12 January 2023

Submission: Tasmania's Future Gas Strategy

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 comment on the Renewables, Climate and Future Industries Tasmania's draft Future Gas Strategy (the Strategy). APGA commends the Tasmanian Government for demonstrating national leadership through its balanced vision for the future of gas in Tasmania, including the importance of continued access to gas, its necessity for residential, commercial, industrial and energy security uses, and the opportunity to transition to renewable gas into the future.

APGA supports a net zero emission future for Australia by 2050[1]. Renewable gases represent a real, technically viable approach to lowest-cost energy decarbonisation in Australia. As set out in Gas Vision 2050[2], APGA sees renewable gases such as hydrogen and biomethane playing a critical role in decarbonising gas use for both wholesale and retail customers. Tasmania's natural gas industry, which is relatively new and relatively small, requires particular consideration of the challenges and opportunities as it transitions to net zero emissions to ensure existing gas users are not disadvantaged.

The Tasmanian Government demonstrates national leadership through the Strategy by pursuing the opportunity to transition from natural gas use today to renewable gas use tomorrow. This means that the partial emissions reduction opportunity of natural gas can be pursued with confidence today knowing that a full net zero transition can occur once renewable gas supply develops.

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[1] APGA Climate Statement, available at https://www.apga.org.au/apga-climate-statement

[2] APGA, 2020, *Gas Vision 2050: Delivering a clean energy future*, available at https://www.apga.org.au/sites/default/files/uploaded-content/website-content/gasinnovation_04.pdf

The economic opportunity offered by a Tasmanian renewable gas industry is also recognised within the Strategy alongside its potential decarbonisation and energy security benefits. A renewable gas production industry reduces Tasmania's exposure to external shocks from high gas prices and introduces the opportunity to become a green gas exporter in support of its 200% renewable energy target.

Economic analysis by Deloitte in 2020 found that natural gas enabled over 4,200 direct jobs through some of Tasmania's best-known employers, and over 8,550 Tasmanian jobs in total[3]. This contribution adds close to $1 billion of value to the Tasmanian economy, or three per cent of the State's Gross State Product. Further, natural gas helps keep Tasmania's energy supply secure by fuelling the Tamar Valley Power Station, which is a crucial back up energy source for the State. The Strategy rightly recognises that the economic contribution of gas can continue while reducing emissions through the uptake of renewable gas in Tasmania.

Tasmania is currently net self-sufficient in renewable electricity through hydro power and will, through Marinus Link, become a net exporter of renewable electricity to the mainland in the future. However, while hydro power doesn't have the peaking issues of other forms of renewable energy (such as wind and solar), it is dependent on good water supply, and may be compromised in years of low rainfall or drought.

Extreme weather events will increase through climate change so the importance of a resilient energy system, with multiple sources of generation will become increasingly important. It is cost effective to maintain existing natural gas fired generation in parallel with expanding renewable electricity generation from an energy security perspective. This natural gas fired generation can then be transitioned to renewable gas as it becomes technically and commercially viable.

As identified in the draft Tasmanian Bioenergy Vision, Tasmania already produces significant quantities of solid and liquid organic feedstock that could be used for energy generation and displace existing fossil fuel use. With the right policy settings, Tasmania can become a major producer and exporter of biomethane. This also has benefits for the decarbonisation of industries which currently rely on coal or diesel for heat, who may be able to transition to gas where electrification is not possible.

Industries which currently rely on coal or diesel for heat may question the opportunity to transition to natural gas today despite the substantial emissions reduction this could deliver. These industries could reliably secure the emissions reduction benefits of transitioning to natural gas today if they can be confident in the knowledge that their gas supply will decarbonise through renewable gas uptake in the future. Transitioning to natural gas today and to renewable gas tomorrow is a viable pathway to net zero emissions for industries using coal and diesel today.

[3] Deloitte, 2020, *Tasmanian Gas Pipeline Economic Analysis Final Report*, available at: https://www.tasmaniangaspipeline.com.au/volumes/documents/Tasmanian-Gas-Economic-Benefits-Executive-Summary.pdf

An immediate and significant opportunity to realise emissions reductions by adopting natural gas is the new Spirit of Tasmania vessels. These vessels have been designed to operate on both diesel and Liquified Natural Gas (LNG). Operating these vessels on LNG would reduce Tasmania's carbon emissions by up to 50,000 tonnes per year, reducing to net zero emissions as local LNG production transitions to renewable gasses.

The fact that biomethane is chemically indistinguishable from natural gas means there is no infrastructure or appliance augmentation necessary to introduce it in existing networks and potentially exported to the mainland via the existing Tasmanian Gas Pipeline. Any biomethane produced today can be immediately blended into natural gas networks. Uptake of biomethane could therefore be rapid, and kickstart Tasmania's transition to renewable gases while the local hydrogen generation and blending industry develops.

APGA appreciates that the Strategy outlines several policies supporting the renewable gas transition, however we would like to outline some additional or extended measures that may improve the effectiveness of the Strategy.

Suggestions to improve the effectiveness of the Strategy

The draft Strategy acknowledges the continuing role of gas in the Tasmanian economy, and the role it will play in the future as a decarbonised source of energy. The opportunity to use the State's rich existing resources to produce biomethane and, eventually, renewable hydrogen, and its existing infrastructure and workforces, is well demonstrated in the Strategy.

