

Jemena Gas Networks (NSW) Ltd

Tariff Variation Notice

2019-20 reference tariffs

Public

24 May 2019



An appropriate citation for this paper is:

JGN, 2019-20 Tariff Variation Notice, April 2019

Contact Person

Chris Stewart
Regulatory Projects Senior Adviser
Senior Pricing and Compliance Adviser
Ph: 02 9827 7290
christopher.stewart@jemena.com.au

Jemena Gas Networks (NSW) Ltd

ABN 87 003 004 322
Level 9-15, 99 Walker Street
North Sydney NSW 2060

Postal Address

PO Box 1220
North Sydney NSW 2060
Ph: (02) 9867 7000
Fax: (02) 9867 7010

TABLE OF CONTENTS

Abbreviations	iv
1. Introduction	1
1.1 Context	1
1.2 Purpose	1
1.3 Submission structure and AA compliance	2
2. Tariff classes	4
2.1 JGN's tariff classes	4
3. Variation notice compliance	5
3.1 Proposed revised reference tariff schedule	5
3.2 Effective date of variation	5
3.3 Compliance with annual tariff variation mechanism	5
3.4 Gas quantity inputs	5
3.5 Determined pass through amount	5
3.6 Pass through from the 2010 AA	6
4. Annual tariff variation mechanism	7
4.1 Variation mechanism	7
4.2 Weighted average price cap formula	7
4.3 Proposed 2019-20 reference tariffs	14
4.4 Informing customers of annual changes to tariffs	14

List of tables

Table 2–1: JGN's tariff classes	4
Table 4–1: Automatic adjustment factor	9
Table 4–2: Calculating the Licence Fee Factor amount, L_{t-2}	10
Table 4–3: Calculating the UAG recoverable cost	12
Table 4–4: Calculating the UAG Factor amount, U_{t-2}	13

List of attachments

Attachment A	JGN proposed reference tariff model
Attachment B	JGN gas quantity statement
Attachment C	Core verification of JGN gas quantity statement
Attachment D	Reference tariff schedule for 1 July 2019 to 30 June 2020

ABBREVIATIONS

2010 AA	Access arrangement, JGN's NSW gas distribution networks, 1 July 2010 – 30 June 2015, published by the AER in September 2011 (post mine subsidence)
2015 AA	Access arrangement, JGN's NSW gas distribution networks, 1 July 2015 – 30 June 2020 (Incorporating revisions required by AER Remade Decision), published by the AER in February 2019
ABS	Australian Bureau of Statistics
AER	Australian Energy Regulator
AER Final Decision	AER Final decision: Jemena Gas Networks, published in June 2015
A_t	Automatic Adjustment Factor
CPI	Consumer Price Index
C_t	Carbon Cost Factor
DC	Demand Capacity
DCFR	Demand Capacity - First Response
DMT	Demand Major End Customer Throughput
DMTFR	Demand Major End Customer Throughput - First Response
DT	Demand Throughput
JGN	Jemena Gas Networks (NSW) Ltd
L_t	Licence Fee factor
PT_t	Pass Through Factor
TSS	Tariff Structure Statement
T_t	Relevant Tax Factor
TVN	Tariff Variation Notice
UAG	Unaccounted for Gas
VB	Volume Boundary
VI	Volume Individual
VRT	Volume Residential Distributed Generation Technology

1. INTRODUCTION

1.1 CONTEXT

On 3 June 2015, the Australian Energy Regulator (**AER**) made its initial access arrangement decision for Jemena Gas Networks (NSW) Ltd's (**JGN**) 2015-20 access arrangement period (**initial 2015 AA decision**).

Subsequently:

- JGN set its 2015-16 reference tariffs in line with the initial 2015 AA decision
- legal proceedings resulted in the initial 2015 AA decision being set aside, and reference tariffs for 2016-17, 2017-18 and 2018-19 being set via Enforceable Undertakings¹
- during 2018 it became clear that the likely outcome of the remittal process, the level of reference tariffs established via the Enforceable Undertakings, and forecast building block costs for the 2020-25 AA period, could result in significantly reduced reference tariffs in 2019-20, followed by a significant increase in 2020-21, causing potential customer bill shock
- as a result of this potential bill shock, following a proposal by JGN, on 30 August 2018 the AEMC changed the National Gas Rules (**NGR**) to allow cross-period smoothing of JGN's allowed revenues between the 2015-20 and 2020-25 AA periods
- on 28 February 2019 the AER remade its initial 2015 AA decision (**remade 2015 AA decision**)², setting an X factor of 5.4 per cent for 2019-20.

1.2 PURPOSE

The remade 2015 AA decision requires JGN submit its 2019-20 proposed reference tariffs to the AER for approval on or before 15 April 2019. This tariff variation notice (**TVN**):

- provides JGN's proposed reference tariffs for the 2019-20 financial year
- demonstrates how these proposed 2019-20 reference tariffs comply with the annual tariff variation mechanism in clause 3.2 of the 2015 AA, including the side constraint
- sets out the calculation of the 2019-20 automatic adjustment factor in accordance with schedule 3 of the 2015 AA, and applies this factor in calculating 2019-20 proposed reference tariffs—this includes true-ups for a number of years that have not occurred due to prices being set by Enforceable Undertakings³ in 2016-17, 2017-18 and 2018-19 rather than under the tariff variation mechanism in the AA. This includes automatic adjustments for:
 - the immediately prior access arrangement (**2010 AA**)⁴ relating to JGN's:

¹ See JGN's annual pricing proposals: <https://www.aer.gov.au/networks-pipelines/service-providers-assets/jemena-gas-networks-nsw-gas-distribution-network>

² Access Arrangement: JGN's NSW gas distribution networks, 1 July 2015 – 30 June 2020, Incorporating revisions required by AER Remade Decision, published by the AER in February 2019.

³ The enforceable undertakings can be found here: <https://www.aer.gov.au/networks-pipelines/service-providers-assets/jemena-gas-networks-nsw-gas-distribution-network>.

⁴ Access Arrangement (post mine subsidence): JGN's NSW gas distribution networks, 1 July 2010 – 30 June 2015, published by the AER in September 2011.

- 2014-15 unaccounted for gas (**UAG**) costs
- 2013-14 and 2014-15 licence fee costs
- the 2015 AA period in relation to JGN's
 - 2015-16, 2016-17, 2017-18 UAG costs (see section **Error! Reference source not found.** below)
 - 2015-16, 2016-17, and 2017-18 licence fee costs⁵
- contains no determined pass through amounts.

1.3 SUBMISSION STRUCTURE AND AA COMPLIANCE

JGN has structured this submission to demonstrate compliance with each relevant part of clause 3 and 4 of the 2015 AA:

- section 2—tariff classes (clause 4.1)
- section 3—variation notice (clause 3.6)
- section 4—annual tariff variation mechanism and tariff adjustments (clause 3.2).

