

26 November 2021

Energy Ministers

Via email: renewablegas@industry.gov.au

To whom it may concern,

Extending the national gas regulatory framework to hydrogen blends and renewable gases - Changes to the NGL, NERL and Regulations

Australian Gas Infrastructure Group (AGIG) welcomes the opportunity to provide feedback on the potential amendments to the national gas regulatory framework to extend the framework to hydrogen blends and renewable gas (the review).

The review is an important step forward in developing the foundations for a renewable gas industry in Australia by proposing to recognise renewable gases under the national gas regulatory framework. We are strongly supportive of the reform as it will support investment in innovative projects that will not only reduce emissions for users of natural gas including in our gas networks, but also assist in increasing scale and driving down costs of hydrogen and other renewable gas projects.

This letter provides an overview of the key points in our submission with detailed responses to the questions found in Attachment A, followed by an overview of AGIG.

We support applying a flexible and fit for purpose regulatory framework to natural gas equivalents, constituent gases and other gas products

We support the proposed approach of expediting amendments to bring low level blends of hydrogen and renewable gas suitable for consumption (natural gas (NG) equivalents) within the national gas regulatory framework. These amendments will ensure that regulatory barriers do not restrict proposed and planned investments in renewable gas projects over the coming years. The approach will enable hydrogen and other renewable gases to access existing markets on at least equivalent terms to natural gas, and provide for emissions reductions for natural gas users.

We also support the intention of recognising higher level blends of hydrogen (100% hydrogen product) in the national gas regulatory framework over time, with changes made to the National Gas Law as a 'future proofing' exercise now. We note that as part of our low carbon strategy, AGIG is aiming to have available 100% hydrogen products for new developments by 2025, so the transition to trialing and offering OG products is likely to be relatively quick in some circumstances. The framework being proposed gives the states appropriate flexibility to work with innovative OG product offerings within the national gas regulatory framework.

However, the application of the national regulatory framework should be fit for purpose and recognise that some elements of the existing framework may not be fully appropriate for hydrogen and other renewable gases. This is because we are in very early stages of the industry's development. Hydrogen and other renewable gases need time for appropriate business models to emerge and therefore flexibility within the regulatory framework is imperative to enable the required innovation to occur.

For constituent gas pipelines that do not provide third party access, we question the need to extend to economic regulation to these pipelines at the outset of market development. We think it is unlikely any pipelines delivering constituent gases would possess sufficient market power to warrant full regulation in the short-to-medium term and suggest introducing an exemption provision that treats non third

party constituent gas pipeline as a separate category from scheme and non-scheme pipelines and be exempted from economic regulation.

In the long term, increased competition from alternative energy sources is likely to mean that economic regulation (in Parts 8 to 12 of the National Gas Rules) of pipelines transporting the various hydrogen and renewable gas products (and even natural gas) may not be appropriate. Low cost alternatives (including onsite hydrogen production as well as renewable electricity production and storage) is likely to diminish the market power of pipeline service providers overtime. Therefore, we believe governments should in the future revisit the question of economic regulation of hydrogen and renewable gas pipelines over the long term.

Further, we consider that the existing ring fencing arrangements should not act as a barrier and should allow for service providers to engage in the production, purchase and sale of NG equivalents and its constituent gases. Gas distributors do not possess market power in the production of renewable gases – in fact at current prices it is unlikely any producer of renewable gases holds market power. Imposing ring fencing requirements at the outset of market development may unnecessarily stifle or restrict proposed investments in renewable gas projects (particularly for trial and demonstration projects) from gas distributors who are likely to be the first movers in the market development for hydrogen and renewable gas.

Our submission to the Australian Energy Market Commission's consultation proposes the following new exemption mechanisms to allow service providers to undertake activities related to the production, purchase and sale of NG equivalents and its related constituent gases and OG products:

- at a minimum, trial and demonstration projects that produce hydrogen and other renewable gases under a certain volume limit should be automatically granted an exemption; and
- a new broad exemption power allowing the regulator to grant exemptions that could cover both trial and early commercial projects based on set criteria, with appropriate safeguards in place.

While we recognise that service providers hold market power over the connections and potential curtailment processes, we consider that the risk of potential discriminatory behavior arising could be minimised through oversight under the regulatory framework (the new interconnection principles and including a new prohibition to reduce the risk of discriminatory curtailment). For a new industry, this is a more balanced approach to addressing concerns that pipeline service providers might inhibit access, as opposed to ring fencing arrangements which are likely to stifle innovation.

