Submission template

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Name: Bernie McComb

Stakeholder group/interest: Groundswell Bass Coast

Q1. Do you have any further information, evidence, or concerns that you wish to raise in relation to the scenario design and analysis?
Page 5 "hydrogen produced with renewable electricity and seawater (known as green hydrogen)" NOT - green hydrogen needs fresh water, sure you can desalinate but, with 40% energy loss for electrolysis, this really will be going backwards in energy balance WHEN DESAL ADDED. Sure, wind is free, but need return on capital, cover O&M, plus downstream costs, not much chance of $2/kg to make Angus Taylor smirk.

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 big demand is space heating, in history, this was mostly wood. During industrial revolution in UK, wood was discarded, replaced by coal. Pollution was so bad that coal was replaced by gas. But gas is not clean. Space and water heating by burning fuels is inefficient, a health hazard and causes deaths because of neglected maintenance, every winter, despite warnings. Leave it in the ground.

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?
Possible to prolong the agony with these things but biogas only viable feeding onsite process, not worth cleaning into mix with pipeline methane.

Green hydrogen, see above. Disregarding cost to manufacture, hydrogen is very difficult to handle, no more than 10%(unproven) mix into methane low pressure pipe infrastructure, danger of leakage such small molecule. Ridiculously flammable and flame invisible. Costs 40% of energy content to liquefy down to -250degC, methane bad enough at -162. Short life expectancy for metals because of embrittlement in containment vessels, also heavy.

Per kg energy content H2-120GJ, CH4-56 GJ, NH3-22GJ ammonia is the easiest for transport but doubtful about costs of conversion with/without recovery.

Supposedly the most successful CCS big project in the world, Chevron Gorgon, 5 yeas late and crazy over budget, significant failure declaration yesterday. How much CO2 does come out of the well with methane? Big corporation operators claim small "leakage" but infamous for lies. Maybe not so much after CO2 separated close to web head. But where does all the CO2 go? Just vented to atmosphere, though Gorgon was trapping some. CSIRO CO2CRC says their $100M taxpayer funding is to find ways to make methane viable with 30% CO2. Claimed biggest gas field Natuna Indonesia is now piped to Singapore but Exxon Mobil detached themselves because of CO2 content 71%, methane minor by product.

So, really and truly, how big are emissions really from fossil gas?

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?
With current low cost of money, offer help for people to convert to electrical, which can be cash flow positive immediately per EUF.

Surely Angus Taylor, having subsidised so much else, will provide price subsidy to users?

Q5. What else can you tell us about the implications of decarbonisation pathways for the electricity generation, transmission and distribution networks?
Especially with expected increase in extreme weather events, local resilience is getting a lot of publicity. While the grid is still taken for granted, so many people are left without energy in times of crisis. DER (Distributed Energy Resources) surely need encouraging for people in the Regions? Locals can own and benefit from owning solar, wind, battery and pumped hydro systems. If grid power fails, they can switch to island mode.

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?
Go early and go hard, as with covid. Why tinker around prolonging the agony? Cost of capital can't ever be less.

Q7. What principles should apply or what measures will be needed to manage the impacts of gas decarbonisation on households and businesses?
Teach kids in school that gas has had its day.

Get gas cookery removed from TV cooking shows.

Get gas flames banned from Crown.

Make monoxide detectors, with health warning labels, as essential as smoke detectors.

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?
Incentivise new electric appliances exchange for old gas.

Increase dosage mercaptan or stronger smell.

Cancel regulation that new housing estates must be built with reticulated fossil gas.

The fact that other jurisdictions, even UK and Nederlands, use much less gas shows easy enough for us.

This was followed by fugitive emissions, 2nd biggest outcome!!) from leaks or venting of gas in exploration, processing, storage, transmission and distribution (2.4 Mt CO_2e, or 14%)

Policy to be influenced by unknown unknowns? "investigations concluded there is potentially 128 PJ to 830 PJ of commercially feasible onshore conventional gas yet to be discovered in Victoria"

Please, no, inevitably stranded assets. "Among infrastructure priorities outlined in their interim National Gas Infrastructure Plan, the government identifies gas storage projects at Golden Beach and Iona in Victoria, the expansion of the South West Victorian pipeline and development of an import terminal as critical."

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?
Relocate closer to green hydrogen source for few applications for which burning is the only option.

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