

# **Extending the national gas regulatory framework to hydrogen blends & renewable gases**

## **Changes to the NGL, NERL and Regulations**

### **Consultation Paper**

21 October 2021

# Contents

<b>Abbreviations</b>	<b>ii</b>
<b>Executive Summary</b>	<b>iii</b>
<b>1. Introduction</b>	<b>1</b>
1.1 Background	1
1.2 Consultation process	1
1.3 Next steps for the reform process	2
1.4 Structure of Consultation Paper	3
<b>2. Scope of national gas regulatory framework</b>	<b>5</b>
2.1 How the national framework fits in the broader framework	5
2.2 Current scope of the national gas regulatory framework	6
2.3 Limits on the scope of the national gas regulatory framework	10
<b>3. Context for extending the application of the NGL and NERL</b>	<b>12</b>
3.1 Are hydrogen blends and renewable gases already covered by the national gas regulatory framework?	12
3.2 Why treat NG equivalents and OG products differently?	14
<b>4. Extending the NGL and NERL to natural gas equivalents</b>	<b>16</b>
4.1 Potential approach to extending the regulatory framework	16
4.2 Potential approach to extending the NGL	16
4.3 Potential approach to extending the NERL	27
<b>5. Accommodating other gas products in the national gas regulatory framework over time</b>	<b>30</b>
5.1 Potential approach to accommodating other gas products in the NGL	30
5.2 Potential approaches to accommodating other gas products in NERL	33
<b>Appendix A Summary of potential approach to extending the national gas regulatory framework</b>	<b>36</b>

## Abbreviations

Term	Definition
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
Bulletin Board or BB	Natural Gas Services Bulletin Board
CTP	Capacity trading platform
constituent gas	Gases (other than natural gas) that are not themselves authorised for supply to end users but are used to create an NG equivalent or other blend subject to the NGL
DAA	Day-ahead auction of contracted but un-nominated transportation capacity
DWGM	Declared Wholesale Gas Market
ERA	Economic Regulation Authority (Western Australia)
facilitated markets	Used to jointly refer to the STTM, DWGM, DAA and GSH.
gas blends	Blends of natural gas with hydrogen, biomethane and other renewable gases.
Gas Supply Hub (GSH)	The gas trading exchange operated by AEMO, which provides for the trade of gas and secondary pipeline and compression capacity (through the CTP).
GSOO	Gas statement of opportunities
NG equivalent, natural gas equivalent	A gas (such as biogas) or blend of gases (such as a low level natural gas-hydrogen blend) supplied to consumers by pipeline and that is suitable for use as natural gas – that is, it is safe for use in natural gas appliances
national gas regulatory framework	Used to jointly refer to the NGL, NGR, NERL, NERR and subordinate instruments made under the NGL/NGR and NERL/NERR.
NECF	National Energy Customer Framework, comprising (in relation to gas) arrangements in the NERL, NERR, NGL and NGR as modified by jurisdictional laws.
NERL	National Energy Retail Law
NERR	National Energy Retail Rules
NGL	National Gas Law
NGO	National Gas Objective
NGR or Rules	National Gas Rules
National Energy Retail Regulations	Regulations made under the National Energy Retail Law
National Gas Regulations	Regulations made under the National Gas Law
OG products, other gas products	Gas or gas blends supplied to consumers by pipeline other than natural gas or natural gas equivalents
Pipeline Decision RIS	Options to improve gas pipeline regulation – Decision Regulation Impact Statement, 2021
regulated retail markets	The NGL, NGR and RMP provide for the regulation of natural gas retail markets in NSW/ACT, South Australia, Victoria and Queensland.
Regulations	Used to jointly refer to the National Gas Regulations and National Energy Retail Regulations
RMP	Retail Market Procedures
STTM	Short Term Trading Market
Strategy	National Hydrogen Strategy
transparency amendments	The package of changes to the NGL and NGR agreed by Energy Ministers to promote gas market transparency. The <i>National Gas (South Australia) (Market Transparency) Amendment Bill 2021</i> to implement the NGL changes and allow the SA Minister to make the NGR changes is currently before the SA Parliament.
VGPR	Victorian Gas Planning Report

## Executive Summary

In December 2018, Energy Ministers agreed to work together to develop and implement a National Hydrogen Strategy (**Hydrogen Strategy**), build hydrogen export markets and deliver domestic hydrogen projects.<sup>1</sup> In 2019, the Hydrogen Working Group, led by Dr Alan Finkel AO, developed the Hydrogen Strategy,<sup>2</sup> which was endorsed by Energy Ministers on 22 November 2019.<sup>3</sup>

The Hydrogen Strategy sets out several government actions to support the development of a hydrogen industry, including the use of clean hydrogen in gas distribution networks. Clean hydrogen is hydrogen produced using renewable energy or using fossil fuels with substantial carbon capture and storage (CCS). The Hydrogen Strategy noted, however, that before widespread blending in distribution networks could occur, a review of a range of technical, economic, regulatory and legal matters was required,<sup>4</sup> including on the application of the natural gas regulatory framework to hydrogen blends (see Action 3.12 in Box E.2). The advice emerging from the review of the national gas regulatory framework was provided to Energy Ministers in mid-2021.

On 20 August 2021, Energy Ministers agreed that the national gas regulatory framework (see Box E.1) should be amended to bring biomethane, hydrogen blends and other renewable methane gas blends within its scope. Energy Ministers also agreed that the amendments should initially focus on low level blends and renewable gases that are suitable for consumption in existing appliances and be **expedited** to ensure that:

- regulatory barriers do not restrict proposed investments in projects involving the supply of these products or the facilities and activities involved in their supply; and
- existing regulatory arrangements and protections continue to work as intended where these products are supplied.

Further detail on what will be involved in extending the scope of the national framework is provided below, along with an overview of Energy Ministers' objectives, a possible approach to extending the NGL and NERL, stakeholder consultation and next steps.

For ease of reference in the discussion that follows, we use the terms:

- 'natural gas equivalents' (or '**NG equivalents**') to refer to low level blends and renewable gases that are suitable for consumption in existing natural gas appliances; and
- 'other gas products' (or '**OG products**') to refer to other gases and blends that are not suitable for consumption in existing natural gas appliances.

### E.1 What will be involved in extending the scope of the national gas framework and who is responsible for doing so?

To accommodate hydrogen blends and renewable gases in the national gas regulatory framework, changes will need to be made to:

---

<sup>1</sup> COAG Energy Council, Joint Ministerial Statement: Hydrogen, 19 December 2018.

<sup>2</sup> COAG Energy Council, Australia's National Hydrogen Strategy, November 2019.

<sup>3</sup> COAG Energy Council, Meeting Communique, 22 November 2019.

<sup>4</sup> COAG Energy Council, Australia's National Hydrogen Strategy, November 2019, p. 42.

- the National Gas Law (**NGL**), the regulations made for the purposes of the NGL (**National Gas Regulations**), the National Gas Rules (**NGR**), **Procedures** and **other subordinate instruments** made under the NGL and/or NGR;<sup>5</sup> and
- the National Energy Retail Law (**NERL**), the regulations made for the purposes of the NERL (**National Energy Retail Regulations**), and the National Energy Retail Rules (**NERR**), which apply to gas in the Australian Capital Territory (**ACT**), New South Wales (**NSW**), Queensland (**Qld**) and South Australia (**SA**).<sup>6</sup>

Box E.1 provides an overview of the key elements of the national gas regulatory framework. Further detail on these elements of the framework can be found in **Chapter 2**.

### Box E.1: Key elements of the national gas regulatory framework

The national gas regulatory framework provides for the following:

- the **economic regulation** of natural gas transmission and distribution pipelines;
- **market transparency mechanisms**, such as the Natural Gas Services Bulletin Board (**Bulletin Board**), Gas Statement of Opportunities (**GSOO**) and Victorian Gas Planning Report (**VGPR**);
- the operation of a number of **facilitated markets**, including the Short Term Trading Market (**STTM**), the Victorian Declared Wholesale Gas Market (**DWGM**), the Day-Ahead Auction of contracted but un-nominated transportation capacity (**DAA**) and the gas trading exchange (Gas Supply Hub or **GSH**), which includes the capacity trading platform (**CTP**);
- arrangements to support the operation of **retail natural gas markets** in NSW, the ACT, Qld, SA and Victoria; and
- the **sale and supply of natural gas to retail gas customers** under the National Energy Customer Framework (**NECF**) in jurisdictions that have adopted the NERL for gas.

The national gas regulatory framework is currently being amended to include a framework within which participants can test innovative business models, products and services in the market under relaxed regulatory requirements on a time-limited basis (known as **regulatory sandboxing**). It will also be amended to implement a number of changes to the market transparency mechanisms and economic regulatory framework that have recently been agreed to by Energy Ministers.<sup>7</sup>

Under the approach agreed to by Energy Ministers:

- Jurisdictional **Officials** are responsible for identifying and developing the required amendments to the **NGL**, **NERL** and **Regulations** (i.e. the National Gas Regulations and National Energy Retail Regulations).
- The Australian Energy Market Commission (**AEMC**) is responsible for identifying and developing the amendments to the **NGR** and **NERR** required to accommodate NG equivalents.
- The Australian Energy Market Operator (**AEMO**) is responsible for identifying and developing the amendments to the **Procedures** and other **AEMO-made instruments** required to ensure settlement and metering in the **facilitated** and **regulated retail gas markets** can accommodate NG equivalents.

<sup>5</sup> The NGL applies in the ACT, NSW, the NT, Queensland, SA, Tasmania and Victoria. A modified version of the NGL applies in WA, with WA only adopting the economic regulation of pipeline provisions. The WA Bulletin Board and GSOO are established under Gas Services Information Rules made under the *Gas Services Information Act 2012 (WA)* and *Gas Services Information Regulations 2012 (WA)*, while the regulated retail markets is established under the *Energy Coordination Act 1994 (WA)*.

<sup>6</sup> The customer protection framework as it relates to natural gas is set out in local legislation in Tasmania, Victoria and WA. In the NT, the gas reticulation and retail sale sectors are very small and there is no specific regulation of the retail sale and supply of natural gas in the NT.

<sup>7</sup> See [Measures to Improve Transparency in the Gas Market - Decision](#), [Market Transparency Bill](#) and [Energy Senior Officials release gas pipeline draft legal package for consultation](#)

Further detail on the reform process can be found in the Information Sheet that has been published on the Energy Ministers' website.<sup>8</sup>

In addition to amending the national gas regulatory framework, amendments may need to be made to jurisdictional legislation, regulations and other instruments to accommodate NG equivalents and OG products. Any changes required at a jurisdictional level will **not** be considered as part of the work on the national gas regulatory framework. Rather, each jurisdiction will be responsible for amending their local legislation and regulations and related instruments.

## **E.2 What is the purpose of this Consultation Paper?**

The purpose of this Consultation Paper is to obtain stakeholder 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.

To aid consultation, this Consultation Paper sets out a potential approach to extending the NGL, NERL and Regulations to accommodate both NG equivalents and OG products. It is important to note that this is only one approach that could be employed and that Officials are open to receiving feedback on other approaches.

The feedback received in response to this Consultation Paper will be used to inform the preparation of a draft Bill and Variation Regulations, which will be the subject of a second consultation process, to occur in March 2022.

The AEMC and AEMO have prepared separate consultation papers on the amendments that may be required to the NGR, NERR, Procedures and other subordinate instruments to accommodate NG equivalents. This Consultation Paper should therefore be read in conjunction with the AEMC and AEMO's consultation papers.<sup>9</sup>

## **E.3 What are the objectives of Energy Ministers?**

The objectives of Energy Ministers are to ensure that:

- regulatory barriers do not restrict proposed investments in projects involving the supply of NG equivalents or the facilities and activities involved in its supply; and
- existing regulatory arrangements and protections continue to work as intended where NG equivalents are supplied.

Where Energy Ministers are satisfied that there will be no unintended consequences and reforms can be progressed in line with the timeframes specified in Table 1.1, the NGL and NERL will be 'future proof'<sup>10</sup> to provide for OG products to be accommodated by the national gas regulatory framework over time.

---

<sup>8</sup> [Extending the national gas regulatory framework to hydrogen blends and renewable gases](#)

<sup>9</sup> See [Review into extending the regulatory frameworks to hydrogen and renewable gases](#) and [Current and closed consultations](#)

<sup>10</sup> The term 'future proof' is used loosely here because additional changes may need to be made to the NGL and NERL in the future as the markets for these products evolve.

Consistent with the usual approach when changes to the national gas regulatory framework are proposed, any decision by Energy Ministers to amend the law will be guided by both the National Gas Objective (**NGO**) and the National Energy Retail Objective (**NERO**) (see **Box E.2**). It will also be guided by:

- the Energy Ministers' vision for the Australian gas market and for hydrogen, and the relevant actions agreed to by Energy Ministers in the Hydrogen Strategy (see **Box E.2**); and
- the policy objectives of existing elements of the national gas regulatory framework and the following principles:
  - investment decisions and risks should sit with those best placed to manage them;
  - competition and market signals will generally lead to better outcomes than regulation, but if regulation is required, it should be targeted, fit for purpose and proportionate to the issues it is intended to address; and
  - market and regulatory frameworks should:
    - i. be as simple and well-integrated as possible;
    - ii. promote clarity and consistency by providing clear objectives, rules and guidance for regulators and other decision-makers and support effective compliance monitoring and enforcement;
    - iii. minimise administrative burdens and compliance costs; and
    - iv. be flexible enough to adjust to changing market conditions.

## Box E.2: Objectives of NGL and NERL and the gas market and hydrogen visions

### National Gas and National Energy Retail Objectives

The NGL is set out in section 23 of the NGL and states the following:

*The objective of this law is to promote efficient investment in, and efficient operation and use of, natural gas services for the long term interests of consumers of natural gas with respect to price, quality, safety, reliability and security of supply of natural gas.*

The NERL is set out in section 13 of the NERL and states the following:

*The objective of this law is to promote efficient investment in, and efficient operation and use of, energy services for the long term interests of consumers of energy with respect to price, quality, safety, reliability and security of supply of energy.*

### Australian Gas Market and Hydrogen visions

The Energy Ministers' vision for the Australian gas market is for:<sup>11</sup>

*"...the establishment of a liquid wholesale gas market that provides market signals for investment and supply, where responses to those signals are facilitated by a supportive investment and regulatory environment, where trade is focused at a point that best serves the needs of participants, where an efficient reference price is established, and producers, consumers and trading markets are connected to infrastructure that enables participants the opportunity to readily trade between locations and arbitrage trading opportunities."*

The Energy Ministers' vision for hydrogen is:<sup>12</sup>

*"...to make Australia a major player in a global hydrogen industry by 2030."*

### Hydrogen Strategy actions relating to the use of hydrogen in gas pipelines

As part of the Hydrogen Strategy, Energy Ministers agreed to the following actions:

- **Action 3.11:** Support continuing pilots, trials and demonstrations of hydrogen in gas distribution networks, where distributors can satisfy regulators: the distribution network is comprised of materials confirmed to be safe and suitable for hydrogen blending; the service provider has adequate safety and training procedures in place; end user infrastructure (including installations and appliances) is safe and suitable for blending; and the effects of blending for users of natural gas as chemical feedstock or compressed natural gas have been considered and mitigated.
- **Action 3.12:** Complete a review that: (a) considers the application of the NGL and relevant jurisdictional laws and regulations to hydrogen; (b) considers the economics of blending and of eventual use of 100% hydrogen in gas networks; and (c) recommends options for setting and allowing updates of upper limits on the volume of hydrogen allowed to be blended in gas networks, with a focus on keeping consumers safe, encouraging innovation and effectively managing any appliance readiness, end-user and market related issues.
- **Action 3.13:** Agree to consider changes to gas networks and markets to allow widespread blending, and later sole use of hydrogen... where they: carry acceptably low levels of safety risk; are broadly supported by affected communities; and minimise impacts on prices and are in the long-term interests of gas consumers.
- **Action 3.14:** Agree that, amongst other objectives, any government incentives to support the widespread blending of hydrogen in gas distribution networks will: (a) where appropriate, encourage blending to occur in a manner that supports the development of hydrogen hubs; and (b) be consistent with the COAG Principles of Best Practice Regulation, in particular with respects to net benefits to consumers.
- **Action 3.15:** Agree to not support hydrogen blending in existing gas transmission pipelines until further evidence emerges that hydrogen embrittlement issues can be safely addressed.<sup>13</sup>

<sup>11</sup> Energy Ministers, Australian Gas Market Vision, December 2014.

