

## Submission template

**Date submitted:** Jul 22, 2021, 12:41 AM

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**Stakeholder group/interest:** My interest is in the planet and future generations that will have to live with the consequences of global warming thanks to our failure to reduce emissions.

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

My concern is that for decades we have known it will be necessary to replace gas with electricity generated by renewables and governments have done nothing to plan for it, until now.

Heating, ventilation, air conditioning, hot water and cooking appliances are, on average, replaced every 15 years. That means that if people are encouraged and/or incentivised to replace them with electric appliances, it could be done by 2036.

One problem is that there are likely to be high associated costs. In my case, reverse cycle air conditioning and a new electric cooktop made it necessary to upgrade to 3-phase power.

### **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?**

The problem is that none of these so-called low carbon options is as cheap as renewable energy. Carbon capture and storage is just an expensive way of continuing to use fossil fuels. It's just not justified on any grounds, including the uncertainty of long-term sequestration. Green hydrogen can be useful for industrial purposes and for large transport but because it must go through a number of processes it is about 40% less efficient than electricity produced from renewable sources.

### **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?**

We should stop using gas as soon as possible. Renewable energy combined with batteries can be much more reliable and affordable than gas.

### **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?**

The plan should identify the areas of Victoria where gas infrastructure is reaching the end of its useful life and offer incentives to residents to make the switch. Instead, large parts of Port Melbourne, where I live, had their streets, footpaths and gardens dug up and pipework and meters were replaced, no doubt at great cost. I had no choice but to allow this even though I was in the process of converting my home to 100% electric, mostly renewable, power.

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

Emission standards could be set and progressively tightened for residential appliances.

A levy could be charged on new gas appliances and the money raised used to assist people on low incomes to switch to electric.

**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 Government should consider banning sales of new residential gas heaters because the carbon monoxide byproduct of gas poses serious and potentially fatal health risks and because gas produces significant greenhouse gas emissions.

Advice on the Sustainability Victoria website points to the overall energy efficiency and lower costs of electric over gas, saying 'A whole-of-home approach to energy efficiency brings into consideration the performance of appliances within a home and their impact on overall energy use, greenhouse gas emissions, and cost.' But it says little about the potential emissions benefits of switching to gas. So please, make it clear to the people of Victoria that they need to make the switch from gas to electric.

Why is it that this question is about reducing gas use instead of replacing gas with electricity?

**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?**

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