



Jemena Gas Networks (NSW) Ltd

2020-25 Access Arrangement Proposal

Attachment 1.2

Background to JGN's 2020-25 Access Arrangement Proposal



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Abbreviations

AA	Access Arrangement
AAI	Access Arrangement Information
AA RIN	Access Arrangement Regulatory Information Notice
AA RIN Response	JGN's response to AA RIN
AEMO	Australian Energy Market Operator
EGP	Eastern Gas Pipeline
Gas Supply Act	Gas Supply Act 1996 (NSW)
Jemena Colongra	Jemena Colongra Pty Ltd
JGN	Jemena Gas Networks (NSW) Ltd
MSP	Moomba to Sydney Pipeline
NERL	National Energy Retail Law
NERR	National Energy Retail Rules
NGL	National Gas Law
NGO	National Gas Objective
NGR	National Gas Rules
Pipelines Act	Pipelines Act 1967 (NSW)
RSA	Reference Service Agreement
RY	Regulatory Year
SGSPAA	SGSP (Australia) Assets Pty Ltd
STTM	Short Term Trading Market
UAG	Unaccounted for Gas

1. About this Access Arrangement Revisions Proposal

This document describes the purpose and form of JGN's 2020 Access Arrangement (**AA**) revisions proposal, and provides background information on JGN.

1.1 Purpose of this access arrangement revisions proposal

This Access Arrangement Information (**AAI**) has been prepared by Jemena Gas Networks (NSW) Ltd (**JGN**) (ACN 003 004 322). It provides the background to, and supporting information for, the AA revisions proposal applicable to the NSW natural gas distribution network owned, controlled and operated by JGN for the period 1 July 2020 to 30 June 2025 (**2020-25 AA period**).

This AAI, which is comprised of the 2020 Plan, including all of the supporting information contained in its attachments, and the 2020-25 Access Arrangement revisions proposal are collectively referred to as JGN's **2020 AA proposal**. Attachment 1.1 provides a submission matrix, which identifies the documents making up JGN's 2020 AA proposal.

The current JGN access arrangement¹ (**2015-20 AA**) details the commercial and technical terms and conditions upon which JGN offers access to reference services to users and prospective users of the JGN network.

Under section 132 of the National Gas (NSW) Law (**NGL**), rule 52(1) of the National Gas Rules (**NGR**) and clause 1.3 of the 2015-20 AA, JGN must, by 30 June 2019, submit revisions to the 2015-20 AA for the AER's approval. The revisions will apply for the 2020-25 AA period. The proposed revisions are set out in JGN's 2020 AA proposal. Attachment 10.1 provides an explanation of the proposed revisions.

The Reference Service Agreement (**RSA**)—which sets out the terms and conditions for the provision of the haulage reference service—remains a schedule to the AA. Attachment 10.2 provides additional background to the proposed revisions to the RSA.

1.2 Purpose of AAI

Pursuant to rule 42(1), the purpose of this AAI is to provide information that is reasonably necessary for users and prospective users of the JGN network to understand:

- the background to the 2020 AA proposal
- the basis and derivation of the various elements of the 2020 AA proposal.

Additionally, this AAI includes the information specifically required by the NGL (rule 42(2)).

1.3 Interpretation

This AAI adopts the following drafting conventions:

- monetary values are reported in real 2019-20 Australian dollars, unless indicated otherwise
- annual values are reported on a 1 July to 30 June regulatory year (**RY**) basis, unless indicated otherwise
- numerical values in tables may not tally due to arithmetic rounding
- reference to a “rule” is a reference to a rule from the NGR
- the document “Access Arrangement JGN's NSW gas distribution networks 1 July 2015 – 30 June 2020 [June 2015], Incorporating revisions required by AER Remade Decision 28 February 2019 and AER decision of 8 April 2019” is referred to in this 2020 AA submission as the 2015-20 AA.

¹ AER, Access Arrangement JGN's NSW gas distribution networks 1 July 2015 – 30 June 2020 [June 2015], Incorporating revisions required by AER Remade Decision, 28 February 2019, February 2019.