<sup>12</sup> Energy Ministers, Joint Ministerial Statement: Hydrogen, 19 December 2018.

<sup>13</sup> While the changes proposed in this Consultation Paper would allow the national gas regulatory framework to extend to existing transmission pipelines that carry NG equivalents or OG products, it is important to recognise that the framework itself does not allow or disallow certain products from being transported on pipelines. This is instead the role of jurisdictional pipeline licences. Existing transmission pipelines would therefore only be able to transport these products if jurisdictions are satisfied that the hydrogen embrittlement issues can be safely addressed and pipeline licences are amended to reflect this.

## E.4 How could the NGL and NERL be extended to NG equivalents?

There is at present some ambiguity surrounding whether the definition of natural gas in the NGL extends to NG equivalents, their constituent gases and related facilities and activities. To remove this ambiguity, the national gas regulatory framework will need to be amended.

Chapter 4 sets out one potential approach to addressing this ambiguity and making the other amendments that would be required to extend the application of the national gas regulatory framework to NG equivalents. This approach would involve:

1. Extending the provisions in the NGL and NERL that currently apply to natural gas and its related facilities and activities<sup>14</sup> to **NG equivalents** and **related facilities and activities**. The policy intention is that all elements of the national gas regulatory framework would apply to NG equivalents and their related facilities and activities in the same way that they do to natural gas and its related facilities and activities.
2. Extending the NGL<sup>15</sup> to **constituent gases** (i.e. the principal gases used in the creation of a blend other than natural gas)<sup>16</sup> and **related facilities and activities**.<sup>17</sup> The policy intention is that pipelines involved in the haulage of constituent gases would be subject to economic regulation under the NGL/NGR and that other elements of the national gas regulatory framework would only apply if the NGR and other instruments are amended.<sup>18</sup>
3. Extending the market bodies' functions and powers:
  - a. in the NGL and NERL to NG equivalents and related facilities and activities; and
  - b. in the NGL to constituent gases and related facilities and activities.

Stakeholder views are being sought on this potential approach and any other approaches that could be employed that would better achieve Energy Ministers' objectives.

Under this approach, any amendments made to the NGL and NERL would be expected to be made in a way that, where relevant, flows through to the NGR, NERR, Regulations, Procedures and other subordinate instruments made under the NGL/NGR and NERL/NERR. Some changes may, however, still need to be made to the Rules, Procedures and other subordinate instruments.<sup>19</sup> These changes are being separately consulted upon by the AEMC and AEMO.

Further detail on this potential approach is set out in **Chapter 4**, while **Chapter 3** provides further context for this approach.

---

<sup>14</sup> The expression 'related facilities and activities' is used in this Consultation Paper to cover facilities and activities from exploration and production through to retail supply. For example, the national gas regulatory framework extends to the provision of services by means of natural gas facilities, the retailing of gas and trading in gas and related products. Changes to the national gas regulatory framework for the gas transparency measures will extend the framework, for the purposes of the Bulletin Board and the GSOO, to upstream exploration and production and LNG export and import activities.

<sup>15</sup> The NERL does not need to be extended to constituent gases because it focuses on the gas that is consumed, which in this case is the NG equivalents.

<sup>16</sup> For example, if the NG equivalent is a hydrogen-natural gas blend, then the constituent gas is hydrogen.

<sup>17</sup> For example, if a gas distribution network is supplying a low level hydrogen-natural gas blend, then the regulatory framework will need to extend to the hydrogen production, storage, transportation and blending facilities involved in the creation of the blend and services provided by means of those facilities.

<sup>18</sup> For example, to extend the application of the Bulletin Board, the NGR would need to be amended to set out the additional content to be included in the GSOO relating to constituent gases.

<sup>19</sup> For example, to extend the application of the Bulletin Board, the NGR may be amended to set out the reporting obligations of facilities (such as blending facilities) involved in the supply of NG equivalents. To extend the STTM and regulated retail markets, the registration provisions in the NGR will need to be amended to include the new facilities and extend the obligations to the facilities involved in the supply of NG equivalents.

## E.5 How could the regulatory framework accommodate OG products over time?

To allow the legislative framework to extend to OG products in the future, changes to the NGL and NERL will also be required.

Chapter 5 sets out one potential approach to accommodating OG products in the NGL and, where relevant, the NERL. This approach would involve:

- Allowing jurisdictions to make local regulations to extend the national gas regulatory framework to OG products.
- Recognising OG products, their constituent gases and related facilities and activities.
- Enabling market bodies to exercise their functions and powers with respect to the OG products and their constituent gases and related facilities and activities, once a jurisdiction authorises its supply, and in anticipation of that authorisation.
- Providing sufficient flexibility for different parts of the regulatory framework to be applied to:
  - OG products, their constituent gases and related facilities and activities; and
  - different pipelines (or parts of pipelines) depending on the product they are supplying.

This approach would allow the Rules and Procedures to be amended over time to accommodate OG products when the prospect of their supply becomes more likely and when jurisdictions authorise their supply and decide to bring supply of the OG product within the scope of the national gas regulatory framework.

Stakeholder views are being sought on this potential approach and any other approaches that could be employed that would better achieve Energy Ministers' objectives.

Further detail on this potential approach is provided in **Chapter 5**, while **Chapter 3** provides further context for this approach.

## E.6 Summary of potential approach

The following table, which assumes familiarity with the national gas regulatory framework (see **Box E.1** and **Chapter 2**), is intended to illustrate, at a high level, the outcome of the potential approach outlined above. A more detailed table is set out in **Appendix A**.

**Table E.1: Extension of NGL and NERL to NG equivalents, constituent gases**

NG equivalents	OG products	Constituent gases
<b>What is the product?</b>		
Low level blends and other renewable gases that are suitable for consumption as natural gas in existing appliances and are supplied directly to end users.	Blends and other gases that are not natural gas or natural gas equivalents and are supplied directly to end users.	Gases, other than natural gas, that are used to create a gas blend that is an NG equivalent and are not supplied directly to end users.
<b>Economic regulation (NGL/NGR)</b>		
A pipeline carrying an NG equivalent would be a 'pipeline' and so within the scope of economic regulation under the NGL. A decision about the form of regulation or any exemptions would be made under the NGL/NGR in the usual way. The ring fencing provisions in the NGL would be extended to the facilities and activities involved in the production, purchase or sale of NG equivalents.	Once a jurisdiction has made a local regulation to bring the supply with scope of the NGL, a pipeline carrying an OG product would be a 'pipeline' and so within the scope of economic regulation under the NGL. A decision about the form of regulation or any exemptions would be made under the NGL/NGR in the usual way. The ring fencing provisions in the NGL would be extended to the facilities and activities involved in the production, purchase or sale of OG products.	Once an NG equivalent or OG product is brought within scope of the NGL, a pipeline carrying a constituent gas would be a 'pipeline' and so within the scope of economic regulation under the NGL. A decision about the form of regulation or any exemptions would be made under the NGL/NGR in the usual way. The ring fencing provisions in the NGL would be extended to the facilities and activities involved in the production, purchase or sale of constituent gases.
<b>Market transparency mechanisms (NGL/NGR)</b>		
The Bulletin Board, GSOO, VGPR, storage and compression price reporting and AER gas price reporting function would extend to facilities and activities relating to NG equivalents in the same way they do to natural gas.	The AEMC would be given power to make rules to extend the Bulletin Board, GSOO, VGPR, storage and compression price reporting and the AER gas price reporting function to information relating to OG products and related facilities and activities.	The AEMC would be given power to make rules to extend the Bulletin Board, GSOO, VGPR, storage and compression price reporting and the AER gas price reporting function to information relating to constituent gases and related facilities and activities.
<b>Facilitated gas markets (NGL/NGR)</b>		
The DWGM and STTM would each become a wholesale market for natural gas and/or NG equivalents, with corresponding registration obligations. The GSH would become a facility through which persons may elect to buy and sell natural gas and/or NG equivalents etc. For the DAA, transmission pipelines and stand-alone compression facilities would be within scope of the DAA.	The AEMC could make rules (including for registration) in relation to OG products and their related facilities and activities, for the purposes of regulating a DWGM or STTM and to extend AEMO's DWGM functions as required. For the GSH, the Exchange Agreement could be amended to list products relating to OG products, if there is demand. For the DAA, transmission pipelines and stand-alone compression facilities transporting OG products would be within scope, but NGR changes would also be required.	The AEMC could make rules (including rules requiring registration) in relation to constituent gases and their related facilities and activities, for the purposes of regulating a DWGM or STTM and to extend AEMO's DWGM functions as required. For the GSH, the Exchange Agreement could be amended to list products relating to constituent gases, if there is demand. For the DAA, transmission pipelines and stand-alone compression facilities transporting constituent gases would be within scope, but NGR changes would also be required.
<b>Regulated retail gas markets (NGL/NGR)</b>		
A retail market for natural gas and/or NG equivalents in each participating jurisdiction would remain a retail gas market within the meaning of the NGL. The permitted registrable capacities in the NGL would be modified to accommodate activities specific to NG equivalents.	The AEMC would be given power to make rules to require registration under the RMP for activities relating to OG products. AEMO could deal with OG products in the Procedures if needed.	The AEMC would be given power to make rules to require registration under the RMP for activities relating to constituent gases. AEMO could deal with constituent gases in the Procedures if needed.
<b>Regulatory sandboxing (NGL/NGR and NERL/NERR)</b>		
Regulatory sandboxing would be available for NG equivalents.	Trial waivers and trial rules could extend to OG products where required.	Trial waivers and trial rules could extend to constituent gases where required.
<b>Consumer protections under NERL/NERR</b>		
The NERL would apply to the sale and supply of NG equivalents as they do to natural gas.	The NERL would apply to the sale and supply of OG products as they do to natural gas, but only if the OG product is subject to regulation under the NGL.	The NERL is not relevant to constituent gases.

# 1. Introduction

## 1.1 Background

On 20 August 2021, Energy Ministers agreed that the NGL, NERL and subordinate instruments made under the NGL and NERL (i.e. the NGR, NERR, Regulations, Procedures and other subordinate instruments) should be amended to bring biomethane, hydrogen blends and other renewable gases and blends within its scope.

Energy Ministers also agreed the amendments should initially focus on low level blends and other renewable gases that are suitable for consumption in existing natural gas appliances (**NG equivalents**) and be expedited to ensure that:

- regulatory barriers do not restrict proposed investments in projects involving the supply of NG equivalents or the facilities and activities involved in its supply; and
- existing regulatory arrangements and protections continue to work as intended where NG equivalents are supplied.

The purpose of this Consultation Paper, which has been prepared by Officials, is to obtain stakeholder feedback on how the NGL, NERL and 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 and the timeframes in Table 1.1 can be met, provide for OG products to be accommodated by the national gas regulatory framework over time.

To aid consultation, this Consultation Paper sets out a potential approach to extending the application of the NGL, NERL and, where relevant, the Regulations. It is important to note that this is only one approach that could be employed and that Officials are open to receiving feedback on other approaches.

This paper should be read in conjunction with the consultation papers prepared by:

- the AEMC, which focuses on the amendments that will need to be made to the NGR and NERR to accommodate NG equivalents; and
- AEMO, which focuses on the amendments that will need to be made to Procedures and other AEMO-made instruments to ensure that settlement and metering in the facilitated and regulated retail gas markets can accommodate NG equivalents.

## 1.2 Consultation process

Stakeholder feedback is sought on the approach to be used to extend the application of the NGL and NERL to NG equivalents and constituent gases and, over time, to OG products and on whether there are any other gaps that need to be addressed in the NGL and NERL. The legal drafting required to extend these instruments will be the subject of a second consultation process, which is to be conducted in March 2022.

### 1.2.1 Written submissions

To assist stakeholders respond to this Consultation Paper, a response template has been prepared (**Attachment A**). Stakeholders are strongly encouraged to use this template.

The closing date for submissions is **5 pm (AEST) on 26 November 2021**.

Submissions should be sent via email to **renewablegas@industry.gov.au**. Submissions should include the subject: "Hydrogen blends and renewable gases reforms". Submissions will be published on the Energy Ministers' website, as will names of stakeholders who made submissions. If you would prefer your submission, or a particular part, to remain confidential, please advise in the covering email what is to be treated as confidential and why.

### 1.2.2 Stakeholder forum

In addition to providing a written submission, stakeholders will have an opportunity to attend a virtual stakeholder forum on **22 October 2021**. This forum will be jointly hosted by Officials, the AEMC and AEMO, with representatives from these work streams providing an overview of their respective consultation papers. If you are interested in attending this forum, please register your interest by sending an email to **renewablegas@industry.gov.au**

Other topic-specific workshops will also be conducted by the various work streams. Please see the Energy Ministers' website<sup>20</sup> for further detail and to register your interest in attending.

## 1.3 Next steps for the reform process

The feedback received in response to this Consultation Paper will inform the drafting of the proposed amendments to the NGL, NERL and Regulations. A draft Bill and draft Variation Regulations will be released for comment in late March 2022, when further consultation will occur.

Once consultation is complete, Officials will provide their final recommendations, a draft Bill and draft Variation Regulations to Energy Ministers. If Energy Ministers approve the changes, the draft Bill will be progressed through the SA Parliament.

As an applied law regime, amendments made to the NGL and NERL in SA will flow through to all jurisdictions that apply these laws as laws of that jurisdiction. In the case of the:

- NGL, the amendments will flow through to all jurisdictions except Western Australia (WA), which has its own versions of the NGL, NGR and Regulations; and
- NERL, the amendments will flow through to jurisdictions that have adopted the NERL.

Following proclamation of the changes to the NGL and NERL, the SA Governor will make the required changes to the Regulations made under the NGL and NERL.

The AEMC and AEMO reviews are expected to be completed in the second half of 2022. Once the AEMC's review is complete, it will provide the proposed amendments to the NGR and NERR (referred to as **initial Rules**) to Energy Ministers for approval. If approved, the SA Minister will make the initial Rules, following proclamation of the changes to the NGL and NERL. AEMO will then amend its Procedures and any other AEMO-made subordinate instruments.

---

<sup>20</sup> [Energy Ministers homepage](#)

Subject to the completion of the SA parliamentary process, the aim is for amendments to the national gas regulatory framework to take effect from 2023. The WA Government will progress similar amendments to their regulatory framework.

The table below provides further detail on the next steps for these. The steps of particular relevance to the Officials' work are in bold text.