Flexibility in defining market responsibilities is required

We note that the market for hydrogen and renewable gas is likely to go through significant change as it develops overtime and we welcome the proposal to introduce new functions and responsibilities (such as operation of blending units and managing blending limits) arising as a result of extending the national gas framework to cover hydrogen and renewable gas.

We support the development of consistent processes and clearly defined roles overtime for these new functions. However, the Laws and Rules should be flexible in allocating responsibility between market bodies (such as the Australian Energy Market Operator (AEMO)) and market participants to recognise that market changes are likely to occur. For example, we would support AEMO being given the power at the NGL level to manage blending limits, and defining and allocating responsibilities could take place at the procedure level. This would provide the flexibility to make changes to responsibilities efficiently without going through legislative changes. We recognise that it may be appropriate in the early stages of market development for gas distributors to take on a number of the functions and responsibilities in the interim, and we would welcome further collaboration with AEMO and other participants.

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 Strategy targets 10% renewable gas in networks by no later than 2030, delivering 100% renewable gas developments from 2025, with full decarbonisation of our networks by 2040 as a stretch target and by no later than 2050.

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

- Hydrogen Park South Australia (HyP SA) – 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.
- Hydrogen Park Gladstone – A 175kW electrolyser to demonstrate the production renewable hydrogen for blending with natural gas (up to 10%) and supply to the entire network of Gladstone, including industry. First production is expected in 2022.
- The Australian Hydrogen Centre (AHC) – A virtual centre delivering feasibility studies for 10% and 100% blending of renewable hydrogen into towns and cities in South Australia and Victoria.

Once again, I would like to thank you for the opportunity to feedback on the review. Should you have any queries about the information provided in this submission please contact Drew Pearman, Head of Policy and Government Relations (drew.pearman@agig.com.au or 0417 544 731).

Yours sincerely,



Kristin Raman
Acting Executive General Manager People and Strategy

Attachment A: Officials' Consultation Paper – Stakeholder feedback template

Submission from Australian Gas Infrastructure Group

The template below has been developed to enable stakeholders to provide feedback on how the NGL, NERL and, where relevant, the Regulations made under the NGL and NERL, could be amended to:

- extend the application of the national gas regulatory framework to NG equivalents; and
- where it is appropriate to do so, provide for OG products to be accommodated by the national gas regulatory framework over time

Officials strongly encourage stakeholders to use this template, so that it can have due regard to the views expressed by stakeholders on each issue. If you wish to provide additional feedback outside the template, wherever possible please reference the relevant question to which your feedback relates.

Chapter 4: Extending the NGL and NERL to natural gas equivalents

No.	Questions	Feedback
Section 4.3: Potential approach to extending the NGL		
Section 4.2.1: Extension to NG equivalents and related facilities and activities		
1	What are your views on the potential approach to extending the application of the NGL to NG equivalents and related facilities and activities? Are there any other approaches that you think would better achieve the objectives of Energy Ministers (see section E.3)?	We support the potential approach identified to extending the application of the NGL to NG equivalents and related facilities and activities. This approach will enable hydrogen and other renewable gases to access existing markets on at least equivalent terms to natural gas, and provide for emissions reductions for natural gas users.