1.3.1 PRICING MODEL

JGN has developed a reference tariff model to satisfy clause 3.6(a)(iii) of its 2015 AA. This model is set out in **Attachment A**. It provides the mathematical proof that JGN's proposed 2019-20 reference tariffs comply with the annual tariff variation mechanism in clause 3.2 of its 2015 AA.

The model demonstrates that for 2019-20 JGN has updated its reference tariffs for:

- CPI
- annual allowed X factor of 5.4 per cent
- the automatic adjustment factor that reflects cost true-ups from the 2010 AA period for UAG costs, licence fees, carbon costs and relevant taxes as well as those years of the 2015 AA period that have not been trued up due to Enforceable Undertakings being in place (i.e. 2016-17 to 2018-19 inclusive)
- verified gas quantity inputs for financial year t-2 (2017-18) (see section 3.4).

1.3.2 SUBMISSION VALUES AND TERMINOLOGY

This submission employs the following standards:

- unless otherwise indicated, all prices are expressed in \$2020
- for the purpose of relevant clauses and formulae in the 2015 AA as applicable to this TVN:

⁵ 2017-18 licence fee costs include only those licence fees for which JGN received an invoice in 2017-18. As of the date of submission, JGN has not received IPART fees for 2017-18.

- *financial year t* is the 2019-20 financial year ending on 30 June 2020
 - *financial year t-1* is the 2018-19 financial year ending on 30 June 2019
 - *financial year t-2* is the 2017-18 financial year ending on 30 June 2018
 - the 2016-17 financial year ending on 30 June 2017, is notated as year 2017
 - the 2015-16 financial year ending on 30 June 2016, is notated as year 2016
 - the 2014-15 financial year ending on 30 June 2015, is notated as year 2015
 - the 2013-14 financial year ending on 30 June 2014, is notated as year 2014
- the term 'customer' should be interpreted as an end consumer of energy rather than a retailer (consistent with the definition of this term in Schedule 1 of the 2015 AA)
 - a reference to the AA or a clause in the AA is a reference the 2015 AA (or a clause within the 2015 AA)— references to the 2010 AA or 2020 AA will be clearly identified as such.

2. TARIFF CLASSES

In this section JGN sets out its tariff classes for 2019-20.

2.1 JGN'S TARIFF CLASSES

JGN's tariff classes for all reference services are set out below and are described in schedule 2 of its AA. The tariff classes within the reference service are unchanged from 2018-19.

Table 2–1: JGN's tariff classes

Customer Type	Tariff class ⁶
Volume Individual (VI)	VI-Coastal VI-Country
Volume Boundary (VB)	VB-Coastal VB-Country
Volume Residential Distributed Generation Technology (VRT)	VRT-03 VRT-04 VRT-06 VRT-10
Demand Capacity (DC)	DC-1 to DC-11 DC Country
Demand Throughput (DT)	DT
Demand Capacity - First Response (DCFR)	DCFR-6
Demand Major End Customer Throughput (DMT)	DMT-01 to DMT-05
Demand Major End Customer Throughput - First Response (DMTFR)	DMTFR-3

⁶ Numbers 1 to 11 are used to differentiate demand and VRT customers by location based on postcode groupings. The allocation of postcodes to tariff classes can be found in section 2 of the proposed 2019-20 reference tariff schedule.

3. VARIATION NOTICE COMPLIANCE

This section sets out how JGN has complied with each of the variation notice requirements set out in clause 3.6(a) of the AA.

3.1 PROPOSED REVISED REFERENCE TARIFF SCHEDULE

Attachment D provides JGN's proposed reference tariff schedule for 1 July 2019 to 30 June 2020, as required under clause 3.6(a)(i) of the AA.

3.2 EFFECTIVE DATE OF VARIATION

The effective date of variation for JGN's 2019–20 reference tariffs is 1 July 2019, as required under clause 3.6(a)(ii) of the AA.

3.3 COMPLIANCE WITH ANNUAL TARIFF VARIATION MECHANISM

For the purpose of clause 3.6(a)(iii), JGN's compliance with the annual tariff variation mechanism is described in section 4 below and evidenced in JGN's reference tariff model at **Attachment A**.

3.4 GAS QUANTITY INPUTS

Clause 3.6(a)(iv) of the AA requires JGN to include a statement to support the gas quantity inputs used in the annual reference tariff variation mechanism, with the quantity input reflecting the most recent actual financial year quantity available. This statement is **Attachment B**.

JGN's annual tariff variation mechanism relies upon actual haulage reference tariff quantity inputs from two years prior to the financial year in which the proposed tariffs will apply. For the 2019–20 variation notice JGN must use the actual quantities that correspond to financial year t-2 (i.e. 2017-18), which is the most recent actual financial year quantity inputs available at this time.

Clause 3.6(a)(iv) also requires that the statement be independently audited or verified. Core Energy has verified JGN's gas quantity inputs (see **Attachment C**).

3.5 DETERMINED PASS THROUGH AMOUNT

There are no determined pass through amounts (as defined in the AA and for the purposes of 3.6(a)(v) of the AA) that JGN proposes to pass through in part or in whole for the 2019-20 financial year.

That is, for this 2019-20 TVN, the cost pass through factor (PT_t) value in the tariff basket price control formula of clause 3.2(b) of the AA is zero.

3.6 PASS THROUGH FROM THE 2010 AA

There are no amounts arising from cost pass through events from the 2010 AA period that JGN proposes to pass through in the 2019-20 financial year (see clauses 3.5 and 3.6(a)(vi) of the AA).

For the avoidance of doubt, this TVN includes true-ups from the 2010 AA period relating to JGN's:

- 2014-15 UAG costs
- 2013-14 and 2014-15 licence fee costs.

These occur under the automatic adjustment factor mechanism set out in section 4.2.3, in conjunction with clauses 3.5 and 3.6(a)(vi) of the AA.

4. ANNUAL TARIFF VARIATION MECHANISM

This section explains how JGN has complied with the reference tariff variation mechanism described in clause 3.2 of the AA and sets out its proposed 2019-20 haulage reference tariffs.

4.1 VARIATION MECHANISM

JGN's annual tariff variation mechanism as set out in clause 3.2(b) includes two formulae:

- weighted average price cap (tariff basket price control formula)
- side constraint.

In 2019-20, these respectively constrain:

- the annual movement in total notional revenues⁷ to no more than 1.37% (Left hand side of above equation rounded to 2 decimal places)
- the annual movement in the notional revenues from any individual tariff class to be no more than 11.51%.

JGN's reference tariff model, at **Attachment A**, provides the mathematical proof that JGN's proposed 2019-20 reference tariffs comply with both elements of the annual tariff variation mechanism.