**Table 1.1: Indicative time frames for next steps**

Indicative dates	Detail
Oct – Dec 2021	<ul style="list-style-type: none"> <li>▪ <b>Forum on consultation papers (22 Oct 2021).</b></li> <li>▪ <b>Workshops &amp; bilateral meetings (Nov-Dec 2021).</b></li> <li>▪ <b>Submissions close (29 Nov 2021).</b></li> </ul>
Late March 2022	<ul style="list-style-type: none"> <li>▪ <b>Officials release draft amendments to NGL, NERL and Regulations for consultation.</b></li> <li>▪ AEMC releases draft recommendations and draft initial Rules for consultation.</li> <li>▪ AEMO releases draft recommendations on changes to Procedures and other subordinate instruments for consultation.</li> </ul>
Apr-May 2022	<b>Stakeholder engagement on Officials, AEMC and AEMO's consultation processes.</b>
Mid 2022	<ul style="list-style-type: none"> <li>▪ <b>Officials provide final recommendations to Energy Ministers on proposed amendments to NGL, NERL and Regulations for approval.</b></li> <li>▪ <b>Changes to NGL and NERL progressed through South Australian Parliament.</b></li> </ul>
Sep 2022	<ul style="list-style-type: none"> <li>▪ AEMC publishes final recommendations and releases proposed initial Rules for consultation.</li> <li>▪ AEMO publishes final recommendations and releases draft amendments to Procedures and other subordinate instruments for consultation.</li> </ul>
Sep – Oct 2022	Stakeholder engagement on AEMC's proposed amendments to initial Rules, and AEMO's proposed amendments to the Procedures and other subordinate instruments.
Nov 2022	AEMC provides Officials and Energy Ministers with proposed initial Rules for approval.
Late 2022- 2023	Once proclamation of the changes to the NGL and NERL occurs: <ul style="list-style-type: none"> <li>▪ <b>SA Governor makes the required changes to the Regulations;</b></li> <li>▪ SA Minister makes the initial Rules; and</li> <li>▪ AEMO makes required changes to Procedures and other subordinate instruments.</li> </ul>
2023	New measures take effect

## 1.4 Structure of Consultation Paper

The remainder of this Consultation Paper is structured as follows:

- **Chapter 2** provides an overview of the current scope of the national gas regulatory framework and how it fits in the broader framework that applies to the natural gas industry.
- **Chapter 3** provides further context for the development of the approach to extending the national gas regulatory framework to NG equivalents and OG products.
- **Chapter 4** sets out a potential approach to extending the NGL and NERL to NG equivalents and sets out a number of specific questions Officials are seeking feedback on.
- **Chapter 5** sets out a potential approach to allowing the legislative framework to accommodate OG products in the future and sets out a number of specific questions Officials are seeking feedback on.

- **Appendix A** summarises how the NGL and NERL could be extended to NG equivalents, OG products, their respective constituent gases, related facilities and activities under the potential approach described in chapters 4 and 5.
- **Attachment 1** contains the response template that stakeholders are encouraged to use when providing feedback.

## 2. Scope of national gas regulatory framework

This chapter provides an overview of:

- how the national gas regulatory framework fits within the broader framework established by Commonwealth, state and territory legislation that applies to the natural gas industry;
- the current scope of the national gas regulatory framework; and
- the limits on the current scope of the national gas regulatory framework.

### 2.1 How the national framework fits in the broader framework

The national regulatory framework for energy was created by agreement between the Commonwealth, states and territories under an intergovernmental agreement: the Australian Energy Market Agreement (**AEMA**).<sup>21</sup>

The AEMA sets out how the governments will develop and implement a coordinated national energy policy under the oversight of the Ministers responsible for energy in each jurisdiction.<sup>22</sup> It also provides for the creation of national laws for the regulation of electricity and natural gas, the establishment of the AEMC and the AER and the allocation of responsibilities between the AEMC, AER and AEMO.

The AEMA also sets out the allocation of legislative responsibility between the national framework and local laws and regulations. As a result of this allocation, the Commonwealth, state and territory legislatures are responsible for regulating significant aspects of the natural gas industry, including:<sup>23</sup>

- the regulation of natural gas exploration and production;
- pipeline licencing (or authorisations), the safety and technical regulation of pipelines and the establishment of service reliability standards for pipelines;
- metering requirements, including policies on the type of meters required for specific customer classes, accredited service provider arrangements, load profile arrangements and heating values to be used for the purposes of metering and markets;
- the safety and technical regulation of gas installations and appliances; and
- customer protections in those jurisdictions that have not adopted the NERL for natural gas.

The national gas regulatory framework, on the other hand, provides for:

- the economic regulation of natural gas pipelines;
- a number of market transparency mechanisms;
- the operation of a number of facilitated and regulated retail natural gas markets; and
- the key consumer protections for natural gas customers under the NECF.

While the focus of the jurisdictional arrangements and the national gas regulatory framework differs, there are some important interactions between the two. For example, jurisdictions are responsible for authorising the type of gas a pipeline (or part of a pipeline) can transport, and if that gas falls within the scope of the national gas regulatory framework, then it will be subject to

---

<sup>21</sup> [Australian Energy Market Agreement](#)

<sup>22</sup> The current forum for the Commonwealth, state and territory energy Ministers to meet and agree on energy policy matters is the Energy Ministers Meeting, with the previous forum being the COAG Energy Council. This forum of energy Ministers is referred to in the national energy laws as the Ministerial Council on Energy (MCE).

<sup>23</sup> While beyond the scope of this reform process, it is worth noting that Australian Standards also play a key role in terms of technical and safety regulation for pipelines, installations and appliances.

regulation under the national gas regulatory framework. If, on the other hand, it does not fall within scope, then the national gas regulatory framework will not apply.

## 2.2 Current scope of the national gas regulatory framework

The national energy laws that regulate natural gas are the NGL and NERL.<sup>24</sup> These two legislative instruments establish key aspects of the governance arrangements for the national gas regulatory framework, including:

- establishing the purpose of the laws, which are set out in the NGL and NERL (see Box E.1);
- providing for the making of a variety of subordinate instruments that regulate the provision of natural gas services, including Regulations, Rules, Procedures, Guidelines and other subordinate instruments (e.g. the GSH Exchange Agreement);
- specifying the functions and powers of the AEMC, AEMO and AER; and
- establishing the framework for monitoring compliance with, and enforcement of, the NGL and NERL by the AER.

The NGL and NERL, together with the NGR, NERR, Regulations, Procedures and other subordinate instruments, also provide for:

- the economic regulation of natural gas pipelines in eastern Australia, the NT and WA;
- a number of market transparency mechanisms in eastern Australia and the NT, including the Bulletin Board, GSOO and VGPR;<sup>25</sup>
- the operation of a number of facilitated natural gas and transportation capacity markets in eastern Australia, including the STTM, DWGM, GSH (which includes the CTP) and DAA;
- the operation of regulated retail natural gas markets in NSW/ACT, Qld, SA and Victoria; and
- the sale and supply of natural gas to retail customers under the NECF in those jurisdictions that have adopted the NERL for gas (i.e. ACT, NSW, SA and Qld).

The national gas regulatory framework will also soon provide a framework within which participants can test innovative business models, products and services in the market under relaxed regulatory requirements on a time-limited basis (known as **regulatory sandboxing**).<sup>26</sup> It will also be amended to implement changes to:

- the market transparency provisions in the NGL and NGR that Energy Ministers have recently agreed to and are now being progressed through the SA Parliament;<sup>27</sup> and
- the gas pipeline economic regulatory framework once consultation on the required changes to the NGL and NGR are complete and the amendments approved by Energy Ministers.<sup>28</sup>

Table 2.1 provides further detail on these elements of the regulatory framework and the amendments that are currently being made to some elements of the framework.

<sup>24</sup> The NGL and NERL are schedules to Acts made by the South Australian parliament as lead legislator for the national energy laws and are applied in each Australian jurisdiction that adopts the national law by application Acts made in each of those jurisdictions. Changes to the NGL and NERL must be agreed by Commonwealth, state and territory energy Ministers before being introduced into the South Australian parliament.

<sup>25</sup> The WA Bulletin Board and GSOO are established under WA's Gas Services Information Rules made under the *Gas Services Information Act 2012 (WA)* and *Gas Services Information Regulations 2012*.

<sup>26</sup> See [Regulatory Sandboxing Legislation Consultation](#) and [Regulatory Sandboxing Bill](#)

<sup>27</sup> See [Measures to Improve Transparency in the Gas Market - Decision and Market Transparency Amendment Bill](#)

<sup>28</sup> [Energy Senior Officials release gas pipeline draft legal package for consultation](#) and [Energy Ministers release gas pipeline Decision Regulation Impact Statement](#)

**Table 2.1: Key elements of the national gas regulatory framework**

Description		Jurisdictional and facility application
<b>Economic regulation of gas pipelines (NGL/NGR)</b>		
<p><b>Description:</b> The NGL and NGR provide for the economic regulation of pipelines under a negotiate-arbitrate model. The objective of this element of the national framework is to facilitate access to natural gas pipelines and to constrain the exercise of market power by transmission and distribution pipeline service providers.</p> <p><b>Amendments underway:</b> In early 2021, Energy Ministers agreed to implement a simpler regulatory framework, which, amongst other things:</p> <ul style="list-style-type: none"> <li>▪ requires all pipelines to provide third party access and to be subject to either a stronger form of regulation (scheme pipelines), or a lighter form of regulation (non-scheme pipelines);</li> <li>▪ requires all pipelines to: comply with pipeline interconnection principles and not to use existing shippers to cross-subsidise the development of new capacity; publish specified information to facilitate negotiations (subject to some limited exemptions); and comply with a single negotiation framework;</li> <li>▪ provides for the AER (or ERA in WA) to actively monitor the behaviour of pipelines service providers and to determine what form of regulation should apply to a pipeline and if a greenfield exemption should be granted; and</li> <li>▪ strengthens the credibility of the threat of dispute by smaller shippers.</li> </ul> <p>The amendments to the NGL and NGR required to give effect to these changes are currently being consulted upon.</p>		Applies to all transmission and distribution pipelines in Australia.
<b>Market transparency mechanisms (NGL/NGR)</b>		
<b>Bulletin Board</b>	<p><b>Description:</b> The Bulletin Board is a website operated by AEMO (in accordance with the NGL, NGR and BB Procedures), which contains a range of market, system and transaction information about natural gas services and transactions. The NGL and NGR require specified persons to provide information to AEMO for the purposes of the Bulletin Board.</p> <p>The objective of the Bulletin Board is to make information available to market participants and other persons to facilitate: trade in natural gas and natural gas services; informed and efficient decisions in relation to the provision and use of natural gas and natural gas services; and access negotiations.</p> <p><b>Amendments underway:</b> The Bulletin Board NGL and NGR provisions are currently being amended to provide for:</p> <ul style="list-style-type: none"> <li>▪ information to be collected from any person with possession or control of information relating to the natural gas industry; and</li> <li>▪ the specification of a range of additional information to be reported on the Bulletin Board, including information on LNG export and import facilities, natural gas reserves and resources, large user demand, and transactions (e.g. short-term gas sales, gas swaps and secondary trades of storage capacity).</li> </ul>	Applies in the east coast and NT. The Bulletin Board rules currently apply to production facilities, storage facilities, transmission pipelines and stand-alone compression facilities with a nameplate rating of 10 TJ/day or more and sellers involved in capacity trades. The list of persons required to provide information will soon be extended to include the operators LNG export and import facilities, large gas users, holders of reserves and resources and participants involved in specified transactions.
<b>GSOO</b>	<p><b>Description:</b> The GSOO is an annual report that AEMO publishes in accordance with the NGL and NGR, which assesses the adequacy (or otherwise) of supply in eastern Australia to meet forecast demand and the outlook for the natural gas industry over a 20-year outlook period. The objective of the GSOO is to make information available to assist market participants and other persons make informed investment decisions.</p> <p><b>Amendments underway:</b> The GSOO provisions in the NGL and NGR are currently being amended to provide for:</p> <ul style="list-style-type: none"> <li>▪ information to be collected from any person with possession or control of information relating to the natural gas industry;</li> <li>▪ the extension of the GSOO to the NT;</li> <li>▪ a range of additional information to be included in the GSOO; and</li> <li>▪ AEMO to issue mandatory surveys to collect information and to publish GSOO Procedures.</li> </ul>	Applies in the east coast and will soon extend to the NT. The information used for the GSOO is obtained from producers, storage facilities, pipelines, LNG facilities, large users and other market participants.
<b>VGPR</b>	<p><b>Description:</b> The VGPR is a biennial report that AEMO is required by the NGL and NGR to publish that provides a supply and demand and pipeline capacity adequacy assessment for the Victorian Declared Transmission System (DTS) over a five-year outlook period. The objective of the VGPR is to facilitate planning in the DTS and to make information available to assist market participants and other persons make economically efficient investment decisions in natural gas markets.</p>	The obligation to provide information for the VGPR applies to registered participants in the DWGM (e.g. producers, storage facilities, transmission and distribution pipelines, retailers and gas users).
<b>AER gas price reporting</b>	<p><b>Amendments underway:</b> The NGL and NGR are being amended to provide for the AER to publish a range of gas price information once the ACCC's Gas Inquiry ceases (expected 2025).</p>	Will apply in east coast and NT. The AER will be able to obtain information from market participants through a price information order.
<b>Compression and</b>	<p><b>Amendments underway:</b> In March 2020, as part of the transparency reforms, COAG Energy Council agreed that compression and storage facility operators that are providing third party access should publish standing terms and standing prices for each service</p>	Will apply in the east coast and NT.

