

**SUBMISSION BY BRIMBANK CITY COUNCIL TO INFRASTRUCTURE VICTORIA (INTERIM REPORT)**  
**TOWARDS 2050: GAS INFRASTRUCTURE IN A ZERO EMISSIONS ECONOMY**

**Q1. Do you have any further information, evidence, or concerns that you wish to raise in relation to the scenario design and analysis?**

In June 2019 Brimbank City Council declared a climate emergency. In June 2020 Council released the Brimbank Climate Emergency Plan 2020-2025. The Plan outlines Council's position statement on the climate emergency and sets zero-net emission targets by 2030 for Council operations, and 2040 for our municipality as a whole.

The Plan recognises that 'the key message is that fossil fuels have served their purpose and are fast approaching their 'use by date'. And that 'humanity must exit fossil fuels and transition as a matter of urgency to safe, clean, 100% renewable energy for all power needs, including for heating and transport'.

The Plan includes three key advocacy goals: Victoria to declare a climate emergency immediately; a Victorian Renewable Energy Target of 100% for 2030; Victoria to implement a price on carbon pollution, preferably the Australian Carbon Dividend Plan, as soon as possible but not later than 2022.

Based on the abovementioned Plan, and the scenarios outlined in the IV Interim Report, Council advocates that electrification and energy efficiency should be prioritised over other options.

These are not only opportunities that can be deployed rapidly and at scale but also are robust in the long term. These are proven pathways towards achieving the State's emissions reduction targets, as the grid becomes increasingly renewable. They also offer a range of well understood co-benefits compared with other pathway options.

Substitution pathways are likely to only be transitional; for example, biogas may be suitable for some commercial and industrial applications, but it is unlikely to be able to meet the demand of residential and commercial customers at scale and will only ever be a niche solution rather than a system-wide solution.

A pathway for emerging technologies and addressing fugitive emissions should also continue to be pursued alongside ambitious electrification and energy efficiency goals.

'Scenario A: Zero emissions electrification – no natural gas' presents as the most realistic and sensible option with a clear and feasible alignment with Victoria's zero-net emissions 2050 target, and Victoria's ratcheting renewable electricity target – currently 50% by 2030.

However the scenario includes an assumption that 'High-capacity electrical infrastructure in the Latrobe Valley would also be under-utilised, as coal-fired power stations are closed and the electricity they generate is removed from the grid'.

This assessment does not accord with the nascent offshore wind industry which is expected to develop off the Gippsland coast (once enabling Commonwealth legislation is passed) and is already planned to utilise the Latrobe Valley existing infrastructure. It also ignores the other renewable energy generation and storage projects that are planned in the valley, including those relating to gas,

such as the grid scale battery to be co-located at the Jeeralang gas peaking power station. In short, existing electrical infrastructure is certain to be used, noting that the Latrobe Valley is already identified by the Australian Energy Market Operator's (AEMO) Integrated System Plan (ISP) as one of Victoria's identified six renewable energy zones.

The analysis also arguably overstates the industrial reliance on gaseous fuels versus its ability to electrify and achieve efficiency gains.

Lastly the analysis does not adequately consider the need for clear public messaging on what needs to be done to achieve our climate targets. A significant strength of the zero-emissions electrification route is the easy conveyance of an 'electrify everything' message that is clear and actionable.

**Q2. Do you have any further information or evidence that can help identify an optimum scenario for a net zero emissions gas sector in 2050?**

The analysis should be based around a net-zero energy system well before 2050, for example by 2035, noting that the energy system is an enabler of net-zero emissions transport, buildings, and economic production. Harder to address sectors such as agricultural emissions should be the focus of the final period towards 2050.

Gas, as fossil fuel methane, is clearly a harmful fossil fuel that is responsible, according to the document, for at least 17% of Victoria's emissions profile in 2018. As coal power generation is replaced with renewables this relative percentage proportion will increase significantly. Therefore, the optimum scenario for a net zero emissions gas sector is for fossil fuel methane to be phased out as soon as possible, and for planning to instead be based around electrification.

Refer to the Rewiring America work on the transition to electrification.

**Q3. What policies and/or regulations, if any, are needed to support the development of low carbon pathways such as biogas, green hydrogen, and carbon capture and storage?**

The development of the aforementioned offshore wind industry requires Commonwealth legislation and should be fast-tracked, as advocated for by the Victorian Government. All forms of gas have a very low level of utility in Scenario A.

**Q4. What is your view on the best ways to maintain the reliability and affordability of Victoria's gas supply if natural gas use declines?**

A clear decision needs to be made as to the future of existing and new gas networks, such as complete phase out by 2035, and then the energy industry, government and stakeholders can work together on a just transition over the next decade. Natural gas use is, and will and must, fully decline, and so it is essential that social justice considerations are front and centre in the transition.

