

## **Embedded Gas Networks**

Report for the Australian Energy Market Commission

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The report is based on legislation and other instruments in place at 24 February 2019 and in addition takes into account a change to the National Gas Rules made by the National Gas Amendment (Recognition of exempt sellers in retail market) Rule 2019 No. 2. In most cases legislation is described in summary form. Qualifications, exclusions and matters such as administrative and procedural requirements in the legislation and other instruments have been omitted unless directly relevant to this report. This report does not provide specific legal advice about the regulation of any particular facility (including a gas pipe) or arrangement (including on-sale of gas) and must not be relied upon for that purpose. Where specific legal advice is required, the relevant legislation should be consulted and appropriate legal advice sought.

This report considers the regulation of pipes used for gas distribution, under legislation specific to the gas sector. It does not consider the regulation of pipes that are, or form part of, gas installations, price protections under jurisdictional legislation dealing with residential parks or tenancy schemes or general legislation such as dangerous goods or workplace health and safety legislation.

## Overview and findings

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### 1 Introduction

- 1.1 The Australian Energy Market Commission (**AEMC**) has asked us to review and report on the regulation of embedded gas networks under national energy laws and under jurisdictional laws, regulations and licences.
- 1.2 We were asked to outline how national gas and retail laws and rules apply to distribution pipelines, covering:
- (a) the coverage of distribution pipelines under the National Gas Law (**NGL**), National Gas Rules (**NGR**), National Energy Retail Law (**NERL**) and National Energy Retail Rules (**NERR**) and how the key definitions work; and
  - (b) the key areas in respect of which the relevant pipelines are regulated, particularly in relation to obligations on retail market participation under the NGR and obligations to comply with the NERR.
- 1.3 We were also asked to outline how each state and territory in Australia regulates distribution pipelines, covering:
- (a) jurisdictional classification of distribution pipelines and how this affects its coverage under the national framework;
  - (b) which safety and technical regulations apply, without details on the content of those regulations;<sup>1</sup>
  - (c) the powers for a pipeline owner/operator to access land to install and maintain a pipeline;
  - (d) regulations regarding metering/ measurement of consumption;
  - (e) what access retail gas customers have to assistance with dispute resolution, such as ombudsman schemes; and
  - (f) whether retail gas customers have access to jurisdictional concession or rebate schemes for disadvantaged customers.
- 1.4 Our review was to be undertaken with a view to responding to the following questions.
- (a) Do any national or state and territory-based legislative or regulatory frameworks recognise gas embedded networks and if so, how?
  - (b) To the extent gas embedded networks are recognised under national or jurisdictional frameworks, are they regulated in the same way as standard gas supply arrangements, are they regulated in a different way (e.g. exempted from some requirements, or subject to different requirements) or are they unregulated?
  - (c) Do customers of gas embedded networks have effective access to retail competition (ie choice of gas retailer)? If not, are there retail price protections in

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<sup>1</sup> This report does not consider the impact of legislation dealing with the handling or transport of dangerous goods or workplace health and safety. The exception is the Northern Territory as the dangerous good legislation deals with matter relevant to this report.

place for customers of gas embedded networks in the material reviewed for the report?<sup>2</sup>

- 1.5 This report is organised in 11 sections, comprising this overview and the findings in the following tables and 10 parts covering the NGL/NGR, the NERL/NERR and then each of the 8 states and territories. Each jurisdiction commences with an overview to provide context. The Appendix compares the results of our findings across all the states and territories.

**2 What is an embedded gas network?**

- 2.1 We have not identified a generally accepted definition of an embedded gas network.<sup>3</sup> We have approached this review on the basis that, in general terms, an embedded gas network is a pipe or system of pipes to which gas is supplied from gas mains and used to reticulate gas within a site. The gas delivered to the site may be used by the owner or controller of the site, or that person may on-sell some or all of the gas to others located on the site (such as tenants) or may on-supply to other sites.
- 2.2 This general approach leaves open the question – what is a gas main? As described in this report, different jurisdiction have sought to address this in different ways. The national regime focusses on the purpose for which a pipe is used (haulage, upstream activities or consumption) or in the case of the NERL, whether it is part of a regulated network. Other regimes focus on technical criteria, physical configuration or use of the site and others provide for identification of the network boundary.
- 2.3 Remote distribution networks, such as those regulated under the Queensland regime, are not embedded gas networks under this approach.
- 2.4 In relation to effective access to retail competition, we have approached this review on the basis that in practice, choice of retailer is generally only available to customers whose meters have a unique identifier (**MIRN**) under the Retail Market Procedures or equivalent instrument.