Description		Jurisdictional and facility application
<b>storage prices</b>	offered and information on the prices actually paid by users for primary capacity. The amendments to the NGL and NGR required to give effect to these changes are currently being consulted upon.	
<b>Facilitated markets (NGL/NGR)</b>		
<b>DWGM</b>	<b>Description:</b> The NGL, NGR and Wholesale Market Procedures provide for AEMO to operate the DWGM and set out the design of this market. The DWGM is a wholesale gas market that operates on an intra-day basis and uses participant injection and withdrawal bids to manage supply, demand and linepack on the DTS. It also allows participants to trade imbalances and gas on a short-term basis.	The DWGM rules apply to the DTS, declared distribution networks, producers that inject gas into the DTS, storage facilities connected to the DTS, transmission and distribution customers, retailers and traders in the DWGM.
<b>STTM</b>	<b>Description:</b> The NGL, NGR and STTM Procedures provide for AEMO to operate the STTM and set out the design of this market. The STTM is a wholesale gas market that uses participant bids and offers to schedule deliveries and withdrawals from gas pipelines at the hub for the next gas day. The STTM also enables participants to trade imbalances and gas on short-term basis; and gas to be efficiently allocated during system constraints and emergencies through a contingency gas mechanism.	Currently in operation in Adelaide, Brisbane and Sydney. The STTM rules apply to transmission pipelines and distribution networks supplying these locations, STTM shippers and STTM users.
<b>GSH (incl. CTP)</b>	<b>Description:</b> The NGL and NGR provide for AEMO to operate the gas trading exchange (referred to as the GSH). The GSH is a centralised trading, settlement and clearing facility that is operated by AEMO and can be used by market participants to trade gas and secondary transportation capacity through the capacity trading platform (CTP).	In operation in east coast and NT. Currently facilitates gas trades at Wallumbilla and Moomba and secondary capacity trades in east coast (ex DTS) and NT.
<b>DAA</b>	<b>Description:</b> The NGL and NGR provide for AEMO to conduct a day-ahead auction of contracted but un-nominated capacity on transmission pipelines and stand-alone compression facilities. This auction allows capacity that has been contracted by shippers on a firm basis but has not been nominated for use on the gas day to be auctioned on a day-ahead basis at a reserve price of zero.	In operation in east coast. The DAA rules apply to all transmission pipelines (ex DTS) with a nameplate rating $\geq 10$ TJ/day supplying more than 1 user.
<b>Regulated retail markets (NGL/NGR)</b>		
<b>Description:</b> The NGL, NGR and Retail Market Procedures (RMP) provide for the regulation of natural gas retail markets in some jurisdictions. The objective of these provisions is to provide for a co-ordinated and centralised approach to administering the regulated retail gas markets, with AEMO as retail market operator responsible for: <ul style="list-style-type: none"> <li>managing customer transfers and associated market data between retailers, and between retailers and distribution businesses;</li> <li>managing the daily allocation of gas to retailers to enable settlement of GSAs, GTAs and distribution use of system contracts; and</li> <li>operating the central IT systems that facilitate retail market services.</li> </ul>		Applies in NSW/ACT, SA, Victoria and Queensland. <sup>29</sup> The retail market rules and RMP apply to distribution networks in the aforementioned locations (and, in the case of Victoria <sup>30</sup> and SA, the transmission pipelines servicing these locations), retailers and self-contracting distribution connected users.
<b>Distribution networks NECF related obligations (NGL/NGR)</b>		
<b>Description:</b> In those jurisdictions that have adopted the NECF, the NGL and NGR include a number of provisions that are required to support the energy-specific customer protection framework under the NERL/NERR. These provisions are designed to: <ul style="list-style-type: none"> <li>facilitate the connection of retail customers to distribution networks through regulator approved model terms for basic and standard connections; a negotiation framework for non-standard connections; and a dispute resolution mechanism; and</li> <li>give effect to the triangular relationship between retailers, distributors and customers for the sale and supply of gas to retail customers.</li> </ul>		The customer connection and retail support arrangements in the NGL/NGR apply to retailers and distribution networks in those jurisdictions that have adopted the NERL for gas (i.e. ACT, NSW, SA and Queensland).
<b>Regulatory sandbox (NGL/NGR and NERL/NERR)</b>		
<b>Amendments underway:</b> The NGL/NGR and NERL/NERR are being amended to provide a framework within which participants can test innovative business models, products and services in the market under relaxed regulatory requirements on a time-limited basis.		Will be in operation in the east coast and NT and will be available to project proponents that are undertaking innovative trials that would otherwise be subject to the NGL/NGR or NERL/NERR.
<b>Customer protection framework (NERL/NERR)</b>		
<b>Description:</b> The NERL and NERR establish a specific customer protection framework for the sale and supply of energy (electricity and natural gas) to small customers, a framework for retailer authorisations by the AER and a retailer of last resort scheme.		The customer protection framework applies to retailers and distributors in jurisdictions that have adopted the NERL for gas (i.e. ACT, NSW, SA and Queensland). <sup>31</sup>

<sup>29</sup> In WA, AEMO also administers the Retail Market Scheme under the *Energy Coordination Act 1994 (WA)*. All changes to the scheme are subject to approval by the ERA.

<sup>30</sup> In Victoria, these include distribution networks that are not part of a declared distribution system (South Gippsland, Grampians and Bairnsdale)

<sup>31</sup> In Victoria, WA and Tasmania, local legislation applies. In the NT, the gas reticulation and retail sale sectors are very small and there is no specific regulation of the retail sale and supply of natural gas in the NT. The *Dangerous Goods Regulations 1985* made under the *Dangerous Goods Act 1998 (NT)* regulate gas works, gas installations (including meters) and appliances and gas fitters.

## Box 2.1: Agreed reforms to the economic regulatory framework

In early 2021, Officials completed a review of the economic regulatory framework and made a number of recommendations to Energy Ministers on how the framework should be amended. The recommendations, which are set out in *Options to improve gas pipeline regulation – Regulation Impact Statement for Decision (Pipeline Decision RIS)*, were agreed to by Energy Ministers earlier this year.<sup>32</sup>

Under the agreed reforms, all transmission and distribution pipelines involved in the haulage of natural gas will be required to provide third party access if requested to do so and will be classified as either:

- scheme pipelines, which will be subject to a stronger regulatory-oriented form of regulation; or
- non-scheme pipelines, which will be subject to a lighter commercially-oriented form of regulation.

The table below provides a summary of what obligations scheme and non-scheme pipelines will be subject to under the new framework.

**Table 2.2: Key elements of the economic regulatory framework**

Key elements of the economic regulatory framework		Pipeline Type	
		Scheme	Non-Scheme
Forms of regulation		Negotiate-arbitrate with regulator approved reference tariffs	Negotiate-arbitrate
Requirement to submit access arrangement to the relevant regulator for approval		✓	✗
Safeguards to constrain exercises of market power	Prohibition on preventing or hindering access	✓	
	Prohibition on bundling services	✓	
	Pipeline interconnection principles	✓	
	Prohibition against increasing charges to subsidise new capacity	✓	
	Ring fencing requirements and associate contract provisions	Exemption from requirements available if a pipeline is not a third party access pipeline	
Requirement to publish prescribed transparency information		Exemption from requirements available if a pipeline is not a third party access pipeline Exemption from disclosing financial information available to single shipper and small pipelines	
Duty to negotiate in good faith & comply with negotiation framework in NGR		✓	
Access dispute provisions		Regulatory oriented dispute mechanism	Commercially oriented dispute mechanism

Under the agreed reforms, the relevant regulator will be responsible for determining:

- what form of regulation a pipeline will be subject to, which will be based on an assessment of the degree of market power the pipeline has and if there are any constraints on this;
- whether to grant new pipelines an exemption from the stronger form of regulation for up to 15-years (known as a 'greenfields exemption'), which will also be based on an assessment of whether the pipeline is likely to have a substantial degree of market power over the exemption period; and
- whether to grant exemptions to pipelines from:
  - the transparency, ring fencing and associate contract provisions because they are not third party access pipelines; or
  - the financial disclosure obligations because they are a small pipeline or only have a single shipper.

<sup>32</sup> See <https://energyministers.gov.au/publications/energy-ministers-release-gas-pipeline-decision-regulation-impact-statement>

## 2.3 Limits on the scope of the national gas regulatory framework

Although the scope of the national gas regulatory framework is quite broad, there are a number of important limits on its operation, which stem from the definitions used in the NGL and NERL.

The NGL and the NERL (as it relates to gas) are, for example, directed at promoting efficient investment in, and efficient operation and use of, **natural gas services** with respect to the supply of **natural gas**. To this end, the NGL provides for:

- the economic regulation of natural gas services provided by means of pipelines, which is defined as a pipe or systems of pipes for the **haulage of natural gas**,<sup>33</sup> and
- the operation of a number of facilitated markets, regulated retail gas markets and market transparency mechanisms, the scope of which are defined by reference to **natural gas**.<sup>34</sup>

The NERL sets out the customer protection framework that applies where a person engages in ‘the activity of selling energy to a person for premises’. The term ‘energy’ is defined in the NERL as electricity or gas, with gas defined as **natural gas** within the meaning of the NGL.

As this summary highlights, the definition of ‘natural gas’ defines the current scope of the national gas regulatory framework by defining the product and related services to which the NGL and NERL apply (see Box 2.2 for more detail on the key definitions that define the scope of the framework).

In addition to these definitional related limitations, the scope and operation of the national gas regulatory framework is limited by:

- the allocation of legislative responsibility between the national framework and local laws and regulations (see section 2.1);
- jurisdictional choices not to adopt the national gas regulatory framework,<sup>35</sup> or to adopt modified versions;<sup>36</sup> and
- contracts, which play an important role in governing market participants’ rights and responsibilities, including in relation to the use of natural gas infrastructure (e.g. pipelines, storage, compression and production facilities) and the sale and purchase of gas.<sup>37</sup>

---

<sup>33</sup> For example, the term pipeline is defined in the NGL by reference to the haulage of natural gas.

<sup>34</sup> For example, the term DWGM in the NGL is defined as the “wholesale market for natural gas”, while the term STTM is defined as a “market for the supply of natural gas”. Similarly, the term Bulletin Board is defined as “the website maintained by AEMO that contains information of the kind specified in the Rules in relation to natural gas services and secondary capacity transactions”.

<sup>35</sup> For example, the NT, Victoria and WA have not adopted the NERL and Tasmania has only adopted the NERL for electricity.

<sup>36</sup> For example, a modified version of the NGL applies in WA, with WA only adopting the economic regulation of pipeline provisions.

<sup>37</sup> For example, the terms on which services are provided by gas pipelines (excluding the DTS), storage and compression facilities are set out in bilaterally negotiated contracts. Even in cases where a pipeline is subject to full regulation, the NGL recognises the ability of parties to agree to different terms and conditions to those set out in an access arrangement.

The terms on which gas is sold by producers are also set out in bilaterally negotiated contracts.

## Box 2.2: Key definitions in the national gas regulatory framework

### Natural Gas Definition

**Natural gas** is defined in the NGL as a substance that—

- (a) is in a gaseous state at standard temperature and pressure; and
- (b) consists of naturally occurring hydrocarbons, or a naturally occurring mixture of hydrocarbons and non-hydrocarbons, the principal constituent of which is methane; and
- (c) is suitable for consumption.

The definition of natural gas is distinguished from processable gas by its suitability for consumption.

**Processable gas** is defined in the NGL as a substance that—

- (a) is in a gaseous state at standard temperature and pressure; and
- (b) consists of naturally occurring hydrocarbons, or a naturally occurring mixture of hydrocarbons and non-hydrocarbons, the principal constituent of which is methane.

Under the NERL, **energy** means electricity or gas and **gas** means natural gas within the meaning of the NGL.

### Other Key Definitions

**Natural gas industry** means<sup>38</sup> –

- (a) activities and transactions relating to—
  - (i) processable gas; or
  - (ii) natural gas (including liquefied natural gas) and natural gas services; or
  - (iii) natural gas industry facilities; or
  - (iv) services provided by means of natural gas industry facilities; and
- (b) activities and transactions relating to petroleum tenements; and
- (c) any other activities or transactions specified by the Regulations for the purposes of this paragraph;

**Natural gas service** means—

- (a) a pipeline service; or
- (b) the supply of natural gas; or
- (c) a service ancillary to the service described in paragraph (b);

**Pipeline service** means—

- (a) a service provided by means of a pipeline, including—
  - (i) a haulage service (such as firm haulage, interruptible haulage, spot haulage and backhaul); and
  - (ii) a service providing for, or facilitating, the interconnection of pipelines; and
- (b) a service ancillary to the provision of a service referred to in paragraph (a),

but does not include the production, sale or purchase of natural gas or processable gas.

**Pipeline** means—

- (a) a pipe or system of pipes for the haulage of natural gas, and any tanks, reservoirs, machinery or equipment directly attached to that pipe or system of pipes; or
- (b) a proposed pipe or system of pipes for the haulage of natural gas, and any proposed tanks, reservoirs, machinery or equipment proposed to be directly attached to the proposed pipe or system of pipes; or
- (c) a part of a pipe or system of pipes or proposed pipe or system of pipes referred to in paragraph (a) or (b), but does not include—
  - (d) unless paragraph (e) applies, anything upstream of a prescribed exit flange on a pipeline conveying natural gas from a prescribed gas processing plant; or
  - (e) if a connection point upstream of an exit flange on such a pipeline is prescribed, anything upstream of that point; or
  - (f) a gathering system operated as part of an upstream producing operation; or
  - (g) any tanks, reservoirs, machinery or equipment used to remove or add components to or change natural gas (other than odourisation facilities) such as a gas processing plant; or
  - (h) anything downstream of a point on a pipeline from which a person takes natural gas for consumption purposes.

### **3. Context for extending the application of the NGL and NERL**

This chapter provides context for the potential approach to extending the national gas regulatory framework to NG equivalents and OG products as outlined in chapters 4 and 5. It seeks to answer two key questions:

- Do natural gas-hydrogen blends and renewable gases already fall within the scope of the national gas regulatory framework?
- Is it necessary to treat NG equivalents and OG products differently in the national gas regulatory framework?

The chapter commences with an overview of the role the natural gas definition plays in the regulatory framework, and then considers which gases or gas blends satisfy this definition. It then explains why the third limb of the definition of natural gas in the NGL, which requires gas to be 'suitable for consumption', is key to understanding the proposal to treat NG equivalents, OG products and their constituent gases separately in the national gas regulatory framework.

#### **3.1 Are hydrogen blends and renewable gases already covered by the national gas regulatory framework?**

The term 'natural gas' in the NGL defines the current scope of the national gas regulatory framework by defining the category of gas and related services to which the NGL and NER apply. For example:

- the NGO and the NERO (as it relates to gas) refer to efficient investment in, and efficient operation and use of, natural gas services with respect to the supply of natural gas;
- the NGL provides for the economic regulation of natural gas services provided by means of pipelines, defined as pipes or systems of pipes for the haulage of natural gas;
- the scope of the facilitated markets, regulated retail gas markets and market transparency mechanisms are defined by reference to natural gas; and
- the NERL provides for authorisations and exemptions, and related consumer protections, for the retail sale of natural gas.

A key question is therefore whether the definition of 'natural gas' already encompasses natural gas-hydrogen blends or renewable gases.

##### **3.1.1 Does the natural gas definition already encompass natural gas-hydrogen blends or renewable gases?**

The definition of natural gas is set out in Box 2.2 and has three limbs:

- the relevant product must be gaseous at standard temperature and pressure;
- it must consist of naturally occurring hydrocarbons or a naturally occurring mixture of hydrocarbons and non-hydrocarbons, the principal constituent of which is methane; and
- it must be suitable for consumption.

There does not seem to be any question that 'gaseous at standard temperature and pressure' requirement is satisfied for hydrogen, natural gas-hydrogen blends and renewable gases.

---

<sup>38</sup> This definition will be inserted by the *National Gas (South Australia) (Market Transparency) Amendment Bill*.

The second limb clearly excludes 100% hydrogen from the scope of the definition, but what about natural gas-hydrogen blends or renewable gases?

A blend of natural gas and hydrogen is not a naturally occurring mixture of hydrocarbons and non-hydrocarbons. However, this alone may not exclude a blend from falling within the definition of 'natural gas'. To be suitable for consumption as required by the third limb of the definition, the NGL recognises that raw (processable) gas needs to be processed to be suitable for consumption. Processing changes the composition of 'processable gas' by removing impurities and water. It is also a requirement, for safety reasons, to add odorant to the naturally occurring blend to give it a distinctive and unpleasant smell. It is generally accepted that treated, odourised natural gas is still 'natural gas' within the meaning of the definition in the NGL.

As to renewable gases, there may be arguments that these fall within the 'naturally occurring' limb depending on how the renewable gas is produced and its chemical composition. However, when read in conjunction with the definition of 'processable gas' and the definition of 'natural gas industry' there is some uncertainty as to whether renewable gases fall within the second limb.

This illustrates that the 'naturally occurring' limb of the definition provides limited guidance about the intended coverage of the national gas regulatory framework.

Consideration has been given to the possibility of amending or modifying the 'naturally occurring' requirement through legislative amendments. However, there are some limitations to this approach. First, it fails to give due weight to the 'suitable for consumption' limb in the definition, as discussed further below. Second, 'natural gas' has a well-understood meaning both in the Australian context and internationally. Further, as a practical matter, natural gas (as generally understood) is needed as a stand-alone term in the NGL and NGR to assist in identifying the upstream activities and facilities that are part of the natural gas industry such as exploration, reserves and resources analysis, production and processing and as a basis for defining natural gas-hydrogen blends.

Taking these matters into account, the potential approach to extending the national gas regulatory framework, as outlined in the following chapters, has been developed by focusing on the 'suitable for consumption' limb in the definition of 'natural gas' rather than on the 'naturally occurring' limb.

