason, any actions taken in Victoria cannot be considered in isolation of the national context.

Firstly, there is the issue of carbon leakage. The panel has noted large falls in Victorian electricity generation emissions with the recent closures of Morwell, Anglesea and Hazelwood brown coal plants. However, this lost generation was mostly made up by fossil-fuelled electricity in other states, particularly New South Wales' black coal, as Victoria has transitioned from an electricity exporting to importing region. Evidently then consequential global emissions did not fall to the same extent as portrayed in the paper. Furthermore, it would be impossible for Victoria to untangle the true environmental impact of its own actions. This history emphasises the challenges of taking a sub-national approach.

Secondly, there is the inefficiency of geographical non-neutrality. For example, each of Queensland, New South Wales and South Australia have superior solar resources than any part of Victoria, whilst Tasmania and South Australia have superior wind. That is not to suggest that renewable generation should never be built in Victoria – transportation is also costly - but that a geographically-neutral competitive path is likely to discover cheaper solutions.

Finally, there is the problem of market disruption and instability. Mechanisms to directly subsidise Victorian renewable energy will have distortionary effects on the electricity market and potentially threaten the reliability of supply. The Victorian Renewable Energy Auction Scheme's Contract for Differences model removes important short and long-term market signals from these generators. For example, it removes from these generators important market incentives to supply generation at the time of high prices, which reflect the time of greatest market need.

In turn, subsidised variable renewable generators, pushed into the Victorian market at large scale, will have major consequential impacts on the operability and viability of existing plants leading to their early, and potentially disorderly, closure. Such closures inevitably result in a major bounce in wholesale electricity prices and place the overall reliability and security of the grid at risk. The Panel has placed considerable weight on closure notice periods as a mitigating factor to such a disorderly outcome. It should, however, be noted that these notice periods cannot be reasonably relied on in circumstances where a plant has become inoperable due to a major decline in plant or economic conditions that were unforeseen.

The AEC recognises that reducing Victorian brown coal use before 2030 is clearly implied in the Panel's recommended sectoral opportunities in figure 6.7. However, this may or may not be the least-cost way of achieving the emissions objective. In the AEC's view, this should be only discovered through the market processes that result from a geographically and technology neutral scheme.

To the extent that the government remains minded to impose sub-national arrangements, we encourage consideration of ways that mirror, if possible, such schemes. For example, it should investigate arrangements that include certificates that can be traded across multiple sectors, finding

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the least-cost Victorian solutions. It may be possible to use offsets from outside Victoria, such as the Australian Carbon Credit Units, to reduce the cost to Victoria of its environmental ambitions.

Water Consumption

The Final Report relies on 2009 data from the National Water Commission that estimates 'water use in Victoria's electricity generation sector to be 125 billion litres of water annually'.[3] It then states this amount is 'equivalent to around a third of Melbourne's annual water consumption'.[4] Both these assertions are based on data that is over ten years old and are misleading.

The Report did not make it clear what type of water electricity generators are predominantly consuming. A lay reader is likely to assume that electricity generators are consuming what would otherwise be potable water and is competing with domestic consumption. Rather, the electricity generators in the La Trobe Valley rely on water sourced from the La Trobe catchment and aquifer. These fall outside the urban water supply system and do not impact on household water supplies.[5]

It is unclear why the Final Report has elected to rely on ten-year-old data when more recent data is available. To cite one example, the Australian Bureau of Statistics' "Water Account" has provided a year-by-year update of water consumption data from 2008 to 2017, which includes breakdowns across states and by industry. From 2016 to 2017, the electricity and gas supply consumed 121,305 mega litres of water.[6] This represents 3.85 percent of Victoria's total water consumption. In comparison, the agriculture sector consumed 62 percent of Victoria's total water.[7]

Using the best available data is important in official reports because it improves the credibility of the findings and makes forecasting more reliable. This is particularly important here because 2009 data does not take into account the significant changes in Victoria's electricity generation sector over the past ten years, namely the closure of three brown coal-fired power stations: Anglesea, Energy Brix and Hazelwood.

Notwithstanding these issues about context and accuracy, the reference to water consumption is gratuitous to the objective of carbon target setting and should not be taken into account by the government.

Air Pollution

The Final Report estimates the health costs stemming from air pollution by electricity generators to be 'between $420 and $600 million per year'.[8] A DELWP Economics Working Paper made this cost estimate by deriving costs from overseas locations and adjusting them to the Australian context. This approach was taken because Australia 'currently lacks the required sufficient, readily available data to undertake a full impact pathway process and generate location-specific damage costs'.[9]

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[3] Independent Expert Panel, *Interim Emissions Reduction Targets for Victoria (2021-2030) ('Final Report')*, 6 June 2019, page 107.
[4] Ibid.
[5] Victorian Department of Sustainability and Environment, *Gippsland Region Sustainable Water Strategy,* 2011, page 80, https://www.water.vic.gov.au/__data/assets/pdf_file/0026/52883/DSE_GRWS_accessible_linked.pdf.
[6] Australian Bureau of Statistics, *4610.0 – Water Account, Australia, 2016-2017,* last updated on 12 February 2019, https://www.abs.gov.au/AUSSTATS/abs@.nsf/mf/4610.0.
[7] Ibid.
[8] Final Report at page 93.
[9] DELWP, *Estimating the Health Costs of Air Pollution in Victoria – DELWP Economics Working Paper to Inform the Independent Expert Panel on Interim Targets ('DELWP Economics Working Paper'),* page 3.

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The AEC urges the Victorian Government to recognise the limitations with using such a method when formulating its policy response. There were several warnings in the overseas studies that the Final Report used to be cautious when using their data for policymaking. The 2009 Australian Academy of Technological Sciences and Engineering report states unequivocally that 'these figures should be verified by Australian location-specific studies as health effects and costs may differ from Europe'.[10] Likewise, the 2015 Ward and Power study notes that its 'air pollution cost estimates are rough' and the lack of specific data means 'we cannot be certain that the cost or health impact estimates are accurate'.[11] These warnings should have been present in the Final Report.

The AEC also asks the Victorian Government to take caution when interpreting some of the findings in Section 7 of the Final Report. Regarding the absence of data on costs relating to O_3 emissions, the DELWP Economics Working Paper concludes that this is a 'potentially significant gap and means the health cost estimates could be quite conservative'.[12] This sentence uses tentative language ("potentially" and "could") to recognise the lack of evidence in this area to support any conclusion. It has been translated in the Final Report as: 'These estimates may consequently be considered conservative'.[13] From the AEC's viewpoint, the words "consequently" and "considered" suggest a degree of certainty that does not exist.

Notwithstanding these issues, the Victorian Environmental Protection Agency conducts rigorous licencing regulation on all Victorian electricity generators. These regulations take into account detailed monitoring and the most recent credible scientific studies on health impacts through five-yearly reviews. Their conclusions are not directionally consistent with the international papers cited in the report.

Any questions about this submission should be addressed to Rhys.Thomas@energycouncil.com.au or by telephone on (03) 9205 3111.

Yours sincerely,

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[10] Australian Academy of Technological Sciences and Engineering, *The Hidden Costs of Electricity: Externalities of Power Generation in Australia,* 2009, page ii.
[11] Ward, J & Power, M, *Cleaning up Victoria's Power Sector: The Full Social Cost of Hazelwood Power Station,* 24 February 2015, page 18.
[12] DELWP Economics Working Paper at page 2.
[13] Final Report at page 106.

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