Australian Gas Infrastructure Group

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GreenPower
Via email - greenpower.admin@planning.nsw.gov.au

To whom it may concern,

GreenPower Program Review 2022

Australian Gas Infrastructure Group (AGIG) welcomes the opportunity to make this submission to the GreenPower Program Review 2022.

As you may be aware, AGIG owns gas pipelines, distribution networks and storage assets that provide services to over two million homes, businesses and large industrial customers across Australia. We are also leading the renewable gas transition with the aim to fully decarbonise our distribution networks and achieve a 100% renewable gas supply across Australia by no later than 2050, with 2040 as a stretch target.

We commend the Program for its success to date in facilitating customers to offset their energy use with power from renewable electricity sources. We believe there is significant opportunity to widen GreenPower's mandate to include renewable gases, in particular hydrogen and biomethane. This presents an opportunity to build on the existing success of the GreenPower Program while contributing to an accelerated decarbonisation of the gas industry.

Renewable gas shows strong market potential for decarbonising natural gas use

While electricity is a key component of the energy system, accounting for 20% of final energy consumption in Australia, gas and liquid fuels are also significant, accounting for 24% and 50%[1] of final energy consumption respectively. AGIG believes that the fastest and most cost-effective pathways to net zero are most likely to include the rapid decarbonisation of gas and liquid fuels.

Renewable gases represent a significant opportunity for Australia to achieve its emission reduction goals whilst also minimising costs. Gases such as hydrogen and biomethane are net-zero carbon and provide new and reliable sources of energy, which can be utilised in the same way as natural gas is today and are able to utilize existing infrastructure to reach customers.

Since the publication of National Hydrogen Strategy in 2019, the evidence in support of hydrogen has only strengthened. Independent evidence that cost-effective hydrogen is on the horizon includes the most recent analyses by the Clean Energy Finance Corporation (CEFC)[2] and the Energy Transitions Initiative.[3] These analyses show that renewable hydrogen is likely to reduce in cost significantly over the next ten years; to the point where it is likely to be competitively priced against natural gas for a range of uses by around 2030. The CEFC analysis in particular forecasts that renewable hydrogen in networks will approach the price of natural gas by around 2030 (and already is cost-competitive in several other sectors).

[1] Australian Energy Statistics Report, Department of Climate Change, Energy, the Environment and Water
[2] CEFC 2021 . See: https://www.cefc.com.au/media/nkmljvkc/australian-hydrogen-market-study.pdf
[3] Australian Industry Energy Transitions Initiative 2021 See: https://energytransitionsinitiative.org/wp-content/uploads/2021/06/Phase-1-Highlights-Report-June2021.pdf

The outlook for biomethane market development in Australia also has significant potential, with modelling from the National Bioenergy Roadmap[4] indicating an important role for biomethane in decarbonising gas.

Renewable gas also plays a complementary role with renewable electricity, accelerating wider decarbonisation by further scaling generation capacity and creating greater efficiencies. However to do so requires active sources of demand in networks, transport and eventually hard to abate industries. Inclusion in the GreenPower program would help to facilitate awareness of the broad benefits and potential applications of renewable gas and support wider uptake. Given that cost competitiveness is on the horizon, there is a need to support market activation and scaling through a range of policy and voluntary market driven approaches, including certification. For these reasons we consider Greenpower should consider net zero carbon fuels such as hydrogen and biomethane.

GreenPower certification can be a critical enabler to scale renewable gas markets by providing customers with the assurance they need to procure renewable gas supplies.

We strongly believe there is an important role for GreenPower to provide renewable gas certification products, especially with its track record of delivering innovative and in demand certification products for renewable electricity since 1997.

A diverse range of our customers across residential, commercial and industry segments are demanding renewable gas products to help achieve their decarbonisation needs. While renewable gas is already being produced and delivered to households, including at AGIG's Hydrogen Park which supplies a renewable hydrogen blend to surrounding suburbs in metropolitan Adelaide, developing a GreenPower renewable gas certification scheme would provide significant impetus to market development across Australia. Certification would also support the biomethane market and help support the large capital investment required to bring biogas-to-biomethane upgrading and gas blending facilities into the market.