### 3.1.2 What is meant by 'suitable for consumption'?

The phrase 'suitable for consumption' is not defined in the NGL, nor is any of the market bodies assigned the task of determining what it means. However, the following observations can be made:

- Determination of what is 'suitable' for supply to consumers is the responsibility of jurisdictions through their licensing and other frameworks.<sup>39</sup> Taking the jurisdictional frameworks into account, it would appear that for a product to be 'suitable for consumption' it must at a minimum be safe for use and fit for purpose for the end-user<sup>40</sup> installations, appliances and/or industrial processes<sup>41</sup> in which it is to be used.

---

<sup>39</sup> Consistent with the NGO and NERO, it seems clear that 'suitable for consumption' means 'suitable for consumption by end-users'. While this seems obvious, it is helpful to be clear that suitability for haulage through pipelines will not, of itself, make a product 'suitable for consumption' under the national gas regulatory framework. Further, the phrase 'suitable for consumption' as used in the NGL is a broader concept than 'consistent with [an applicable] Australian Standard'. That is, a product can comply with an applicable specification but not be suitable for consumption for other reasons. This is evident from the complex regulatory arrangements in place at a jurisdictional level in relation to natural gas supply and the supply and installation of products that use natural gas.

<sup>40</sup> The term 'end-user' is used here to refer to residential customers, small to medium enterprises, commercial and industrial customers (C&I), and gas powered generators.

<sup>41</sup> The term 'industrial processes' is used here to refer to production processes that use natural gas as a feedstock.

- It is generally accepted that pure hydrogen cannot be substituted for natural gas in an appliance or industrial process designed to use natural gas.
- The position is less straightforward for natural gas-hydrogen blends or renewable gases because it appears that there may be some blend levels or renewable gases that (regulatory and contractual arrangements allowing) can be substituted for natural gas in some appliances, facilities or industrial processes designed to use natural gas.<sup>42</sup> This would mean, for example, that at a particular level of blending, appliances do not need to be replaced, or may require only minor adjustments.
- There are, however, higher level natural gas-hydrogen blends (and there may be renewable gases) that cannot be substituted for natural gas from a consumer perspective and for which appliances may need to be replaced or materially modified before supply can commence.

In summary, it would appear that:

- while much of the debate to date has focused on whether natural gas-hydrogen blends and renewable gases satisfy the ‘naturally occurring’ limb of the definition, even if changes were made to this limb of the definition, significant doubt would remain as to whether these products are suitable for consumption by existing appliances;
- from a consumer perspective, suitability for consumption would appear to be product specific;
- some natural gas-hydrogen blends and renewable gases may be **suitable for consumption as natural gas**, but it is unclear whether such blends would satisfy the NGL definition of ‘natural gas’ and, as a consequence, there is some uncertainty as to whether they would fall within the scope of the national gas regulatory framework; and
- other natural gas-hydrogen blends, some renewable gases and hydrogen will **not be suitable for consumption as natural gas** and so should not be treated as equivalent to natural gas under the national gas regulatory framework but could be treated as separate products once authorised for supply.

### 3.2 Why treat NG equivalents and OG products differently?

The conclusions that ‘suitable for consumption’ is product specific and that some products may be substitutes for natural gas while others may not underpins the potential approach to extending the scope of the national gas regulatory framework outlined in chapters 4-5.

In particular, the potential approach is based on the following principles, which are derived from these conclusions:

1. If a jurisdiction is satisfied<sup>43</sup> that a natural gas-hydrogen blend or renewable gas is suitable for consumption in existing natural gas appliances (that is, it is an NG equivalent), the national gas regulatory framework should, in principle, be extended in a way that achieves the same regulatory outcomes for NG equivalents and their related facilities and activities, as are achieved for natural gas and its related facilities and activities.
2. Otherwise, if a jurisdiction is satisfied that a natural gas-hydrogen blend or renewable gas is not suitable for consumption in existing natural gas appliances, but is suitable for consumption

<sup>42</sup> For more information about the suitability of different blends and gases as a substitute for natural gas, refer to GPA Engineering, *Hydrogen in the Gas Distribution Networks – A kickstart project as an input into the development of a National Hydrogen Strategy for Australia*.

See GPA Engineering, *Hydrogen in the Gas Distribution Networks – A kickstart project as an input into the development of a National Hydrogen Strategy for Australia*, 2019, pp. 26-30.

<sup>43</sup> Subject to the safety, appliance certification, gas fitter training and other frameworks that that jurisdiction may require.

by consumers with appropriate appliances (that is, it is an OG product), the national gas regulatory framework should allow for the regulatory treatment of the OG product to evolve over time.

The first principle, relating to NG equivalents, is framed by reference to regulatory outcomes. This allows the national gas regulatory framework to accommodate differences between natural gas and NG equivalents. For example:

- The transparency amendments that are in the process of being implemented<sup>44</sup> will extend the national gas regulatory framework to upstream activities in the natural gas industry. The national gas regulatory framework will need to recognise the distinct 'upstream' activities for natural gas-hydrogen blends and renewable gases, which may include the production and transportation of the gases that are used to make a blend (constituent gases).
- From a consumer perspective, there may be differences in the energy content of NG equivalents compared to natural gas. While the implications of this is largely a matter to be considered under Procedures, it is an example of the differences that need to be accommodated in the national gas regulatory framework.

---

<sup>44</sup> See *National Gas (South Australia) (Market Transparency) Amendment Bill 2021*

## 4. Extending the NGL and NERL to natural gas equivalents

This chapter outlines a potential approach to extending the NGL and NERL to low level blends and other renewable gases that are suitable for consumption in existing natural gas appliances. As noted previously, Officials are open to receiving feedback on this approach and other approaches. The legal drafting required to implement the selected approach will be the subject of a second consultation process, which will be conducted in March 2022.

For ease of reference, the gases and blends dealt with in this chapter are referred to as ‘NG equivalents’, and the gases blended with natural gas to create low level blends are referred to as ‘constituent gases’.

### 4.1 Potential approach to extending the regulatory framework

There is, as noted in Chapter 3, some ambiguity surrounding whether the definition of natural gas in the NGL extends to NG equivalents, their constituent gases and related facilities and activities. To remove this ambiguity, the national gas regulatory framework will need to be amended.

One potential approach to addressing this ambiguity and making the other amendments that would be required to extend the application of the national gas regulatory framework to NG equivalents, would involve:

1. Extending the provisions in the NGL and NERL that apply to natural gas and related facilities and activities to NG equivalents and related facilities and activities.
2. Extending the NGL to constituent gases and the facilities and activities involved in the supply of constituent gases.
3. Extending the market bodies’ functions and powers in the:
  - a. NGL and NERL to NG equivalents and related facilities and activities; and
  - b. NGL to constituent gases and related facilities and activities.

Further detail on this approach and how the NGL and NERL would apply to NG equivalents, their constituent gases and related facilities and activities, is provided in sections 4.2-4.3.

In determining how the NGL and NERL would apply, we have taken into account the changes that are currently being made to:

- the NGL as provided for in the *National Gas (South Australia) (Market Transparency) Amendment Bill 2021*; and
- the NGL and NERL as provided for in the *Statutes Amendment (National Energy Laws) (Regulatory Sandboxing) Bill 2021*.

We have also assumed that no material departures are made to the approach to pipeline regulation that Energy Ministers agreed to through the *Options to improve gas pipeline regulation – Decision Regulation Impact Statement* (Pipeline Decision RIS), as reflected in the draft *National Energy Laws Amendment (Gas Pipelines) Bill 2021*, which is currently being consulted on.

### 4.2 Potential approach to extending the NGL

#### 4.2.1 Extension to NG equivalents and related facilities and activities

This section explains the potential approach to extending the NGL to NG equivalents and the related activities and facilities. The policy intention in this case is that jurisdictions remain

responsible for licensing or authorising pipelines hauling NG equivalents and the related infrastructure, and that once a licence or authorisation enabling the transportation of NG equivalents is granted (or an existing licence or authorisation amended), the NGL would extend to the NG equivalents and related facilities and activities.<sup>45</sup>

To support this outcome, the provisions in the NGL that currently apply to natural gas and related facilities and activities would be extended to apply to NG equivalents and related facilities and activities. While the approach to drafting would need to be developed, it would likely involve amending existing definitions and inserting new definitions as required.

The following table illustrates how this approach would affect key definitions used in the NGL. Note that this table is not intended to be a comprehensive list of definitions that would be affected, or may need to be amended, when extending the scope of the NGL.

**Table 4.1: Examples of how key NGL definitions would be extended to NG equivalents**

Current definition	How the definition would be affected
The definition of 'pipeline' refers to 'a pipe or system of pipes for the haulage of natural gas'.	The reference to natural gas would be taken to include a reference to NG equivalents, so the definition of 'pipeline' would include a pipeline hauling an NG equivalent.
A 'service provider' is a person who owns, controls or operates a pipeline.	The definition would extend to the operator of a pipeline hauling an NG equivalent.
The definition of 'pipeline service' excludes 'the production, sale or purchase of natural gas or processable gas'.	The reference to natural gas would be taken to include a reference to NG equivalents, so the exclusions would continue to operate as intended.
The definition of 'natural gas service' includes 'the supply of natural gas' and 'a service ancillary to' the supply of natural gas.	The reference to natural gas would be taken to include a reference to NG equivalents, so the definition would cover the supply of the NG equivalent and a service ancillary to the supply of the NG equivalent.
The definition of 'natural gas industry' refers to (among other things) activities and transactions relating to natural gas and 'natural gas industry facilities', itself a defined term. <sup>46</sup>	The reference to natural gas would be taken to include a reference to NG equivalents and so would continue to work as intended. However, the definition of 'natural gas industry facility' refers to industry-specific infrastructure so would need to be amended to extend to new infrastructure types involved in the production of NG equivalents.

#### 4.2.1.1 How would the NGL apply to NG equivalents and related facilities and activities?

The approach outlined above is intended to allow all elements of the NGL (see Table 2.1) to extend to NG equivalents and their related facilities and activities in the same way it currently does to natural gas.<sup>47</sup> To the extent feasible, this would occur without further change to the NGR or other subordinate instruments, but some amendments to these instruments may be required to achieve this outcome. The AEMC and AEMO are consulting on the changes required to these subordinate instruments.

Table 4.2 illustrates how the NGL would apply to NG equivalents and their related facilities and activities under this proposal. It also sets out where the final approach would depend on the outcome of the AEMC and AEMO's consultations.

<sup>45</sup> Under the potential approach outlined in this section, jurisdictions would remain responsible for authorising the supply of NG equivalents through new and existing pipelines (e.g. through pipeline licencing). Each jurisdiction is separately reviewing its gas licencing and safety frameworks to consider whether changes are needed to ensure the supply to customers of gases and blends other than natural gas (whether NG equivalents or OG products) only occurs after completion of appropriate safety and other assessments.

<sup>46</sup> **natural gas industry facility** means (a) a pipeline; or (b) a compression service facility; or (c) a gas processing plant; or (d) an LNG facility; or (e) a storage facility; or a user facility; or (g) another facility of a type specified by the Regulations for the purposes of [the definition].

<sup>47</sup> Note that existing forms of regulation are also assumed to continue to apply to existing facilities and services that convert to supply of an NG equivalent, subject to any additional requirements applicable to NG equivalent facilities.

**Table 4.2: Extension of NGL to NG equivalents**

NGL Measure	How the measure would extend to NG equivalents under the proposal
<b>Economic regulation</b>	
<p><b>Pipelines:</b> Under the current NGL, the economic regulatory framework applies to pipelines involved in the transportation of natural gas. It also provides for ring fencing of these activities from the business of producing, purchasing or selling natural gas or processable gas (subject to some limitations)</p>	<p>Changes would be made so a pipeline carrying an NG equivalent would be a ‘pipeline’ under the NGL and so within the scope of economic regulation. Decisions about the form of regulation that a pipeline would be subject to the usual process and any exemptions that may be available would be made in the usual way under the NGL and NGR.</p> <p>The ring fencing provisions in the NGL would be extended to the facilities and activities involved in the production, purchase or sale of NG equivalents, to provide for the same protections as those that currently apply to natural gas.</p>
<b>Market transparency mechanisms</b>	
<p><b>Bulletin Board:</b> Under the current NGL, the Bulletin Board contains information relating to ‘natural gas services and secondary capacity transactions’. The transparency amendments will extend the scope to information relating to the ‘natural gas industry’.</p> <p>The NGL sets out a framework for information to be provided to AEMO for the Bulletin Board, where required by the NGR. The specific information requirements are defined in the NGR.</p>	<p>The term ‘natural gas industry’ would be given an extended meaning in the NGL that encompasses NG equivalents and related facilities and activities. In principle, the Bulletin Board rules would extend to facilities and activities relating to NG equivalents in the same way as they do to facilities and activities relating to natural gas.</p> <p>The NGL would also allow rules to be made for the Bulletin Board to extend to information relating to the specific facilities and activities involved in the supply of the NG equivalent (e.g. a biomethane production facility).</p> <p>The AEMC is consulting separately on whether changes should be made to the Bulletin Board rules to accommodate NG equivalents.</p>
<p><b>GSOO:</b> The GSOO provides information about the natural gas industry.</p> <p>The NGL sets out the GSOO objective and some content requirements. Additional content requirements are in the NGR. A mandatory survey process will be introduced by the transparency amendments governed by both the NGR and new Procedures to be made by AEMO.</p>	<p>The ‘natural gas industry’ would be given an extended meaning in the NGL that encompasses the NG equivalents and related facilities and activities.</p> <p>In principle it is expected the GSOO would extend to facilities and services relating to NG equivalents as they do to natural gas. The AEMC would have power to make rules specifying content to be included in the GSOO relating to NG equivalents and related services and facilities, such as supply from biomethane production facilities or from blending facilities.</p> <p>The AEMC is consulting separately on whether changes should be made to the GSOO rules to accommodate NG equivalents.</p>
<p><b>VGPR:</b> The VGPR provides information about the Victorian DTS and market. It is derived from AEMO’s DWGM function in the NGL to ‘provide information and other services to facilitate decisions for economically efficient investment in markets for natural gas’. The requirements to prepare the report and to provide information for the report are in the NGR.</p>	<p>The scope of the DWGM would be extended to NG equivalents so that it would become a wholesale market for natural gas and/or NG equivalents. In principle the VGPR could also extend to information about NG equivalents and related facilities and activities.</p> <p>The AEMC is consulting separately on whether changes are needed to the VGPR provisions in Part 19 of the NGR.</p>

NGL Measure	How the measure would extend to NG equivalents under the proposal
<p><b>AER gas price reporting function:</b> The transparency reforms will give the AER a new function, to publish aggregated and anonymised information or data about the prices for goods or services in the natural gas industry. The AER will be able to make a price information order to collect information for this purpose. Part 17 of the NGR specifies some categories of price information that the AER must publish.</p>	<p>The 'natural gas industry' would be given an extended meaning in the NGL that encompasses the NG equivalents and related facilities and activities. This would extend the scope of the AER's gas price reporting function under the NGL to NG equivalents and related goods and services and where relevant, changes to the NGR could be made to ensure the rules made for this function continue to apply as intended.</p> <p>The AEMC is consulting separately on whether changes are needed to Part 17 of the NGR as part of the initial Rules package.</p>
<p><b>Storage and compression:</b> Under proposed changes to the NGL being consulted on for the Pipeline RIS, the NGL will set out price reporting obligations for natural gas compression and storage facilities.</p>	<p>Changes would be made to extend the NGL provision to allow the price reporting rules to extend to facilities for the compression or storage of an NG equivalent.</p> <p>The AEMC is consulting separately on what changes should be made to proposed rules to accommodate NG equivalents.</p>
<b>Facilitated gas markets</b>	
<p><b>DWGM:</b> The DWGM is a wholesale market for natural gas defined in the application Act of an adoptive jurisdiction.</p>	<p>The scope of the DWGM would be extended so that it would become a wholesale market for natural gas and/or NG equivalents. It would be open to Victoria to amend its application Act to make the corresponding change.</p> <p>The obligations in the NGL to register for the DWGM would apply on an extended basis.<sup>48</sup></p> <p>Changes may be needed to the NGR and Wholesale Market Procedures to allow for additional registration categories and the functioning of the DWGM once NG equivalents are introduced. The AEMC and AEMO are consulting on these changes.</p>
<p><b>STTM:</b> A short term trading market is 'a market for the supply of natural gas that ... operates in an adoptive jurisdiction; and ... is defined in a Rule made for the purposes of Chapter 2 Part 6 Division 2A to be a short term trading market of that adoptive jurisdiction'.</p>	<p>The scope of the STTM would be extended so that it would become a market for the supply of natural gas and/or NG equivalents.</p> <p>The obligations in the NGL to register for the STTM would apply on an extended basis.<sup>49</sup></p> <p>Changes may be needed to the NGR and STTM Procedures to allow for additional registration categories and the functioning of the STTM once NG equivalents are introduced. The AEMC and AEMO are consulting on these changes.<sup>50</sup></p>
<p><b>GSH:</b> The GSH is a 'facility through which persons may elect to buy and sell natural gas or related goods or services, including pipeline capacity'.</p> <p>The GSH is governed by high level design requirements in the NGR. The detailed trading terms are in the Exchange Agreement made by AEMO. The Exchange Agreement defines the products traded through the exchange and gas specifications.</p>	<p>The scope of the GSH would be extended so that it would become a 'facility through which persons may elect to buy and sell natural gas and/or NG equivalents' etc.</p> <p>Changes could be made through the usual Exchange Agreement amendment procedures to add new products such as biomethane only products, if AEMO and market participants consider there is demand for these products.</p> <p>In principle changes could be made through the usual Exchange Agreement amendment procedures to amend the gas specifications to accommodate NG equivalents (when pipelines convert). In practice, this is unlikely to occur in the foreseeable future as most GSH products relate to transmission pipelines (or gas delivered at points on transmission pipelines), which are not expected to carry NG equivalents at this time.</p>

<sup>48</sup> Section 91BI and 91BJ.

