

25 November 2021

Mr Sean Sullivan
Chair
Energy Senior Officials
Department of Industry, Science, Energy and Resources
GPO Box 2013
CANBERRA ACT 2601

Lodged online via renewablegas@industry.gov.au

Dear Mr Sullivan

Re: Hydrogen blends and renewable gases reforms

Thank you for the opportunity to provide feedback on the reforms to extend the national gas regulatory framework to accommodate hydrogen blends and renewable gases. These reforms are an important step in transitioning gas networks to a decarbonised future and achieving the net zero target by 2050.

ATCO supports the proposed approach, however the complexity of the revised framework and requirement for jurisdictional approval of natural gas equivalents and other gas products may create investment uncertainty.

In reviewing the proposed reforms, ATCO makes the following observations:

- **Investment certainty** - Vesting jurisdictions with the requirement to make a local regulation to confirm natural gas (NG) equivalents are authorised creates continued ambiguity for investment decisions that are occurring now. ATCO would prefer to see an approach that adopts national acceptance of NG equivalents at a base level and allows jurisdictions to opt out. This will limit divergence over time between jurisdictions and provide base level national consistency for appliance manufacturing.
- **Expediting the adoption of these reforms in WA** – ATCO would like to work with the Western Australian Government to ensure that arrangements to adopt these reforms can be undertaken in parallel with their development. We would also like to work collaboratively to progress the necessary reforms to the WA Gas Retail Market and consumer protection framework to ensure that they can be adopted in Western Australia as soon as practicable after they are adopted nationally. This is necessary to provide investment certainty for projects in Western Australia.
- **Maintaining a level regulatory playing field** – It is important for gas to remain a competitive option relative to other energy sources in the transition to net zero. Incorporating additional guidance in the National Gas Objective to assess the environmental impact of transported gases may assist in the transition to NG equivalents. The decarbonisation of gas networks through the gradual transition from NG equivalents to other gas (OG) products needs the same priority and supportive policies as renewable electricity generation and storage technologies.

- **Focus on gas specification** – The “suitability for consumption” limb for defining NG equivalents while important for consumers, is arguably already captured and addressed by jurisdictions existing responsibility to oversee the technical and safe transport of gases and may change over time by technology advancements.
- **Transitional provisions** – Transitional provisions are required to provide a means of capturing past network expenditure to accept NG equivalents.

ATCO have been investing in hydrogen since 2017 and are currently considering commercial investments in hydrogen blending and commercial scale hydrogen production in the Clean Energy Innovation Park. Meeting the timeframes for the next steps in the review process are important to ATCO and other stakeholders in making these important investment decisions. I'd appreciate if you could maintain the momentum of this review and be transparent on any changes to the timing of the next steps.

If you have any questions or would like to discuss any of the comments made in this submission, please contact myself or Simon Byrne, General Counsel on 0434 313 101.

Yours sincerely



J.D. Patrick Creaghan
Country Chair
ATCO Australia

Attachment 1: Officials' Consultation Paper – Stakeholder feedback template

Submission from ATCO Australia

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	<p>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)?</p>	<p>ATCO supports the approach to extend the application of the NGL to Natural Gas (NG) equivalents and related facilities and activities, but is concerned that the additional complexity and requirement for jurisdictional approval of NG equivalents may create investment uncertainty.</p> <p>NG equivalents is proposed to be determined by reference to whether the gas is "... safe for use in natural gas appliances." The focus on suitability for consumption creates uncertainty due to the different characteristics of Type A and Type B appliances and may not account for changing technologies that may alter the ability for new gases to be consumed in the same manner as natural gas in the future. Instead, consideration should be given to the removal of this requirement and instead reference an external standard, such as AS4645, or the jurisdictional gas standards legislation.</p> <p>In comparison, the European Union's regulatory framework uses "open and non-discriminatory fuel definitions", in combination with explicit adoption of ISO standards and mandated acceptable blend levels¹.</p> <p>Transitioning to net zero will require a level regulatory playing field for efficient investment decisions to be made on a range of decarbonised energy solutions to achieve at the lowest cost to customers. Incorporating additional guidance in the National Gas Objective to consider the environmental impact of transported gases and the need to decarbonise existing gas networks for longevity of pipeline assets could assist.</p> <p>For example, the WA Electricity Networks Access Code includes the following objective – similar consideration to amend the National Gas Objective could provide guidance to the regulator and industry in the transition to natural gas equivalents:</p> <p><i>...the environmental consequences of energy supply and consumption, including reducing greenhouse gas emissions, considering land use and biodiversity impacts, and encouraging energy efficiency and demand management.</i></p>

¹ Future Fuels CRC, RP 2.2-01: Regulatory mapping for future fuels Final Report, June 2020 p48