APGA believes additional policy support in the form of a renewable gas target, support for demonstration projects, and extending existing energy efficiency programs to include gas appliances would strengthen the Strategy and encourage investment. These policies are described in the following sections and could help Tasmania demonstrate the pathway forward for its current gas consumers – including for small businesses and private homes.

Expand the Energy Saver Loans Scheme to include gas appliances

APGA believes that caution must be exercised to ensure that electrification is not prioritised at the expense of renewable gas, to the extent that renewable gas offers a cost competitive alternative to electrification in the transition to net-zero energy. This approach is being explored in detail within an APGA-led study which we are seeking to confirm independently across 2023[4].

The $50 million Energy Saver Loans Scheme is designed to assist small businesses and homeowners in the transition to high efficiency appliances but excludes gas appliances with no explanation. The Tasmanian Government should follow through the transition from natural gas to renewable gas by supporting residential, institutional, and small business consumers of natural gas to remain connected to the gas network and able to transition to

[4] APGA, 2022, *Supply Chain Analysis Methodology for Total Customer Cost*,
Summary available at https://www.apga.org.au/sites/default/files/uploaded-content/website-content/supplychainv5.pdf
Study available at https://www.apga.org.au/sites/default/files/uploaded-content/website-content/supply_chain_analysis_methodology_for_total_customer_cost_-_study.pdf

renewable gases. The Tasmanian Government should support the move to higher efficiency and lower emissions gas appliances in the same way it supports electrification.

APGA suggests that expanding the Energy Saver Loans Scheme to include high efficiency gas appliances would help support industry transition and decarbonisation.

Consider a Renewable Gas Target

Renewable Gas Targets are a policy option being considered in a number of jurisdictions, most recently in Western Australia where a 1% renewable hydrogen target is proposed for energy generation in the South Western Interconnected Network. Western Australia is exploring a complementary target for all gas end-users.

This may provide a model for exploration of a renewable gas target in Tasmania and could provide significant incentives for investment in biomethane, in the short term, and hydrogen in the medium/long term.

The Strategy identifies a Tasmanian Renewable Energy Guarantee of Origin Scheme as a potential policy meriting support. APGA fully supports this approach and suggests that such a scheme could work in tandem with a Tasmanian Renewable Gas Target for the benefit of Tasmanian renewable energy producers.

Support renewable gas demonstration projects

To be able to overcome investor uncertainty over renewable gas technologies, a number of demonstration projects are underway across the country:

- AGIG's **Hydrogen Park South Australia** (HyP SA) is now delivering a 5% green hydrogen blend to 700 gas customers in Adelaide, made possible with grant funding from the South Australian Government. This will be expanded to a further 3,000 gas connections, including households, businesses, and schools, in 2023. This project has enabled AGIG to explore up to 10% hydrogen blends and invest in new facilities, also supported by State and Federal Government funding, including **HyP Gladstone** and **HyP Murray Valley**, and the **Australian Hydrogen Centre** project in SA and Victoria.
- ATCO opened the **Clean Energy Innovation Hub** renewable hydrogen generator in Jandakot, Western Australia in 2019 with Federal Government funding (ARENA). The Western Australian Government is also funding ATCO to expand this facility to a combined hydrogen production and refuelling facility and explore blended hydrogen supply to existing gas networks. ATCO is also building the **Clean Energy Innovation Park**, co-located with the Warradarge Wind Farm in mid-west Western Australia, to provide commercial-scale hydrogen generation, again with ARENA funding.
- Jemena is supplying the equivalent of 250 homes with blended hydrogen from its **Green Hydrogen Hub** in Horsley Park, Western Sydney, supported by grant funding from the Federal Government (ARENA). Jemena is also developing the **Malabar Biomethane Injection Project** in Sydney, co-located at a waste treatment plant, again supported with ARENA funding.

All of these projects are intended to demonstrate the commercial viability of these technologies and reduce the cost curve. Particularly with hydrogen, momentum is building, but there is more work to be done especially with the commercial viability of large-scale

biomethane injection into the distribution network. Tasmania needs to provide support and coordination for economies of scale and demonstrate local viability, through technology incubation schemes which will help bridge the gap between natural gas and renewable gas.

Tasmania's bioLNG demonstration opportunity

APGA observes that the two new Spirit of Tasmania vessels, due for launch in 2023 and 2024, are dual-fuel, able to run on both diesel and LNG – which would allow for the use of zero-emission biogas as a fuel in the future. By running the vessels on LNG produced from natural gas rather than diesel:

- Carbon emissions would be over 20% lower;
- Nitrogen emissions would be over 80% lower;
- Particulate emissions would be 90% lower; and
- Sulphur oxide emissions would be over 90% lower.

As the local biomethane industry develops, LNG could be produced from local biomethane supply, effectively reducing the vessels' emissions to zero. This would be achieved without the significant cost of converting vessels to other green fuels being touted for international shipping such as hydrogen or ammonia.

Given that a bioLNG facility has been proposed at an operational LNG production facility at Westbury[5], this is an ideal opportunity for the Tasmanian Government to realise immediate emissions reductions from renewable gas uptake, while locking in the opportunity to have net-zero emissions vessels in the future.

Again, APGA commends the Tasmanian Government on its foresight in producing a comprehensive and balanced vision for the future of energy for the State. 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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[5] Pekic, 2022, available at https://www.offshore-energy.biz/australia-closer-to-having-1st-biolng-plant-in-tasmania/