4.2 WEIGHTED AVERAGE PRICE CAP FORMULA

The weighted average price cap formula is:

$$(1 + CPI_t)(1 - X_t)(1 + A_t)(1 + PT_t) \geq \frac{\sum_{x=1}^n \sum_{y=1}^m p_t^{xy} q_{t-2}^{xy}}{\sum_{x=1}^n \sum_{y=1}^m p_{t-1}^{xy} q_{t-2}^{xy}}$$

This ensures the expected change in JGN revenues (right-hand side of the formula) are constrained by movements in:

- CPI (CPI_t)
- the allowed X factor (X_t)
- the automatic adjustment factor that reflects cost true-ups from certain cost categories (A_t)

⁷ For 2019-20, clause 3.2(b) calculates the notional revenues as the product of JGN's proposed 2019-20 reference tariffs and the actual quantities for each reference tariff in 2017-18.

4 — ANNUAL TARIFF VARIATION MECHANISM

- costs arising with approved cost pass through events (PT_t)

The right hand side of the formula uses verified gas quantity inputs for financial year t-2 (2017-18) to calculate notional revenues. These quantities have been externally verified by Core Energy (see **Attachment C**).

Each element of the left hand side of the formula is discussed in the following sections.

4.2.1 CPI ADJUSTMENT

This section shows where JGN has sourced the annual CPI values and calculated the annual CPI adjustment for CPI_t .

The 2015 AA defines CPI for JGN for financial years 2014-15 to 2018-19 as set out below. JGN has calculated for 2019-20 (CPI_t) in accordance with clause 3.2(b) of the AA as set out in the 'Input I General' worksheet of **Attachment A**.

The values of CPI applicable to the annual tariff variation mechanism are (for the financial year beginning 1 July and ending 30 June):

- 1.72% (rounded to two decimal places) in 2014-15 (CPI_{2015})
- 1.69% (rounded to two decimal places) in 2015-16 (CPI_{2016})
- 1.48% (rounded to two decimal places) in 2016-17 (CPI_{2017})
- 1.91% (rounded to two decimal places) in 2017-18 (CPI_{2018} or CPI_{t-2})
- 1.78% (rounded to two decimal places) in 2019-20 (CPI_t).

The calculation for 2019-20 involved JGN obtaining the CPI: all groups index for the eight state capitals as published by the Australian Bureau of Statistics (**ABS**) for the December quarter in each of 2018 and 2017. JGN then divided the CPI December 2018 index value of 114.1 by the CPI December 2017 index value of 112.1 and subtracted one.

The value of $(1+CPI_t)$ is therefore 1.0178 (rounded to four decimal places).

4.2.2 X FACTOR ADJUSTMENT

The X factor for 2019-20 is 5.4 per cent. This is the X factor that gives effect to the AER remade decision in combination with the AER adjustment determination and is used in **Attachment A** to demonstrate JGN has varied its 2019-20 reference tariffs in accordance with the tariff basket price control formula in clause 3.2(b) of the AA. Note that as the X factor was determined as part of the remade decision, there is no update required for return on debt.

The value of $(1-X_t)$ is 0.946.

4.2.3 AUTOMATIC ADJUSTMENT FACTOR

The automatic adjustment factor (A_t) provides for administrative true-ups for costs incurred in areas outside of JGN's control. This section shows how JGN has calculated the 2019-20 automatic adjustment factor in accordance with schedule 3 of the AA. The 2019-20 automatic adjustment includes adjustments for a number of years to account for the three enforceable undertakings, which excluded any automatic adjustment.

The automatic adjustment is calculated using the following formula in schedule 3 of the 2015 AA:

$$A_t = \frac{(1 + A'_t)}{(1 + A'_{t-1})} - 1$$

A_{t-1} is defined as zero in the schedule 3 of the 2015 AA.

A_t is calculated as:

$$A'_t = \frac{(L_{t-2} + U_{t-2} + C_{t-2} + T_{t-2})[(1 + \text{realWACC}_{t-1})(1 + \text{realWACC}_t)(1 + \text{CPI}_{t-1})]}{(1 - X_t) \sum_{x=1}^n \sum_{y=1}^m p_{t-1}^{xy} q_{t-2}^{xy}}$$

As shown in the formula, the automatic adjustment factor (A_t) relies on the values for L_{t-2} , U_{t-2} , C_{t-2} and T_{t-2} . Table 4–1 summarises these values with an outline of the calculations provided in the following sections (and also set out in **Attachment A**).

Table 4–1: Automatic adjustment factor

Automatic adjustment variable	Value (\$2017-18)
Licence fee factor (L_{t-2})	(\$47,327) – refund to customers, see section 4.2.3.1
UAG factor (U_{t-2})	\$23,929,045 – cost to customers, see section 4.2.3.2
Carbon Cost factor (C_{t-2})	0
Relevant Tax factor (T_{t-2})	0
Total adjustments	\$23,881,718

In accordance with the automatic adjustment formula in schedule 3 of the 2015 AA, JGN has adjusted for the time value of money to account for the period which elapses from when the costs were incurred and when these will be recovered from/returned to customers. For this calculation, JGN has used:

- the real vanilla WACC as provided in the 2015 AA.⁸ This includes rates of:
 - 7.63% for 2014-15
 - 2.78% for 2015-16
 - 2.85% for 2016-17
 - 2.90% for 2017-18
- the AER's determined real vanilla WACC of 2.91% for financial year $t-1$ (2018-19) and financial year t (2019-20).
- CPI as set out in section 4.2.1.
- The notional revenues for $t-1$ ($\sum p_{t-1} * q_{t-2}$).

⁸ Schedule 3 of the 2015 AA.

4 — ANNUAL TARIFF VARIATION MECHANISM

JGN has applied the automatic adjustment to the haulage reference tariffs consistent with the tariff basket price control formula in clause 3.2(b) of the AA.

Using the above values JGN has calculated a value for A_t of 5.28%. The value of $(1+A_t)$ is therefore 1.0528 (rounded to four decimal places).

The next subsections explain the calculations for licence fee factor, UAG factor, Carbon factor and relevant tax factor.

4.2.3.1 Licence fee factor

Schedule 3 of the AA sets out that when t-2 is financial year 2017-18, the licence fee factor (L_{t-2}) includes an amount from financial years 2013-14 (L_{2014}), 2014-15 (L_{2015}), 2015-16 (L_{2016}), 2016-17 (L_{2017}) and 2017-18 (L_{2018}). JGN has not previously adjusted tariffs to account for the differences between actual cost and allowances in these financial years.

JGN has calculated its licence fee adjustment by calculating the difference between its actual licence fee costs and:

- for 2013–14 and 2014-15, the amount allowed in the 2010 AA; and
- for 2015-16, 2016-17 and 2017-18, the amounts allowed in the 2015 AA.

In total, this results in a Licence fee factor amount for t-2 (L_{t-2}) of \$47,327 (\$2017-18). This is a refund to customers and will be added to the Automatic Adjustment formula where it will be escalated into \$2019-20. Table 4–2 sets out the calculations and relevant data sources for each year of Licence fee true-up.