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>ATCO supports the policy intent to enable all elements of the national gas regulatory framework to apply to NG equivalents. Natural gas pipelines are on a decarbonisation journey and these reforms are an important enabler of this transition. From a consumer perspective, biogas or low level natural gas-hydrogen blends are suitable for consumption by consumers in existing appliances and are no different from natural gas from the end user perspective.</p> <p>In Western Australia, apart from the economic regulation framework, most of the other elements of the national gas regulatory framework do not apply. ATCO understands that the WA Government will work to adopt the reforms and we look forward to working closely with the WA Government on these changes. It is important that any necessary reforms to the WA Gas Retail Market and consumer protection framework in Western Australia follow the national implementation as soon as practicable to provide investment certainty for projects in this transition.</p> <p>ATCO would like additional clarity on what is covered by the “related facilities and activities” aspect of the NG equivalents definition. Clarification is needed on whether it includes or excludes:</p> <ul style="list-style-type: none"> ▪ Production facilities, whether they be centralised or decentralised ▪ Blending facilities ▪ Refuelling infrastructure connected to a pipeline <p>Economic regulation aspects of the framework should only apply to NG equivalents in areas where it can be demonstrated that a monopoly exists and that the benefits of regulation outweigh the costs.</p> <p>The framework should continue to operate for NG equivalents as it does for natural gas, and include certain related facilities and activities for NG equivalents which directly contribute to the delivery of NG equivalents to multiple customers. This includes:</p> <ul style="list-style-type: none"> ▪ facilities for blending biogas or hydrogen with natural gas to create the NG equivalent when this facility is connected to the pipeline ▪ injection infrastructure. <p>Similar to natural gas, production facilities of the constituent gases (ie biogas and hydrogen) should not be covered by the framework or subject to economic regulation.</p> <p>Transition provisions will be necessary to enable investment that occurred prior to the introduction of these changes to be incorporated into the economic regulation framework. Transitional provisions modelled on the speculative investment provisions</p>
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No.	Questions	Feedback
		<p>in the NGR subject to the regulator satisfying itself that the investment is prudent and efficient in the usual way.</p>
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>ATCO does not support the approach for local regulation to confirm the ability for a gas or blend to be supplied through a pipeline, as it continues to create uncertainty for investment decisions in networks which are occurring now.</p> <p>ATCO would prefer to see an approach that allows national acceptance of NG equivalents at a base level and allows jurisdictions to opt out. This will limit divergence over time between jurisdictions and provide base level national consistency for appliance manufacturing.</p> <p>In WA, the gas distribution network already has local regulation coverage, through the Gas Standards (Gas Supply and System Safety) Regulations 2000. Additionally, there is a current proposal to amend the Regulations to specifically include reference to the acceptability of hydrogen blended natural gas providing it complies with both AS/NZS 4645 and AS 4564. There appears to be little need for another instrument to authorise supply.</p> <p>The Future Fuels CRC regulatory mapping for future fuels, commented for WA that:</p> <p><i>“The key sets of legislation covering distribution and downstream installations would apply to hydrogen and biogas due to their inclusion in the definition of gas, with the exception that the subordinate Gas Standards legislation is applicable to natural gas, the definition of which would preclude blends of 50% hydrogen or above. Despite the legislation being applicable to blends of less than 50% hydrogen, in reality the application of the prescribed Australian standards would further limit the amount of hydrogen able to be blended under this legislation”</i></p> <p>Instead, ATCO prefers the ‘opt-out’ approach that is proposed only as a transitional measure for existing natural gas distribution pipelines that are already supplying a low level blend. Adopting an ‘opt-out’ approach for all distribution pipelines will avoid the need for additional legislation to enable the application of the NGL/NGR framework to NG equivalent. It appears unnecessary to create another local regulation of this nature for a gas or gas blend when determining the suitability of gas already falls within the responsibility of jurisdictions.</p>