- references to the '2015-20 AA period' or 'current AA period' refer to the period commencing 1 July 2015 and ending 30 June 2020
- references to the '2020-25 AA period' or 'next AA period' refer to the period commencing 1 July 2020 and ending 30 June 2025.

An abbreviations list is also provided within each attachment of the AAI.

1.4 Compliance of the 2020 AA Proposal

The 2020 AA proposal complies with applicable requirements of the NGL and the NGR. Specific requirements of the NGR are addressed in relevant sections of the 2020 AA proposal. A compliance checklist cross-referencing the relevant NGL and NGR compliance requirements with the 2020 AA proposal content is provided in Attachment 1.3.

On 12 December 2018 the AER served JGN with a regulatory information notice to assist the AER's assessment of the 2020 AA proposal (**AA RIN**). JGN's response to AA RIN has been provided separately to the 2020 AA proposal (**AA RIN Response**). JGN's AA RIN Response and 2020 AA proposal cross-refer to each other where appropriate.

1.5 Regulatory framework

The provisions of the NGL set the overarching framework in which the 2020 AA proposal will be assessed. The objective of the NGL is the National Gas Objective (**NGO**). JGN has carefully considered the meaning and practical implications of the NGO, and associated revenue and pricing principles in preparing its 2020 AA proposal.

NGL sections 23 and 24

23—National gas objective

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.

24—Revenue and pricing principles

(1) The revenue and pricing principles are the principles set out in subsections (2) to (7).

(2) A service provider should be provided with a reasonable opportunity to recover at least the efficient costs the service provider incurs in—

(a) providing reference services; and

(b) complying with a regulatory obligation or requirement or making a regulatory payment.

(3) A service provider should be provided with effective incentives in order to promote economic efficiency with respect to reference services the service provider provides. The economic efficiency that should be promoted includes—

(a) efficient investment in, or in connection with, a pipeline with which the service provider provides reference services; and

(b) the efficient provision of pipeline services; and

(c) the efficient use of the pipeline.

(4) Regard should be had to the capital base with respect to a pipeline adopted—

(a) in any previous—

(i) full access arrangement decision; or

(ii) decision of a relevant Regulator under section 2 of the Gas Code;

(b) in the Rules.

(5) A reference tariff should allow for a return commensurate with the regulatory and commercial risks involved in providing the reference service to which that tariff relates.

(6) Regard should be had to the economic costs and risks of the potential for under and over investment by a service provider in a pipeline with which the service provider provides pipeline services.

(7) Regard should be had to the economic costs and risks of the potential for under and over utilisation of a pipeline with which a service provider provides pipeline services.

1.6 Confidential information

Attachment 1.4 sets out specific sections of JGN's 2020 AA proposal that JGN claims to be commercial-in-confidence and the basis of the claim.

