

Attachment 7.9

Core Energy Independent Assessment of the market price of gas

SA Final Plan July 2021 – June 2026

July 2020



Independent Assessment of the Market Price of Gas

AGN SA Gas Network | UAFG





Contents

Introduction and Scope of Report	4
Summary of Assessment	5
Approach to Assessment	6
Evidence of Wholesale Price in Eastern Australia and SA.....	7
Assessment of Market Price	8
Conclusion	11
Annexures	12



Glossary

Acronym, term	Definition
ACCC	Australian Competition & Consumer Commission
AEMO	Australian Energy Market Operator
AGN	Australian Gas Network
CORE	Core Energy & Resources Pty Ltd
CPI	Consumer Price Index
DCQ	Daily Contract Quantity
GBB	Gas Bulletin Board
GJ	Gigajoule
GSOO	Gas Statement of Opportunities
MDQ	Maximum Daily Quantity
p.a.	Per Annum
PJ	Petajoule
SA	South Australia
TJ	Terajoule

Key Terms

Term	Definition
AGIG UAFG Gas	means the wholesale supply of gas for a term of five years and an average annual quantity of 768 TJ, for a term of five years from 1 July 2021, delivered to multiple points throughout the network.
Market Price	<p>means a representative price of gas, delivered via a transmission system to a distribution network node, connected to the existing gas transmission system.</p> <p>an estimate of Market Price for the purpose of this assessment will take into consideration estimates of the price of gas for supply under comparable contractual arrangements, including any related transport costs and facilitation margin.</p>



1. Introduction and Scope of Report

1.1 Introduction

This Report has been prepared by Core Energy & Resources ("CORE"), in accordance with an engagement between CORE and Australian Gas Networks, in relation to an independent assessment of the price of gas required to replace UAFG within the SA Gas Network, during the five year period commencing 1 July 2021.

The Primary author of the report is Mr Paul Taliangis, CEO of CORE. A concise CV is included as Annexure 1.

1.2 Report Structure

This report includes the following major Sections:

1. Introduction and Scope

Purpose and scope of this report

2. Summary of Assessment

A concise summary of this report

3. Approach to Assessment

An overview of CORE's approach to this independent assessment

4. Derivation of Market Price

An explanation of CORE's derivation of the Market Price

5. Conclusion

CORE's assessment of the Market Price of Gas in the SA for supply to replace UAFG within the SA Gas Network



2. Summary of Assessment

2.1 Introduction and Scope of Assessment

The purpose of this report is to present CORE's independent assessment of the Market Price of gas in South Australia ("SA") as it relates to supply to replace Unaccounted for Gas (UAFG), or gas losses within the AGN SA Gas Network, for the five year period commencing 1 July 2021.

2.2 Approach to Assessment

CORE has undertaken the following staged approach to this assessment:

- determine each price element which is relevant to an assessment of the Market Price under the circumstances
- compile best available public domain data of relevance to scope of this assessment
- derive an estimate of the price range for each element of the Market Price and the Market Price as a whole

2.3 Derivation of Market Price

CORE has relied heavily on evidenced releases by the ACCC as part of its responsibilities under the eastern Australia Gas Inquiry, and, its latest report which was released in February 2020, on the basis that it is the best information available under the circumstances relating to this assessment.

The ACCC provides detailed analysis of offers for supply by Retailers and Producers and bids by customers, for the supply of gas during 2020. CORE has analysed this information to provide its best estimate of the price of gas to replace UAFG, within the SA Gas Network, for the five-year period commencing 1 July 2021.

2.8 Conclusion

Based on information available at the date of this report CORE has assessed the Market Price of Gas for the AGIG Contract to be as follows:

Table 2.1 | Summary of Independent Assessment of SA Market Price at 1 July 2021

Price Elements	Price Assessment
Base Wholesale Commodity Price at 1 July 2021	██████████
Transmission	██████████
Retail cost and Margin	██████████
Market Price of UAFG Delivered Gas at 1 Jan 2021	██████████

