22 July 2019

The Hon Lily D’Ambrosio  
Minister for Energy, Environment  
    and Climate Change  
Level 16, 8 Nicholson Street  
East Melbourne, VIC 3002

Dear Minister,


1. Chemistry Australia welcomes the opportunity to provide this submission to the consultation on the Independent Expert Panel Interim Emissions Reduction Targets for Victoria (2021-2030).

2. Chemistry Australia (formerly the Plastics and Chemical Industry Association) is the peak national body representing the chemistry industry. Chemistry Australia members include chemicals manufacturers, importers and distributors, logistics and supply chain partners, raw material suppliers, plastics fabricators and compounders, recyclers, service providers to the sector and the chemistry and chemical engineering schools of leading Australian universities. Chemistry Australia’s affiliate members include the Australian New Zealand Industrial Gas Association (ANZIGA) and Australian Paint Manufacturers’ Federation (APMF).

3. The chemistry industry is the third largest manufacturing sector in Australia. Our industry employs more than 61,500 people, with every job creating 2.5 more in related supply chains. The industry contributes $11 billion to gross domestic product, supplying inputs to 109 of Australia’s 111 industries.

4. In Victoria, the chemistry industry employs 19,550 people and contributes $3 billion to GSP.

5. Chemistry Australia supports coordinated global action to address climate change. Australia clearly needs to play its part along with other nations. In the Australian context, Chemistry Australia believes that the Commonwealth Government is best placed to formulate and deliver nationally focused and harmonised climate change policies and mechanisms. A plethora of different State and Territory targets and policies increases costs for business and consumers, creates uncertainty that discourages investment and distorts markets.
6. The chemistry sector plays an essential role in addressing the challenges of climate change through the development of more efficient and ‘greener’ products and technologies. In fact, for every T-CO2e of global chemistry sector emissions approximately 2 T-CO2e is saved elsewhere from the use of the products and solutions supplied by the sector. The chemistry sector supplies the:

- composites materials that light-weight cars, trucks, trains and aircraft;
- building materials, coatings and specialty gases that improve the energy efficiency of and reduce emissions from buildings and dwellings;
- adhesives used to manufacture the structural and laminated timbers that sequester carbon in buildings and dwellings;
- inputs to agriculture that improve farm productivity, support low-emissions farming practices, and reduce waste by keeping produce fresh from farm to plate;
- industrial gases that improve the efficiency and reduce emissions in many sectors of the economy;
- battery technologies for electric/hybrid vehicles and which support the increased deployment of renewable energy;
- technology and solutions used to extract and refine the minerals, like copper, lithium and the rare earth elements (“green tech metals”) demanded by emissions reducing technologies; and
- materials used to construct solar panels, wind generation infrastructure and other renewable energy technologies.

7. Globally, the chemistry sector is making significant investment in research and development focused on innovation for a low carbon society. This investment not only seeks to develop new emissions reducing products and materials, including alternative fuels like hydrogen, it also targets emissions reduction from the development of newer, less emissions intensive manufacturing processes.

8. The Independent Expert Panel (IEP) has recommended interim emissions reductions targets for Victoria of:
   - 32-39% below 2005 levels in 2025; and
   - 45-60% below 2005 levels in 2030.

9. The IEP provides some indication of the actions that might be deployed in the industrial sector to achieve emission reductions, including switching from gas to electricity and energy from waste. While these are clearly options, the extent to which the adoption of this technology will contribute to the achievement of either of the IEP’s recommended targets is not clear. Hence, it is impossible to provide an informed opinion of the implications for Victorian industry from the adoption of the targets recommended by the IEP.

10. It is clear, however, that the adoption of policies that increase the cost of energy and which impose additional burdens on Victoria’s trade exposed manufacturers will reduce their domestic and global competitiveness, threaten jobs and opportunities for Victorians and make Victoria a less attractive destination for both re-investment and new investment. This is the case across all sectors of the Victorian economy, including agriculture, manufacturing and mining.

