



30 July 2021

Submission: Hydrogen Guarantee of Origin scheme for Australia Discussion Paper

The Australian Pipelines and Gas Association (APGA) represents the owners, operators, designers, constructors and service providers of Australia's pipeline infrastructure, with a focus on high-pressure gas transmission. APGA's members build, own and operate the gas transmission infrastructure connecting the disparate gas supply basins and demand centres of Australia, offering a wide range of services to gas producers, retailers and users.

APGA welcomes the opportunity to contribute to the Hydrogen Guarantee of Origin scheme for Australia Discussion Paper.

APGA commend the Department of Industry, Science, Energy and Resources (DISER) on their development of a Hydrogen Guarantee of Origin Scheme and sees this as a key step forward for enabling the development of a renewable hydrogen industry in Australia.

APGA sees value in progressing all renewable gases equally. DISER and the National Hydrogen Strategy both rightly identify a Guarantee of Origin scheme as being a priority action for enabling renewable hydrogen – likewise, a Guarantee of Origin scheme will be an equal priority for enabling all renewable gases such as Biogas, Biomethane and Renewable Synthetic Methane.

The Energy National Cabinet Reform Committee (ENCRC) have recognised efficiencies in amending the National Gas Law to incorporate renewable gas blends such as biogas rather than simply incorporating hydrogen alone. APGA would envisage that such efficiencies be recognised by the ENCRC and DISER when hydrogen initiatives are raised, and that opportunities to expand scopes to cover the broader range of renewable gas blends are taken.

In lieu of government action, industry participants including Jemena, NSW Government-managed renewable energy accreditator GreenPower and industry association Energy Networks Australia (ENA), have taken the lead in creating a private renewable gas certification scheme¹. This scheme is intended to cover both biomethane and hydrogen as both are seen as viable gas decarbonisation options for the State.

¹ Australia's first Renewable Gas Certification Pilot, Jemena, 2021
<https://jemena.com.au/about/newsroom/media-release/2021/australia%E2%80%99s-first-renewable-gas-certification-pilo>

Considering the value of all renewable gases being progressed equally, APGA proposes that DISER undertake one of the following two approaches to the development of a Guarantee of Origin scheme:

- Expand the scope of the Guarantee of Origin scheme to include all renewable gases, including renewable sources of methane such as biogas; or
- Develop the Guarantee of Origin scheme to be easily expanded or replicated for renewable sources of methane and commence development of an equivalent Guarantee of Origin Scheme for renewable sources of methane; and
- Noting the proposal of a Renewable Electricity Guarantee of Origin Scheme, either
 - Rename the scheme Renewable Gas Guarantee of Origin Scheme; or
 - Develop a combined Renewable Energy Guarantee of Origin Scheme which can address all forms of energy, be they electrical, gaseous, liquid or solid.

Following the Hydrogen Guarantee of Origin discussion paper seminar on 15 July 2021, APGA emphasises the value of developing the scheme with the 980PJpa domestic gas market in mind². Unlike the prospective export market, the domestic gas market already exists today and is progressing towards a renewable gas future³. To enable engagement with this immediately available market, APGA proposes the Guarantee of Origin Scheme allows for:

- Guarantee of Origin certificates to be issued in Energy Units (Gigajoules) to directly correlate with the units which Australian wholesale gas markets trade in⁴ as well as allowing for differences in hydrogen composition⁵; and
- Trading of partial certificates to enable certificate trading on a small customer basis (small businesses and households contract gas on a MJ basis, hydrogen vehicle refuelling occurs on a kg basis) and to enable conversion between Gigajoule and Tonne based certificates.
- More granular generation of certificates to enable day to day or near real time certificate generation to occur alongside renewable gas production.

To discuss any of the above feedback further, please contact APGA's National Policy Manager, Jordan McCollum, on +61 422 057 856 or jmccollum@apga.org.au.

Yours Sincerely,



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² Australian Energy Update 2020, Department of Industry, Science, Energy and Resources 2020
<https://www.energy.gov.au/publications/australian-energy-update-2020>

³ Gas Vision 2050, Australian Pipelines and Gas Association 2020
https://www.apga.org.au/sites/default/files/uploaded-content/website-content/gasinnovation_04.pdf

⁴ AEMO Gas Portal
<https://aemo.com.au/en/energy-systems/gas>

⁵ Differences in gas composition is a primary reason why the Australian domestic gas industry trades in gigajoules. 1t of 99.99% hydrogen will be different from 1t of 99% hydrogen and 1t of 97% hydrogen, while 1GJ of hydrogen can be 1GJ at 99.99%, 99% or 97% purity.