29 November 2024

Submission: Australian Sustainable Finance Taxonomy

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 safe and reliable delivery of over 1,600 PJpa of gas consumed in Australia alongside over 4,500 PJpa of gas for export.[1] We are at the forefront of Australia's renewable gas industry, helping achieve net-zero more quickly and affordably.

APGA welcomes the opportunity to provide further comments to the Australian Sustainable Finance Institute (ASFI) for its second consultation on an Australian Sustainable Finance Taxonomy (the Taxonomy). The Taxonomy provides an opportunity to act as a guiderail for sustainable investment, which is critical for scaling the development of sustainable industries and technologies and supporting Australia's net zero transition. Natural gas now, and renewable gas in the near future, will play a significant role in that transition. Hence, it is important that they are appropriately considered in the draft Taxonomy.

APGA's submission below comments on:

- The Taxonomy's handing of gas powered generation for firming as a transition activity,
- The definition of feedstocks and adequacy of methane reporting frameworks for the production of biogas;
- The handling of transport of renewable gases in pipelines, particularly regarding blending and households as an end user.

APGA supports a net zero emission future for Australia by 2050[2]. Renewable gases represent a real, technically viable approach to lowest-cost energy decarbonisation in Australia. APGA sees renewable gases such as hydrogen and biomethane playing a critical role in decarbonising gas use for both wholesale and retail customers[3]. APGA is the largest industry contributor to the Future Fuels CRC[4], 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.

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[1] DCCEEW, 2024, *Australian Energy Update 2024*, Figure 3, https://www.energy.gov.au/sites/default/files/2024-08/australian_energy_update_2024.pdf
[2] APGA, *Climate Statement*, available at: https://www.apga.org.au/apga-climate-statement
[3] ACIL Allen, 2024, *Renewable Gas Target – Delivering lower cost decarbonisation for gas customers and the Australian economy*, https://apga.org.au/renewable-gas-target
[4] Future Fuels CRC: https://www.futurefuelscrc.com/

A note on the development of the Taxonomy

APGA has engaged with ASFI on several occasions regarding aspects of the document, particularly in the treatment of gas powered generation and of pipelines carrying renewable gases and blends. While ASFI has taken on board some of the industry feedback regarding GPG, concerns regarding pipelines remain unaddressed.

Membership of or engagement with the Technical Advisory Groups was not open to APGA or to other participants in the gas industry. Gas markets and supply chains are complex, and an insufficient understanding of these is reflected in the current draft Taxonomy.

There are perplexing inconsistencies in the Taxonomy. For example, the inconsistent application of 'transition' makes gas blending ineligible despite meeting ASFI's definition. For another, while ASFI's reference scenario for the Taxonomy is NZE's 1.5°C scenario, the Taxonomy references alignment with AEMO's Optimal Development Path ("*The majority of firming will need to be decarbonised under 1.5°C pathways, and the ISP's optimal development path*"). In the 2024 ISP, AEMO's most likely scenario to achieve the ODP is the Step Change Scenario, a 1.8°C scenario.[5]

The opaque development of the Taxonomy, with limited opportunities for industry to truly engage with ASFI, cannot be considered best practice. This approach will likely limit the breadth and quality of feedback, and could lead to a Taxonomy that is not fit for purpose.

To discuss any of the above feedback further, please contact me on +61 409 489 814 or crafael@apga.org.au.

Yours sincerely,

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[5] AEMO, 2024, *2024 Integrated Systems Plan*, https://aemo.com.au/-/media/files/major-publications/isp/2024/2024-integrated-system-plan-isp.pdf

Consideration of gas powered generation for firming

APGA is pleased to see broader consideration of gas powered generation (GPG) in the Taxonomy, and acknowledgement of the importance of gas firming to support the decarbonisation of Australia's electricity system. However the decision to include GPG firming as an activity within a credibly transitioning portfolio simply narrows the opportunity for investment at a time when investment in GPG is critical.