2	<p>What are your views on the policy intention to enable all elements of the national gas regulatory framework to apply to NG equivalents and their related facilities and activities in the same way that they do to natural gas?</p>	<p>In the short-to-medium term, we broadly support the policy intention to enable all elements of the national gas regulatory framework to apply to NG equivalents and their related facilities and activities in the same way that they do to natural gas. This ensures that regulatory barriers do not restrict investments in renewable gas projects proposed to be commissioned and in planning over the next few years. In particular the proposed approach will enable renewable gas and hydrogen production facilities to access markets on at least equivalent terms to natural gas, providing a viable pathway to displace natural gas and reduce emissions.</p> <p>In applying the regulatory framework we also need to recognise hydrogen and other renewable gases need time for appropriate business models to emerge and therefore flexibility within the regulatory framework is imperative to enable the required innovation to occur.</p> <p>Therefore, we consider that the ring fencing arrangements should include exemptions to recognise the benefits of allowing service providers to produce, sell and purchase renewable gases (NG equivalents, including constituent gases and OG products) in promoting the development of a competitive market for renewable gas. As the cost of renewable gas is not currently commercially competitive, gas distributors are likely to be the first entrants in deploying renewable gas projects to demonstrate the net zero benefits of renewable gases in decarbonising gas networks.</p> <p>Imposing ring fencing arrangements on these trial projects may unnecessarily stifle or restrict proposed investments in renewable gas projects as gas distributors do not possess market power in the production of renewable gases – in fact at current prices it is unlikely any producer of renewable gases holds market power. The cost of imposing ring fencing requirements on demonstration projects (lower innovation and barriers to investment in reducing emissions) would likely outweigh the benefits. Given that the market for renewable gas has not yet formed, producers of renewable gases have no market power, and networks in facilitating the uptake of renewable gases through their own projects would only serve to increase competition for energy, not reduce it.</p> <p>Our submission to the AEMC’s consultation proposes that at a minimum, a new exemption mechanism covering trial and demonstration projects be introduced. Further we also propose a broad exemption provision allowing the AER to exempt both trial and commercial projects where the costs of ring-fencing outweigh the benefits with appropriate safeguards in place.</p> <p>While we recognise the potential risks that ring fencing is trying to prevent, the following proposed arrangements provide a reasonable safeguard to mitigate the potential risks, rather than applying a blanket prohibition:</p> <ul style="list-style-type: none"> • risk of favouring affiliates in connecting production facilities to the gas network – connections process and information sharing should be subject to oversight under the regulatory framework. • risk of curtailing other facilities ahead of own affiliates – introduce a specific prohibition in the NGR from the service provider acting in such manner.
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No.	Questions	Feedback
		<p>We suggest that the NGR could be amended (or include in a ring fencing guideline developed by the Regulator, like what currently occurs in electricity) to include the following detail for exemption:</p> <ul style="list-style-type: none"> • which type of hydrogen and renewable gas production facilities may apply for exemption (which might be all facilities or only those below a certain size); • the criteria the regulator may apply (there may be a different criteria for trial projects than for commercial scale projects); • the provisions from which the service provider may be exempted; and • the conditions (if any) to which exemptions may be subject to.
3	<p>What are your views on the NGL requiring jurisdictions to make a local regulation to confirm when a gas or gas blend authorised for supply through a pipeline (or part of a pipeline) is an NG equivalent?</p>	<p>We support the approach of the NGL requiring jurisdictions to make a local regulation to confirm when a gas or gas blend authorised for supply through a pipeline (or part of a pipeline) is an NG equivalent as jurisdictions currently do this for natural gas.</p> <p>Jurisdictions are best placed to assess whether a gas blend is suitable for consumption and therefore a NG equivalent. This flexibility will help to ensure each state's approach to the technical and safety requirements for NG equivalents, which currently sits within state powers (for example, the <i>Gas Act</i> in South Australia and the <i>Gas Industry Act</i> in Victoria), aligns with the economic, consumer and market regulation of NG equivalents in the national gas regulatory framework.</p> <p>We would support a consistent approach in applying local regulation to be adopted across the different jurisdictions.</p>
4	<p>Who is likely to operate the blending facilities involved in the creation of NG equivalent blends?</p>	<p>For projects where the blending unit is at the production facility and used specifically for that facility, it is likely for the producer to own and operate the blending unit involved in the creation of the NG equivalent.</p> <p>Alternatively, where the blending facility is located downstream near the distribution injection point or services multiple production facilities, the gas distributor or another third party could own and operate the blending unit. It may be reasonable for the gas distributor to operate the unit, particularly in circumstances where it has been given operational control to manage blending constraints, monitor gas quality specifications and set and ensure the safety and technical requirements of the NGR and relevant state legislation are met.</p> <p>For example, some of our existing and planned projects have slightly different configurations where in some cases the blending occurs within the production facility, and others downstream.</p>

