Access arrangement

JGN's NSW gas distribution network~~s~~

1 July 20<u>20</u>~~15~~ – 30 June ~~2020~~<u>2025</u>

~~[June 2015]~~

~~(Incorporating revisions required by AER Remade Decision 28 February 2019 and AER decision of 8 April 2019)~~

Contents

JEMENA GAS NETWORKS (NSW) LTD

ACCESS ARRANGEMENT

1 Introduction

1.1 Access Arrangement

This document sets out the Access Arrangement that applies to the Network on and from the Effective Date. ~~It contains revisions that have been made to the 2010-15 Access Arrangement, in accordance with the National Gas Law and the National Gas Rules.~~ Supporting information is provided in the Access Arrangement Information. ~~that has been submitted as a separate document. There is also supporting information in the AER's Final Decision.~~

1.2 The Network

(a) As at the Effective Date, ~~,~~ :

(i) the Network consists of approximately 25,400 kilometres of ~~natural g~~Gas distribution systems in NSW with over 1,~~200~~400,000 customer connections to these systems; ~~.~~ and

(ii) Gas is delivered into the Network through the Receipt Points set out in Schedule 8.

~~A~~ A description ~~of~~ the Network is contained ~~below~~ in section 11 and maps of the Network are set out in Schedule 10. ~~and can also~~Further information about the Network can be found at http://www.jemena.com.au. ~~Schedule 10 provides maps which describe the location of the Network as at the Effective Date.~~

~~(a)~~(b)

~~(b) The Network is made up of four Covered Pipelines:~~

~~(i) NSW Distribution System;~~

~~(ii) Central West Distribution System;~~

~~(iii) Wilton-Newcastle trunk pipeline (the '**northern trunk**'); and~~

~~(iv) Wilton-Wollongong trunk pipeline (the '**southern trunk**').~~

~~(c) The Network provides gas to consumers across Sydney, Newcastle, and Wollongong, as well as to more than 20 country centres.~~

~~(d) The Service Provider is the authorised reticulator for the NSW Distribution System and the Central West Distribution System, under the Gas Supply Act.~~

~~(e) The northern and southern trunks are part of the gas distribution system in the Newcastle, Sydney, Central Coast and Wollongong areas. On 29 June 2009, the NCC approved the reclassification of these trunk pipelines as distribution pipelines.~~

~~(f) The northern trunk consists of the following four pipeline sections, between Wilton and Newcastle, each of which is licensed under the Pipelines Act:~~

(i) Wilton to Horsley Park Natural Gas Pipeline (Pipeline Licence No. 1);

(ii) Horsley Park to Plumpton Natural Gas Pipeline (Pipeline Licence No. 3);

(iii) Plumpton to Killingworth Natural Gas Pipeline (Pipeline Licence No. 7);

(iv) Killingworth to Kooragang Island Natural Gas Pipeline (Pipeline Licence No. 8).

(g) The southern trunk consists of one pipeline section between Wilton and Wollongong, which is licensed under the Pipelines Act:

(i) Wilton to Wollongong Natural Gas Pipeline (Pipeline Licence No. 2).

(h) Natural gas is delivered into the Network from the Moomba-Sydney Pipeline and its laterals, and from the Jemena-owned Eastern Gas Pipeline. A list of receipt points is set out at Schedule 9. This list may be updated by the Service Provider from time to time by notice to Users.

(i)(a) Schedule 10 provides maps which describe the location of the Network as at the Effective Date.

1.3 Review Submission Date

The review submission date is 30 June 2024~~19~~.

1.4 Revision Commencement Date

The revision commencement date is 1 July ~~2020~~2025.

1.5 Definitions and interpretation

(a) In this Access Arrangement, a term or expression starting with a capital letter:

(i) which is defined in Schedule 1 of this Access Arrangement, has the meaning given to it in Schedule 1; or

(ii) if not defined in Schedule 1 of this Access Arrangement, has the meaning given to it in the Reference Service Agreement,

unless the context otherwise requires. In the case of inconsistency, the meaning given to in Schedule 1 of this Access Arrangement will prevail.