Table 4–2: Calculating the Licence Fee Factor amount, L_{t-2}

	Allowance (\$ in year stated)	Actual cost (\$ in year stated)	Refund to customers (\$ in year stated)	Refund to customers (\$2017-18)
L_{2014}	\$740,703 (\$2009-10), which adjusts to \$823,243 (\$2013-14) after inflation	Pipeline fees: \$83,072	\$143,189 (\$2013-14)	\$179,330
		EWON fees: \$122,461		
		AEMO fees: \$19,421		
		IPART fees: \$455,100		
		<i>Total: \$680,054 (all \$2013-14)</i>		
L_{2015}	\$740,703 (\$2009-10), which adjusts to \$837,402 (\$2014-15) after inflation	Pipeline fees: \$119,636	\$541,933 (\$2014-15)	\$619,940
		EWON fees: \$161,547		
		AEMO fees: \$14,286		
		IPART fees: no invoice ⁹		
		<i>Total: \$295,469 (all \$2014-15)</i>		
L_{2016}	\$500,100 (\$2014-15),	Pipeline fees: \$66,484	(\$219,068) (\$2015-16)	(\$239,771)

⁹ JGN has included IPART licence fee expenses in the year we received and paid them rather than the year to which the allowance relates. This ensures the appropriate escalation is applied.

	Allowance (\$ in year stated)	Actual cost (\$ in year stated)	Refund to customers (\$ in year stated)	Refund to customers (\$2017-18)
	which adjusts to \$517,299 (\$2015-16) after inflation	EWON fees: \$213,783		
		AEMO fees: \$0		
		IPART fees: \$456,100		
		<i>Total: \$736,367 (all \$2015-16)</i>		
L ₂₀₁₇	\$500,100 (\$2014-15), which adjusts to \$524,955 (\$2016-17) after inflation	Pipeline fees: \$83,072	\$227,334 (\$2016-17)	\$238,395
		EWON fees: \$214,549		
		AEMO fees: \$0		
		IPART fees: no invoice		
	<i>Total: \$297,621 (all \$2016-17)</i>			
L ₂₀₁₈	\$500,100 (\$2014-15), which adjusts to \$534,981 (\$2017-18) after inflation	Pipeline fees: \$66,604	(\$750,567) (\$2017-18)	(\$750,567)
		EWON fees: \$355,916		
		AEMO fees: \$0		
		IPART fees: \$863,028		
	<i>Total: \$1,285,548 (all \$2017-18)</i>			
Total (L _{t-2})				\$47,327

This calculation is provided in the 'Inputs I General' worksheet of JGN's proposed reference tariff model at **Attachment A**.

4.2.3.2 UAG factor

JGN has calculated its UAG adjustment in accordance with schedule 3 of the 2015 AA.

Schedule 3 of the 2015 AA sets out that when t-2 is financial year 2017-18, the UAG factor (U_{t-2}) includes an amount from financial years 2014-15 (U_{2015}), 2015-16 (U_{2016}), 2016-17 (U_{2017}) and 2017-18 (U_{2018}).

JGN has calculated its UAG adjustment by calculating the difference between its recoverable UAG costs and:

- For 2014-15, the amount allowed in the 2010 AA; and
- For 2015-16, 2016-17 and 2017-18, the amounts allowed in the 2015 AA.

JGN has not previously adjusted tariffs to account for the difference to allowances for all the above years.

Recoverable UAG cost

Clause 2.2 of schedule 3 of the AA provides that JGN's recoverable UAG cost is calculated as the product of:

- gas receipts in gigajoules for each financial year, and

4 — ANNUAL TARIFF VARIATION MECHANISM

- the UAG Cost¹⁰ for each financial year in \$/gigajoule, and
- the UAG target rate of 2.34% of gas receipts for 2014-15 and X% for volume market and Y% for the demand market in years 2015-16, 2016-17 and 2017-18,

minus the allowed UAG amount.

JGN obtains its gas for UAG via an annual competitive tender. JGN invites all natural gas shippers and producers who supply natural gas in NSW (being registered participants in the NSW retail gas market or registered shippers to the Sydney Short Term Trading Market Hub) to submit a tender for JGN's UAG requirements.

Table 4–3: Calculating the UAG recoverable cost

	Volume market gas receipts ¹¹ (GJ)	Demand market gas receipts (GJ)	UAG cost (\$)	Target rate ¹² (Volume)	Target rate (Demand)	Recoverable cost ¹³ (\$ stated)
U ₂₀₁₅	94,713,584			2.34%		(\$2014-15)
U ₂₀₁₆	39,863,608	50,442,197		5.16%	0.43%	(\$2015-16)
U ₂₀₁₇	40,759,695	47,728,326		5.16%	0.43%	(\$2016-17)
U ₂₀₁₈	41,736,475	49,644,802		5.16%	0.43%	(\$2017-18)

Calculating the UAG factor

Table 4–4 provides JGN's calculation of U_{t-2} .

¹⁰ 'UAG Cost' is defined in the AA and 'means the average cost per gigajoule incurred by the Service Provider for purchases of gas as unaccounted for gas (UAG) during a Financial Year, including costs for transmission haulage and other direct costs reasonably incurred by the Service Provider to acquire UAG through a competitive market or process'.

The average gas price for each financial year ending 30 June 15 is the weighted (by gas purchased) average of the successful tender prices during the financial year.

- the successful tender price for the period 1 July 2014 to 30 August 2014
- the successful tender price for the period 1 September 2014 to 30 June 2015.

The average gas price for each financial years ending 30 June 16, 30 June 2017 and 30 June 1018 is the weighted (by gas purchased) average of the successful tender prices during the financial year.

- the successful tender price for the period 1 July to 30 December
- the successful tender price for the period 1 January to 30 June.

¹¹ JGN gas receipts is the sum of the gas receipts in the network for the relevant financial year and is part of data verified by Core Energy.

¹² Target rates are a defined term in JGN's 2010 AA for U₂₀₁₅ and 2015 AA for U₂₀₁₆, U₂₀₁₇ and U₂₀₁₈.

¹³ Product of gas receipts target rate and UAG cost.

Table 4–4: Calculating the UAG Factor amount, U_{t-2}

	UAG Allowance	Recoverable UAG	Difference (cost to customers)	Cost to customers (\$2017-18)
U ₂₀₁₅	\$14,755,149 (\$2014-15) ¹⁴	(\$2014-15)	(\$2014-15)	
U ₂₀₁₆	\$16,216,649 (\$2015-16) ¹⁵	(\$2015-16)	(\$2015-16)	
U ₂₀₁₇	\$16,527,557 (\$2016-17) ¹⁶	(\$2016-17)	(\$2016-17)	
U ₂₀₁₈	\$16,828,727 (\$2017-18) ¹⁷	(\$2017-18)	(\$2017-18)	
Total (U _{t-2})				\$23,929,045

Therefore, in 2019-20 the UAG factor amount from financial year t-2 involves a cost to customers of \$23,929,045 (\$2017-18). This is a cost to customers and will be added to the Automatic Adjustment formula, where it will be escalated into \$2019-20.