**3 Are embedded gas networks recognised in the legislative schemes?**

*Question 1: Do any national or state and territory-based legislative or regulatory frameworks recognise gas embedded networks and if so, how?*

Jurisdiction	Finding
NGL and NGR	<p>A pipe or system of pipes that is downstream of a point on a pipeline from which a person takes natural gas for consumption purposes is not a ‘pipeline’ under the NGL. This is likely to place many embedded gas networks outside the scope of the national regime. An embedded gas network where gas is taken for haulage and not for the purpose of consumption may still be a ‘pipeline’ under the NGL.</p> <p>The NGL recognises the on-sale of gas, by treating the on-seller of gas as an ‘end user’ for the purposes of some provisions. On-sellers may also be ‘end users’ under the general definition but this is not clear.</p>
NERL and NERR	The NERL and NERR rely on the ‘pipeline’ definition in the NGL and so an

<sup>2</sup> Price protections may be in place under jurisdictional legislation dealing with residential parks or tenancy schemes. These are beyond the scope of this report.

<sup>3</sup> For example, South Australia uses a term ‘inset distribution system’. Queensland legislation refers to an ‘on-supplier’. New South Wales uses ‘on-seller’. Victorian and Western Australian information sheets published by government departments refer to ‘embedded networks’.

Jurisdiction	Finding
	<p>embedded gas network that is not a pipeline will also be outside the scope of the NERL and NERR.</p> <p>A distribution pipeline that is not covered under the NGL and not the subject of a nomination under the NERL is also outside the scope of the NERL and NERR. This may include an extension to, or expansion of the capacity of, a covered distribution pipeline that is not also treated a part of that classified, covered distribution pipeline under the NGL.</p>
New South Wales	<p>A distribution pipeline does not include, and a reticulator's authorisation is not required to operate:</p> <ul style="list-style-type: none"> <li>▪ a pipe or system of pipes used to convey or control gas downstream of the outlet of the gas meter at which gas is supplied from a distribution pipeline;</li> <li>▪ a gas pipe wholly situated on land owned by the person who owns or controls the gas pipe or equipment.</li> </ul>
Queensland	<p>A distribution authority is not required to operate a distribution pipeline in the following circumstances:</p> <ul style="list-style-type: none"> <li>▪ the pipeline is completely within a lot, or contiguous lots, owned by the same person;</li> <li>▪ the pipeline is completely within contiguous lots if the gas is only transported to one other person;</li> <li>▪ the person operating the distribution pipeline is, or is acting for, the owner or occupier of the premises or a person with a right to use the premises and is supplying gas by reticulation for use within the premises; or</li> <li>▪ the person operating the distribution pipeline is, or is acting for the body corporate or managing body corporate for premises and is supplying gas by reticulation to members of the body corporate or occupants of the premises that make up the body corporate.</li> </ul> <p>Pipelines connected from the exit point of a meter installed for a customer's premises are excluded from the definition of 'distribution system' in the legislation governing authorisations. In the context of the legislative scheme, this appears to be intended to define the network boundary.</p> <p>A pipeline that is completely within a parcel of land, or contiguous parcels of land, does not require a licence authorising construction and operation in the legislation governing safety but may be safety regulated under another category.</p>
Victoria	<p>Embedded gas networks are not recognised in the legislative scheme as a separate category.</p> <p>The power to exempt could be exercised in respect of an embedded gas network. There is no class exemption for embedded gas networks.</p>
South Australia	<p>A system of pipes conveying gas from a pressurised vessel within a site is excluded from being a distribution system under the legislative scheme.</p> <p>An 'inset distribution system' is a form of distribution system under the legislative scheme. An inset distribution system is a distribution system that</p>

Jurisdiction	Finding
	serves only a group of premises or parts of premises in the same ownership or subject to the same community plan or strata plan. Operation of an 'inset distribution system' does not require a distribution licence.
Tasmania	A system of pipes conveying gas from a pressurised vessel within a site is excluded from being a distribution system under the legislative scheme.  The general power to exempt could be exercised in respect of an embedded gas network. There is no class exemption for embedded gas networks.
Australian Capital Territory	The licensing regime does not extend to embedded gas networks that are not pipelines within the meaning of the NGL.  An embedded gas network that is not connected to a licensed distribution network is regulated as a 'discrete district network' for technical regulation purposes.
Northern Territory	A pipe or system of pipes within a site and used for residential, business, agricultural, commercial or industrial purposes is excluded from the obligation to hold a pipeline licence.  An embedded gas network will be a 'gas main' under the dangerous goods legislation if it carries gas to 2 or more consumers. Otherwise it will be a fuel gas system.
Western Australia	A class exemption from the licensing regime applies to a distribution system located on a property and used solely for the transportation of gas for consumption on the property.