(b) ~~The interpretation clause in~~ Schedule 1 sets out rules of interpretation for this Access Arrangement.

2 Services policy

2.1 ~~The~~ Pipeline Services

(a) The Service Provider provides the following Pipeline Services on the Network:

(i) the ~~reference service, being the Haulage~~ Reference Service; and

(ii) Non-Reference Services.

(b) A ~~User or~~ Prospective User who seeks to obtain the Reference Service or a Non-Reference Service must comply with the ~~Request for Service~~ procedures set out in Schedule 6. ~~ regardless of whether the User or Prospective~~ A User must also comply with those procedures if seeking~~s to obtain a Service for the first time or~~ a change to an existing Reference Service or a Non-Reference Service~~to a Delivery Point~~.

(c) The Service Provider's ability to offer a Pipeline Service involving transportation of Gas to a Delivery Point (including the~~a~~ Reference Service) in response to a Request is subject to having sufficient capacity in the Network~~the Queuing Policy~~.

(d) A~~ll~~ Prospective User~~s of a Service are~~is required to enter into a Service Agreement specific to the relevant User and that Pipeline Service before receiving the Pipeline Service and, to the extent applicable, ~~must agree to be bound by~~comply with the provisions of the Operational Schedule~~s in Schedule 7~~.

2.2 ~~Haulage~~ Reference Service

(a) The Service Provider will make the ~~Haulage~~ Reference Service available to Users and Prospective Users in accordance with this Access Arrangement.

(b) The ~~Haulage~~ Reference Service is a ~~Service~~ service for:

(i) the transportation of Gas by the Service Provider through the Network to an ~~single~~ eligible Delivery Point for use and consumption within the premises served by that Delivery Point;

(ii) meter reading and associated data activities, and the provision and maintenance of a standard metering installation at the Delivery Point as appropriate for the required capacity and meter reading frequency; and

(iii) ancillary activities as set out in the Reference Tariff Schedule~~,~~ as may be requested by a User.

(c) A ~~delivery~~ Delivery ~~point~~ Point is eligible for the ~~a Haulage~~ Reference Service if:

(i) it is a Delivery Point existing on the Network to which a service designated as a reference service under the ~~2010~~2015~~-15~~ 20 Access Arrangement is provided on the Effective Date; or

(ii) it is a new ~~delivery~~ Delivery ~~point~~Point, established on or after the Effective Date, that is served from ~~existing~~ the Network ~~facilities~~, where:

(A) the maximum allowable operating pressure is less than or equal to 500 kPa and the Service Provider reasonably expects that the

~~delivery~~ Delivery ~~point~~ Point will consume less than 10 TJ per annum; or

(B) the maximum allowable operating pressure is less than or equal to 1,050 kPa and the Service Provider reasonably expects that the ~~delivery~~ Delivery P~~p~~oint will consume 10 TJ per annum or greater.

2.3 Terms and c~~C~~onditions of Reference Service

~~Subject to clause 2.3(b), t~~The terms and conditions upon which the Service Provider will ~~supply~~ provide the ~~Haulage~~ Reference Service are set out in the Reference Service Agreement ~~in Schedule 4~~.

~~(a) The Service Provider may seek the AER's approval to amend the terms of the Reference Service Agreement during the Access Arrangement Period in accordance with Division 10 of Part 8 of the National Gas Rules.~~

2.4 Non-Reference Services

The Service Provider offers the following Non-Reference Services ~~on the Network to Users and Prospective Users~~:

(a) ~~the~~ an Interconnection ~~of Embedded Network~~ Service, which is described in clause 2.5 ~~below~~; and

(b) a Negotiated Service~~s~~, which ~~are~~ is described in clause 2.6 ~~below~~.

