

## Gas infrastructure advice submission – 106

Date submitted: Aug 14, 2021, 11:30 AM

Name: [REDACTED]

Stakeholder group/interest: Victorian citizen

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

While I welcome that 3 of the 4 scenarios focus on renewable energy, it is completely inadequate that most scenarios see limited action before 2030 leaving the bulk of action for after 2030. The recently released IPCC report emphasises the importance of action now, and alternative scenarios need to be prepared that respond to this. We have seen the importance of acting on science in response to the COVID pandemic, let us also do so in response to the climate emergency.

Scenario D should be immediately rejected as it would heavily rely on hydrogen made from brown coal and on the unproven technology Carbon Capture and Storage (and this is unproven despite enormous investment)..

On top of that Scenario D or brown coal to hydrogen costs are 4 times of the other scenarios and would produce much more GHG emissions despite the massive investment on CCS!

Victoria should be aiming to substitute at least 50% of existing gas consumption with a particular focus on replacing inefficient and expensive gas space heating. Analysis by Northmore Gordon (<https://environmentvictoria.org.au/2020/06/03/victorian-gas-market-demand-side-measures-to-avoid-forecast-supply-shortfall/>) demonstrates how this can be achieved.

One thing that is not openly addressed in the pathways is the impact of fuels on consumers. As the Scenario Analysis reports indicate, Bio-methane tends to cost 20 to 40 \$/GJ. That is several times higher than current gas prices, on the other hand green hydrogen is not expected to be competitive with fossil gas until 2050. Replacing an expensive fuel with other even more expensive fuels will negatively impact vulnerable Victorians who would be better served with efficient electric appliances. This should be considered when choosing a pathway.

### **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?**

See:

[https://renew.org.au/wp-content/uploads/2018/08/Household\\_fuel\\_choice\\_in\\_the\\_NEM\\_Revised\\_June\\_2018.pdf](https://renew.org.au/wp-content/uploads/2018/08/Household_fuel_choice_in_the_NEM_Revised_June_2018.pdf)

which showed that efficient electric appliances were already cheaper than gas. This gap is expected to grow as biogas and green hydrogen are expected to be more expensive than fossil gas and should be accounted for when identifying an optimum scenario for a net zero emissions gas sector in 2050.

See also Northmore Gordon analysis mentioned in answer to q1 above.

### **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 regulatory framework for buildings is outdated and is still locking Victorians into gas. Specifically:

Victoria's Planning Provisions and Plumbing regulations need to be updated so no new development is forced to connect to the gas network and no Victorian is forced to use gas appliances.

The Victorian government should commit to building all-electric social housing as it will yield the greatest benefits for residents, the energy system and for the development of the industry.

A plan to require new buildings to be all-electric, or at least strongly incentivise it, should be developed to ensure that virtually all, if not all, new buildings in Victoria are fully powered by electricity by 2023.

**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?**

It is important to have a managed transition. We encourage the Victorian government to have targeted retirement of sections of gas pipelines (further incentives to replace gas appliances could be geographically bounded) to reduce system and customer costs.

Targeted or zonal electrification to reduce the gas distribution infrastructure could ameliorate the impacts of the gas transition on users, but further investigation would be needed to understand the scope, scale, speed and challenges of trying to manage gas distribution system costs through a gas phase out.

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

**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?**

As my response to q4 stated, focusing on a managed transition could provide the best of both worlds by allowing for a fast transition while minimizing the costs on the system and users. This would also allow for optimising the use of existing gas infrastructure during the transition in zones where strategic gas consumption exist.

However it is crucial that the importance of optimizing the use of existing gas infrastructure is not prioritised over ensuring a fair and rapid transition.

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

The key important principle is that of just transition. It is crucial that the transition improves the standing of vulnerable Victorians to reduce energy poverty in the state.

This requires an education campaign, so Victorians learn about the impacts of gas on their budgets, health and on the environment, and the advantages of other sources of energy such as electrification.

**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?**

As noted in response to q3 above, the Victorian government should update planning schemes and building codes as soon as possible. The regulatory framework for buildings is outdated and is locking Victorians into gas, an expensive and polluting fuel. Specifically:

Victoria's Planning Provisions and Plumbing regulations to be updated urgently so no new development is forced to connect to the gas network and no Victorian is forced to use gas appliances.

The Victorian government should commit to building all-electric social housing as it will yield the greatest benefits for residents, the energy system and for the development of the industry.

A plan to require new buildings to be all-electric, or at least strongly incentivise it, should be developed to ensure that virtually all, if not all, new buildings in Victoria are fully powered by electricity by 2023.

Secondly, programs such as the replacement of inefficient heaters for heat pumps could be expanded to target ducted gas heating.

Finally, the Victorian government should consider launching a new version of the Environment and Resource Efficiency Plans Program which was administered by the EPA until 2013. This program was compulsory for our 200 largest users of gas, electricity and water. A key measure of this program was the mandatory implementation of efficiency measures that have a payback period of 3 years or less.

**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?**

**How would you like your submission treated?**

Published, but my name removed