This calculation is provided in the 'Inputs I General' worksheet of JGN's proposed reference tariff model at **Attachment A**.

4.2.3.3 Carbon Cost factor

As there was no carbon scheme operational between 2014-15 and 2017-18 and JGN had no forecast allowance as part of its 2010 AA or its 2015 AA, the carbon cost factor (C_t) amount is zero.¹⁸

4.2.3.4 Relevant Tax factor

The Relevant Tax factor (T_t) seeks to capture any new and unforeseen tax liability that JGN becomes subject to. The AA defines a Relevant Tax (see Schedule 1 of the 2015 AA) and this, for example, excludes income taxes, capital gains taxes, stamp duties, and penalties related to late tax payments.

JGN has not sought any adjustment in respect of any Relevant Tax amounts in this TVN. Accordingly, the Relevant Tax factor (T_t) is zero.

4.2.4 DETERMINED PASS THROUGH AMOUNT

As noted in section 3.5, the cost pass through factor (PT_t) value in the tariff basket price control formula of clause 3.2(b) of the AA is zero. The value of $(1+PT_t)$ is therefore 1.

¹⁴ Allowance of \$13.1M (\$2009-10). Access Arrangement (post mine subsidence): JGN's NSW gas distribution networks, 1 July 2010 – 30 June 2015, September 2011, Schedule 8.

¹⁵ Allowance of \$15,677,489 (\$2014-15).

¹⁶ Allowance of \$15,745,034 (\$2014-15).

¹⁷ Allowance of \$15,731,473 (\$2014-15).

¹⁸ Note that the repeal of the Clean Energy Act 2011 (Cth) on 17 July 2014 removed JGN's carbon liabilities, effective from 1 July 2014. See *Clean Energy Legislation (Carbon Tax Repeal) Act 2014* (Cth).

4.3 PROPOSED 2019-20 REFERENCE TARIFFS

JGN's proposed 2019-20 reference tariffs (including automatic adjustments) are set out in its proposed 2019-20 reference tariff schedule at **Attachment D**.

These include the following adjustment to ancillary services:

- An increase in the “Hourly charge – non-standard user-initiated requests and queries” from \$100 to \$132. This change reflects the need to ensure cost-reflectivity after a period of no price change during the period of Enforceable Undertakings (since 2015). This service is only used by demand customers (large industry) when requested and amounts to around 80 hours per year. It will therefore have minor impact on total network charges for those customers who request the service and remains within the side-constraint.
- No change to the special meter read charge.
- A 1.25% nominal price change to other ancillary services.

4.4 INFORMING CUSTOMERS OF ANNUAL CHANGES TO TARIFFS

JGN intends to communicate its proposed annual tariff changes by:

- Outlining our proposed 2019-20 tariffs to JGN Customer Council members and retailers at separate meetings to be held on 16 April 2019
- The AER publishing this TVN on its website
- Publishing our approved prices on our website here: <http://jemena.com.au/about/document-centre/gas/access-arrangement>
- Notifying retailers of approved prices.

Attachment A

JGN proposed reference tariff model

Page intentionally blank

A1. JGN PROPOSED REFERENCE TARIFF MODEL

Attached as separate document.

Attachment B

JGN gas quantity statement

Page intentionally blank

B1. JGN STATEMENT TO SUPPORT THE GAS QUANTITY IN THE ANNUAL REFERENCE TARIFF VARIATION MECHANISM

Jemena Gas Networks (**JGN**) considers the 2017-18 gas quantities suitable for the 2019-20 annual reference tariff variation mechanism to be as set out in the tables below.

These are presented as four quarters of gas quantity data that reconcile to the annual total gas quantity.

JGN has sourced data from its systems, the data is set out in the following spreadsheets:

- JGN Volume Market 2017-18.xls

Summary of volume market customers consumption in 2017-18.

- Demand Market 2017-18.xls

Summary of demand market customers consumption in 2017-18 by station ID.

- Ancillary Extract – SO Summary Jul 17-Jun 18.xls

Summary of number of disconnections, meter readings, and decommissions in 2017-18.

These gas quantities represent the most recent actual Financial Year quantity available at the time of submitting JGN's tariff variation notice (mid-April 2019).

ATTACHMENT B

Volume Market

ANNUAL VOLUME THROUGHPUT | GJ

REGION	PERIOD	BLOCK 1	BLOCK 2	BLOCK 3	BLOCK 4	BLOCK 5	BLOCK 6	Customer numbers
VI-COASTAL	2017-18	7,844,687	5,295,343	5,747,412	10,962,273	3,468,815	1,225,188	1,262,101
VI-COUNTRY	2017-18	557,336	410,267	635,777	1,932,027	390,629	215,698	95,855
Grand Total		8,402,023	5,705,610	6,383,189	12,894,300	3,859,444	1,440,886	1,357,956

Q1 VOLUME THROUGHPUT | MJ

REGION	PERIOD	BLOCK 1	BLOCK 2	BLOCK 3	BLOCK 4	BLOCK 5	BLOCK 6	Customer numbers
VI-COASTAL	Jul-Sept	2,037,795,640	1,638,310,879	2,424,036,096	4,367,195,788	1,199,812,237	520,492,747	1,233,252
VI-COUNTRY	Jul-Sept	154,086,756	137,872,577	277,441,971	1,062,990,547	170,370,281	97,301,916	94261

Q2 VOLUME THROUGHPUT | MJ

REGION	PERIOD	BLOCK 1	BLOCK 2	BLOCK 3	BLOCK 4	BLOCK 5	BLOCK 6	Customer numbers
VI-COASTAL	Oct- Dec	2,002,423,575	1,453,037,834	1,666,688,933	2,667,335,427	769,050,924	229,924,113	1,239,661
VI-COUNTRY	Oct- Dec	149,165,183	121,821,631	205,796,334	508,483,695	80,831,220	42,103,729	94,424

Q3 VOLUME THROUGHPUT | MJ

REGION	PERIOD	BLOCK 1	BLOCK 2	BLOCK 3	BLOCK 4	BLOCK 5	BLOCK 6	Customer numbers
VI-COASTAL	Jan-Mar	1,860,976,852	1,007,609,927	657,564,523	1,805,272,235	630,958,135	185,731,525	1290614
VI-COUNTRY	Jan-Mar	119,005,449	60,607,240	42,901,567	130,835,014	54,109,086	25,032,888	98310

Q4 VOLUME THROUGHPUT | MJ

REGION	PERIOD	BLOCK 1	BLOCK 2	BLOCK 3	BLOCK 4	BLOCK 5	BLOCK 6	Customer numbers
VI-COASTAL	Apr-Jun	1,943,490,500	1,196,384,396	999,122,633	2,122,469,669	868,994,130	289,039,944	1285752
VI-COUNTRY	Apr-Jun	135,078,646	89,965,503	109,637,418	229,717,256	85,318,166	51,259,323	96485