2. Background to Jemena Gas Networks

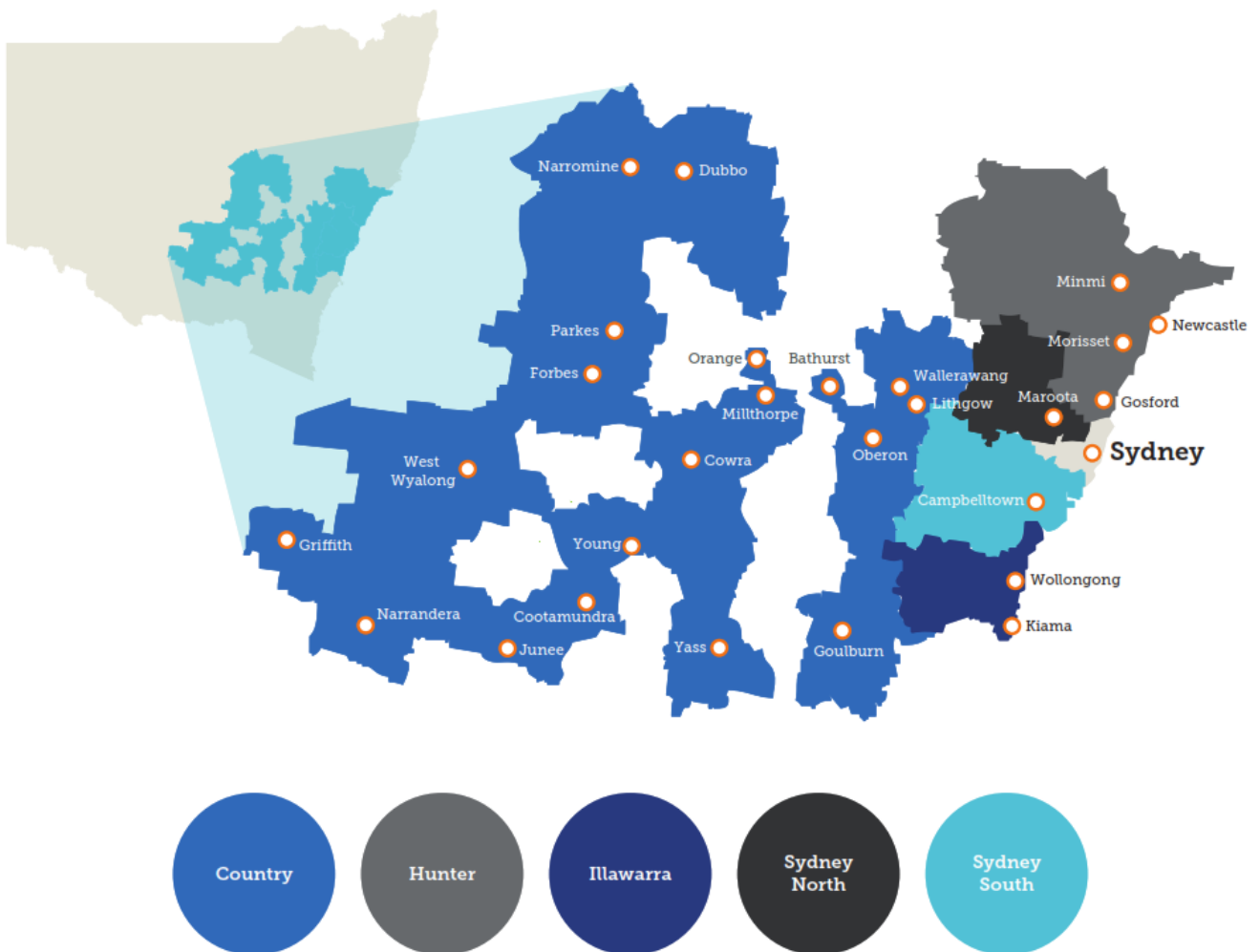
2.1 Description of Jemena Gas Networks

JGN provides natural gas transportation and associated services to users of the JGN network (**Users**).

2.1.1 Current configuration and operation

The JGN network has its origins in 1837 when The Australian Gas Light Company was formed to light the streets of Sydney. The network has grown through a combination of extensions, new developments and acquisitions. It now provides gas to more than 1.4 million customers in Sydney, Newcastle, Wollongong and the Central Coast, and over 20 country centres including those within the Central Tablelands, Central West, Southern Tablelands and Riverina regions of NSW (refer to Figure 2–1).

Figure 2–1: Map of JGN network



Our network consists of approximately:

- 271 km of trunk mains
- 144 km of primary mains

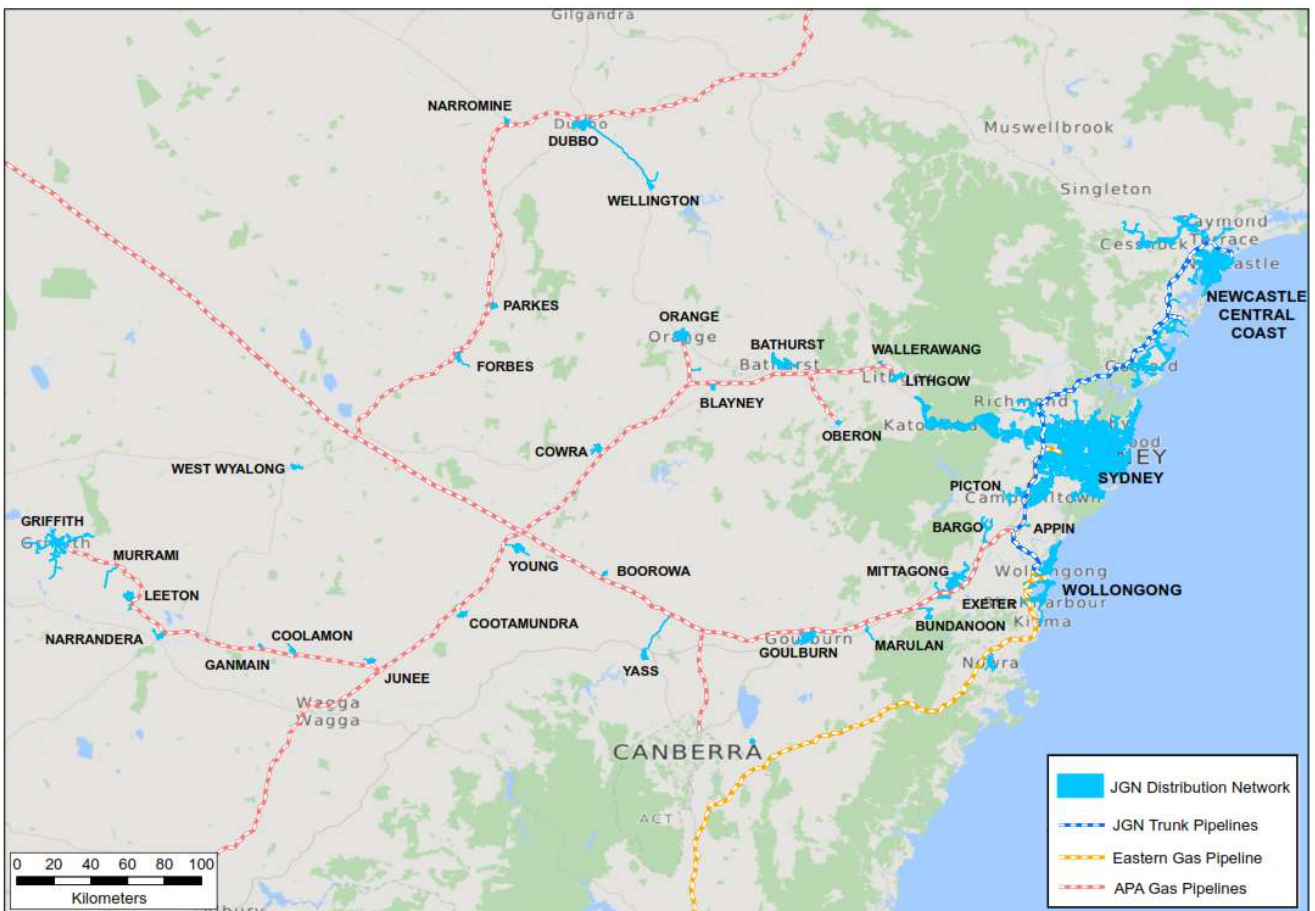
- 1,449 km of secondary mains
- 22,848 km of medium and low pressure mains
- 27 trunk receiving stations
- 27 packaged off-take stations
- 17 primary regulating stations
- 4 bulk metering stations.

The majority of gas consumed in NSW is sourced from other states. Interstate gas is transported to NSW via two main gas transmission pipelines (refer to Figure 2–2):

- the Moomba to Sydney Pipeline (**MSP**), owned by APA Group, which principally transports gas produced in the Cooper Basin in South Australia
- the Eastern Gas Pipeline (**EGP**), owned by Jemena, which transports gas produced in the Gippsland Basin in Victoria

There are also NSW injection points into the JGN network, including AGL Upstream Investments’ Rosalind Park Gas Plant, AGL’s gas storage facilities at Hexham and Tomago, and at 32 country locations.

Figure 2–2: Delivering gas to the JGN network



Users are responsible for ensuring enough gas is injected into the JGN network at each of 41 metered receipt points to meet their customers' needs at any point in time. Once injected into the network, JGN has contractual obligations with Users to transport that gas through the network to the Users' customers' premises. Custody transfer quality meters are located near each receipt point to measure the quantity of gas injected into the network.