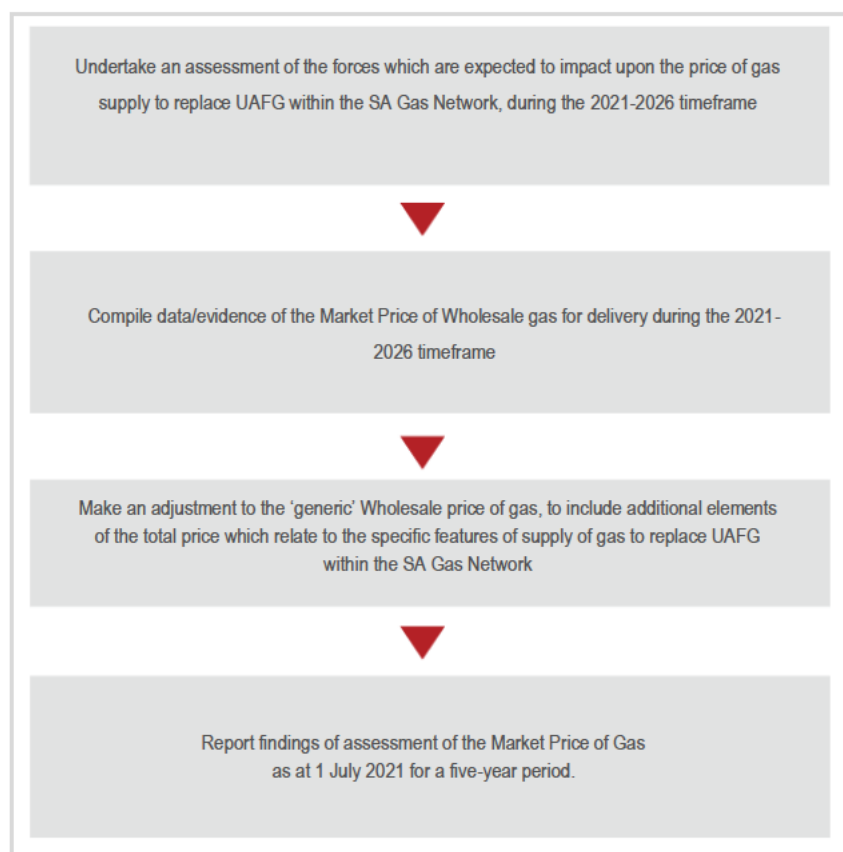
Source | Core Energy & Resources

Given that the delivery of gas to replace UAFG, involves multiple points throughout the network, CORE is of the view that the Market Price is more likely to be toward the upper end of this range – with ██████████ being the best single point estimate.

3. Approach to Assessment

CORE has adopted the following approach to its assessment of the Market Price of Gas, under the terms of this engagement.

Figure 3.1 | Diagrammatic overview of CORE approach to Assessment



Source: Core Energy & Resources



4. Evidence of Wholesale Price in Eastern Australia and SA

CORE considers that the release of data, information and analysis by the ACCC under the Gas Inquiry to be the best source under the circumstances. Further CORE confirms that the information released by the ACCC is consistent with CORE's own observations, based on Confidential data observed in the market.

4.1 ACCC Gas Inquiry

CORE has undertaken a thorough analysis of the ACCC report, and has extracted a series of elements which CORE has relied upon in its assessment

4.1.1. Eastern Australia Region as a whole

The ACCC analysis points to a difference between prices offered by Retailers and those offered by Producers.

CORE considers that the Retailer offers are more relevant under the circumstances relating to UAFG as the delivered gas requires a transmission service and delivery to multiple locations within the network -a service which is not available via a Producer.

The ACCC notes that majority of prices offered by retailers for supply in 2020, were in the [REDACTED] range.



4.1.1. State Analysis

The ACCC analysis illustrates a moderate degree of price variation between States, with the average commodity price within SA being [REDACTED], within a range of [REDACTED].

Table 4.1: Gas Commodity Price offers for 2020 in eastern Australia States

Type of supplier	Average gas commodity price (\$/GJ)	Gas commodity price range (\$/GJ)
Retailers (QLD)	[REDACTED]	[REDACTED]
Retailers (VIC, SA and NSW)	[REDACTED]	[REDACTED]
Retailer (NSW)	[REDACTED]	[REDACTED]
Retailer (SA)	[REDACTED]	[REDACTED]
Retailer (VIC)	[REDACTED]	[REDACTED]

5. Assessment of Market Price



CORE's assessment of Market Price includes two parts:

1. Assessment of the Wholesale Price
2. Assessment of adjustments to the Wholesale Price

3.1 Assessment of Wholesale Price of SA Gas Supply

Having regard to the specific features of the gas supply arrangement under consideration, and the evidence of Wholesale Price outlined in 4 above, CORE has assessed the following to be its best estimate of the price of gas to meet UAFG supply requirements, within the SA Gas Network during the five year period commencing 1 July 2021:

Price Assessment	Price
Base Wholesale Commodity Price at 1 July 2021	██████████

3.1 Adjustments to Wholesale Price

Having regard to the requirement for gas to be delivered to the SA Gas Network generally and to multiple points throughout the network specifically, CORE considers there to be two additional price elements which must be added to the Wholesale Price, to arrive at the Market Price of gas under the circumstances relating to replacement of UAFG:

- The cost of transmission from a gas supply hub (the delivery point under a Gas Supply Agreement – GSA) to the receipt point/s
- A margin to compensate a Retailer for facilitating transmission service and delivery of gas to replace UAFG at multiple points throughout the network

3.1.1 Gas Transmission Charges

As illustrated in Figure 5.1, there are two principal supply pathways for gas into SA:

- Gas supply from Port Campbell (Otway gas) via the SEA Gas pipeline
- Gas supply from Moomba (Cooper-Eromanga Basin) or Queensland (CSG) via the Moomba Adelaide pipeline

Having regard to the tariff range presented by the ACCC (Figure 5.1) and the requirement for additional delivery to multiple points throughout the network, CORE has derived a best estimate under the circumstances to be as follows:

Price Assessment	Price
Transmission	██████████

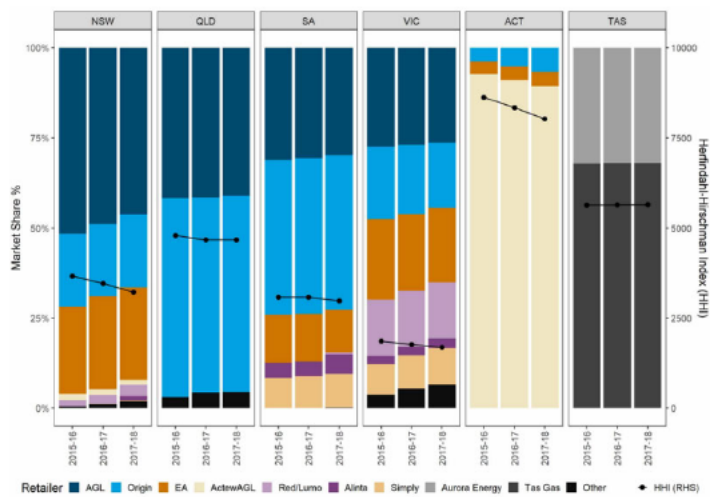
CORE considers that the tariffs at the lower end of the range are likely to relate to foundation of shippers with large loads and these tariffs would not apply to the small UAFG load.

3.1.1 Retailer Cost & Margin

CORE considers that a retailer providing UAFG service to AGN SA will require a margin – to cover costs and to provide a commercially competitive profit margin.

CORE notes that there are few Retailers that will be able to facilitate delivery of gas to multiple locations, with the most likely being AGL and Origin. This is supported by the following figure from the ACCC which addresses Retailer concentration in each market in eastern Australia.

Figure 5.1: Retailer Concentration



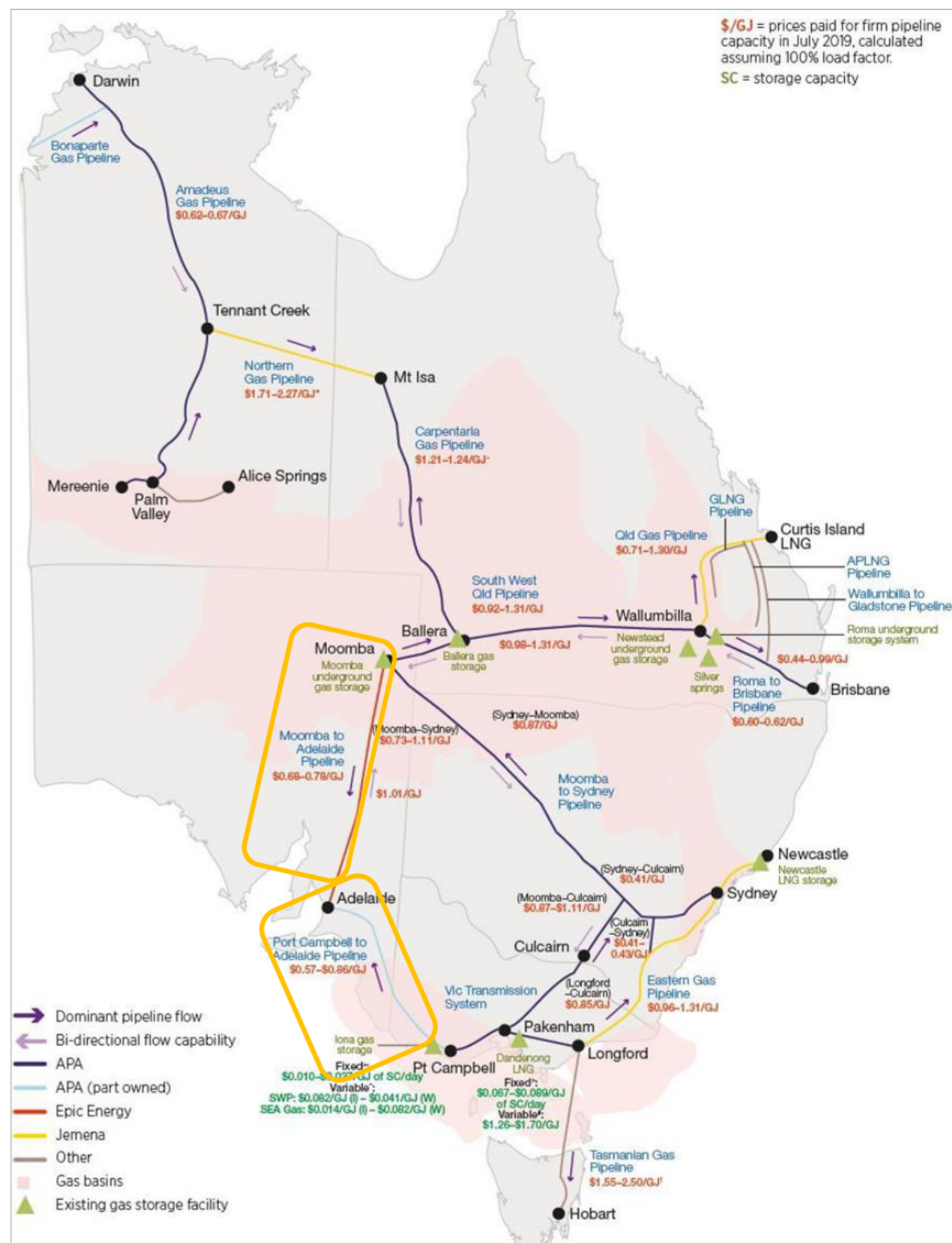
Further CORE considers a competitive cost and margin for supply of UAFG service to be in the range of 8-15%. The ACCC report indicates margins for C&I customers could be as high as 20+%, however CORE considers that a lower margin could be achieved.