VOLUME BOUNDARY | MJ

REGION	PERIOD	BLOCK 1	BLOCK 2	BLOCK 3	BLOCK 4	Customer numbers
VB - Coastal	2017/18	16,054.563	10,165.660	10,714.656	17,128.916	111
VB - Country	2017/18	-	-	-	-	-

ATTACHMENT B

Demand Market | Annual Throughput & Capacity

Annual	Demand Capacity (GJ of CD)						Demand Capacity Distance (GJ of CD)						Pressure Reduction (GJ of CD)						Demand Throughput - DT (GJ)			Demand Major End Customer Throughput - DMT (GJ)			
	Block 1	Block 2	Block 3	Block 4	Block 5	Block 6	Block 1	Block 2	Block 3	Block 4	Block 5	Block 6	Block 1	Block 2	Block 3	Block 4	Block 5	Block 6	Block 1	Block 2	Block 3	Fixed (Num)	Block 1	Block 2	Block 3
Demand Capacity																									
DC1	1630	4211	5953	5698	576	-																			
DC2	3834	7372	7019	4527	311	-																			
DC3	5121	10828	9934	7109	2050	2,400																			
DC4	2375	3927	2054	680	-	-																			
DC5																									
DC6	1394	3547	4245	6126	10000	50,621																			
DC7	950	2204	2975	1450	468	-																			
DC8	250	408	264	0	0	-																			
DC9																									
DC10	500	1114	1179	763	0	-																			
DC11	-	-	-	-	-	-																			
DC country							8794	21654	27660	12392	49	-	2129	5240	6731	4494	97	-							
Demand Throughput																									
DT																			286931	135196	543068				
DMT1																									
DMT2																									
DMT3																									
DMT4																									
DMT5																									
Demand Capacity - First Response																									
DC1FR																									
DC2FR	-	-	-	-	-	-																			
DC3FR	-	-	-	-	-	-																			
DC4FR	-	-	-	-	-	-																			
DC5FR	-	-	-	-	-	-																			
DC6FR																									
DC7FR	-	-	-	-	-	-																			
DC8FR	-	-	-	-	-	-																			
DC9FR	-	-	-	-	-	-																			
DC10FR	-	-	-	-	-	-																			
DC11FR	-	-	-	-	-	-																			
Demand Throughput - First Response																									
DMT1FR																									
DMT2FR																									
DMT3FR																									
DMT4FR																									
DMT5FR																									
	16,429	34,597	35,228	30,353	21,405	97,920	8,794	21,654	27,660	12,392	49	-	2,129	5,240	6,731	4,494	97	-	286,931	135,196	543,068	2	1,500,012	1,251,718	1,515,794

Demand Market | Annual Metering

Annual Demand Capacity	Metering - Single Meter					Metering Double Meter				
	MHQ < 10 GJ/hr	10 to < 50 GJ/hr	50 to < 100 GJ/hr	100 to < 1000 GJ/hr	1000GJ/hr and greater	MHQ < 10 GJ/hr	10 to < 50 GJ/hr	50 to < 100 GJ/hr	100 to < 1000 GJ/hr	1000GJ/hr and greater
DC1	7	13	4	-	-	-	3	3	2	-
DC2	23	43	5	3	-	1	-	1	1	-
DC3	24	61	9	2	-	1	2	1	2	-
DC4	16	27	1	1	-	-	1	2	-	-
DC5	-	2	-	-	-	-	0	-	-	-
DC6	7	14	2	-	-	-	-	1	4	-
DC7	1	14	3	-	-	-	1	-	-	-
DC8	1	4	-	-	-	-	-	-	-	-
DC9	1	-	-	-	-	-	-	-	1	1
DC10	3	2	-	1	-	-	4	-	-	-
DC11	-	-	-	-	-	-	-	-	-	-
DC country	9	28	3	-	-	-	-	2	1	-
Demand Throughput										
DT	1	3	0	1	-	5	7	-	-	-
DMT1	-	-	-	-	-	-	-	-	1	-
DMT2	-	-	-	-	-	-	-	-	1	-
DMT3	-	-	-	-	-	-	-	-	-	-
DMT4	-	-	-	-	-	-	-	-	-	-
DMT5	-	-	-	-	-	-	-	-	-	-
Demand Capacity - First Response										
DC1FR	-	-	-	-	-	-	-	-	1	-
DC2FR	-	-	-	-	-	-	-	-	-	-
DC3FR	-	-	-	-	-	-	-	-	-	-
DC4FR	-	-	-	-	-	-	-	-	-	-
DC5FR	-	-	-	-	-	-	-	-	-	-
DC6FR	-	-	-	-	-	-	-	-	-	-
DC7FR	-	-	-	-	-	-	-	-	-	-
DC8FR	-	-	-	-	-	-	-	-	-	1
DC9FR	-	-	-	-	-	-	-	-	-	-
DC10FR	-	-	-	-	-	-	-	-	-	-
DC11FR	-	-	-	-	-	-	-	-	-	-
Demand Throughput - First Response										
DMT1FR	-	-	-	-	-	-	-	-	-	-
DMT2FR	-	-	-	-	-	-	-	-	-	-
DMT3FR	-	-	-	-	-	-	-	-	1	-
DMT4FR	-	-	-	-	-	-	-	-	-	-
DMT5FR	-	-	-	-	-	-	-	-	-	-
	93	211	27	8	-	7	18	10	15	2

ATTACHMENT B

Demand Market | Q1 Throughput & Capacity

Q1	Demand Capacity (GJ of CD)						Demand Capacity Distance (GJ of CD)						Pressure Reduction (GJ of CD)						Demand Throughput - DT (GJ)			Demand Major End Customer Throughput - DMT (GJ)					
	Demand Capacity	Block 1	Block2	Block 3	Block 4	Block 5	Block 6	Block 1	Block2	Block 3	Block 4	Block 5	Block 6	Block 1	Block2	Block 3	Block 4	Block 5	Block 6	Block 1	Block2	Block 3	Fixed (Num)	Block 1	Block2	Block 3	
DC1	1734	4413	5979	5698	576	0																					
DC2	3842	7385	7022	4527	311	0																					
DC3	5184	10922	9934	7109	2050	2400																					
DC4	2400	4000	2202	680	-	-																					
DC5																											
DC6	1407	3585	4335	6126	10000	50621																					
DC7	950	2204	2975	1450	468	0																					
DC8	250	408	264	0	0	0																					
DC9																											
DC10	500	1114	1179	763	-	-																					
DC11	-	-	-	-	-	-																					
DC country							8,825	21,746	27,835	12,392	49	-	2,150	5,302	6,848	4,494	97	-									
Demand Throughput																											
DT																						76,997	36,323	137,387			
DMT1																											
DMT2																											
DMT3																											
DMT4																											
DMT5																											
Demand Capacity - First Response																											
DC1FR																											
DC2FR	-	-	-	-	-	-																					
DC3FR	-	-	-	-	-	-																					
DC4FR	-	-	-	-	-	-																					
DC5FR	-	-	-	-	-	-																					
DC6FR																											
DC7FR	-	-	-	-	-	-																					
DC8FR	-	-	-	-	-	-																					
DC9FR	-	-	-	-	-	-																					
DC10FR	-	-	-	-	-	-																					
DC11FR	-	-	-	-	-	-																					
Demand Throughput - First Response																											
DMT1FR																											
DMT2FR																											
DMT3FR																											
DMT4FR																											
DMT5FR																											
Total	16616	34,941	35,490	30,353	21,405	97,920	8,825	21,746	27,835	12,392	49	-	2,150	5,302	6,848	4,494	97	-	76,997	36,323	137,387	2	375,003	319,834	272,411		