**Q5. What else can you tell us about the implications of decarbonisation pathways for the electricity generation, transmission and distribution networks?**

Electricity is obviously becoming highly distributed, however the renewable energy zones and interconnector will play a critical role in scale transmission. Consideration needs to be given to the impacts of new transmission infrastructure e.g. putting infrastructure underground where feasible. Electrification is a long-term proposition and so the additional costs of implementing infrastructure in a socially supported way should be considered with this strategic view.

**Q6. How can the use of Victoria’s existing gas infrastructure be optimised during the transition to net zero emissions, over the short (10 years), medium (20 years) and long-term (30+ years)? How can the Victorian Government assist in this?**

The Victorian Government can assist with clear targets to reduce the use of gas and for the decommissioning of infrastructure. So, concurrent with the development of renewable energy zones and new electrical infrastructure, is the need for a deliberate and planned decommissioning of gas infrastructure and the management of the 'transition risks'.

In the short term the Victorian Government can remove planning barriers to going ‘gas free’ for new and existing development and precincts, and set an example e.g. Development Victoria to only develop all electric new projects. The medium term requires an end to the use of fossil methane.

The Brimbank Climate Emergency Plan 2020-2025 includes Action 25, to advocate to the Victorian Government to:

- Enable gas free, climate friendly buildings and precincts through the Victorian planning system.
- Introduce a statewide planning provision for environmentally sustainable designed ‘all electric homes’

**Q7. What principles should apply or what measures will be needed to manage the impacts of gas decarbonisation on households and businesses?**

*The Climate Change Act 2017* includes guiding principles that should be applied.

As general advice:

- Urgent and full decarbonisation is required – Action should not be delayed when there are cost effective solutions available today. Actions need to be taken within the timeframes of the State’s legislated interim emission reduction targets.
- Seize the economic opportunity – The transition presents enormous opportunities to expand the clean energy industry, generate jobs, boost economic productivity, and position Victoria as a leader in clean energy technologies.
- Ensure the transition is socially inclusive and equitable – The transition needs to be managed to ensure that the benefits are shared equitably and that the costs are not unduly borne by vulnerable communities and rural regions and those least able to afford it. Gas substitution can only happen in communities with gas reticulation.

**Q8. What policies, programs and/or regulations should the Victorian Government consider or expand to encourage households, commercial buildings and small businesses to reduce their gas use?**

The Victorian Government is rolling out a number of programs of support for electrification e.g. Solar Victoria rebates. However there is a need for a clear community education campaign that articulates the overall strategy that should be pursued by all sectors of the community. For example, 'electrify everything' and switch to 100% renewable energy including for heating and cooling, hot water, and for cooking. The health impacts of gas use in the home/business should be articulated too.

As cooking with gas is probably the one use of gas that people are most attached to, this would be a good new area of support, with rebates provided to upgrade to induction cooking.

Finance is an area that needs overall attention. Environmental upgrade funding has emerged in the banking sector, e.g. Commonwealth Bank Green Loan at 0.99% interest for ten years for up to \$20K. However access to capital to enable decarbonisation is not universal and so the State Government can play an important role in the 'green recovery' by providing ultra-low, secured fixed rate loans with no fees to households etc. Support for tenants, be they of residential, commercial, and industrial sites requires special consideration.

In short:

Educating the community will be necessary for facilitating the transition. This includes dispelling the myths propagated by incumbent industries that hydrogen will replace natural gas within the existing distribution network. There are three technological leaps required before this could be feasible including:

1. Generating sufficient quantities of green hydrogen and the location of suitable sites within proximity to the existing network, neither of which are definitely possible, let alone feasible within the timeframes of emissions reduction targets
2. The economics of upgrading the existing mains network means that hydrogen will need to be blended (which is at odds with full decarbonisation).
3. The end use of hydrogen as a heating source presents a number of safety risks for households and businesses, as well as a raft of challenges for appliance standards.

A suite of complementary policy measures and program interventions will be required. This should include actions such as (but not limited to):

- Ban on the sale of new gas appliances alongside of existing market-based schemes to support replacement options, and updating the Victorian Energy Upgrades program to align with the ban
- Committing to a short-term sunset date for new gas supply infrastructure with necessary support for exposed industries (i.e. committed projects within the sunset period)
- Revising the State's planning system to ensure it can deliver emissions reduction targets and align to planning processes with the energy sector (which currently occur in isolation)
- Programs to demonstrate and encourage the use of industrial heat pump systems and suitable technologies for the significant proportion of industry using lower temperature process heat
- Prioritisation of investment in hydrogen research and implementation only for high temperature process heat industries such as green steel. Research should also consider high

temperature solar technologies. Another sector suited to hydrogen development is heavy transport. Otherwise, electrification is the preferred pathway for other sectors as it uses available and demonstrated technology.

**Q9. What policies, regulations or other support, if any, do you think are needed to support industrial users to switch from natural gas to lower emissions energy sources or chemical feedstocks?**

No comment.

ENDS