2.5 Interconnection ~~of Embedded Network~~ Service

~~The~~ An Interconnection ~~of Embedded Network~~ Service is a service provided by the Service Provider ~~to~~to establish:

(a) ~~an Embedded Network Operator for the establishment of~~ a ~~single~~ Delivery Point to enable delivery of Gas from the Network into ~~on~~ a~~n~~ Downstream ~~Embedded~~ Network ~~connected to the Network,~~; or

(b) a Receipt Point to enable delivery of Gas into the Network from an Upstream Facility,

on the terms and conditions ~~specified~~ agreed to by the Service Provider and Prospective User ~~upon application for this service ordinarily~~ including those, to the extent applicable, contained in ~~Schedule 5~~the Operational Schedule.

2.6 Negotiated Service~~s~~

~~(a)~~ Where a Prospective User has specific needs which differ from those which would be satisfied by the Reference Service or the Interconnection ~~of Embedded Network~~ Service, the Prospective User may seek to negotiate different terms and conditions as a Negotiated Service and enter into a ~~Negotiated~~ Service Agreement with the Service Provider.

~~(b) Should a dispute arise between the Service Provider and a Prospective User about the provision of a Negotiated Service it will be resolved in accordance with the dispute resolution procedures in the National Gas Law and the National Gas Rules, unless the parties agree otherwise in the Negotiated Service Agreement.~~

3 Initial Reference Tariffs and Reference Tariff variation mechanism

3.1 Initial Reference Tariffs

(a) The Initial Reference Tariffs for the Reference Service are set out in the Initial Reference Tariff Schedule. These will apply ~~on and~~ from the Effective Date, until varied in accordance with this ~~clause~~ section 3.

(b) The Service Provider may vary Reference Tariffs at any time during the Access Arrangement Period with the approval of the AER in accordance with this ~~clause~~ section 3. Such variations may be effected through:

(i) Reference Tariff components, elements or variables comprised within any Reference Tariff;

(ii) the introduction of a new Reference Tariff (to apply in place of any pre-existing Reference Tariff);

(iii) the withdrawal of any Reference Tariff; or

(iv) any combination of these changes.

3.2 Annual Reference Tariff variation mechanism~~: Haulage Reference Tariffs~~

(a) Where the Service Provider proposes to vary Reference Tariffs to apply from the start of the next Financial Year, the mechanisms set out below will apply.

(b) The Service Provider may propose to vary Reference Tariffs consistent with the following tariff basket price control formula:

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

and rebalancing side constraint formula, for each Reference Tariff:

$$(1+CPI_t)(1-X_t)(1+A_t)(1+PT_t)(1+0.1) \geq \frac{\sum_{x=1}^{n}\sum_{y=1}^{m} p_t^{xy} q_{t-2}^{xy}}{\sum_{x=1}^{n}\sum_{y=1}^{m} p_{t-1}^{xy} q_{t-2}^{xy}}$$

where the Service Provider has *n* Reference Tariffs, which each have up to *m* tariff components, and where:

t is the Financial Year for which the tariffs are being set;

p_t^{xy} is the proposed tariff for component *y* of Reference Tariff x in Financial Year *t*, i.e. the new tariff to apply from the commencement of Financial Year *t*;

p_{t-1}^{xy} is the tariff for component *y* of Reference Tariff x that is being charged at the time the Variation Notice is submitted to the AER for assessment;

q_{t-2}^{xy} is the quantity of component *y* of Reference Tariff x that was sold in Financial Year *t-2;*

CPI_t ~~—~~ means for a Financial Year:~~:~~

~~(i) for the Financial Year beginning 1 July 2014 and ending 30 June 2015, 1.72 per cent;~~

~~(ii) for Financial Years beginning after 30 June 2015:~~

~~(A)~~(i) the CPI for the December Quarter immediately preceding the start of the relevant Financial Year; divided by