The JGN Wilton network section which serves the Sydney, Newcastle and Wollongong areas is the Short Term Trading Market (**STTM**) distribution system for the STTM Sydney Hub and gas delivered to receipt points in this network section is governed by STTM rules and procedures. The STTM is a market-based wholesale gas balancing mechanism established at defined gas hubs such as the STTM Sydney Hub and allows Users to buy gas directly from the STTM rather than through a shipper or producer. The Australian Energy Market Operator (**AEMO**) operates the STTM. While the STTM Sydney Hub is governed by the STTM, JGN's country network sections operate solely under a contractual supply chain framework. This means that Users still need to procure gas from a shipper or producer and arrange for that gas to be transported to receipt points for those network sections.

As the JGN network has limited gas storage capacity, to maintain operational gas pressure throughout each network section and ensure the safe and reliable operation of the network, there are contractual obligations on Users to ensure the total quantity of gas injected and withdrawn from each network section on a day is equal—or balanced. There are also obligations on Users to ensure that the gas that is injected into JGN's network meets a defined gas specification and is injected within the minimum and maximum gas pressure range for the relevant receipt point. For the STTM Sydney Hub, the expectation is that the STTM will manage gas balancing behaviours through financial incentives and penalties. JGN deems each country network section to be in balance.

2.1.2 Users and services

JGN's principal activity is to transport gas through its network to its Users' customers' premises. In the case of the STTM Sydney Hub, JGN transports gas that has been delivered into the STTM Sydney Hub (JGN's Wilton, Horsley Park, Albion Park, Rosalind Park, Port Kembla, Tomago or Hexham receipt points) to Users' customers' premises. In JGN's country network sections, JGN transports gas that has been delivered to the relevant country network section receipt point to Users' customers' premises. JGN has contractual arrangements with Users to charge them for this transportation service. JGN also provides gas metering equipment at customers' premises and associated services to read the quantity of gas flowing through the gas meters. As part of its contractual arrangements with Users, JGN procures gas to replenish the difference between the measured quantities of gas entering and leaving the network, known as unaccounted for gas (**UAG**).

JGN also undertakes certain activities for Users that are ancillary to transportation services. JGN charges ancillary fees for these activities which include disconnection, abolishment of supply and special meter reading.

As set out in Attachment 4.1, JGN will make available to Users:

- a single reference service which provides for the transportation of gas through the network from one or more receipts points to a delivery point, including delivery point meter reading and user-requested ancillary activities related to the haulage service
- non-reference services:
 - interconnection service for the establishment of new delivery or receipt points
 - negotiated services.

There have been some changes to the services offered to users in the current AA period which are explained further in Attachment 4.1.

As at March 2019, JGN provided haulage reference service through contracts to 24 users, 12 of which are energy retailers, collectively supplying over 1.4 million customers. The other 12 users are end-users who contract directly with JGN for the haulage reference service.

2.1.3 Customers

We separate our customers into market types based on their energy usage. Our volume market consists of customers consuming less than 10 terajoules (TJ) of gas each year. The demand market is comprised of customers consuming greater than 10TJ of gas each year.

During 2017-18, JGN transported approximately 50 petajoules (PJ) of gas to its 384 largest customers, who each consume more than 10 TJ per year. These large customers accounted for approximately 9% of JGN's transportation revenue during the year. JGN transported 39 PJ of gas for Users who supplied the remaining customers, being those that consume less than 10 TJ of gas per year, and this provided approximately 91% of JGN's transportation revenue for the year.

The number of customers connected to the JGN network in 2017-18, and their gas consumption in that year, are set out in Table 2–1.

Table 2–1: Customers and load by market type during 2017-18

Region	Volume Market (<10TJ per year)		Demand Market (>10 TJ per year)	
	Number	Load (TJ)	Number	Load (TJ)
Coastal	1,292,488	34,851	342	45,981
Country	97,423	4,157	42	3,616
Total	1,389,911	39,008	384	49,597

(1) Gas loads in this table are not weather normalised. Customer numbers are as at 30 June 2018.