Furthermore, there would likely be other flow-on energy efficiency and environmental benefits from assisting biomethane developments such as:

- reducing the annual volumes of biogas that is currently wasted by flaring to atmosphere (for example, when a power plant has an outage or the exports cannot go into the grid)
- the potential to minimise CO_2 emissions by separating (fixing or capturing) the ~40% CO_2 from the biogas fuel that currently gets burnt to atmosphere through power generation plants), and
- improving the energy efficiency by using biomethane in gas appliances, which is up to 90% energy efficiency, rather than an approximate range of 50%-60% energy efficiency from power generators running on biogas.

We commend Greenpower for its recent consideration of a Renewable Gas Certification Pilot (the Pilot). This is an important step forward in developing a renewable gas industry in Australia as it could enable both biomethane and renewable hydrogen production to be certified as zero carbon emission. We are strongly supportive of the Pilot as a key facilitator of renewable gases being purchased to displace fossil fuels and reduce emissions.

As outlined in our submission the February 2022 consultation, the Pilot can address immediate gaps we see in other proposed renewable gas certification schemes, such as including biomethane in the proposed scope as well as considering a range of promising hydrogen use cases. This approach will set a good foundation for exploring potential opportunities to expand the Federal Government's hydrogen Guarantee of Origin scheme. Overtime we hope to see, where appropriate, further integration and alignment between the different certification schemes.

[4] ARENA 2021: https://arena.gov.au/assets/2021/11/australia-bioenergy-roadmap-report.pdf

We extend our offer to explore potential participation in the Pilot, through our project Hydrogen Park South Australia (HyP SA). HyP SA was commissioned in mid-2021 and is currently Australia's largest facility producing renewable hydrogen using a Proton Exchange Membrane electrolyser. HyP SA was the first project in Australia to deliver a renewable gas blend to customers via an existing gas network and is still today delivering up to a five per cent renewable hydrogen blend into part of the Adelaide distribution network.

As HyP SA is currently in operation, it would provide a good opportunity to test the accuracy, administrative requirements and verification mechanisms associated with relevant emissions accounting methodologies and also for customers to buy certificates to match their gas use with renewable gas that is added to the network on their behalf. Importantly, it could also assist in expanding and accelerating the introduction of renewable gas certification in Australia to meet the demands of our customers.

Thank you for the opportunity to provide a submission on the consultation paper. Should you have any queries about the information provided in this submission please contact. Should you have any queries about the information provided in this submission please contact Rachel Cameron, Head of Corporate Affairs (Rachel.Cameron@agig.com.au or 0425 199 184).

Yours sincerely,

Kristin Raman
Acting Executive General Manager Strategy and Sustainability

About AGIG

AGIG is the largest gas distribution business in Australia, serving more than two million customers through our networks in Victoria, Queensland, South Australia, and several regional networks in New South Wales and the Northern Territory. Our transmission pipelines and storage facility serve a range of industrial, mining and power generation customers.

At AGIG, we are committed to sustainable gas delivery today, and tomorrow. Our Low Carbon Vision, targets 10% renewable gas in networks by no later than 2030, with full decarbonisation of our networks by 2040 as a stretch target and by no later than 2050.

We are now delivering on our vision by deploying low carbon gas projects. Our projects include:

- Hydrogen Park South Australia – A 1.25MW electrolyser to demonstrate the production of renewable hydrogen for blending with natural gas (up to 5%) and supply to more than 700 existing homes in metropolitan Adelaide. HyP SA is now operational, with plans to expand customer reach to more than 3,000 customers by end of 2022.
- Hydrogen Park Gladstone – A 175kW electrolyser to demonstrate the production of renewable hydrogen for blending with natural gas (up to 10%) and supply to the entire network of Gladstone, including industry.
- Hydrogen Park Murray Valley (HyP Murray Valley) proposal – A 10MW electrolyser to produce renewable hydrogen for blending with natural gas (up to 10%) and supply the twin cities of Albury (New South Wales) and Wodonga (Victoria), with the potential to supply industry and transport sectors.