~~(B)~~(ii) the CPI for the December Quarter immediately preceding the December Quarter referred to in paragraph (~~i~~i);

minus one,

provided that if the Australian Bureau of Statistics does not, or ceases to, calculate and publish the CPI, then in this Access Arrangement CPI will mean an inflation index or measure agreed between the AER and the Service Provider;

X_t means the X factor for each Financial Year, determined in accordance with the JGN Revenue Model, updated for the return on debt in accordance with section 5;

A_t is the automatic adjustment factor calculated in accordance with Schedule 3; and

PT_t is the c~~C~~ost p~~P~~ass t~~T~~hrough factor calculated in accordance with Schedule 3.

3.3 Intra-year Reference Tariff variation mechanism

The Service Provider can propose to vary Reference Tariffs during a Financial Year to apply at a date prior to the start of the next Financial Year, including for the purposes of passing-through an amount relating to a Cost Pass Through Event, as long as the Service Provider complies with the tariff basket price control formula set out in clause 3.2(b), and making such adjustments as necessary to vary the Reference Tariffs for the remainder of the Financial Year.

3.4 Cost pass through

Cost Pass Through Events

(a) The following are Cost Pass Through Events:

(i) Terrorism Event;

(ii) Natural Disaster Event;

~~(iii) [DELETED]~~

~~(iv)~~(iii) Insurance Cap Event;

~~(v)~~ Insurer Credit Risk Event;

~~(vi)~~(iv) ~~Network User Failure Event;~~

~~(vii)~~(v) Regulatory Change Event; and

~~(viii)~~(vi) Service Standard Event.

Notification and AER determination of Cost Pass Through Events

(b) The Service Provider may seek the approval of the AER to pass through costs where as a result of a Cost Pass Through Event~~-~~, the Service Provider has incurred, or is likely to incur, higher costs in providing the Reference Service than it would have incurred but for that event and the change in costs (as opposed to the revenue impact) that the Service Provider has incurred and is likely to incur in any ~~regulatory year~~Financial Year of the ~~access~~ Access A~~a~~rrangement P~~p~~eriod, as a result of that event, exceeds one per cent of the smoothed ~~total revenue~~Total Revenue for that ~~regulatory year~~Financial Year approved by the AER.

~~(i) [DELETED]~~

~~(A) [DELETED]~~f

~~(B) [DELETED]~~

~~(ii) [DELETED].~~

(c) The AER may require the Service Provider to pass through costs where, as a result of a Cost Pass Through Event, the Service Provider has incurred, or is likely to incur, lower costs in providing the Reference Service than it would have incurred but for that event and the change in costs (as opposed to the revenue impact) that the Service Provider has incurred and is likely to incur in any ~~regulatory year~~Financial Year of the ~~access~~ Access ~~arrangement~~ Arrangement ~~period~~Period, as a result of that event, is or is reasonably estimated to ~~-~~exceed one per cent of the smoothed ~~total revenue~~Total Revenue for that ~~regulatory year~~ approved by the AER.

~~(i) [DELETED]~~

~~(ii) [DELETED].~~

(d) If the Service Provider wishes to seek the approval of the AER to pass through costs pursuant to clause 3.4(b), the Service Provider must notify the AER within 90 Business Days of becoming aware that the relevant Cost Pass Through Event has occurred. Notification under this clause 3.4(d) is not an application to vary Reference Tariffs.

(e) If a Cost Pass Through Event has occurred, or is likely to occur, which may or is likely to meet the relevant thresholds identified in clause 3.4(c), the Service Provider must notify the AER within 90 Business Days of becoming aware that the relevant Cost Pass Through Event has occurred. Notification under this clause 3.4(e) is not an application to vary Reference Tariffs.

(f) The notification to the AER that a Cost Pass Through Event has occurred or is likely to occur pursuant to clause 3.4(d) or 3.4(e) is to take the form of a written statement which specifies:

(i) the details of the Cost Pass Through Event; and

(ii) the date on which the Cost Pass Through Event occurred.