2.2 JGN existing regulatory obligations

Apart from the NGL and NGR, there are three principal regulatory regimes that apply to JGN.

2.2.1 Reticulator's authorisation

JGN currently holds a gas reticulator's authorisation to operate the JGN network as required by the Gas Supply Act 1996 (NSW) (**Gas Supply Act**). The NSW Department of Planning administers the Gas Supply Act, with IPART undertaking certain regulatory functions. The authorisation is subject to certain conditions, including that JGN must maintain prudent insurances and develop and maintain effective compliance management systems. JGN is also subject to the legal obligations that apply to reticulators under the Gas Supply Act and regulations made under the Gas Supply Act. Among other things, the Gas Supply Act requires that JGN be a member of the energy ombudsman scheme and of Dial Before You Dig NSW/ACT Incorporated. The Gas Supply (Safety and Network Management) Regulation 2013 (NSW) requires that JGN lodge, implement and periodically review a safety and operating plan to demonstrate sufficient management systems for safe operation of its gas distribution network.

2.2.2 Pipeline licences

JGN holds five licences under the Pipelines Act 1967 (NSW) (**Pipelines Act**) for the following pipelines:

- Wilton to Horsley Park Natural Gas Pipeline (NSW: Pipeline Licence No 1)

- Wilton to Wollongong Natural Gas Pipeline (NSW: Pipeline Licence No 2)
- Horsley Park to Plumpton Natural Gas Pipeline (NSW: Pipeline Licence No 3)
- Plumpton to Killingworth Natural Gas Pipeline (NSW: Pipeline Licence No 7)
- Killingworth to Kooragang Island Gas Pipeline (NSW: Pipeline Licence No 8).

Under the Pipelines Regulation 2013 (NSW), JGN must, among other things, implement a pipeline management system in accordance with relevant provisions of AS2885. JGN must also lodge and implement a pipeline management plan that describes and forms part of the pipeline management system. JGN's pipeline management system and plan encompasses all five licensed pipelines.

The Department of Planning and Environment administers the Pipelines Act and Regulation, including having regulatory responsibilities for licences granted under that Act.

The pipelines described above have been classified as distribution pipelines for purposes of regulation under the NGL and NGR.²

2.2.3 National Energy Customer Framework

The National Energy Retail Law (**NERL**) and National Energy Retail Rules (**NERR**) and associated amendments to the NGR³—together the NECF—commenced in NSW in transitional form on 1 July 2013, and in full on 1 July 2015. The NECF, which is administered by the AER, imposes a range of obligations on gas distributors. Under NECF, JGN has a direct contractual relationship with gas consumers as well as with Users.

2.3 Network ownership context

The JGN network is owned by JGN.⁴ SGSP (Australia) Assets Pty Ltd (**SGSPAA**) indirectly owns 100% of the shares in JGN. Singapore Power International owns 40% of the shares in SGSPAA, and State Grid Corporation of China owns 60% of the shares.

