



5 February 2024

Submission: Review of the AER exemptions framework for embedded networks

The Australian Pipelines and Gas Association (APGA) represents the owners, operators, designers, constructors and service providers of Australia's pipeline infrastructure, connecting natural and renewable gas production to demand centres in cities and other locations across Australia. Offering a wide range of services to gas users, retailers and producers, APGA members ensure the safe and reliable delivery of 28 per cent of the end-use energy consumed in Australia and are at the forefront of Australia's renewable gas industry, helping achieve net-zero as quickly and affordably as possible.

APGA welcomes the opportunity to contribute to the AER's review of the exemption frameworks for embedded networks. APGA does not directly represent embedded networks for gas and bulk hot water, but the future of embedded networks is of direct concern to our members.

APGA supports a net zero emission future for Australia by 2050¹. Renewable gases represent a real, technically viable approach to lowest-cost energy decarbonisation in Australia. As set out in Gas Vision 2050², APGA sees renewable gases such as hydrogen and biomethane playing a critical role in decarbonising gas use for both wholesale and retail customers. APGA is the largest industry contributor to the Future Fuels CRC³, which has over 80 research projects dedicated to leveraging the value of Australia's gas infrastructure to deliver decarbonised energy to homes, businesses, and industry throughout Australia.

Efficiencies of scale through embedded networks

Embedded networks can be an efficient and cost-effective way of providing reliable energy to multiple customers. This is true both in the construction stages of a development, and in operation over the life of the asset. APGA notes that additional costs and complications introduced by some businesses, and certain business practices, do not negate the inherent underlying cost competitiveness of embedded network technologies.

These economies of scale will also be useful in pursuing decarbonisation of those technologies. A single provider can purchase certificates in bulk (in the case of electricity) or seek net-zero alternative technologies or augmentation (such as renewable gas supply for gas and bulk hot water) on behalf of their customers.

¹ APGA, *Climate Statement*, available at: <https://www.apga.org.au/apga-climate-statement>

² APGA, 2020, *Gas Vision 2050*, https://www.apga.org.au/sites/default/files/uploaded-content/website-content/gasinnovation_04.pdf

³ Future Fuels CRC: <https://www.futurefuelscrc.com/>

Additional regulation of embedded networks should focus on price protections for consumers, rather than on prohibition or restriction of new embedded networks. Prohibiting embedded networks in certain new developments will likely result in consumers paying more for equivalent services than they otherwise would.

Enabling all efficient options for decarbonisation

Renewable gases – biomethane and green hydrogen – are gases that provide energy, which are produced in a way that is carbon neutral. Biomethane can be used by all gas customers today with zero change save the source of gas. Some modifications are needed to use 100 per cent hydrogen. The scale of these modifications is anticipated to be fewer than those required to electrify – which is important when considering the challenge of providing bulk energy to large, multi-tenanted buildings.

A 2023 study by the Boston Consulting Group examined what role gas infrastructure, including renewable gases, can play in Australia’s energy transition.⁴ It found that for many uses, particularly household heating and cooking, it is much more efficient to decarbonise gas networks rather than to electrify them.

The outcome for renewable gases is likely even more advantageous for embedded networks using gas. Embedded networks retain the advantage of economies of scale versus against embedded electricity networks and standalone building appliance costs.

Restricting embedded networks would likely reduce the opportunity for renewable gases to contribute to decarbonisation.

To discuss any of the above feedback further, please contact me on +61 422 057 856 or jmccollum@apga.org.au.

Yours sincerely,

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⁴ Boston Consulting Group, 2023, *The role of gas infrastructure in Australia’s energy transition*, <https://39713956.fs1.hubspotusercontent-na1.net/hubfs/39713956/The-Role-of-Gas-Infrastructure-in-Australia-s-Energy-Transition.pdf>