(g) Where the costs that are, or are likely to be, incurred, as a result of the Cost Pass Through Event are known (or able to be estimated to a reasonable extent), then those costs shall be notified to the AER together with the matters specified in clause 3.4(f).

(h) Where the costs that have been, or are likely to be, incurred as a result of the Cost Pass Through Event are not known in whole or in part (or not able to be estimated to a reasonable extent) such that the costs cannot be included in the notification pursuant to clause 3.4(f), the Service Provider, must, as soon as practicable after the costs are known or can be estimated to a reasonable extent, provide a supplementary notice to the AER setting out those costs.

(i) Within 40 Business Days of ~~a~~ the Service Provider notifying the AER of the costs that have been or are likely to be incurred as a result of a Cost Pass Through Event (pursuant to either clause 3.4(g) or 3.4(h), as relevant), the AER must notify the Service Provider of its determination as to whether it considers a Cost Pass Through Event has occurred which satisfies the thresholds in clause 3.4(b) or ~~clause~~ 3.4(c), as relevant. The AER's determination must set out the amount that it has determined should be passed through in Reference Tariffs in respect of that Cost Pass Through Event (**Determined Pass Through Amount**).

(j) In making a determination pursuant to clause 3.4(i), the AER must take into account:

(i) the matters and proposals set out in any statement given to the AER by the Service Provider under clause 3.4(f);

(ii) the change in the costs in the delivery of the Reference Service arising, or estimated to arise, as a consequence of the Cost Pass Through Event, as given to the AER by the Service Provider pursuant to clause 3.4(g) or 3.4(h), as relevant;

(iii) the efficiency of the Service Provider's decisions and actions in relation to the risk of the Cost Pass Through Event, including whether the Service Provider:

(A) has failed to take any action that could reasonably have been taken in respect of that event; or

(B) has taken or omitted to take any action in response to the event, where such action or omission has materially increased the magnitude of the change in costs in respect of the event;

(iv) the time cost of money based on the WACC for the Service Provider;

(v) the need to ensure that the Service Provider only recovers any actual or likely increment in costs to the extent that such increment is solely ~~as~~ a consequence of a Cost Pass Through Event;

(vi) whether the costs of the Cost Pass Through Event have already been factored into the calculation of ~~the Service Provider's annual revenue requirement~~Total Revenue, including in the calculation of the automatic adjustment factor; and

(vii) any other factors the AER considers relevant and consistent with the National Gas Law and National Gas Rules.

(k) Subject to clause 3.4(l), the period in clause 3.4(i) can be extended:

(i) by the time taken by the AER to obtain information from the Service Provider, obtain expert advice or consult about the notification in order to make a determination pursuant to clause 3.4(i); and/or

(ii) if the AER is satisfied that the making of a determination pursuant to clause 3.4(i) involves issues of such complexity or difficulty that the time limit fixed by clause 3.4(i) should be extended or further extended (if already extended by clause 3.4(k)(i) above). The AER may extend that time limit by a further period provided it has given written notice to the Service Provider of that extension not later than 10 Business Days before the expiry of that time limit.

(l) Notwithstanding clause 3.4(k), there is an absolute time limit of 90 Business Days for the AER to make a determination pursuant to clause 3.4(i).

(m) If the AER does not make a determination within the time limit fixed by clause 3.4(i) (if relevant, as extended by clause 3.4(k)) or clause 3.4(l) then:

(i) in the case of a Cost Pass Through Event which results in an increase in costs, the AER is taken to have determined that the amount to be passed through is the amount set out in the Service Provider's notification (provided that if no amount is set out in such notification, the AER must ~~go on~~proceed to make a determination notwithstanding the time limit has expired);

(ii) in the case of a Cost Pass Through Event which results in a decrease in costs, the AER is taken to have determined that the amount to be passed through is zero.