No.	Questions	Feedback
4	Who is likely to operate the blending facilities involved in the creation of NG equivalent blends?	<p>For distribution pipelines, blending facilities are likely to be operated by the network service provider. This is because the distribution network service provider has an obligation to ensure that the blended gas meets the relevant gas standards and blend levels.</p> <p>Therefore, facilities for blending biogas or hydrogen with natural gas to create the NG equivalents should be captured by the economic regulation framework when connected to the distribution pipeline network. In this regard, blending facilities will be similar to gate stations in the current framework.</p> <p>ATCO considers the definition of 'pipeline' in the NGL, in particular part (g), will need to be carefully reviewed to ensure that blending facilities can be captured by the pipeline definition.</p>
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>ATCO agrees that blending facilities should be captured by the economic regulation framework when this facility is integral to the supply of NG equivalents and connected to the distribution pipeline. The regulatory treatment of blending facilities needs to support the competitive production and supply of constituent gases. Constituent gases may be delivered by pipelines, but they may also be delivered to blending facilities by truck. Applying the economic regulation framework to blending facilities supports multiple parties supplying constituent gases to the distribution pipeline.</p> <p>Furthermore, adopting the economic regulation framework to blending facilities will ensure that consumers and network service providers have a consistent framework that ensures a fair price for consumers and return for investors.</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?	<p>The framework needs to be flexible enough to be able to accommodate both the centralised production and blending of NG equivalents as well as decentralised (or distributed) production and blending of NG equivalents. This is because as the cost of electrolyzers decrease, the production of hydrogen may not need to be dependent on the location of renewable energy resources. There may be an ability for smaller electrolyzers to be located close to consumer demands, which may affect the future supply chain of the NG equivalents.</p>
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.	Questions	Feedback
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?	<p>Transitional provisions are required for prior investments in facilities that support the transition to accommodate NG equivalents, such as investments in hydrogen.</p> <p>The transitional provision must enable the regulator to consider prior expenditure in a similar manner to the operation of the existing “speculative investment” in the NGL/NGR. This will enable the network service provider to seek the inclusion of prior investments into the Regulated Asset Base but with the oversight of the regulator (subject to the provision of NGR 79).</p>
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?	ATCO supports the conditional application of the regulatory framework to constituent gases and related facilities and activities. This approach will amend the NGL to be ready for the application of the regulatory framework at the appropriate time. The timing of the application should be at jurisdictional discretion under an ‘opt-in’ approach and should closely relate to the timing for OG products to be included in the framework.
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?	ATCO supports the conditional application of economic regulation to the transportation of constituent gases. The timing of the application should be at jurisdictional discretion under an ‘opt-in’ approach and relate closely to the timing for OG products to be included in the framework. Jurisdictions should seek to apply the economic regulation framework to constituent gases where the benefits outweigh the costs and only when market power may be exercised.
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?	<p>Unnecessary prescription in definitions may result in unintended consequences and limit the flexibility in the framework to extending its application over time to new gases.</p> <p>In the proposed approach, the primary difference between constituent gases and other gas products is from consumer use, the gases themselves could be the same. In time, consumer appliances could change to accommodate a greater range of gases. It is unclear from the perspective of pipeline economic regulation why this distinction is needed as it does not impact on the monopoly power of the pipeline under regulation. A definition that addresses both constituent gases and other gas products may provide greater flexibility into the future as pipelines seek to accommodate other gas products primarily.</p>
12	Are there any other approaches that you think would better achieve the objectives of Energy Ministers (see section E.3)?	

No.	Questions	Feedback
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?	ATCO supports the adoption of a renewable energy target for gas to incentivise widespread blending of constituent gases within the gas distribution network. A renewable energy target will help build domestic demand for hydrogen and renewable gases, driving investment in production facilities, the use of hydrogen and renewable gases in pipelines and consequently the development of hydrogen hubs. Our work on the emerging hydrogen market in WA indicates that there is gap between when markets will develop and hydrogen production capacity. Bridging this gap with demand created by the use of NG equivalents with support industry development and gas networks transition to net zero by 2050.
Section 4.2.2: Extension of market bodies' functions and powers		
14	What are your views on the potential approach to extending market body functions and powers set out in section 4.2.3 to: (a) NG equivalents and related facilities and activities? (b) constituent gases and related facilities and activities?	
15	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.	
16	Are there any other changes to market body functions and powers required to accommodate NG equivalents, their constituent gases, or related facilities and activities?	
17	Are there any other approaches that you think would better achieve the objectives of Energy Ministers?	
Section 4.3: Potential approach to extending the NERL		
18	What are your views on the potential approach to extending the application of the NERL to NG equivalents set out in section 4.3?	
19	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?	
20	Are any other changes to the NERL or the market bodies' functions and powers under the NERL required to accommodate NG equivalents?	
21	Are there any other approaches that you think would better achieve the objectives of Energy Ministers (see section E.3)?	

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

No.	Questions	Feedback
Section 5.2 Accommodating other gas products in the national gas regulatory framework over time		
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?	ATCO supports the conditional application of the regulatory framework to OG products under an 'opt-in' approach where each jurisdiction can seek to apply the economic regulation framework where the benefits outweigh the costs and market power may be exercised.
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.	ATCO is unclear on the limitations of the NGL to related facilities and activities associated with the delivery of OG products. The treatment of hydrogen refuelling infrastructure for vehicles could potentially be captured by the NGL if attached to a pipeline in the future. Refuelling facilities should not be captured by the NGL and network service providers should be able to own and operate hydrogen refuelling facilities without the application of ring fencing provisions.
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>ATCO supports the conditional application of economic regulation to OG products under an 'opt-in' approach where each jurisdiction can seek to apply the economic regulation framework to OG products and constituent gases where the benefits outweigh the costs of regulation and market power may be exercised.</p> <p>From a distribution pipeline perspective, our long term goal would be transport OG products and constituent gases in the future to meet net zero by 2050. However, consideration needs to be given to the impact of competition from other energy sources such as renewable electricity and storage to meet energy demands as the pipeline may be subject to increasing competition and no longer be a monopoly.</p>
25	Are any other changes to the NGL required to accommodate OG products?	
26	Are there any other approaches that you think would better achieve the objectives of Energy Ministers (see section E.3)?	
27	What are your views on the potential approach to allowing the NERL to accommodate OG products, as described in section 5.2?	
28	What are your views on the second potential approach to allowing the NERL to accommodate OG products, as described in section 5.2?	
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.	
30	Are any other changes to the NERL required to accommodate OG products?	
31	Are there any other approaches that you think would better achieve the objectives of Energy Ministers (see section E.3)?	