Demand Market | Q2 Throughput & Capacity

Q2	Demand Capacity (GJ of CD)						Demand Capacity Distance (GJ of CD)						Pressure Reduction (GJ of CD)						Demand Throughput - DT (GJ)			Demand Major End Customer Throughput - DMT (GJ)					
	Block 1	Block 2	Block 3	Block 4	Block 5	Block 6	Block 1	Block 2	Block 3	Block 4	Block 5	Block 6	Block 1	Block 2	Block 3	Block 4	Block 5	Block 6	Block 1	Block 2	Block 3	Fixed (Num)	Block 1	Block 2	Block 3		
Demand Capacity																											
DC1	1600	4160	5946	5698	576	-																					
DC2	3842	7385	7022	4527	311	-																					
DC3	5100	10797	9934	7109	2050	2400																					
DC4	2400	4000	2202	680	-	-																					
DC5																											
DC6	1390	3534	4214	6126	10000	50621																					
DC7	950	2204	2975	1450	468	0																					
DC8	250	408	264	0	0	0																					
DC9																											
DC10	500	1114	1179	763	-	-																					
DC11	-	-	-	-	-	-																					
DC country							8,825	21,746	27,835	12,392	49	-	2,150	5,302	6,848	4,494	97	-									
Demand Throughput																											
DT																			66,743	31,156	142,000						
DMT1																											
DMT2																											
DMT3																							-	-	-		
DMT4																							-	-	-		
DMT5																							-	-	-		
Demand Capacity - First Response																											
DC1FR																											
DC2FR	-	-	-	-	-	-																					
DC3FR	-	-	-	-	-	-																					
DC4FR	-	-	-	-	-	-																					
DC5FR	-	-	-	-	-	-																					
DC6FR	-	-	-	-	-	-																					
DC7FR	-	-	-	-	-	-																					
DC8FR	-	-	-	-	-	-																					
DC9FR	-	-	-	-	-	-																					
DC10FR	-	-	-	-	-	-																					
DC11FR	-	-	-	-	-	-																					
Demand Throughput - First Response																											
DMT1FR																											
DMT2FR																											
DMT3FR																											
DMT4FR																											
DMT5FR																											
Total	16382	34,513	35,336	30,353	21,405	97,920	8,825	21,746	27,835	12,392	49	-	2,150	5,302	6,848	4,494	97	-	66,743	31,156	142,000	2	375,003	310,479	315,430		

ATTACHMENT B

Demand Market | Q3 Throughput & Capacity

Q3	Demand Capacity (GJ of CD)						Demand Capacity Distance (GJ of CD)						Pressure Reduction (GJ of CD)						Demand Throughput - DT (GJ)			Demand Major End Customer Throughput - DMT (GJ)					
	Demand Capacity	Block 1	Block2	Block 3	Block 4	Block 5	Block 6	Block 1	Block2	Block 3	Block 4	Block 5	Block 6	Block 1	Block2	Block 3	Block 4	Block 5	Block 6	Block 1	Block2	Block 3	Fixed (Num)	Block 1	Block2	Block 3	
DC1	1600	4160	5946	5698	576	-																					
DC2	3842	7385	7022	4527	311	-																					
DC3	5100	10797	9934	7109	2050	2,400																					
DC4	2367	3902	1966	680	-	-																					
DC5																											
DC6	1390	3534	4214	6126	10000	50,621																					
DC7	950	2204	2975	1450	468	-																					
DC8	250	408	264	-	-	-																					
DC9																											
DC10	500	1114	1179	763	-	-																					
DC11	-	-	-	-	-	-																					
DC country							8,776	21,599	27,556	12,392	49	-	2,117	5,204	6,662	4,494	97	-									
Demand Throughput																											
DT																						67,840	32,746	122,927			
DMT1																											
DMT2																											
DMT3																								-	-	-	
DMT4																								-	-	-	
DMT5																								-	-	-	
Demand Capacity - First Response																											
DC1FR																											
DC2FR	-	-	-	-	-	-																					
DC3FR	-	-	-	-	-	-																					
DC4FR	-	-	-	-	-	-																					
DC5FR	-	-	-	-	-	-																					
DC6FR																											
DC7FR	-	-	-	-	-	-																					
DC8FR	-	-	-	-	-	-																					
DC9FR	-	-	-	-	-	-																					
DC10FR	-	-	-	-	-	-																					
DC11FR	-	-	-	-	-	-																					
Demand Throughput - First Response																											
DMT1FR																											
DMT2FR																											
DMT3FR																											
DMT4FR																											
DMT5FR																											
Total	16399	34,565	35,110	30,353	21,405	97,920	8,776	21,599	27,556	12,392	49	-	2,117	5,204	6,662	4,494	97	-	67,840	32,746	122,927	2	375,003	308,901	415,501		

Demand Market | Q4 Throughput & Capacity

Q4	Demand Capacity (GJ of CD)						Demand Capacity Distance (GJ of CD)						Pressure Reduction (GJ of CD)						Demand Throughput - DT (GJ)			Demand Major End Customer Throughput - DMT (GJ)					
	Block 1	Block 2	Block 3	Block 4	Block 5	Block 6	Block 1	Block 2	Block 3	Block 4	Block 5	Block 6	Block 1	Block 2	Block 3	Block 4	Block 5	Block 6	Block 1	Block 2	Block 3	Fixed (Num)	Block 1	Block 2	Block 3		
Demand Capacity																											
DC1	1572	4081	5899	5656	572	-																					
DC2	3781	7279	6957	4494	309	-																					
DC3	5063	10718	9862	7057	2035	2,383																					
DC4	2317	3779	1829	675	-	-																					
DC5																											
DC6	1380	3508	4183	6081	9927	50,252																					
DC7	943	2188	2953	1439	465	-																					
DC8	248	405	262	-	-	-																					
DC9																											
DC10	496	1106	1170	757	-	-																					
DC11	-	-	-	-	-	-																					
DC country							8,686	21,364	27,209	12,301	48	-	2,085	5,114	6,516	4,461	96	-									
Demand Throughput																											
DT																						75,350	34,971	140,754			
DMT1																											
DMT2																											
DMT3																							-	-	-		
DMT4																							-	-	-		
DMT5																							-	-	-		
Demand Capacity - First Response																											
DC1FR																											
DC2FR	-	-	-	-	-	-																					
DC3FR	-	-	-	-	-	-																					
DC4FR	-	-	-	-	-	-																					
DC5FR	-	-	-	-	-	-																					
DC6FR																											
DC7FR	-	-	-	-	-	-																					
DC8FR	-	-	-	-	-	-																					
DC9FR	-	-	-	-	-	-																					
DC10FR	-	-	-	-	-	-																					
DC11FR	-	-	-	-	-	-																					
Demand Throughput - First Response																											
DMT1FR																											
DMT2FR																											
DMT3FR																											
DMT4FR																											
DMT5FR																											
Total	16197	34,117	34,714	30,132	21,249	97,207	8,686	21,364	27,209	12,301	48	-	2,085	5,114	6,516	4,461	96	-	75,350	34,971	140,754	2	375,003	312,504	512,452		

