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The Hon. Lily D'Ambrosio MP
Minister for Energy, Environment and Climate Change
Minister for Solar Homes

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Gas Substitution Roadmap – Consultation Paper

Origin welcomes the opportunity to provide comments to the Victorian Government's Gas Substitution Roadmap. Origin supports this initiative and considers that it can help pave the way for a decarbonised gas sector by 2050.

Each pathway outlined in the consultation paper has some merit, however it is unclear how any single pathway could allow a transition to a net zero gas market by 2050. The potential cost, timing, and technological requirements of each pathway will need to be considered over time to help determine their suitability.

The inherent uncertainty in a long-term plan such as this will require a flexible approach whereby policy initiatives and government support are tailored to individual pathways as more information becomes available. It is likely that over time the costs and benefits of each pathway will become clearer, allowing for more targeted approaches and a refining of the policy response. This should include a focus on measures which provide greater net benefits. Specifically, the government should be guided by a least cost approach with the aim of minimising market disruption and costs to Victorian consumers.

We have provided some specific comments on the various pathways and key issues below.

Emerging approaches and technologies

The consultation paper discusses the prospects of electrification of heating load which has the potential to have a positive impact on emissions reductions. In developing this pathway, the consultation ought to analyse how appliances use energy to determine least-cost scenarios so that they can be incentivised accordingly. It is likely that appliances (and industrial applications) which require a high heating load will be more costly to electrify, and as such alternatives such as the use of hydrogen could be examined to determine the optimal approach both in terms of cost and practicality. In contrast low heating load may be able to electrify with less complexity. An understanding of these issues could help the government determine what segments of demand are best suited to a particular decarbonisation pathway, subsequently guiding policy decisions.

Origin notes that Victoria has significant existing gas infrastructure, the continued utilisation of which is likely to be key in delivering cost effective energy to customers. Therefore, any contemplated pathways should consider utilising the existing infrastructure for as long as possible. For example, biogas can be seamlessly included into the network and does not require new transportation infrastructure. This would make its implementation a cost-effective measure to reduce emissions in the short term. In the case of hydrogen, we agree that its incorporation into the gas network is more complex and could require significant upgrades to infrastructure.

Maintaining a reliable electricity market

The role of gas: Natural gas has an important role to play in assisting the transition from more emissions intensive coal generation and has the flexibility to maintain reliability in the NEM by supplementing variable renewable energy as it comes online. Therefore, while the focus of this Roadmap is to achieve

a net zero gas market by 2050, the government should remain cognisant of the role gas fired generation is likely to play in facilitating an orderly transition in the electricity market and the achievement of economy wide emissions targets.

Electrification: Significant steps toward electrification is likely to be a medium to long term prospect given Victoria is still reliant on coal fired generation. While this remains the case, shifting of gas heating load to electricity is unlikely to improve the overall emissions profile. Additionally, the precise impact of electrification on electricity demand would need to be determined to ensure there is sufficient supply to maintain reliability, particularly over the winter months.

Maintaining a reliable gas market

Historically, private sector participants have generally provided timely and efficient investment in pipeline infrastructure. This is demonstrated through the reduced risk of a shortfall in the southern states following commitments to new infrastructure projects. The most recent version of the Gas Statement of Opportunities (GSOO) highlighted the expansion of the Moomba to Sydney Pipeline (MSP), and increased southward compression on the Eastern Gas Pipeline¹. The GSOO also reported that additional anticipated projects including Golden Beach and new fields in the Gippsland Basin, would further improve market resilience². Additionally, the \$270m expansion of the MSP and South West Queensland Pipeline (SWQP), announced by APA and underwritten by Origin, will increase winter peak capacity to the East Coast Grid by 25%³. The SWQP and MSP are the key pathways for delivery of gas from Queensland and the Northern Territory to southern markets therefore demonstrating a willingness from the private sector to invest in critical infrastructure. There are also national initiatives that are focused on ensuring adequate gas supply and infrastructure investment, such as the National Gas Infrastructure Plan.

LPG infrastructure

The LPG sector has extensive experience integrating new sources of fuel through the use of reticulated gas networks and preparing consumers for fuel switching, therefore there may be important learnings from the LPG industry when integrating new fuels into the wider gas market. This includes investigating where the reticulated networks could also act as pilot areas to test the transition to alternate fuel sources and prepare the wider population for its decarbonisation transition. Additionally, policy makers could consider the extent to which the LPG supply chain could be used to transport or store future fuels like hydrogen.

Yours Sincerely,



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¹ AEMO. (2021). *Gas Statement of Opportunities*. Pg 47

² AEMO. (2021). *Gas Statement of Opportunities*. Pg 53

³ APA. (2021). *APA Commences 25% Expansion of East Coast Grid, Enters into agreement with Origin Energy*. 5 May.