11. Victorian industry is currently struggling under gas and electricity prices that are amongst the highest in the world. Victorian industry, therefore, has very limited capacity to invest in new technology. Policies that force industry to invest in emissions reduction technologies may simply force the closure of facilities and the loss of jobs while delivering no reduction in net global emissions. Indeed, such outcomes may increase emissions as products and materials will be transported greater distances.
12. It must also be noted that there are important linkages and interdependencies within Victoria’s industrial base. The closure of certain facilities would have a domino effect, significantly impacting the ongoing viability of other industrial operations.

13. In terms of the chemistry sector in Victoria, only one facility exceeds 25,000 T-CO2e of direct emissions annually. This facility took action to reduce emissions in 2011, investing in large-scale cogeneration that became operational in 2015. That investment reduced Victoria’s emissions by 1uu,uuu 1-LU2e per year. Several other facilities report indirect emissions associated with electricity consumption above 25,000 T-CO2e annually. The scope for large-scale emissions reduction in the chemistry sector in Victoria is extremely limited without the closure of facilities that will simply see emissions and jobs shift to other jurisdictions.

14. The key to the survival of those facilities that are heavily reliant on electricity will be the realisation of the reductions from current electricity prices forecast by the EIP’s electricity market modelling discussed in Box 6.4 of its report.

15. Chemistry Australia supports the adoption of emissions reducing technologies, particularly investment in energy from waste. As the IEP report notes, gas is widely used by industry throughout Victoria to generate steam for process heat. Energy from waste facilities might be a suitable replacement in many of these operations. Ideally, energy from waste facilities would be located within industrial precincts where both steam and electricity would be shared by several industrial operations.

16. In relation to the built environment, the IEP appears to focus on the direct emissions from cooking, heating and hot water with its principal recommendations focused on switching from gas to electricity. The IEP appears to largely ignore the opportunity for emissions reduction from building better, more energy efficient dwellings and buildings. Improved energy efficiency would reduce direct emissions from burning gas, reduce indirect emissions from non-renewable electricity generation and reduce total electricity demand, alleviating the need for unnecessary investment in grid infrastructure and additional network charges that increase the cost of electricity for industry and consumers.

17. By international standards, the energy efficiency performance of Australian buildings is quite poor. If the government is committed to achieving the IEP’s recommended interim targets and its net zero emissions by 2050 target, building codes and regulations should impose higher energy efficiency and thermal performance standards on buildings. Energy Efficiency ratings should not simply be theoretical outcomes achieved in the design and planning phases. Builders, developers and other suppliers should be accountable for delivering the energy efficiency performance required by the building code or claimed based on the design.

18. The IEP report also appears to ignore behaviour change as an effective strategy to reduce emissions. Public education programs that seek to educate the community on behaviours that will reduce emissions should be developed. For example, the queensland government has previously conducted a very effective campaign about thermostat settings for air-conditioning. Similar campaigns could be run in Victoria to educate the community about the climate change implications of thermostat settings for heating and cooling, home insulation, draft exclusion, as well as the benefits of using public transportation.

19. The EIP report appears to be a blueprint to increase electricity consumption in Victoria. There should be greater focus on demand response and energy efficiency as mechanisms to reduce emissions.
20. Removal of the current Victorian moratorium on the exploration and exploitation of gas will play an important role in enabling industry to adapt and contribute to the government’s emission reductions targets. Removal of the moratorium should help to alleviate current gas supply uncertainty and pricing pressures on industry, improving the competitiveness and the sustainability of existing Victorian operations.

21. Finally, it is clear that the products and solutions supplied by the chemistry sector will play a pivotal role in Victoria achieving any emissions reductions target set by the Victorian Government. The extent to which Victoria participants in the manufacture and development of these products and solutions will depend on the attractiveness of Victoria as a destination for the chemistry sectors’ globally mobile investment capital. High energy costs, the lack of reliable energy supply (gas and electricity), high port charges, inadequate infrastructure and red-tape will all need to be addressed to support the case for re-investment and new investment in Victoria.

22. Chemistry Australia looks forward to working with the Government on the development of strategies and mechanisms that will assist Victoria meet its emissions reductions targets while maintaining the attractiveness of Victoria as a place to invest and create jobs.

23. If you would like to discuss aspects of this submission, please don’t hesitate to contact me.

Yours sincerely

Bernard Lee
Director – Policy and Regulation