<sup>49</sup> Sections 91BRC and 91BRD.

<sup>50</sup> It would also be open, under the definition, for the rules to define separate STTMs for natural gas and low level blends

NGL Measure	How the measure would extend to NG equivalents under the proposal
<p><b>DAA:</b> The DAA is ‘an auction conducted by AEMO through which a person may buy transportation capacity’. Transportation capacity is, in turn, defined by reference to transmission pipelines and compression service facilities. Compression service facilities are defined (in summary) as facilities for compressing natural gas. The DAA is underpinned by the arrangements for the publication of standard OTSAs.<sup>51</sup></p>	<p>A transmission pipeline carrying an NG equivalent or constituent gas would be a ‘pipeline’ and so within the scope of the DAA. A stand-alone facility for compressing an NG equivalent or constituent gas would be a ‘compression service facility’ and so within the scope of the DAA.</p> <p>The NGR governs the scope of the DAA. The DAA currently applies to transmission pipelines, which are not expected at this time to carry NG equivalents. Should that occur in the future, the NGR and Procedures would need to be amended using the usual amendment procedures. OTSAs would also need to be amended. Under the approach proposed in this Consultation Paper, the provisions in the NGL requiring the publication of standard OTSAs would be extended to transportation facilities carrying natural gas and/or NG equivalents and/or constituent gases.</p>
<b>Regulated retail markets</b>	
<p><b>Retail markets:</b> Under the NGL, the retail market for natural gas in each participating jurisdiction constitutes a retail gas market.</p> <p>The NGL requires registration by persons participating in a retail gas market in a registrable capacity.<sup>52</sup> The registrable capacities are specified in the NGR but the NGL limits what can be specified in the NGR.</p>	<p>The scope of retail markets would be extended in the NGL to retail markets for natural gas and/or NG equivalents in each participating jurisdiction.</p> <p>The permitted registrable capacities in the NGL would need to be modified to accommodate activities specific to NG equivalents (and their constituent gases).</p> <p>The AEMC and AEMO are consulting separately on what changes might be needed to the registration rules in the NGR and the Retail Market Procedures (RMP) to accommodate NG equivalents.</p>
<b>Regulatory sandboxing</b>	
<p><b>Regulatory sandboxing:</b><sup>53</sup> The regulatory sandbox is a framework within which participants can test innovative concept in the market under relaxed regulatory requirements at a smaller scale, on a time-limited basis and with appropriate safeguards in place.</p>	<p>The sandboxing provisions allow the AER to grant waivers from rule requirements and for the AEMC to makes trial rules, to allow a trial project to proceed. The term ‘trial project’ has two main limbs. Under the first limb, either the AER or AEMC must be satisfied the project is ‘genuinely innovative’ taking into account the ‘innovative trial principles’. Under the second limb, the project must be one that ‘tests an approach in relation to natural gas services’.</p> <p>It is proposed that the definition should be amended to extend to testing approaches in relation to NG equivalents (and constituent gases), assuming the other criteria for the trial project are met.</p> <p>The AEMC is consulting separately on what changes might be needed to the regulatory sandboxing rules to accommodate NG equivalents.</p>
<b>Transitional arrangements</b>	
<p><b>Transitional measures</b></p>	<p>Where an existing pipeline or other facility converts to supplying an NG equivalent, transitional measures under the NGL or NGR would continue, or require updating of, existing declarations (such as those made for the DWGM) and registrations (such as registration for the DWGM, STTM and RMP).</p>

<sup>51</sup> Chapter 7A of the NGL.

<sup>52</sup> NGL section 91LA.

<sup>53</sup> A Bill to establish the framework for the regulatory sandbox in the NGL is currently before the SA Parliament; refer to the *Statutes Amendment (National Energy Laws) (Regulatory Sandboxing) Bill 2021* (SA).

In Table 4.2 it is assumed that economic regulation will only apply to the pipelines involved in the transportation of NG equivalents, but Officials are also considering whether the facilities involved in blending natural gas with other constituent gases (**blending facilities**) should be subject to economic regulation. This will, in part, depend on who owns the blending facilities and if there will be any competition for the provision of blending services. If, for example, service providers are to own the blending facilities and provide services on a monopoly basis, then economic regulation may be required to ensure that third party access can be obtained on reasonable terms. If, however, each NG equivalent supplier owns their own blending facility, then economic regulation may not be required. Stakeholder views are being sought on who is likely to own the blending facilities and if economic regulation should apply to these facilities.

#### **4.2.1.2 Identifying NG equivalents**

It is intended that only gases or gas blends that are suitable for consumption in existing natural gas appliances would be treated as NG equivalents under the NGL. Jurisdictions would be responsible for authorising the supply of NG equivalents through new and existing pipelines and assessing whether a particular gas or gas blend is suitable for consumption in existing natural gas appliances. Because the assessment framework sits outside the NGL, the NGL may need a clear mechanism to trigger the application of the NGL where a jurisdiction determines a gas is an NG equivalent.

One option could be to rely directly on the grant or amendment of a pipeline licence under the jurisdictional licensing regime. However, as jurisdictional licensing regimes may extend to gases that are not suitable for consumption in existing natural gas appliances, the grant or amendment of a licence under jurisdictional legislation may not of itself provide sufficient certainty for NGL purposes. An option that is therefore being considered is that the NGL provide for the jurisdiction 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 (or includes), an NG equivalent.

If this option were to be implemented, it would be open to the jurisdiction to determine how that regulation works, taking into account its jurisdictional licensing regime. For example:

- a local regulation could be made on a case-by-case basis when a pipeline is granted a licence to supply an NG equivalent product; or
- a local regulation could specify that all licences granted under specified legislation, or in respect of a particular gas defined in specified legislation, or which have a particular form of licence condition, are taken to be licences for the supply of an NG equivalent.

Under this option, the NGL or Regulations would also include a transitional measure under which existing natural gas distribution pipelines (including extensions and expansions), if used to supply a low level blend, would be taken to be carrying an NG equivalent.<sup>54</sup> This transitional measure would ensure continuity of consumer protection measures for existing customers taking supply from those pipelines.

#### **4.2.1.3 Questions for stakeholders**

Officials are interested in stakeholders' views on the potential approach to extending the NGL to NG equivalents and related facilities and activities and any other approaches that would better

---

<sup>54</sup> For future-proofing purposes, the provision could allow a jurisdiction to make a local regulation displacing that assumption.

achieve the objectives of Energy Ministers (see section E.3). The box below contains a number of specific questions that Officials are interested in obtaining stakeholder feedback on.

#### **Box 4.1: Questions for stakeholders**

- 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)?
- 2 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?
- 3 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?
- 4 Who is likely to operate the blending facilities involved in the creation of NG equivalent blends?
- 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.
- 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?
- 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?
- 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?

#### **4.2.2 Extension to constituent gases and related facilities and activities**

The term ‘constituent gas’ is used in this Consultation Paper to refer to gases that are not themselves authorised for supply to end users but may be used to create an NG equivalent or OG product subject to the NGL. An example would be hydrogen, when used to create a blend of natural gas and hydrogen.<sup>55</sup>

The policy intention in this case is that jurisdictions remain responsible for licensing or authorising pipelines hauling constituent gases and the related infrastructure. The national gas regulatory framework would extend to constituent gases and related facilities and activities where necessary to support the operation of the framework as it applies to natural gas and NG equivalents.

To support these outcomes, the NGL could be amended to define constituent gases and allow Rules and Procedures to be made with respect to the constituent gases and the facilities and activities involved in the creation of a blend.

Consequential changes may also be needed to ensure the NGL applies as intended to constituent gases and their related facilities and activities and to avoid unintended consequences. For example, the NGL may need to separately recognise hydrogen producers, hydrogen storage facilities, hydrogen pipelines and blending facilities so that provisions, such as market registration obligations apply as intended. This would also make it clear that Rules could be made with respect to these specific facilities and activities (e.g. for the Bulletin Board, GSOO, VGPR, price report reporting rules to apply to and other parts of the NGR).

<sup>55</sup> Any of the constituent gases may also be a new gas product if it is also supplied directly to customers for consumption purposes. See Chapter 4.

#### 4.2.2.1 How would the NGL apply to constituent gases and related facilities and activities under this proposal?

Table 4.3 illustrates how key measures in the NGL would apply to constituent gases and related facilities and activities under the approach outlined above.

In a similar manner to NG equivalents, the decision whether to apply economic regulation to pipelines involved in the haulage of constituent gases would be implemented through provisions in the NGL. Changes to the NGL would also allow other elements of the national gas regulatory framework to apply, but appropriate changes to the NGR and other instruments would also be required if a decision was made to apply those parts of the framework. The AEMC is consulting separately on the extent to which those elements of the regulatory framework should apply to constituent gases.

In relation to economic regulation, Energy Ministers have recently decided to implement a simpler regulatory framework that will continue to support the safe, reliable and efficient use of an investment in pipelines (see Box 2.1 for more detail). The new framework could be readily extended to pipelines involved in the haulage of constituent gases and it would appear appropriate to do so because these pipelines are likely to be natural monopolies and have a significant degree of market power, which could operate to the detriment of economic efficiency and consumers.<sup>56</sup> The new framework also recognises the different circumstances that pipelines may be in and includes a number of mechanisms to reduce the incidence of overregulation, such as:

- different forms of regulation being available depending on the degree of market power the pipeline has, with a stronger regulatory-oriented form of regulation available where market power is substantial and a lighter commercially-oriented form in other cases;
- new pipelines being able obtain an exemption from the stronger form of regulation for up to 15 years if they can demonstrate they are unlikely to have substantial market power in that period; and
- exemptions from transparency and ring fencing obligations available to pipelines with no third party shippers, and more limited exemptions available to single shipper and small pipelines.

The new framework should therefore be sufficiently flexible to accommodate pipelines involved in the haulage of constituent gases and its application appears consistent with the NGO. Stakeholder views are, however, being sought on this proposal.

**Table 4.3: Extension of NGL to constituent gases**

NGL Measure	How the measure would extend to constituent gases under the proposal
<b>Economic regulation of pipelines</b>	<p>If economic regulation is to apply to pipelines involved in the haulage of constituent gases, then the NGL would be amended so that a pipeline carrying constituent gases would be a 'pipeline' for the purposes of the NGL and so within the scope of economic regulation. A decision about the form of regulation to apply or any exemptions would then be made under the NGL and NGR in the usual way.</p> <p>The NGL would also be amended to make it clear that the framework for negotiating and resolving disputes relating to interconnections extends to facilities that supply constituent gases to pipelines.</p> <p>The ring fencing provisions in the NGL would be extended to the facilities and activities involved in the production, purchase or sale of constituent gases, to provide for the same protections as those that currently apply to natural gas.</p>

<sup>56</sup> The owners of these pipelines could, for example, engage in monopoly pricing, or in the case of vertically integrated service providers, restrict or deny access, or favour an upstream or downstream affiliate through discriminatory terms of access. They could also try and block competition from other pipelines over time by, for example, restricting or denying interconnections, or pricing new capacity below the incremental cost of developing the new capacity.

<b>NGL Measure</b>	<b>How the measure would extend to constituent gases under the proposal</b>
<b>Market transparency mechanisms</b>	
<b>Bulletin Board</b>	The 'natural gas industry' would be given an extended meaning that encompasses facilities and activities relating to constituent gases. The AEMC would be given power to make rules to extend the Bulletin Board to information relating to constituent gases and related facilities and activities.
<b>GSOO</b>	The AEMC would be given power to make rules to require the GSOO to include information relating to constituent gases and their related facilities and activities.
<b>VGPR</b>	The AEMC would be given power to make rules to require the VGPR to extend to constituent gases and related facilities and activities, and to extend AEMO's DWGM functions accordingly.
<b>AER gas price reporting</b>	The AER's gas price reporting function would extend to the prices for goods and services in the 'natural gas industry' which would have an extended meaning as explained above. This would enable rules to be made to require the AER to collect and publish price information relating to constituent gases.
<b>Compression and storage price reporting</b>	The NGL would be amended to enable the AEMC to extend the rules governing price reporting by compression and storage facilities to facilities that compress or store constituent gases.
<b>Facilitated gas markets</b>	
<b>DWGM</b>	The AEMC would be given power to make rules (including rules requiring registration) in relation to constituent gases and their related facilities and activities, for the purposes of regulating the DWGM and to extend AEMO's DWGM functions as required for that purpose. However, the DWGM would not itself be a market for constituent gases. Rather, the DWGM would be a market for natural gas and/or NG equivalents.
<b>STTM</b>	The AEMC would be given power to make rules (including rules requiring registration) in relation to constituent gases and their related facilities and activities, for the purposes of regulating an STTM. However, the STTM would not itself be a market for constituent gases. Rather, the STTM would be a market for natural gas and/or NG equivalents.
<b>GSH</b>	AEMO could amend the Exchange Agreement at any time to list products relating to constituent gases (e.g. hydrogen), if there is demand for these products to be offered through the GSH.
<b>DAA</b>	A transmission pipeline carrying a constituent gas would be a 'pipeline' and so within the scope of the DAA. A stand-alone facility for compressing a constituent gas would be a 'compression service facility' and so within the scope of the DAA. However, changes to the NGR would be required before the pipeline or facility is brought within scope. The decision to extend the DAA would therefore be made at the NGR level by the AEMC. This is unlikely, however, to be a priority for the initial Rules.
<b>Regulated retail gas markets</b>	
<b>Retail markets</b>	The AEMC would be given power to make rules to require registration under the RMP for activities relating to constituent gases. AEMO could deal with constituent gases in the Procedures if needed.
<b>Regulatory sandboxing</b>	
<b>Regulatory sandboxing</b>	Trial waivers and trial rules could extend to constituent gases where required.