APGA stated in its June comments to ASFI[6] that "*the necessity of GPG to firm the NEM means investments are likely to be made even in the absence of inclusion in a sustainable finance taxonomy, especially where the NEM can no longer rely on coal-fired generation in the long term. However, inclusion in the taxonomy would assist in providing an investment pathway to rapidly transition away from coal to renewables, firmed by batteries, backed up by flexible, lower-emission GPG… **[which] can later be transitioned to renewable gas, including biomethane and green hydrogen**.*"

The need for these GPG assets has increased but the necessary investments have not materialised. This is not surprising, as the nature of peaking plants can make them unattractive for private investment. Because the plants are only dispatched a few times a year, it can be challenging to recover the investment and fixed costs of power generation.

The uncertainty of gas supply and demand volumes, and the uncertainty around government policies on gas, introduces additional investment risk. For these reasons, it may be difficult to maintain investment in existing GPG or bring GPG projects to Final Investment Decision in the absence of government mechanisms or incentives. This is why APGA urged that the Government's Capacity Investment Scheme include firming GPG.[7] And it is likely for this reason that the recently announced review into the National Energy Market will specifically consider incentives for capacity investments that include GPG.[8]

ASFI's portfolio approach is a further hurdle in achieving FID for these projects. It will narrow the pool of potential investors only to those large enough to support multiple investment sufficient to "offset" investment in GPG. Smaller financiers without such portfolios will be limited by the emissions threshold. That these GPG technologies can currently run on renewable gas blends[9] and in future transition to 100% renewable gases[10] means nothing if they cannot be built in the first place.

APGA urges ASFI to reconsider its requirement that GPG can only be considered as part of a broadly transitioning portfolio.

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[6] APGA, 2024, *Submission: An Australian Sustainable Finance Taxonomy*, https://apga.org.au/submissions/an-australian-sustainable-finance-taxonomy
[7] APGA, 2024, *Submission: Expanded Capacity Investment Scheme Design*, https://apga.org.au/submissions/expanded-capacity-investment-scheme-design
[8] DCCEEW, 2024, *National Electricity Market wholesale market settings review*, https://www.dcceew.gov.au/energy/markets/nem-wms-review
[9] CSIRO HyResource, 2024, *Tallawarra B Dual Fuel Capable Gas/Hydrogen Power Plant*, https://research.csiro.au/hyresource/tallawarra-b04-dual-fuel-capable-gas-hydrogen-power-plant/
[10] Kawasaki Heavy Industries, 2023, *Kawasaki Launches World's First 1.8 MW Class, 100% Hydrogen-fueled, Dry-combustion Gas Turbine Cogeneration System*, https://global.kawasaki.com/en/corp/newsroom/news/detail/?f=20230905_2781;

C10. Manufacture of Biogas

The definition of feedstocks should not unnecessarily restrict industry

APGA is pleased to see the inclusion of manufacture of biogas as an activity in the Taxonomy. However the feasibility of biogas projects depends on how narrow the definitions are for eligible green feedstocks.

The permitted feedstocks are limited to commercial and municipal food waste, manure, agricultural waste including organic effluent, and sewage sludge. Of these, agricultural waste including organic effluent is ambiguous as to what could be included. For example, some biogas producers are proposing the use of organic effluent and residue from abattoirs as a feedstock. It is unclear whether this activity would be captured in this definition.

Similarly, the exclusion of food and feed crops, and energy crops, from the eligible feedstocks is unnecessarily restrictive. Where feedstock aggregation becomes commonplace to assist in the viability of bioenergy projects, there may be some overlap in crop feedstock intended for the production of liquid biofuels and the production of biogas, and the waste products of those crops. To accommodate this, industry participants should be able to demonstrate that their use of such feedstock is sustainable, rather than being automatically ineligible.

Further definition of monitoring, reporting and verification mechanisms required

The second technical screening criteria for manufacture of biogas is *demonstrated MRV (monitoring, reporting and verification) mechanisms, and mitigation measures for methane leakage*. This is a more complex requirement than it appears.

To the extent that the Taxonomy interfaces with the *National Greenhouse and Energy Reporting Scheme* (NGERS), Australia's emissions reporting scheme already has a baseline reporting framework for the production of energy (Chapter 6 of the NGERS Measurement Determination). However this criteria appears to be actually referring to *fugitive* emissions of production, which are covered in Chapter 3 of the Measurement Determination.

There are no specific methods for estimating fugitive emissions of biogas under NGERS. Given the chemical nature of biomethane being identical to natural gas, those frameworks could stand in as a substitute for this purpose, but this is not identified in the Taxonomy.