(n) Following the AER's determination, the Service Provider may, in the case of an event which increases costs, and must, in the case of an event which decreases costs, include some or all of that amount in any annual or intra-year Variation Notice.

3.5 Cost pass through events and the automatic adjustment factor relevant to the ~~from~~ immediately prior access arrangement period

(a) Where a cost pass through event (as that term is defined in the access arrangement that applied to the Network in the immediately prior access arrangement period) occurs during the immediately prior access arrangement period and the increase or decrease in costs associated with the event was not passed through in Reference Tariffs in the immediately prior access arrangement period ~~and is not included in the calculation of the automatic adjustment factor in the subsequent access arrangement period~~:

(i) where the AER has made a decision as to the amount that should be passed through as a consequence of the cost pass through event, the

Service Provider may, in the case of an event which increases costs, and must, in the case of an event which decreases costs, include some or all of that amount in any annual variation notice or intra-year variation notice in the access arrangement period in which the AER makes its decision or, to the extent it is impracticable to do so, in the subsequent access arrangement period;

(ii) where the timing of the event was such that it was notified to the AER but the AER had not made a decision on the amount that should be passed through as a consequence of the cost pass through event before the end of the access arrangement period in which the event occurred, the AER must make a decision on the amount that should be passed through in respect of that event in the subsequent access arrangement period. Following the AER's decision (pursuant to the access arrangement that applied to the access arrangement period in which the event occurred), the Service Provider may, in the case of an event which increases costs, and must, in the case of an event which decreases costs, include some or all of that amount in any annual variation notice or intra-year variation notice in that subsequent access arrangement period;

(iii) where the timing of the event was such that it was not notified to the AER in the immediately prior access arrangement period, the Service Provider may in the case of an event which increases costs, and must, in the case of an event which decreases costs, notify the AER of the event and make an application to pass through the increase or decrease in costs associated with that event. The notification by the Service Provider and AER's decision is to be made in accordance with the procedure set out in the access arrangement that applied in the immediately prior access arrangement period, but applying the relevant thresholds in the access arrangement that applies at the time at which the Service Provider notifies the AER. Following the AER's decision, the Service Provider may, in the case of an event which increases costs, and must, in the case of an event which decreases costs, include some or all of that amount in any annual variation notice or intra-year variation notice in that subsequent access arrangement period.

(b) Costs incurred in the immediately prior access arrangement period but which are not passed through in Reference Tariffs in the immediately prior access arrangement may, in accordance with Schedule 3, be included in the calculation of the automatic adjustment factor applicable in the subsequent access arrangement period.

~~(b)~~(c) The principle in this clause 3.5 (that costs associated with cost pass through events in one access arrangement period which are not passed through in that period and costs relating to the prior access arrangement period and subject of the automatic adjustment factor ~~-~~may both be passed through in a later access arrangement period) is a fixed principle (as provided for in Rule 99 of the National Gas Rules). This fixed principle remains in force for the Access Arrangement Period covered by this Access Arrangement.

3.6 Reference Tariff variation procedures

Annual Variation Notice

(a) If the Service Provider proposes to vary one or more Reference Tariffs to apply from the start of the next Financial Year, the Service Provider will submit a

Variation Notice to the AER on or before 15 April or the next closest Business Day prior to the commencement of the next Financial Year that:

(i) includes a proposed revised Reference Tariff Schedule;

(ii) states the effective date of the proposed variation;

(iii) demonstrates and explains how the proposal complies with the annual Reference Tariff variation mechanism specified in clause 3.2;

(iv) includes a statement to support the Gas Quantity inputs in the annual Reference Tariff variation mechanism. The statement will 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 Variation Notice. The actual Quantity will be provided as four quarters of Gas Quantity data reconciling to an annual total Gas Quantity;

(v) sets out any Determined Pass Through Amount the Service Provider proposes to pass through in whole or in part in the next Financial Year; and

(vi) sets out any pass through amounts arising from cost pass through events (as that term is defined in the access arrangement applying to this Network in the immediately prior access arrangement period) occurring in the immediately prior access arrangement period that the Service Provider is proposing to pass through in whole or in part in the next Financial Year.