#### 4 How are embedded gas networks regulated?

*Question 2: To the extent gas embedded networks are recognised under national or jurisdictional frameworks, are they regulated in the same way as standard gas supply arrangements, are they regulated in a different way (e.g. exempted from some requirements, or subject to different requirements) or are they unregulated?*

The following table summarises how embedded gas networks are regulated, having regard to the matters we were asked to consider for this report other than safety.

In relation to safety, given the high-level nature of this review insofar as it relates to safety, we are unable to draw conclusions. For example, even if an embedded gas network is not regulated as a distribution network, it may be regulated as a gas installation or the legislation may give powers to the safety or technical regulator to decide on the appropriate form of safety regulation.

Jurisdiction	Finding
NGL and NGR	Embedded gas networks that are not pipelines under the NGL are outside the scope of the NGL and NGR.  As a consequence, a person who owns, operates or controls an embedded gas network that is not a pipeline is not a 'service provider' or a 'transportation service provider' in relation to the embedded gas network.
NERL and NERR	Embedded gas networks that are not pipelines under the NGL are outside the scope of the NERL/NERR.

Jurisdiction	Finding
	Exemptions are currently available to certain sellers and these include exemptions available to some persons selling gas to customers connected to an embedded gas network.
New South Wales	<p>For embedded gas networks that are not distribution networks by reason of being excluded from the definition:</p> <ul style="list-style-type: none"> <li>▪ a reticulator’s authorisation is not required;</li> <li>▪ the embedded gas network operator does not enjoy the property access rights available to a gas reticulator;</li> <li>▪ the metering regulations governing use of meters and meter standards are unlikely to apply;</li> <li>▪ embedded gas network operators are not required to register for the Retail Market Procedures in that capacity but will be required to register if the operator is an exempt seller and has haulage capacity;</li> <li>▪ embedded gas network customers do not have access to the ombudsman scheme for complaints against the operator but do have access for complaints against an exempt seller; and</li> <li>▪ embedded customers have access to concession schemes.</li> </ul>
Queensland	<p>For the embedded gas networks recognised in the legislative scheme under which authorisations are established:</p> <ul style="list-style-type: none"> <li>▪ a distribution authority is not required;</li> <li>▪ the embedded gas network operator does not enjoy the property access rights available to a gas distributor;</li> <li>▪ an on-supplier must allow its customer to install metering equipment but may specify the conditions under which the meter may be installed;</li> <li>▪ an on-supplier is required to register for the Retail Market Procedures if the on-supplier is an exempt seller and has haulage capacity;</li> <li>▪ the customer of an on-supplier does not have access to the ombudsman scheme for complaints against the on-supplier; and</li> <li>▪ some on-supply customers have access to concession schemes through their on-supplier.</li> </ul>
Victoria	<p>For an embedded gas network:</p> <ul style="list-style-type: none"> <li>▪ a licence is required unless an individual exemption is granted;</li> <li>▪ an exempt embedded gas network would not enjoy the property access rights available to a gas distributor;</li> <li>▪ a condition of the exemption could require the exempt embedded gas network operator to install metering and comply with the gas metering code;</li> <li>▪ a condition of the exemption could require the exempt embedded gas network operator to make gas allocation arrangement with the local distributor (but unless the Retail Market Procedures recognise the ‘child’ metering a retailer may be unwilling to make an offer to the embedded customer);</li> </ul>