No.	Questions	Feedback
5	Do you think blending facilities should be subject to the same economic regulatory framework that applies to pipelines? Please explain your response to this question.	<p>If gas distributors are to own and operate the blending facilities offered on a monopoly basis, then we agree that economic regulation may be required to ensure that third party access can be obtained on reasonable terms.</p> <p>This may involve amending the definition of 'pipelines' and 'pipeline services' to expressly include blending facilities if there is uncertainty whether the current definition captures this activity.</p> <p>We note that depending on the application of the reference service factors, a blending service could be considered a non-reference service, with prices to be determined on a negotiated basis. Typically for negotiated services like a non-basic connection service, AGIG will seek to offer price terms on a competitive basis (seeking competitive quotes).</p>
6	Are there any specific physical characteristics of NG equivalents or the supply chain for these products that you consider should be taken into account when extending the natural gas regulatory framework to NG equivalents?	No comment.
7	Are there any other observations you would like to make about the potential approach to extending the application of the NGL to NG equivalents and related facilities and activities?	No comment.
8	Are there any other changes that you think need to be made to the NGL to accommodate NG equivalents and related facilities and activities?	No comment.
Section 4.2.2: Extension to constituent gases and related facilities and activities		
9	What are your views on the proposal to amend the NGL to enable the national gas regulatory framework to apply to the constituent gases and related facilities and activities involved in the supply of NG equivalents (where appropriate to do so) set out in section 4.2.2?	<p>We support the proposal to amend the NGL to enable the national gas regulatory framework to apply to the constituent gases and related facilities and activities involved in the supply of NG equivalents as it will enable the related facilities to participate in gas markets.</p> <p>However as mentioned in Q1 above, we do not consider that the ring fencing arrangements should be extended to the facilities and activities involved in the production, purchase or sale of constituent gases.</p>

No.	Questions	Feedback
10	What are your views on the proposal that pipelines involved in the transportation of a constituent gas (e.g. a hydrogen pipeline) be subject to economic regulation under the NGL and NGR?	<p>We consider that it is appropriate to apply a flexible approach to the economic regulation of constituent gas pipelines in enabling the market and encouraging investment in hydrogen and renewable gases.</p> <p>Depending on the configuration of a hydrogen production facility, a constituent gas pipeline could be built to transport 100% hydrogen from an electrolyser to a blending unit. In many cases, including for AGIG projects currently under development, it is likely to be a single constituent gas pipeline servicing that production facility. These early stage pipelines are likely to be small (in terms of capacity) and likely to be built to a capacity that serves the production facility and unlikely to have available capacity to offer third party access.</p> <p>In these circumstances constituent gas pipelines are, in reality, unlikely to hold significant market power at least in the short-to-medium term and therefore, it may not be appropriate to extend economic regulation to non-third party constituent gas pipelines.</p> <p>We would support exploring an exemption mechanism, which would treat non-third party access constituent gas pipelines separate to a 'scheme' or 'non-scheme' pipeline and be exempted from all the elements of economic regulation to recognise the regulatory burden of compliance may not be fit for purpose.</p> <p>We recognise that in the future such constituent gas pipelines (100% hydrogen) may be built with spare capacity and could allow interconnections to allow additional production facilities for downstream gas blending. Full exemptions from economic regulation may not be appropriate and some elements of economic regulation could apply (for example public reporting of available capacity could be useful to the market).</p> <p>We note that in the long term increased competition from alternative energy sources is likely to mean that economic regulation (in Parts 8 to 12 of the NGR) of pipelines transporting the various hydrogen and renewable gas products (and even natural gas) may not be appropriate. For consumers, low cost alternatives (including onsite hydrogen production as well as renewable electricity production and storage) is likely to diminish the monopoly power of pipeline service providers overtime. Therefore, we should recognise the need for flexibility in the regime.</p>
11	Are there any other observations you would like to make about the potential approach to extending the application of the NGL to constituent gases and related facilities and activities?	No comment.
12	Are there any other approaches that you think would better achieve the objectives of Energy Ministers (see section E.3)?	No comment.
13	Are there any other changes that you think need to be made to the NGL to accommodate constituent gases and related facilities and activities?	No comment.

