13 August 2021

Infrastructure Victoria
State Government of Victoria
Melbourne VIC 3000

To whom it may concern,

TOWARDS 2050: GAS INFRASTRUCTURE IN A ZERO EMISSIONS ECONOMY

We would like to thank Infrastructure Victoria for providing the opportunity to lodge a submission responding to the 'Towards 2050: Gas Infrastructure in a Zero Emissions Economy' interim report. We would also like to commend Infrastructure Victoria on taking the initiative to decarbonize Victoria's gas infrastructure and future. We at Niche Planning Studio believe that this is a very important effort that contributes to Victoria's efforts to build healthier and more sustainable cities and urban spaces.

Niche Planning Studio is a specialised planning and urban design consultancy operating across Australia with offices in Victoria, Tasmania and WA. Niche Planning Studio provides a variety of statutory, strategic, and urban design services to multiple governments, advocacy groups and private organisations across Australia. Much of our work is residentially based, from regional higher density projects, to precinct planning and greenfields planning. This is the basis for our interest and concern with this important effort.

SCENARIOS DISCUSSION

A preference for Scenarios A, B and C

As a town planning consultancy, some of our primary concerns involve creating healthy and liveable communities and places that minimise impacts on the environment. Considering the interim report, the aspects that seemed most useful in determining the ideal scenarios from a planning perspective include those that create jobs, have the least carbon impact overall, and those that encourage the biggest reduction in overall energy consumption on an ongoing basis.

We believe scenarios A, B and C offer the best pathways to net zero emissions.

- Scenario A provides for job opportunities, uses mostly renewable sources that do not produce greenhouse gas (GHG) emissions, and result in the second least amount of overall energy consumption once established. We think it is important to facilitate communities that minimize or remove their reliance on gas use overall, to allow for commercial and industrial uses that may unavoidably rely on gas use in the future.

Scenarios B and C also both have merits. This is because both Scenarios use a high proportion of renewable technologies for energy consumption and result in lower energy consumption on an ongoing basis. They also both result in negative absolute carbon emissions by 2050, unlike Scenario D:

- Scenario B is projected to have the lowest overall energy consumption moving forward, facilitating adaptation of lifestyles to support climate conscious communities with minimal demand on infrastructure networks.
- Scenario C particularly supports establishing sustainable communities through strongest projected job growth and the lowest absolute CO2 emissions through to 2050 of any of the scenarios. Although we note that Scenario C remains untested.

Considering the above scenarios we find Scenario D to be the most inconsistent with both planning aims and with the priorities of Infrastructure Victoria, as it maintains use of fossil fuels at a large scale, is the most energy intensive and is estimated to emit the most CO2 on its path to net zero emissions.

COMMENTS ON THE PROPOSED SCENARIOS

Environmental impacts other than GHG emissions

The environmental impacts of energy production methods discussed in the interim report needs greater explanation when asking the community to determine which pathway to take to reach net zero carbon emission by 2050. The goal cannot just be to reduce carbon and GHG emissions, other environmental considerations should be taken into account, including biodiversity protection, tourism asset protection, contribution to urban heat island effect (solar panels), protection of valuable food production areas, etc.

For example, Scenario A relies on electrifying the network primarily through renewable energy production. Some of this is noted to come from smart grids but could come from large scale wind and or solar farms, which have their own biodiversity and other impacts. We think it is important to account for those likely environmental impacts. Likewise, we think it important to understand the environmental impacts involved in producing hydrogen and biogas, such as from dedicated crop production needed to produce the waste necessary for biogas.

Eliminate all residential gas use

The negative health and safety implications (increased risk of respiratory conditions for example) associated with gas use compared with electricity use, for day to day use in cooking and heating should be an important consideration regarding the ongoing use of gas in residential contexts.

We also understand that there is an appetite from those within the residential development sector to move away from providing gas to new housing estates. However, regulatory barriers exist which can deter or prevent developers from opting out of providing gas. Consideration should be given to removing relevant gas companies as the determining referral authority in residential subdivisions.

We would strongly support governments position to remove the requirement for gas connection and the provision of gas within residential areas, by 2050. To allow for choice and diversity, situations where households were able to produce biogas off the grid could improve household resilience and climate change adapted lifestyle choices.

Scenario impact on developers

At Niche, we work closely with land developers on small- and large-scale residential projects and have a strong understanding of land economics within Victoria.

We found a lack of information in the interim report outlining how infrastructure and energy use changes may impact on the land development industry specifically in regard to additional costs.

Many of our clients are keen to use innovative technology and provide healthy and sustainable places for their purchasers, however through bureaucratic processes and/or increased costs, these more desirable outcomes are less likely to be achieved.

A clearer understanding of costs that may arise from the need for additional planning permit requirements, retrofitting of existing infrastructure assets, upgrading/expansion of household batteries and community smart grids and the implications for infill development sites if surrounded by existing gas networks should be provided.

The report states that additional costs will be taken on by the developer (page 39) which ultimately adds additional cost to project delivery, thereby impacting housing affordability. Every effort should be made to support the development industry in removing the requirement for gas infrastructure, rather than adding additional cost and regulatory barriers.

Careful consideration of how infrastructure costs are managed and provided is required to ensure that different scenario outcomes do not result in costly or unnecessary barriers to development.

In conclusion, we would like to commend Infrastructure Victoria for taking these initial steps toward building Victoria's low carbon future. Moving forward, we would like to see more consideration of the broader impacts of each scenario, more ambitious and holistic considerations on future communities, and in-depth consultation with the community and particularly developers.

Yours sincerely,

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Director