Jurisdiction	Finding
	<ul style="list-style-type: none"> <li>▪ a condition of the exemption could require the exempt embedded gas network operator to participate in the ombudsman scheme; and</li> <li>▪ the gas concession would not extend to customers in the embedded network unless buying from a retailer.</li> </ul>
South Australia	<p>For the embedded gas networks recognised in the legislative scheme as ‘inset distribution systems’:</p> <ul style="list-style-type: none"> <li>▪ a distribution licence is not required and the on-seller does not require a retail licence if it is a retailer or an exempt seller under the NERL or if its charges comply with the cap determined under the regulations;</li> <li>▪ the inset distribution system operator does not enjoy the property access rights available to a licensed gas distributor;</li> <li>▪ the metering code will apply to the inset distribution system operator unless it is given an exemption from code compliance;</li> <li>▪ inset distribution system operators are not required to register for the Retail Market Procedures in that capacity but will be required to register if the operator is an exempt seller and has haulage capacity;</li> <li>▪ embedded customers do not have access to the ombudsman scheme for complaints against the inset distribution system operator but have access to the scheme for complaints against an exempt seller under the NERL; and</li> <li>▪ qualifying embedded customers have access to some of the concession schemes.</li> </ul>
Tasmania	<p>For an embedded gas network,</p> <ul style="list-style-type: none"> <li>▪ a licence is required unless exempt;</li> <li>▪ an exempt embedded gas network operator would not enjoy the property access rights available to a gas distributor;</li> <li>▪ an exempt embedded gas network operator could be required by an exemption condition to comply with the Gas Customer Transfer and Reconciliation Code (the equivalent of the Retail Market Procedures);</li> <li>▪ an exempt embedded gas network operator could be required by an exemption condition to comply with the provisions in the Gas Customer Transfer and Reconciliation Code dealing with metering;</li> <li>▪ customers in an exempt embedded gas network would not have access to the ombudsman scheme for complaints against the operator; and</li> <li>▪ eligible customers in an embedded gas network would have access to the concession scheme.</li> </ul>
Australian Capital Territory	<p>For embedded gas networks that are not pipelines within the meaning of the NGL:</p> <ul style="list-style-type: none"> <li>▪ a distribution licence is not required but if the embedded gas network is a ‘discrete district network’, it will require an operating certificate from the Technical Regulator;</li> <li>▪ the embedded gas network operator does not enjoy the property</li> </ul>

Jurisdiction	Finding
	<p>access rights available to a gas distributor;</p> <ul style="list-style-type: none"> <li>▪ the Code governing metering does not apply;</li> <li>▪ the embedded gas network operator is not required to register for the Retail Market Procedures in that capacity but will be required to register if the operator is an exempt seller and has haulage capacity;</li> <li>▪ embedded gas network customers do not have access to the ombudsman scheme for complaints against the operator but do have for complaints against exempt sellers; and</li> <li>▪ eligible customers in caravan parks and retirement villages have access to the utilities concession scheme.</li> </ul>
Northern Territory	<p>For embedded gas networks recognised in the regime:</p> <ul style="list-style-type: none"> <li>▪ no pipeline licence is needed, but approval as a gas supplier may be required to supply gas to the network if it is a 'gas main';</li> <li>▪ no property access rights are available;</li> <li>▪ approved metering must be installed;</li> <li>▪ there is no instrument equivalent to the Retail Market Procedures;</li> <li>▪ some customers may be able to access an ombudsman scheme; and</li> <li>▪ there are no concessions for gas customers.</li> </ul>
Western Australia	<p>For embedded gas networks falling within the terms of the class exemption:</p> <ul style="list-style-type: none"> <li>▪ a distribution licence is not required;</li> <li>▪ the embedded gas network operator does not enjoy the property access rights available to a licensed distributor;</li> <li>▪ the metering provisions do not apply, except to the 'master meter';</li> <li>▪ the embedded gas network operator is not required to become a party to the Western Australian version of the Retail Market Procedures;</li> <li>▪ on-sale customers do not have access to the ombudsman scheme for complaints against the embedded gas network operator or on-seller but may access other government-supported alternative dispute resolution services; and</li> <li>▪ some concessions are available to eligible customers in the embedded gas network.</li> </ul>

## 5 Access to retail competition for embedded gas network customers

*Question 3: Do customers of gas embedded networks have effective access to retail competition (ie choice of gas retailer)? If not, are there retail price protections in place for customers of gas embedded networks in the material reviewed for the report?*

Jurisdiction	Finding
NGL and NGR	The obligation in the NGR to register for the Retail Market Procedures (which