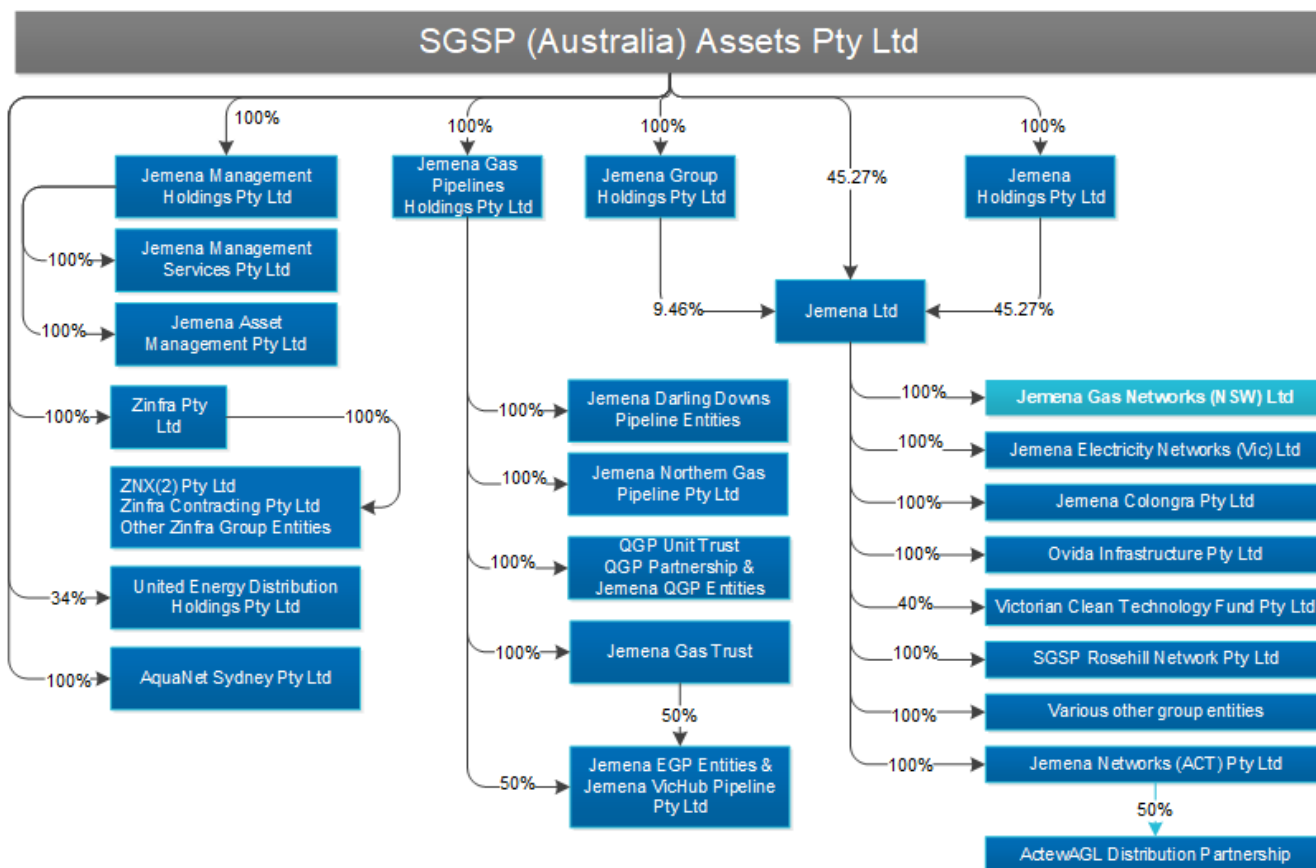
Figure 2–3 is a schematic diagram showing entities in the corporate structure of which JGN is a part.

² The National Competition Council made a relevant reclassification decision in June 2009, see http://www.ncc.gov.au/index.php/application/jemena_gas_networks_nsw_limited

³ Principally new parts 12A and 21 in the NGR.

⁴ Past AA decisions and some statutory references still refer to JGN by its previous names: Alinta AGN Ltd, and AGL Gas Networks Limited.

Figure 2–3: SGSPAA structure



2.4 Service provider

JGN is the sole covered pipeline service provider⁵ in relation to the services that are the subject of the AA.

JGN is also the sole service provider⁶ for the JGN network. Accordingly, JGN is not a local agent of, nor does it act on behalf of, another service provider of the JGN network.

2.5 Associate contracts where JGN is service provider

JGN is party to one associate contract concerning an interconnection of downstream network and the novation of certain contractual responsibilities of Delta Electricity under that agreement to Jemena Colongra Pty Ltd (ACN 127 533 519) (**Jemena Colongra**). The associate contract, titled the Interconnection Side Deed, dated 25 March 2008, partially novates (from Delta Electricity to Jemena Colongra) the terms and conditions under which JGN agreed to design, construct, operate and maintain the delivery station for interconnection with the Jemena Colongra pipeline. This is an associate contract as defined in the NGL as Jemena Limited owns both JGN and Jemena Colongra.

⁵ NGL s. 2.

⁶ NGL s. 8.