#### 4.2.2.2 Questions for stakeholders

Officials are interested in stakeholders' views on the potential approach to extending the NGL to constituent gases and related facilities and activities and any other approaches that could be employed that would better achieve the objectives of Energy Ministers (see section E.3). The box below contains a number of questions that Officials are interested in obtaining stakeholder feedback on.

## Box 4.2: Questions for stakeholders

- 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?
- 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?
- 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?
- 12 Are there any other approaches that you think would better achieve the objectives of Energy Ministers (see section E.3)?
- 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?

### 4.2.3 Extension of market bodies' functions and powers

This section considers changes that may be required to the functions and powers of the market bodies. These encompass, in broad terms:

- the AEMC's rule making and market review functions;
- the AER/ERA's economic regulatory functions and powers;
- the AER's monitoring, investigation and enforcement functions and powers under the NGL;
- AEMO's powers to make Procedures, and
- AEMO's powers with respect to the operation of facilitated and retail gas markets.

Under the potential approach:

- There would be no change to the allocation of functions between the jurisdictions and market bodies. Jurisdictions would remain responsible for all the matters set out in section 2.1, including pipeline licensing and authorising the supply of gases.
- Market bodies would be able to exercise their functions and powers with respect to NG equivalents just as they currently do with respect to natural gas. This would be achieved by extending the national gas regulatory framework to NG equivalents and related facilities and activities in the manner described in section 4.2.1.

This approach also provides for the NGL to be amended as necessary to provide for market bodies to exercise their functions and powers with respect to constituent gases and related facilities and activities.

The following table illustrates how this potential approach would affect key functions and powers.

**Table 4.4: Examples of how market bodies functions and powers would be extended**

Function	How the function would be affected
The AEMC may make rules regulating various specified measures including access to pipeline services, the provision of pipeline services, AEMO's declared system functions and the operation of a DWGM, AEMO's STTM functions and the operation of an STTM of an adoptive jurisdiction and compression and storage facility price reporting.	Extending the definition of natural gas to NG equivalents and recognising constituent gases (and related consequential changes) would extend the scope of all these matters so the AEMC can make rules in respect of those matters.
The AER/ERA's economic regulatory functions or powers are defined by reference to pipeline services provided by a service provider for a scheme pipeline.	The definition of 'pipeline' would include a pipeline hauling an NG equivalent and may extend to pipelines hauling its constituent gases. This would have the effect of extending the meaning of pipeline service and scheme pipeline.
The AER/ERA's general functions include 'to prepare and publish reports on the financial and operational performance of service providers in providing pipeline services by means of scheme pipelines'.	This function would extend to NG equivalents and related facilities and activities since the definition of 'pipeline' would include a pipeline hauling an NG equivalent and may extend to pipelines hauling their constituent gases, which would also have the effect of extending the meaning of service provider.
AEMO's general functions include 'to operate and administer markets for natural gas' and 'to promote the development, and improve the effectiveness of the operation and administration of, gas markets'.	Extending the definition of natural gas to NG equivalents and recognising constituent gases and their associated facilities and activities would extend the scope of AEMO's functions in these markets.
AEMO's declared system functions include 'to make, amend or revoke Procedures governing the operation and administration of the declared wholesale gas market'.	Extending the definition of natural gas to NG equivalents and recognising constituent gases and their associated facilities and activities would extend the scope of matters for which AEMO may make Procedures for the DWGM.

One question that has arisen during the development of this Consultation Paper is whether distribution network providers or a third party such as AEMO should be responsible for ensuring any blending limit (or gas specification requirement) imposed by a jurisdiction is not breached in distribution networks forming part of the STTM or attached to the DWGM.<sup>57</sup>

Distribution network service providers would usually be responsible for this activity. In the context of the DWGM and STTM however, there may be potential for service providers that have a direct or indirect interest in an NG equivalent supply project to favour their own affiliates if curtailment is required.

Ring fencing measures may be one means by which to counter this risk. Another approach would be for a third party such as AEMO to be given the role. However, this may give rise to unwarranted cost and complexity since a third party may not be well-placed to manage the risk unless given sufficient information and operational control. AEMO, for example, does not currently have access to real time information it would need on the composition of gas in a distribution network and be in a position to monitor this information and direct suppliers of NG equivalents or hydrogen (if blending occurs in pipelines) to cease, or turn down supply, if required.

#### 4.2.3.1 Questions for stakeholders

Officials are interested in stakeholders' views on the potential approach to extending the market bodies' functions and powers under the NGL and any other approaches that could be employed that would better achieve the objectives of Energy Ministers (see section E.3). The box below contains a number of questions that Officials are interested in obtaining stakeholder feedback on.

<sup>57</sup> See also section 5.3.6 of the AEMC's Consultation Paper, Review into extending the regulatory frameworks to hydrogen and renewable gases, 21 October 2021.

### Box 4.3: Questions for stakeholders

- 14 What are your views on the potential approach to extending market body functions and powers 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?

## 4.3 Potential approach to extending the NERL

This section explains the potential approach to extending the NERL to the retail sale and supply of NG equivalents and to extending market bodies' functions and powers under the NERL. In general terms, the NERL applies to the retail sale and supply of energy to customers connected to distribution systems.<sup>58</sup> Energy covers electricity and gas and gas in turn is defined as natural gas within the meaning of the NGL.

In contrast to the NGL, it is unnecessary to bring constituent gases and related facilities and activities within the scope of the NERL, because the NERL only relates to the sale and supply of gas consumed by retail customers.

In this case, it is intended that all parts of the NERL that apply to natural gas would also extend to NG equivalents. To give effect to this principle, 'gas' would be given an extended meaning under the NERL to include NG equivalents. This would also result in the market bodies' functions and powers being extended to NG equivalents.

The following table illustrates, at a high level, how this approach would affect consumer protection measures and the market bodies' functions and powers under the NERL. Amendments may also need to be made to extend the application of the NERL. The AEMC is separately consulting on these potential changes.

---

<sup>58</sup> The NERL applies to retail gas supply in SA, NSW, the ACT and Qld. In the jurisdictions where the NERL does not apply, the jurisdiction is responsible for reviewing the legislation governing the sale and supply of gas to consumers.

**Table 4.5: Extension of NERL and market bodies' functions and powers to NG equivalents**

NERL Measure & functions	How the measure or functions and powers would extend to NG equivalents
Retailer-customer relationship – NERL Part 2	<p>This Part would continue to apply to standard and market retail contracts. Retailers may develop different contracts or pricing for natural gas and NG equivalents (depending on how the industry evolves) but this can be accommodated within the framework.</p> <p>Provisions in this Part of the NERL relating to explicit informed consent, customer hardship, payment plans, energy marketing and deemed customer contracts would all apply to the retail sale of NG equivalents in the same way they do to natural gas.</p>
Distributor- customer relationship - NERL Part 3	<p>The provisions governing the distributor-customer relationship would all apply to distributors supplying NG equivalents in the same way they do to natural gas.</p>
Small customer complaints and dispute resolution -- NERL Part 4	<p>The provisions in the NERL would apply to the sale and supply of NG equivalents in the same way they do to natural gas.</p> <p>The provisions governing small customer complaints and dispute resolution rely on jurisdictional ombudsman schemes. These jurisdictional schemes may need to be revised to extend to NG equivalents. Changes to the jurisdictional ombudsman schemes are outside the scope of this reform process.</p>
Authorisation of retailers and exempt seller regime -- NERL Part 5	<p>The prohibition on retail sale without authorisation or exemption would apply to NG equivalents and the authorisation and exemption framework would also apply.</p> <p>The NERL would allow the AER to issue authorisations that extend only to natural gas, or only to NG equivalents, or both. The NERL would also allow the NGR to include rules applicable only to the sale of natural gas, or only to NG equivalents, or both.</p>
Regulatory sandboxing – NERL Proposed Part 5A	<p>The regulatory sandbox provisions would apply to NG equivalents in the same way they do to natural gas.</p> <p>The AEMC is consulting separately on possible changes to the regulatory sandboxing rules to accommodate change of product trials.</p>
Retailer of last resort regime – NERL Part 6	<p>This regime would apply to NG equivalent customers in the same way it does to natural gas customers.</p>
Small compensation claims regime – NERL Part 7	<p>The small compensation claims regime would apply to NG equivalent customers in the same way it does to natural gas customers.</p>
General matters - Part 15	<p>This Part includes immunities of distributors and retailers relating to failure to supply and mutual indemnities. These would continue to apply in relation to the supply of NG equivalents as they do to the supply of natural gas.</p>
AER and AEMC functions and powers – Parts 8-9, Rule-making – Part 10, Compliance, performance and enforcement –Parts 12-13	<p>The AER and the AEMC would be able to exercise their functions and powers with respect to NG equivalents just as they currently do with respect to natural gas.</p>
Transitional measures	<p>Where an existing pipeline or other facility commences supplying an NG equivalent, transitional measures under the NERL would provide for a smooth transition of authorisations, exemptions and contracts.</p>

#### 4.3.1.1 Questions for stakeholders

Officials are interested in stakeholders' views on the potential approach to extending the NERL to NG equivalents and any other approaches that could be employed that would better achieve the objectives of Energy Ministers (see section E.3). The box below contains a number of questions that Officials are interested in obtaining stakeholder feedback on.

**Box 4.4: Questions for stakeholders**

- 18 What are your views on the potential approach to extending the application of the NERL to NG equivalents?
- 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?
- 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)?

## 5. Accommodating other gas products in the national gas regulatory framework over time

Where Energy Ministers are satisfied there will be no unintended consequences and that reforms can be progressed in line with the timeframes specified in Table 1.1, the NGL and NERL will also be amended to provide for OG products to be accommodated by the national gas regulatory framework over time. The term 'OG product' is used in this context to refer to a gas that is not suitable for use in existing natural gas appliances, but which may in future be supplied to consumers for use in appropriate appliances if approved for use through the relevant jurisdictional process.

As noted previously, Energy Ministers have agreed that the reforms required to extend the framework to NG equivalents should be expedited. The AEMC and AEMO reviews are therefore only focused on NG equivalents to support projects that will come on stream in 2022-23. As a consequence, the 'future proofing' to accommodate OG products will only occur at the NGL and NERL level at this stage. These changes will come into effect at the same time as the other changes to the NGL and NERL but will be dormant until Rules and Procedures are amended to accommodate OG products when the prospect of their supply becomes more likely and when jurisdictions authorise their supply.<sup>59</sup>

The remainder of this chapter explains the potential approach to extending the NGL and NERL to OG products. In a similar manner to Chapter 4, stakeholder feedback is welcome on the potential approach and any other approaches that could be used to accommodate OG products over time.

### 5.1 Potential approach to accommodating other gas products in the NGL

This section explains the potential approach to accommodating the supply of OG products in the NGL. The policy intention in this case is that jurisdictions would remain responsible for granting licences or other authorisation for the supply of OG products by pipelines and that the NGL would be amended to achieve the following:

- Recognise the ability of jurisdictions to make local regulations to extend the national gas regulatory framework to OG products authorised for supply by pipelines in its jurisdiction. The NGL would leave it open to the jurisdiction to decide how this mechanism works in its jurisdiction. For example the local regulation could be:
  - made on a case-by-case basis when a pipeline is granted a licence to supply an OG product;
  - a general regulation covering all specified gases, or classes of gases (e.g. all hydrogen blends other than NG equivalents); or
  - a general regulation covering all gases unless excluded.
- Recognise OG products, constituent gases and related facilities and activities, where it is appropriate to do so.

---

<sup>59</sup> More time will be available to consider the changes to the Rules, Procedures and other subordinate instruments required to accommodate OG products, because before the supply of these products could occur changes to pipelines, metering equipment, installations and appliances would be required.

- Enable market bodies to exercise their functions and powers with respect to OG products, their constituent gases and related facilities and activities, once a jurisdiction authorises its supply, and in anticipation of that authorisation.
- Provide sufficient flexibility for different parts of the regulatory framework to be applied to:
  - OG products, their constituent gases and related facilities and activities; and
  - different pipelines (or parts of pipelines) depending on the product they are supplying.

In a similar manner to NG equivalents and constituent gases, the decision to apply economic regulation to pipelines involved in the haulage of OG products and their constituent gases, is a matter for the NGL. For the reasons set out in section 4.2.2, the potential approach provides for the extension of the economic regulatory provisions to pipelines involved in the haulage of OG products and their constituent gases.

In contrast to the economic regulation provisions, the decision to apply the other policy measures in the NGL and NGR to OG products and their constituent gases and related facilities and activities would be a matter for the AEMC exercising powers under the NGL to make Rules, when the prospect of the supply of OG products becomes more likely. The AEMC would, for example, have the power to:

- make rules about whether, and the extent to which, the transparency measures (e.g. the GSOO, the Bulletin Board and the VGPR) would apply to OG products, their constituent gases and related facilities and activities; and
- amend the NGR to extend the obligations to register for the DWGM, the STTM, the DAA and retail markets to OG products, their constituent gases and related facilities and activities.

The following table illustrates the potential approach to accommodating OG products in the NGL. Note that the table is not intended to provide a comprehensive list of the changes to the NGL that would be required to accommodate OG products. Rather, it is intended to provide an overview of how key measures in the NGL could accommodate OG products.

**Table 5.1: Accommodating OG products in the NGL**

NGL measure	How the measure is intended to extend to OG products
<b>Economic regulation</b>	
<b>Economic regulation</b>	Once a jurisdiction has made a local regulation to bring the supply of an OG product within scope of the NGL, a pipeline carrying an OG product or its constituent gas would be a 'pipeline' and so within the scope of the economic regulatory framework. Decisions about the form of regulation a pipeline would be subject to and any exemptions that may be available would be made in the usual way under the NGL/NGR.  The ring fencing provisions in the NGL would be extended to the facilities and activities involved in the production, purchase or sale of OG products and their constituent gases, to provide for the same protections as those that currently apply to natural gas.
<b>Market transparency mechanisms</b>	
<b>Bulletin Board</b>	The AEMC would be given power to make rules to require Bulletin Board reporting for OG products, their constituent gases, and related facilities and activities.
<b>GSOO</b>	The AEMC would be given power to make rules to require the GSOO to extend to OG products, their constituent gases, and related facilities and activities.
<b>VGPR</b>	The AEMC would be given power to make rules to require the VGPR to extend to OG products, their constituent gases, and related facilities and activities and to extend AEMO's DWGM functions accordingly.