Jurisdiction	Finding
	<p>are made by AEMO under the NGL) is determined separately for each jurisdiction.</p> <p>None of the registration categories requires registration by the operator of an embedded gas network that is not a pipeline under the NGL. It follows that the distributor-related obligations under the Retail Market Procedures that support retail competition do not apply in respect of customers on those embedded gas networks. These include allocation of a MIRN, maintaining a MIRN database, meter installation etc.</p> <p>Changes to the NGR coming into effect in August 2019 will require exempt sellers who hold haulage capacity to register under the Retail Market Procedures. The changes do not affect exempt sellers who do not hold haulage capacity and they will not have to register under the Retail Market Procedures.<sup>4</sup></p> <p>Registration also does not extend to exempt sellers selling to customers in embedded gas networks that are not pipelines under the NGL or retailers who are not 'users' or 'non-scheme pipeline users' selling to those customers. In practice there may be few retailers either in this category or willing to offer gas supply to customers without a MIRN under the Retail Market Procedures.</p>
NERL and NERR	<p>The NERL and the NERR do not create additional barriers to embedded gas customers accessing retail competition. However, gas customers do not benefit from the consumer protections in the NERL and NERR if supplied by an exempt seller or due to being connected to an embedded gas network that is not a pipeline under the NGL or (if a pipeline) is not a distribution system that is not covered or nominated. Some of these consumer protections are price-related.</p>
New South Wales	<p>The Retail Market Procedures for NSW and the ACT are made by AEMO under the NGL. Registration categories are specified in the NGR and do not extend to the operators of the embedded gas networks excluded from the obligation to hold a reticulator's authorisation under the New South Wales regime. As a result, the obligation to allocate a MIRN does not extend to customers connected to those embedded gas networks and they are unlikely to have access to effective retail competition. We have not identified any price protections.</p>
Queensland	<p>The Retail Market Procedures for Queensland are made by AEMO under the NGL and registration categories are specified in the NGR. The registration categories do not extend to the operator of an embedded gas network excluded from the obligation to hold a distribution authority. As a result the obligation to allocate a MIRN does not extend to customers connected to those embedded gas networks and they are unlikely to have access to effective retail competition. We have not identified any price protections but there is an obligation to permit the installation of a meter in some cases.</p>
Victoria	<p>For an embedded gas network, a licence is required unless exempt. No current class exemption is in place.</p>

<sup>4</sup> Registration of exempt sellers under the Retail Market Procedures does not of itself extend the obligation to allocate MIRNs to customers in embedded gas networks, since that obligation applies to a registered operator in relation to points on its network.

Jurisdiction	Finding
	<p>Policy documents suggest that if such an exemption were to be granted, exemption conditions may be directed at ensuring the embedded customer has access to retail competition by requiring metering equipment and a gas allocation arrangement.</p>
<p>South Australia</p>	<p>The Retail Market Procedures for South Australia are made by AEMO under the NGL. Registration categories are specified in the NGR and do not extend to embedded gas networks that are not pipelines under the NGL. As a result, the obligation to allocate a MIRN does not extend to customers in those embedded gas networks and they are unlikely to have access to effective retail competition.</p> <p>If a customer in an inset distribution system is not the customer of an exempt seller under the NERL, the customer is protected by an exemption condition capping the price the customer may be charged. In practice, this group of customers seems likely to be small (as the sellers will be exempt sellers).</p>
<p>Tasmania</p>	<p>For an embedded gas network, a licence is required unless exempt. The operator of an exempt embedded gas network is a distributor under the Gas Customer Transfer and Reconciliation Code (the equivalent of the Retail Market Procedures), which also deals with metering. The operator would also be a distributor under the Tasmanian Gas Retail Code. Exemption conditions could require the operator to comply with the Codes and could provide further protections for customers.</p>
<p>Australian Capital Territory</p>	<p>The Retail Market Procedures for NSW and the ACT are made by AEMO under the NGL. The registration categories are specified in the NGR and do not extend to embedded gas networks that are not pipelines under the NGL. As a result, the obligation to allocate a MIRN does not extend to customers in those embedded gas networks and they are unlikely to have access to effective retail competition. We have not identified any price protections.</p>
<p>Northern Territory</p>	<p>Very little information is available about retail gas supply in the Northern Territory.<sup>5</sup> To the extent government has made arrangements to protect consumers of reticulated natural gas in their dealings with retailers, the policy instruments are not publicly available.</p>
<p>Western Australia</p>	<p>The Retail Market Procedures for WA are part of a scheme made in accordance with the legislation. The Procedures do not extend to exempt embedded gas network operators or exempt on-suppliers. As a result, the MIRN framework does not extend to customers in exempt embedded gas networks and they are unlikely to have access to effective retail competition.</p> <p>Residential small-use customers of an exempt on-seller in an exempt embedded distribution network are protected by an exemption condition capping the price the on-seller can charge the customer. Other small-use customers do not have this protection.</p>

<sup>5</sup> Based on the limited information we have, the market may be characterised by competition between bottled and reticulated gas.