



The Australian Gas Association's Response to Victoria's Gas Substitution Roadmap Consultation Paper 2021

Pg 8. "\$112 Million for replacing inefficient appliances in 35000 public and community housing properties"

If these are installed Natural Gas appliances, it may be favourable to consider installing "dual fuel" appliances or appliances that have been deemed appropriate (certified or other) for a conversion to hydrogen gas networks. This benefits the community by future proofing the installation of appliances in these areas.

Pg 8. "\$10 million to strengthen minimum energy efficiency standards for new homes by 2022"

It would be valuable to learn how 100% hydrogen appliances stack up (as they are created) in terms of efficiency so home owners were better informed of their options around making an energy efficient home.

Pg 9. \$6.2 million to grant support for pilots, trials and demonstrations –

Demonstrations and pilots around converting networks/regions to hydrogen will require regulatory approval. This approval process will benefit from technical specifications created and backed by scientific study. It could be argued that one of the first steps towards a successful pilot is the formation of technical specifications or Standards and high priority should be given to these efforts.

Key Questions pg 27.

"What are the likely timings of technical maturity and economic viability"

At the moment, manufacturing for gas appliances in Australia is waiting upon direction from authorities and regulators about how the next generation of hydrogen powered appliances will be assessed and certified. This delay is detrimental to all sizes of manufacturer as a market potential exists. It would be severely damaging for Australian gas appliance manufactures if consumers are connected to hydrogen but the necessary testing and certification is delayed.

"What are the best ways to maintain social license and consumer confidence"

Rigorous testing will be paramount to avoiding/reducing incidents in the initial stages of hydrogen conversion.

"What are the inter-dependencies and trade-offs with other pathways"

Electrification of the current energy system will be next to impossible if the source is to be renewable wind, solar and hydro. Natural gas/hydrogen will play a huge role in helping Australia pivot into systems that reduce emissions.

Key questions pg 41.

“What are the key technical challenges in converting existing gas networks to accommodate more sustainable gaseous fuels?”

Any change to supply of natural gas will incur a need for all natural gas certifications to be retested and recertified. Prior to the change, manufacturers and certification bodies need guidance on when and how the transition will occur. This will take the form of Standards specifically; domestic gas appliances - AS/NZS 5263 and commercial catering - AS 4563.

“What are the potential costs and opportunities in switching to more sustainable gaseous fuels for consumers?”

Getting to a point of surplus hydrogen would present monumental export opportunity for Australia.

Key questions pg 44.

“What workforce skills and industry capabilities are required to transition to new and emerging energy sources?”

Manufacturers are exploring the capacity of their already certified appliances to run on different levels of hydrogen, however without a clear Standard to certify the findings to, testing cannot leave the R&D phase.

Key questions pg 45.

“What key uncertainties should the Roadmap take into account, and what is the government’s role in reducing these uncertainties?”

The guarantee of origin scheme for sourcing renewables is a great way of gauging whether consumers are truly willing to pay that bit extra for the greener alternative. Social license for hydrogen gas networks may come from demonstrations of the usability and performance of hydrogen as an energy source. Such demonstrations could be supported by the government to not only make these initiatives possible but to show that the government is further willing to contribute to the transition.

Optional Questions

“What do you see as the best opportunity for you to play your part in the transition?”

AGA is utilising its hydrogen appliance testing facility in Braeside Victoria to assist its members in the transition to hydrogen powered appliances. Offering expertise and the resources necessary for Australian manufacturers to innovate their products in preparation for the coming hydrogen economy. AGA also participates in Standards writing and is a part of the Hydrogen Technologies Committee that aims to assist in developing the first steps towards hydrogen technology regulation. AGA will continue to be an agent for change and innovation in this new and exciting step for the gas industry, with the hopes of collaborating further with those interested in the hydrogen market.

“What are the opportunities and challenges for Victoria to decarbonise the gas sector and achieve Victoria's emissions reduction targets?”

Victoria's heavy reliance on Natural gas for space and water heating will most likely be one of the main focus points for emissions reduction. Opportunities include improving the efficiency of currently certified appliances as a first step, and eventually transitioning to carbon free alternatives such as hydrogen. As a result, the production of green hydrogen in Australia to use locally and export internationally would open up a new and sustainable industry as well as contribute significantly to our economy.

The main challenges facing the gas industry include the rate of regulatory change and Standards development. Research, testing and approval of proposed networks and consumption of hydrogen is necessary before others will act. Until these decisions are made concrete, Australia will continue to make progress at a reduced, disjointed pace.