<b>NGL measure</b>	<b>How the measure is intended to extend to OG products</b>
<b>AER gas price reporting</b>	The AER's gas price reporting function would extend to the prices for goods and services relating to OG products, their constituent gases and related facilities and activities.
<b>Compression and storage price reporting</b>	The AEMC's power to make rules to require reporting of compression and storage terms and prices would be extended to facilities compressing and storing OG products.
<b>Facilitated markets</b>	
<b>DWGM</b>	<p>The AEMC would be given power to make rules (including rules requiring registration) in relation to OG products and their constituent gases, and related facilities and activities, for the purposes of regulating the DWGM and to extend AEMO's DWGM functions as required for that purpose.</p> <p>Over time, the DWGM may need to evolve to accommodate the supply of OG products to some customers within the geographic reach of the market. Depending on how the market for OG products evolves, a new wholesale market design may be needed for OG products, since the current DWGM is designed for the characteristics of the Victorian natural gas market and may not be suitable for OG products. Arrangements to deal with the interface between the DWGM and the new markets may also be needed.</p>
<b>STTM</b>	<p>The AEMC would be given the power to make rules (including rules requiring registration) in relation to OG products and their constituent gases, and related facilities and activities for the purposes of regulating an STTM.</p> <p>Like the DWGM, the STTMs may need to evolve over time to accommodate the supply of OG products. Depending on how the market for OG products evolves, a different wholesale market design may be needed, since the current STTMs are designed to support wholesale gas supply arrangements at the interface between natural gas transmission and distribution facilities and may not be suitable for OG products. Arrangements to deal with the interface between facilities supplying through an STTM and the new markets may also be needed.</p>
<b>GSH</b>	<p>The GSH provisions in the NGL would be extended to allow the platform to be used to buy and sell OG products or their constituent gases and related services.</p> <p>AEMO could then amend the Exchange Agreement to extend the list of products, if there is demand for these products to be offered through the GSH.</p>
<b>DAA</b>	<p>A transmission pipeline carrying an OG product or constituent gas would be a 'pipeline' and so within the scope of the DAA. A stand-alone facility for compressing an OG product or constituent gas would also be a 'compression service facility' and so within scope of the DAA.</p> <p>Even if within the scope of the DAA under the NGL, a pipeline or stand-alone compression facility for an OG product or a constituent gases would not be required to participate in the DAA unless the NGR is amended to bring these facilities in scope. The AEMC would be given the power to make these rules.</p>
<b>Regulated retail markets</b>	
<b>Retail markets</b>	<p>The AEMC would be given power to make rules to require registration under the RMPs for activities relating to OG products and their constituent gases.</p> <p>AEMO could makes RMPs for OG products and where needed, their constituent gases.</p>
<b>Regulatory sandboxing</b>	
<b>Regulatory sandboxing</b>	<p>Until a jurisdiction makes a regulation to bring OG products within the scope of the NGL, trials of the OG product can take place outside the scope of the national gas regulatory framework since there would be no need for a trial waiver or trial rules. The NGL would nonetheless provide for rules to be made to allow for trials or demonstration projects that affect customers taking a supply of natural gas or an NG equivalent and so affected by the trial for OG products. The AEMC is separate consulting on changes that may be required to the NGL for this purpose.</p> <p>Once within scope, the regulatory sandboxing arrangements would apply in relation to OG products and their constituent gases.</p>

Officials are interested in stakeholders' views on the approach to accommodating OG products in the NGL outlined in this section and any other approaches that could be employed that would

better achieve the objectives of Energy Ministers (see section E.3). As outlined above, Energy Ministers are only proposing to ‘future proof’ the NGL and NERL where it can be satisfied there will be no unintended consequences from doing so and the timelines in Table 1.1 can be met. Our preliminary view is that there would be no unintended consequences under the approach outlined in this section, but stakeholder views are sought on this issue.

The box below contains a number of questions that Officials are interested in obtaining stakeholder feedback on.

#### **Box 5.1: Questions for stakeholders**

- 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?
- 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.
- 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?
- 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)?

## **5.2 Potential approaches to accommodating other gas products in NERL**

This section explains the potential approach to accommodating the retail sale and supply of OG products in the NERL.

Under the potential approach described in this paper, all parts of the NERL that apply to natural gas would extend to OG products if the supply of the OG product has been brought within the scope of the NGL by jurisdictional regulation (see section 5.1). The NERL would not therefore apply to the retail sale and supply of an OG product if the NGL does not also apply to that product.

To give effect to this principle, the term ‘gas’ in the NERL would be given an extended meaning under the NERL to include an OG product that is subject to the NGL.

The following table illustrates, at a high level, how this potential approach would affect consumer protection measures and the market bodies’ functions and powers under the NERL. Amendments may also need to be made to the NERR to extend its application. This would, however, be a matter for the AEMC when the prospect of the supply of OG products becomes more likely.

**Table 5.2: Accommodating OG products in the NERL**

NERL Measure and functions	How the measure or functions and powers would extend to OG products
Retailer-customer relationship – NERL Part 2	<p>This Part would continue to apply to standard and market retail contracts. Retailers may develop different contracts or pricing for natural gas, NG equivalents and OG products (depending on how the industry evolves) but this could be accommodated within the framework.</p> <p>Provisions in this Part of the NERL relating to explicit informed consent, customer hardship, payment plans, energy marketing and deemed customer contracts would all apply to the retail sale of OG products in the same way they do to natural gas.</p>
Distributor- customer relationship - NERL Part 3	<p>The provisions governing the distributor-customer relationship would all apply to distributors supplying OG products in the same way they do to natural gas.</p>
Small customer complaints and dispute resolution -- NERL Part 4	<p>The provisions in the NERL would apply to the sale and supply of OG products in the same way they do to natural gas.</p> <p>Note that the provisions governing small customer complaints and dispute resolution rely on jurisdictional ombudsman schemes. These jurisdictional schemes may need to be revised to extend to OG products. Changes to the jurisdictional ombudsman schemes are outside the scope of this reform process.</p>
Authorisation of retailers and exempt seller regime -- NERL Part 5	<p>The authorisation and exemption framework would apply to OG products (including the prohibition on retail sale without authorisation or exemption).</p> <p>The NERL would allow the AER to issue authorisations that extend only to natural gas, NG equivalents, OG products or all three. The NERL would also allow the NGR to include rules applicable only to the sale of natural gas, the sale of NG equivalents, the sale of OG products or all three.</p>
Retailer of last resort regime – NERL Part 6	<p>This regime would apply to OG product customers in the same way it does to natural gas customers.</p>
Small compensation claims regime – NERL Part 7	<p>The small compensation claims regime would apply to OG product customers in the same way it does to natural gas customers.</p>
General matters - Part 15	<p>This Part includes immunities of distributors and retailers relating to failure to supply and mutual indemnities. These would apply in relation to the supply of OG products.</p>
AER and AEMC functions and powers – NERL Parts 8-9 Rule-making –NERL Part 10 Compliance, performance and enforcement – NERL Parts 12-13	<p>The AER and the AEMC would be able to exercise their functions and powers with respect to OG products just as they currently do with respect to natural gas.</p>

Officials are interested in stakeholders’ views on the potential approach to accommodating OG products in the NERL and any other approaches that could be employed that would better achieve the objectives of Energy Ministers (see section E.3). In a similar manner to the NGL, our preliminary view is that there would be no unintended consequences associated with the approach outlined in this section, but stakeholder views are sought on this issue. The box below contains a number of questions that Officials are interested in obtaining stakeholder feedback on.

Officials are also interested in stakeholders’ views on a **second potential approach** that would allow a jurisdiction to apply the NERL (and NERR), or the NGL (and NGR), or both, to the supply of OG products. This would, for example, give jurisdictions greater flexibility to apply a local framework for economic regulation but the national consumer protection framework. Conversely a jurisdiction could apply the national framework for economic regulation but a local framework for consumer protections (as already occurs in some jurisdictions such as Victoria).

**Box 5.2: Questions for stakeholders**

- 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)?

## Appendix A Summary of potential approach to extending the national gas regulatory framework

The table below provides an overview of the potential approach described in this consultation paper, by product.

Policy measure	NG equivalents	Other gas products	Constituent gases
<b>Description of product</b>	Low level blends and other renewable gases that are suitable for consumption as natural gas in existing appliances. Supplied directly to end users.	Blends and other gases that are not natural gas or natural gas equivalents. Supplied directly to end users.	Gases used to create a gas blend that is an NG equivalent or an OG product. Not supplied directly to end users.
<b>Responsibility for authorising supply of products by pipeline</b>	Jurisdictions, under jurisdictional licensing regimes	Jurisdictions, under jurisdictional licensing regimes	Jurisdictions, under jurisdictional licensing regimes
<b>Trigger to bring supply of the product within scope</b>	Jurisdictions would assess whether a particular gas or gas blend is an NG equivalent. Where so, it would specify this in a local regulation made under the NGL. This would, in turn, trigger application of the NERL.  Under transitional arrangements, existing distribution pipelines and their extensions or expansions will be assumed to be carrying NG or an NG equivalent unless the jurisdiction makes a regulation displacing the assumption (for example if the pipeline, or a part, converts to an OG product).	Jurisdictions would decide whether to bring an OG product within scope of the NGL and NERL. Where so, it would specify this in a local regulation made under the NGL. This would, in turn, trigger application of the NERL.	Once an NG equivalent or OG product is within scope of the NGL, so is each of its constituent gases, and related facilities and services.  It is not proposed to bring constituent gases within the scope of the NERL.
<b>Economic regulation of pipelines and compression and storage price reporting</b>			
<b>Economic regulation</b>	A pipeline carrying an NG equivalent would be a 'pipeline' and so within the scope of economic regulation under the NGL.  A decision about the form of regulation to apply or any exemptions would be made under the NGL and NGR in the usual way.  The ring fencing and other economic regulatory provisions in the NGL would be extended to the facilities and activities involved in the production, purchase or sale of NG equivalents and their constituent gases	Once a jurisdiction has made a local regulation to bring the supply with scope of the NGL, a pipeline carrying an OG product would be a 'pipeline' and so within the scope of economic regulation under the NGL.  A decision about the form of regulation to apply or any exemptions would be made under the NGL and NGR in the usual way.  The ring fencing and other economic regulatory provisions in the NGL would be extended to the facilities and activities involved in the production, purchase or sale of OG products and their constituent gases	Once an NG equivalent or OG product is within scope of the NGL, each of its constituent gases would also be within scope.  A pipeline carrying a constituent gas (once within scope) would be a 'pipeline' and so within the scope of economic regulation under the NGL.  A decision about the form of regulation to apply or any exemptions would be made under the NGL and NGR in the usual way.  The ring fencing and other economic regulatory provisions in the NGL would be extended to the facilities and activities involved in the production, purchase or sale of constituent gases

Policy measure	NG equivalents	Other gas products	Constituent gases
<b>Market transparency mechanisms</b>			
<b>Bulletin Board</b>	The 'natural gas industry' would be given an extended meaning that encompasses NG equivalents and related facilities and activities.  In principle, the Bulletin Board rules would extend to facilities and activities relating to NG equivalents as they do to facilities and activities relating to natural gas.	The AEMC would be given power to make rules to require Bulletin Board reporting for OG products and related facilities and activities.	The 'natural gas industry' would be given an extended meaning that encompasses facilities and activities relating to constituent gases.  The AEMC would be given power to make rules to extend the Bulletin Board to information relating to constituent gases and related facilities and activities.
<b>GSOO</b>	The 'natural gas industry' would be given an extended meaning that encompasses NG equivalents and related facilities and activities.  In principle, the GSOO rules would extend to facilities and services relating to NG equivalents as they do to natural gas.	The AEMC would be given power to make rules to require the GSOO to extend to information about OG products and their related facilities and activities.	The AEMC would be given power to make rules to require the GSOO to extend to information relating to constituent gases and their related facilities and activities.
<b>VGPR</b>	The DWGM would become a wholesale market for natural gas and/or NG equivalents and so in principle the VGPR rules could extend to information about NG equivalents and related facilities and activities.	The AEMC would be given power to make rules to require the VGPR to extend to OG products and their related facilities and activities and to extend AEMO's DWGM functions accordingly.	The AEMC would be given power to make rules to require the VGPR to extend to constituent gases and their related facilities and activities and to extend AEMO's DWGM functions accordingly.
<b>AER gas price reporting function</b>	The 'natural gas industry' would be given an extended meaning that encompasses NG equivalents and related facilities and activities. This would allow rules about the prices the AER reports to extend to NG equivalents and related services as they do to natural gas.	The AEMC would be given power to make rules to require the AER to report prices relating to OG products and related services.	The AEMC would be given power to make rules to require the AER to report prices relating to constituent gases and related services.
<b>Compression and storage price reporting</b>	The power to make rules to require reporting of compression and storage terms and prices would be extended to facilities compressing and storing NG equivalents.	The power to make rules to require reporting of compression and storage terms and prices would be extended to facilities compressing and storing OG products.	The power to make rules to require the reporting of compression and storage terms and prices would be extended to facilities compressing and storing constituent gases.
<b>Facilitated markets</b>			
<b>DWGM</b>	The DWGM would become a wholesale market for natural gas and/or NG equivalents, with corresponding registration obligations.	The AEMC could make rules (including rules requiring registration) in relation to OG products and their related facilities and activities, for the purposes of regulating a DWGM and to extend AEMO's DWGM functions as required for that purpose.	The AEMC could make rules (including rules requiring registration) in relation to constituent gases and their related facilities and activities, for the purposes of regulating a DWGM and to extend AEMO's DWGM functions as required for that purpose.

Policy measure	NG equivalents	Other gas products	Constituent gases
<b>STTM</b>	An STTM would become a market for the supply of natural gas and/or NG equivalents, with corresponding registration obligations.	The AEMC could make rules (including rules requiring registration) in relation to OG products and their related facilities and activities, for the purposes of regulating an STTM.	The AEMC could make rules (including rules requiring registration) in relation to constituent gases and their related facilities and activities, for the purposes of regulating an STTM.
<b>GSH</b>	The GSH would become a 'facility through which persons may elect to buy and sell natural gas and/or NG equivalents' etc. However, it is unlikely to affect GSH product definitions in the near to medium term.	The Exchange Agreement could be amended to list products relating to OG products, if there is demand for these to be offered through the GSH.	The Exchange Agreement could be amended to list products relating to constituent gases, if there is demand for these to be offered through the GSH.
<b>DAA</b>	<p>A transmission pipeline carrying an NG equivalent would be a 'pipeline' and so within the scope of the DAA.</p> <p>A stand-alone facility for compressing an NG equivalent would be a 'compression service facility' and so within the scope of the DAA.</p> <p>In practice, in the near term it is unlikely any facilities within the scope of the DAA would carry or compress an NG equivalent.</p>	<p>A pipeline carrying an OG product would be a 'pipeline' and so within the scope of the DAA.</p> <p>A stand-alone facility for compressing an OG product would be a 'compression service facility' and so within the scope of the DAA.</p> <p>NGR changes would be needed before the pipeline or facility is subject to the DAA.</p>	<p>A pipeline carrying a constituent gas would be a 'pipeline' and so within the scope of the DAA.</p> <p>A stand-alone facility for compressing a constituent gas would be a 'compression service facility' and so within the scope of the DAA.</p> <p>NGR changes would be needed before the pipeline or facility is subject to the DAA.</p>
<b>Retail markets</b>			
<b>Retail markets</b>	<p>A retail market for natural gas and/or NG equivalents in each participating jurisdiction would remain a retail gas market within the meaning of the NGL.</p> <p>The permitted registrable capacities in the NGL would be modified to accommodate activities specific to NG equivalents.</p>	<p>The AEMC would be given power to make rules to require registration under the RMPs for activities relating to OG products.</p> <p>AEMO could make RMPs for OG products.</p>	<p>The AEMC would be given power to make rules to require registration under the RMPs for activities relating to constituent gases.</p> <p>AEMO could deal with constituent gases in the RMPs if needed.</p>
<b>Regulatory sandboxing</b>			
<b>Regulatory sandboxing in NGL and NERL</b>	Available for NG equivalents.	Available for OG products (once within the scope of the NGL).	Available for constituent gases (once within scope of the NGL).
<b>Consumer protections under NERL/NERR</b>			
<b>NERL/NERR consumer protection framework</b>	The NERL would apply to the sale and supply of NG equivalents as they do to natural gas.	The NERL would apply to the sale and supply of OG products as they do to natural gas, but only if the OG product is subject to regulation under the NGL.	The NERL is not relevant to constituent gases.