Having regard to the concentration of Retailers and the competitive cost and margin for commercial gas supply, CORE considers the following to be the best guide to the cost and margin range:

Price Assessment	Price
Retail cost and margin (9.7% - 11.7%)	



Figure 5.1: Gas Transmission System in EA – and SA elements (yellow outlines)





10. Conclusion

Based on the information available at the date of this report CORE has assessed the Market Price of Gas for AGIG AGN SA UAFG supply to be as follows:

Table 10.2 | Summary of Independent Assessment of Market Price

Price Elements	Price Assessment
Base Wholesale Commodity Price at 1 July 2021	██████████
Transmission	██████████
Retail Cost & Margin	██████████
Market Price of UAFG Delivered Gas at 1 Jan 2021	██████████

Source | Core Energy & Resources

Given that the delivery of gas to replace UAFG, involves multiple points throughout the network, CORE is of the view that the Market Price is more likely to be toward the upper end of this range – with ██████████ being the best single point estimate.



Annexure 1 | CV of Independent Expert

This report has been prepared by Mr. Paul Taliangis, Chief Executive of Core Energy & Resources (CORE).

Mr Taliangis formed CORE in 2003, and during the following 16 years has provide expert strategic and market advice and opinion to a wide range of organisation focused on the Australian energy value chain, including LNG, gas, electricity and gas infrastructure segments.

During this term Mr Taliangis' has had hands on experience with a significant percentage of gas contracts which have been in force across Australia – including Eastern, Western and Northern Australia.

Clients of the firm, under Mr. Taliangis' leadership have included:

ACCC	Commonwealth Government	Origin
AEMO	Energy Australia	Osaka Gas
AGL	Esso and Exxon	Santos
APA	GLNG	SA State Government
APLNG	Gorgon JV	Toyota Tsusho
Australian Gas Infrastructure Group (AGIG)	Jemena	Victoria State Government
AWE/Mitsui	MIMI	Woodside
BHP	Northern Territory Government	
Colonial First State	NSW State Government	

In eastern Australia Mr Taliangis has acted on a range of Gas Contracting and Price Review matters including a major arbitrated Price Review matter involving AGL and Origin.

In Western Australia Mr Taliangis has addressed gas price related reviews, including contractual matters for BHP, AWE, North West Shelf, Santos and Origin.

Prior to forming Core, Mr Taliangis held a series of Management positions with Santos Limited including responsibilities extending across Australia, UK, USA and Asia. Positions included Manager of Corporate Development, Manager of Corporate Planning and Manager, Finance of the Cooper Basin Business Unit. Prior to Santos Mr Taliangis worked with Price Waterhouse in Chartered Accounting, Ernst and Young in Management Consulting and in the corporate banking sector.

Mr Taliangis has a bachelor's degree in economics from The Flinders University of South Australia, a Post Graduate Diploma in Accounting and Finance from Flinders University of South Australia, and is a Chartered Accountant, qualifying with Price Waterhouse.



Annexure 2 | References

ACCC	Gas Inquiry
AEMO	Gas statement of opportunities; Gas Bulletin Board
AER	Media releases, reports, web site
APPEA	Media releases, web site
Energyview	CORE internal system and data sources
Santos	Various ASX announcements, annual reports, media releases, web site
SA Government	Various reports, media releases, web site