Gas infrastructure advice submission - 86

Date submitted: Aug 16, 2021, 9:12 PM

Name: [redacted]

Stakeholder group/interest: Consumer, Engineering Fellow, Decarbonisation advocate, Energy Expert

Q1. Do you have any further information, evidence, or concerns that you wish to raise in relation to the scenario design and analysis?
There exists a Frontier Economics report cited by gas infrastructure owners, which quotes a $12-$14B saving from moving to a 100% hydrogen network vs an electrification pathway. This report only calculated ongoing annual costs using very favourable assumptions regarding co-location of hydrogen production and renewable generation facilities. Although it recognised that additional generation capacity would be required for a hydrogen pathway vs an electrification pathway due to losses, it strangely showed those generation costs to be lower in the hydrogen scenario than electrification. It also ignored the upfront capital costs to completely replace the existing gas network. I believe this work is only valid under very narrow range of assumption conditions and is unlikely to be consistent with the scenarios outlined in your "Towards 2050" report, which seem balanced and rational. I would not use the quoted $12-$14B savings number in your analysis.

The $12-$14B number comes from the report:

Frontier Economics 2020, “The Benefits of gas Infrastructure to Decarbonise Australia, A report for the Australian Gas Industry”,

https://www.energynetworks.com.au/resources/reports/2020-reports-and-publications/the-benefits-of-gas-infrastructure-to-decarbonise-australia-frontier-economics/

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?

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?

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?

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?

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

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

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