RFS Hours

Demand Capacity	Q1	Q2	Q3	Q4
DC1	0	1	5	1
DC2	1	1	15	0
DC3	2	1	15	7
DC4	3	1	6	0
DC5	0	0	0	0
DC6	0	0	3	0
DC7	0	0	3	0
DC8	0	0	0	1
DC9	0	0	1	0
DC10	0	0	1	0
DC11	0	0	0	0
DC country	0	1	9	0
	0	0	0	0
Demand Throughput	0	0	0	0
DT	0	0	0	2
DMT1	0	0	0	0
DMT2	0	0	1	0
DMT3	0	0	0	0
DMT4	0	0	0	0
DMT5	0	0	0	0
	0	0	0	0
Demand Capacity - First Response	0	0	0	0
DC1FR	0	0	0	0
DC2FR	0	0	0	0
DC3FR	0	0	0	0

ATTACHMENT B

DC4FR	0	0	0	0
DC5FR	0	0	0	0
DC6FR	0	0	0	0
DC7FR	0	0	0	0
DC8FR	0	0	0	0
DC9FR	0	0	0	0
DC10FR	0	0	0	0
DC11FR	0	0	0	0
Demand Throughput - First Response	0	0	0	0
DMT1FR	0	0	0	0
DMT2FR	0	0	0	0
DMT3FR	0	0	0	0
DMT4FR	0	0	0	0
DMT5FR	0	0	0	0

Ancillary Services

Annual

Annual Output	Small Disconnections	Meter	Meter Reading	Temporary disconnections domestic meter	Temporary disconnections large meter	Meter decommissions<=6m3/hr	Meter decommissions>6m3/hr
2017-18		-27	471423	17911	0	3120	15

Quarterly

Annual Output	Small Disconnections	Meter	Meter Reading	Temporary disconnections domestic meter	Temporary disconnections large meter	Meter decommissions<=6m3/hr	Meter decommissions>6m3/hr
Q1		613	112175	5020	0	730	2
Q2		-644	112639	4065	0	876	2
Q3		-4	118250	4380	0	804	5
Q4		8	128359	4446	0	710	6

Attachment C

Core verification of JGN gas quantity statement

Page intentionally blank

15 April 2019

CORE
ENERGY
GROUP

Kavita Roy
Pricing & Tariff Analyst
Jemena Management Holding, Melbourne



Dear Kavita,

I refer to the “Verification of gas quantities” terms of reference, with background and scope replicated in Attachment 1.

In summary:

- Core is satisfied that the most recent financial year actuals provided by JGN, which underpin the Gas Quantity inputs, are from 2017-18,
- Core has reviewed the source material for financial year 2017-18 (i.e. t-2), as referred to in JGN’s statement to support the Gas Quantity inputs in Attachment 2,
- Core has assessed JGN’s approach in allocating t-2 (2017-18) data into the 2019-20 tariff structure, and
- Core can verify the JGN statement to support the Gas Quantity inputs in Attachment 2, as provided by JGN, reflects the most recent actual 2017-18 quantities available.

Core verifies the statement of gas quantity inputs for financial year 2017-18 (i.e. t-2) prepared by JGN, as presented in Attachment 2 and derived from the spreadsheets listed therein, is in accordance with the requirements of clause 3.6(a)(iv) of JGN’s 2015-20 Access Arrangement (AA).¹

The verification process involved validating the gas quantity inputs against reports specified in Attachment 2, which have been extracted from JGN’s customer and billing systems, and database. Core confirms that the gas quantity data provided is derived from the most recent financial actuals from 2017-18.

¹JGN, Access Arrangement, JGN’s, NSW gas distribution networks, 1 July 2015 – 30 June 2020, June 2015 (Incorporating revisions required by AER Final Decision 3 June 2015).

It is our opinion that the JGN's statement of t-2 gas quantities from the 2017-18 year are appropriate for inclusion in the 2018-19 tariff variation equation.

Please contact me if you require anything further.

Regards,

A handwritten signature in black ink, appearing to read 'Paul Taliangis', with a stylized flourish at the end.

Paul Taliangis

Chief Executive

Attachment 1- Verification of gas quantities terms of reference

1 Background

In accordance with our access arrangement (**AA**), Jemena Gas Networks (**JGN**) will submit to the AER an annual tariff variation notice to set the reference tariffs that will apply in respect of the provision of reference services on JGN's gas distribution network for the fifth year (1 July 2019 to 30 June 2020) of its current AA period (**2019 TVN**). The 2019 TVN must be submitted by 15 March 2019.

Annual tariff variations are governed by a formula specified in clause 3.2(b) of the AA. For the annual tariff variation for any financial year, that formula requires input of gas quantity information for financial year $t - 2$ (see variable q in the formula). That is, for the 2019 TVN, gas quantity information from financial year 2017-18 must be provided. Note: in the AA, "financial year" means the 12 month period ending on 30 June in any year.

Relevantly, clause 3.6(a)(iv) of the AA requires JGN to include in the 2019 TVN a statement to support the gas quantity inputs in the annual reference tariff variation mechanism. The statement must be independently audited or verified, and the quantity input must reflect the most recent actual financial year quantity available at the time of submitting the TVN. The actual quantity will be provided as four quarters of gas quantity data reconciling to an annual total gas quantity.

The access arrangement is available on our website:

<http://jemena.com.au/documents/gas/access-arrangement.aspx>

2 Scope of Work

The Consultant is required to:

- Verify the statement of gas quantity inputs for financial year 2017-18 prepared by JGN, in accordance with the requirements of clause 3.6(a)(iv) of the AA, and
- Present its verification conclusion in the form of a letter addressed to Jemena's General Manager Commercial Planning and Analytics.

Attachment D
Reference tariff schedule for 1 July 2019 to
30 June 2020

Page intentionally blank

D1. REFERENCE TARIFF SCHEDULE FOR 1 JULY 2019 TO 30 JUNE 2020

Attached as separate document.