

Submission template

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Name: Zoe Geyer

Stakeholder group/interest: Architect and Community member

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

As a signatory of Australian Architects Declare a Climate and Biodiversity Emergency, as the Director of a net zero business, as well as Certified Passive House Designer I can attest that energy efficiency in our buildings, transport, and infrastructure can and should be the first 'no-regrets' approach to reducing the dependence on gas. The Passive House model is proven to reduce operational energy use of buildings by up to 90%. It's essential that we adopt a paradigm shift in behaviour regarding our built environment, transport, and energy use.

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?

If this first step of 'no-regrets' energy efficiency is implemented and supported, including retro-fit scenarios and upgrades to buildings, then the requirement on operational energy use of buildings will be drastically reduced. This would allow for a more innovative and experimental generation of operational energy to replace gas, which could include a mix of renewable energy (solar and wind), battery storage, and biogas - on a small and large scale mix, with potential for private and community mix of resources.

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?

Clarity on timeframes and support mechanisms is essential to allow adoption of new and innovative pathways. Proven test cases will allow ready uptake of different technologies; as such, support for early testing and innovation centres should be heavily supported at this time - with a focus on upgrading construction codes and energy efficiency as a key part of the equation.

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?

Act promptly - remove the reliance on gas with no gas connections to new developments from this point onwards. Support the uptake of electrical energy production and support renewable energy development on the private, public, and community level. Raise awareness of simple and accessible energy production systems such as biogas.

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

The decentralisation of the energy distribution network combined with grid-balancing infrastructure such as batteries and Electric Vehicles can revolutionise the way energy is delivered to buildings. There are many innovative ways of introducing private / community partnerships, microgrids and renewable energy, that if adopted now, will negate the need for any ongoing use of gas, or any gas substitute or ongoing use of the existing gas 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?

10 years (2030): clear target date provided for gas network to be 'turned-off' ; allow for policy developments and innovations in energy production to be ramped up; supported transition to de-centralised energy production

20 years (2040): supported innovation in de-centralised energy production, micro-grids, community solar farms / battery storage / EV balancing and bi-directional battery charging as 'norm'

30+ years (2050+): no fossil fuels, no emissions energy network, carbon storage

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

'No-regrets' approach that immediately adopts best case building technology for energy efficiency (up to 90% reduction in operational energy use). Clear dates and targets confirming disconnection of gas infrastructure. Accessible and clearly understood alternatives presented that allow subsidised and immediate transition; with early uptake supported to develop momentum of change and immediate reduction in reliance on gas infrastructure.

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?

Stringent energy efficiency guidelines for buildings

Stringent energy efficiency requirements for appliances; supporting heatpumps and renewable energy production (including biogas) at large and small scale

Clear dates for transition away from gas to allow for business planning re transition

Organised and accessible information on alternative energy supply and production

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?

More evidence on benefits of pooling resources between regional businesses / industries to generate energy from waste.

Support for implementation of new systems.

How would you like your submission treated?

Published with my name