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Climate Change and Energy
ACT Environment, Planning and Sustainable Development Directorate

Sent via email to gastransition@act.gov.au

ENA Submission to ACT Government's proposed regulation to prevent new gas connections

Dear Fiona

Thank you for the opportunity to make a submission on some of the issues identified in the ACT's proposed regulation to prevent new gas connections.

Energy Networks Australia (ENA) is the national industry body representing Australia's electricity transmission and distribution and gas distribution networks. Our members provide more than 16 million electricity and gas connections to almost every home and business across Australia. We understand that Evoenergy, the gas distributor in the ACT and surrounding NSW, will provide a separate submission setting out its own views on the matters identified in the issues paper. This submission should not be taken, therefore, as representing the views of Evoenergy.

Energy customers have a strong preference for gas for space heating, hot water and cooking. Renewable gas is a proven technology that could fast track the ACT's decarbonisation objectives and create the right market signals to incentivise industry to decarbonise.

ENA recommends that the ACT considers the potential role of renewable gas in its integrated energy plan. Renewable gas may create opportunities to reduce emissions quicker and at a lower cost compared to electrification and avoids the complexities of an appliance transition and electricity network upgrades.

Availability of renewable gas

ENA and its members are committed to contributing to Australia's decarbonisation objectives. ENA's members continue to focus resources on developing renewable energy.

With its ability to provide energy without carbon, hydrogen presents an exciting opportunity and is becoming central to decarbonisation plans around the globe. Blending hydrogen into natural gas is safe and already happening.

ATCO are producing hydrogen from renewable energy through electrolysis. The Hydrogen Blending Project is supported by the WA government and is the largest of its kind in Australia. ATCO have begun injecting a small amount of hydrogen into a portion of the natural gas distribution network in WA. This involves blending between 2% and 10% of renewable hydrogen into the discrete parts of the network at various times where there is sufficient flow rate. The project demonstrates how existing gas distribution infrastructure can continue to benefit customers as part of the future energy mix.

Jemena's Western Green Hydrogen Hub demonstrates the effectiveness of hydrogen in helping to achieve emissions reduction targets in NSW. Hydrogen is produced by a 500 kW on-site electrolyser. Jemena purchases generation certificates to offset and ensure the electricity used at the Hub is

renewable. Once injected into the existing gas network and blended with natural gas, the hydrogen can be used by homes and businesses in the surrounding areas.

Jemena also recently signed an agreement for the sale and purchase of renewable gas produced at the Malabar Biomethane Demonstration Project. This announcement reiterated that renewable gases, such as biomethane, are commercially viable and that there is significant appetite from the market for it as part of the future energy mix. Australian Gas Infrastructure Group's Hydrogen Park South Australia (HyP SA) is an Australian first to deliver a renewable hydrogen blend to customers on the existing gas network. At HyP SA, renewable hydrogen is produced from water and renewable electricity. HyP SA demonstrates renewable hydrogen production and blending technology in an Australian context and delivers a 5 per cent hydrogen blend which is a step towards lowering greenhouse gas emissions in gas networks. Further research and development is being undertaken to increase the hydrogen blend.

On completion, these projects will act as critical building blocks for Australia's energy future.

Maintain customers choice of energy options, including gas

Providing information about the effects of climate change and the efficiency and effectiveness of different energy sources will enable people to make informed choices. As quoted in the issues paper, approximately 80 per cent of all new homes in the ACT are still connecting to the gas network. Survey evidence from our members shows that Australians like gas – to heat their homes, heat their hot water and to cook with.

Renewable gases will provide the ACT with an energy source that consumers are familiar with and concurrently allows them to contribute to the ACT's climate goals. Regulating against new gas connections, takes this choice out of consumers hands.

A technology-neutral approach requires a full suite of options

Advancements are constantly being made which will enable renewable energy, including gas, to be part of the climate transition. By eliminating new gas connections, the ACT Government would be foregoing the opportunity to reach its climate goals with as many options as possible. Preventing new gas connections, only allowing electrification, may result in opportunities lost in reaching climate goals quickly and efficiently for ACT energy customers.

Impacts on networks and their customers

Any significant changes or restrictions to the capacity of networks to connect new customers seeking their services would make it very difficult for the gas industry to continue to operate efficiently and effectively over the longer term. Less demand for gas services could result in:

- Fewer customers to share the fixed gas network costs;
- The cost burden of past investment being disproportionately borne by future gas customers;
- Gas infrastructure assets may be economically stranded; and
- The price volatility or uncertainty resulting from declining demand could drive further declines in demand for gas.

This would make it difficult for our members to continue to efficiently deliver gas to customers and to operate commercially. Additionally, this may result in the inability to repurpose the existing gas pipelines to provide clean, renewable hydrogen and biomethane to ACT homes.

Health claims

The paper refers to the supposed adverse health side effects of gas cooking in the home. Comprehensive scientific research is unable to make a significant association between the use of gas appliances in the home and asthma in children. The world's largest study on childhood asthma found that there was:

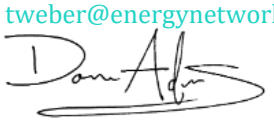
> *"No evidence of an association between the use of gas as a cooking fuel and either asthma symptoms or asthma diagnosis"* (source: ISAC, 2013[1])

A 2023 review by Tormey and Huntley further found that:

> *Moreover, the data shows that in none of the regions studied was there a statistically significant relationship between NO_2 (which comes from combustion of natural gas) and asthma.* (Source: Tormey & Huntley, 2023[2])

Looking at Australian data shows that there is no statistically significant correlation between gas in the home and the occurrence of asthma.

If you would like to discuss the contents of this submission, please contact Terese Weber at tweber@energynetworks.com.au



Dominic Adams
General Manager, Networks

[1] International Study of Asthma and Allergies in Childhood (2013) for a cohort of 512,707 primary and secondary school children from 47 countries.
[2] Tormey & Huntley (2023), The Effects of Cooking on Residential Indoor Air Quality: A Critical Review of the Literature with an Emphasis on the Use of Natural Gas Appliances.