No.	Questions	Feedback
Section 4.2.2: Extension of market bodies' functions and powers		
14	<p>What are your views on the potential approach to extending market body functions and powers set out in section 4.2.3 to:</p> <p>(a) NG equivalents and related facilities and activities?</p> <p>(b) constituent gases and related facilities and activities?</p>	<p>We agree with the potential approach to extending market body functions and powers to NG equivalents and related facilities and activities and constituent gases and related facilities and activities.</p> <p>This will provide the necessary confirmation that market bodies would be able to exercise their functions and powers with respect to NG equivalents and related constituent gases just as they currently do with respect to natural gas.</p>
15	<p>Do you think arrangements are needed for distribution pipelines attached to the DWGM and STTM to provide for independent management of blending limits (or gas specification requirement) imposed by a jurisdiction? If you think AEMO or another third party should be responsible for this function, please explain what costs and benefits you think would be associated with it doing so.</p>	<p>We consider agreements are needed for distribution pipelines attached to the DWGM and STTM to provide for management of blending limits imposed by a jurisdiction.</p> <p>We would support drafting that provides AEMO with the power to deal with this but recognise that given we are at the outset of market development it may not be appropriate to embed responsibilities for this function, particularly where there is a degree of uncertainty as to how the market will develop over time.</p> <p>We recognise that it may be appropriate in the early stages of market development for gas distributors to take on a number of the functions and responsibilities in the interim, and we would welcome further collaboration with AEMO and other participants.</p>
16	<p>Are there any other changes to market body functions and powers required to accommodate NG equivalents, their constituent gases, or related facilities and activities?</p>	No comment.
17	<p>Are there any other approaches that you think would better achieve the objectives of Energy Ministers?</p>	No comment.
Section 4.3: Potential approach to extending the NERL		
18	<p>What are your views on the potential approach to extending the application of the NERL to NG equivalents set out in section 4.3?</p>	We support the potential approach to extending the application of the NERL to NG equivalents.
19	<p>What are your views on the potential approach to extending the AER's and AEMC's functions and powers under the NERL to NG equivalents set out in section 4.3?</p>	We support the potential approach to extending the AER's and AEMC's functions and powers under the NERL to NG equivalents.
20	<p>Are any other changes to the NERL or the market bodies' functions and powers under the NERL required to accommodate NG equivalents?</p>	No comment.
21	<p>Are there any other approaches that you think would better achieve the objectives of Energy Ministers (see section E.3)?</p>	No comment.

Chapter 5: Accommodating other gas products in the NGL and NERL over time

No.	Questions	Feedback
Section 5.1: Potential approach to accommodating other gas products in the NGL		

22	What are your views on the potential approach to allowing the NGL to accommodate OG products over time, as described in section 5.1?	We support the potential approach to allowing the NGL to accommodate OG products as a 'future proofing' exercise now but lying dormant until the Rules and Procedures are amended to accommodate OG products at a future date.
23	Could amending the NGL in the manner described in section 5.1 lead to any unintended consequences? If so, please explain what those unintended consequences may be.	We do not foresee any immediate unintended consequences, however, the regulatory framework should be flexible and recognise this is a new industry with a degree of uncertainty in how the market and deployment models will develop overtime.
24	What are your views on the proposal to apply the economic regulatory provisions to pipelines involved in the haulage of OG products and their constituent gases?	<p>In the short to medium term, we do not have any objections with the proposal to apply the economic regulatory provisions to pipelines involved in the haulage of OG products and recognise that this will only occur if jurisdictions define a product in a particular pipeline as an OG product. The framework being proposed gives the states appropriate flexibility to work with innovative OG product offerings within the national gas regulatory framework.</p> <p>We note that in transporting an OG product (for example 100% hydrogen product), this could involve:</p> <ul style="list-style-type: none"> a) converting existing sections of the natural gas distribution network or a transmission pipeline b) a new extension to the existing natural gas network, and/or c) a new standalone reticulation system transporting 100% hydrogen. <p>In the case of c), we note that this would likely be treated as a separate scheme or non scheme pipeline. However, we consider that since a converted pipeline (a) and pipeline extensions (b) would continue to be a part of the existing gas network, there should be an option to treat that as part of the same network, the same way certain natural gas pipeline expansions and extensions are taken to be part of the same existing scheme or non scheme pipeline under the NGL (ss18 and 19)¹. In particular, this should only be able to occur where the benefits to existing customers outweigh the costs of incorporating the extension.</p>
25	Are any other changes to the NGL required to accommodate OG products?	No comment.
26	Are there any other approaches that you think would better achieve the objectives of Energy Ministers (see section E.3)?	No comment.
Section 5.2: Potential approaches to accommodating other gas products in the NERL		
27	What are your views on the potential approach to allowing the NERL to accommodate OG products, as described in section 5.2?	We support the potential approach to for all parts of the NERL that apply to natural gas to extend to OG products if the supply of the OG product has been brought within the scope of the NGL by jurisdictional regulation.
28	What are your views on the second potential approach to allowing the NERL to accommodate OG products, as described in section 5.2?	No comment.

¹ https://web.archive.org/au/awa/20211005090648mp_/https://energyministers.gov.au/sites/prod.energycouncil/files/publications/documents/Attachment%20A2%20-%20Marked%20up%20version%20of%20the%20proposed%20amendments%20to%20the%20Nati....pdf

29	Could amending the NERL in the manner described in section 5.2 lead to any unintended consequences? If so, please explain what those unintended consequences may be.	No comment.
30	Are any other changes to the NERL required to accommodate OG products?	No comment.
31	Are there any other approaches that you think would better achieve the objectives of Energy Ministers (see section E.3)?	No comment.