Without a formal definition and methods in NGERS, it is difficult to define what 'demonstrated' means in terms of the Taxonomy. Assuming this means measurements, this is an issue the Department of Climate Change, Environment, Energy, and Water is currently working through with an expert panel to develop 'higher order' methods for estimating fugitive emissions. Higher order methods require some level of direct measurement and verification of those methods, and determining standards is part of this work.

ASFI should rephrase this criteria with this in mind, and in consultation with DCCEEW.

D11. Transmission and Distribution of Renewable and Low-carbon Gases

Transmission and distribution pipelines are connected assets

In our June submission to ASFI, APGA noted the taxonomy implies that the only eligible activity for the transmission of renewable gases is directly from producer to end user, with no blending involved. This demonstrated a lack of understanding of how gas is transported in Australia and the economics of the gas market, which continues in this draft of the Taxonomy.

The pressure at which gas is transported is the only key difference between transmission and distribution pipelines. Furthermore, these pipelines operate in a network; direct producer-to-single-customer gas pipelines are rare in Australia. The gas transported in a transmission pipeline is connected to every distribution pipeline that feeds from it, and all pipelines in the East Coast Gas Market are effectively connected. Importantly, gas pipeline operators do not choose their end users of the gas they transport, nor do producers know who consumes the physical molecules of gas they produce.

Given this, the Taxonomy's restriction of access to residential distribution networks does not make sense. Distribution networks serve many of customers, ranging from small and large commercial customers, and small and large industrial customers, as well as households. Broadly speaking, there no such thing as a distribution network that does not have households as an end-user, similarly any transmission pipeline connected to a network. It is also not possible to ensure that an existing transmission pipeline that is retrofitted for 100% hydrogen service would not have a household connected to it at some point downstream.

It is unclear what this restriction intends to achieve. As a tool for determining what is and what is not sustainable for the purposes of financing, it should not be making value judgements about the end user of a particular technology. Whether a renewable gas transported in a distribution pipeline is ultimately combusted in an industrial furnace or a household stove top, the end result is reduced emissions relative to natural gas.

This restriction is also inconsistent with the EU Taxonomy, which permits the "*retrofit of gas transmission and distribution networks that enables the integration of hydrogen and other low-carbon gases in the network, including any gas transmission or distribution network activity that enables the increase of the blend of hydrogen or other low carbon gasses in the gas system.*"[11]

Blending is necessary for the transition

The Taxonomy still restricts new or retrofitted gas transmission pipelines to transporting 100% renewable gases – no blending is permitted. As APGA noted in comments provided in June, this does not reflect the reality of how the renewable gas industry will develop.

[11] European Commission, 2024, *EU Taxonomy Navigator – Transmission and distribution networks for renewable and low-carbon gases*, https://ec.europa.eu/sustainable-finance-taxonomy/activities/activity/300/view

Current renewable gas projects production projects[12] in Australia are viable because they can inject into existing natural gas networks. This provides producers with access to a broad range of customers – including households. For the most part, future renewable gas producers will require access to large and varied offtake markets to be viable, and this will start through blending. These are credible pathways to roll out of these technologies.

The Taxonomy explicitly permits transition activities that *"make a direct contribution to reducing emissions, support the development of low-carbon industries, and/or enable the decarbonisation of activities."*

It is not clear why the Taxonomy's transition classification was not extended to gas blending. Blending of renewable gases into existing transmission and distribution pipelines is clearly a transition activity which will make a direct contribution to reducing emissions, supporting the development of low-carbon industries (such as manufacture of green metals), and enable the decarbonisation of other activities (such as steelmaking).

This inconsistency is especially perplexing when electricity transmission infrastructure which is on a 'decarbonisation trajectory' carries a blend of fossil and renewable electricity *is* permitted. The Taxonomy also permits gas use for industrial activities such as steelmaking to be 'greened' by using blends of hydrogen or other low carbon gases and natural gas. These customers will receive this gas through pipelines – shared with other customers including households – which will not be able to be classified as green.

[12] Including Jemena's biomethane product in Malabar NSW, injecting into the Sydney distribution network, and AGIG's hydrogen project in Tonsley SA, injecting into the Adelaide distribution network. AGIG is developing similar projects in Wodonga VIC and Gladstone QLD.