3.7 Intra-year Variation Notice

(a) If the Service Provider proposes in any Financial Year to vary one or more Reference Tariffs to apply at a date prior to the start of the next Financial Year, the Service Provider will submit a Variation Notice to the AER at least 50 Business Days prior to the date upon which it intends the varied Reference Tariffs to come into effect, that:

(i) includes a proposed revised Reference Tariff Schedule;

(ii) states the effective date of the proposed variation;

(iii) demonstrates and explains how the proposal complies with the intra-year Reference Tariff variation mechanism, as set out in clause 3.3;

(iv) includes a statement to support the Gas Quantity inputs in the Reference Tariff variation mechanism. The statement will be independently audited or verified, and the Gas Quantity inputs will reflect the most recent actual Quantity available at the time of submitting the Variation Notice;

(v) if the intra-year variation is for the purposes of passing through an amount relating to a Cost Pass Through Event, sets out any Determined Pass Through Amount the Service Provider proposes to pass through in whole or in part; and

(vi) sets out any pass through amounts arising from cost pass through events (as that term is defined in the access arrangement applying to this Network in the immediately prior access arrangement period) occurring in the immediately prior access arrangement period that the Service Provider is proposing to pass through in whole or in part.

3.8 Variation Notice assessment

(a) Within 30 Business Days of receiving ~~a~~ the Service Provider's Variation Notice, the AER will inform the Service Provider in writing of whether or not it has approved the proposed variation(s) to Reference Tariffs in the Service Provider's Variation Notice as compliant with the relevant Reference Tariff variation mechanism(s).

(b) The AER must approve the proposed variation(s) to Reference Tariffs if they are compliant with the relevant Reference Tariff variation mechanism(s).

(c) The 30 Business Day period may be extended (by giving written notice to the Service Provider) to account for the time taken by the AER to obtain further information from the Service Provider about the Variation Notice, obtain expert advice or to consult about the Variation Notice. There is an absolute time limit of 50 Business Days for the AER to complete the assessment of a Variation Notice.

(d) If the AER fails to provide the Service Provider with written notification of its decision within 50 Business Days of receiving the Service Provider's Variation Notice, the AER will be deemed to have approved the variation proposed in the Variation Notice.

(e) If the AER declines to approve any part of the proposal in the Variation Notice, the AER must provide the Service Provider with a written statement of reasons for that decision at the time it informs the Service Provider of its decision.

(f) In the event that:

(i) the Service Provider does not submit proposed Reference Tariffs to apply from the start of the next Financial Year *t* in accordance with the procedure set out in clause 3.6(a); or

(ii) the AER decides that any part of the proposal in an annual Variation Notice is not compliant with the relevant Reference Tariff variation mechanism for a new Financial Year *t*,

the AER will determine the Reference Tariffs for the Financial Year *t* that are compliant with the annual Reference Tariff variation mechanism by scaling all Reference Tariffs for Financial Year *t-1*, in the case of clause 3.8(f)(i) above, or non-compliant Reference Tariffs in the case of clause 3.8(f)(ii) those Reference Tariffs applicable in Financial Year *t-1* in respect of which the AER has disallowed the Service Provider's proposed variations for Financial Year *t*, through application of the following formula:

$$(1 + CPI_t)(1 - X_t)(1 + A_t)(1 + PT_t)$$

where CPI_t, X_t, A_t and PT_t are as defined in clause 3.2(b).

(g) For an intra-year Reference Tariff variation the AER will vary Reference Tariffs consistent with clause 3.3.

(h) In the event that the AER decides that any part of the proposal in an intra-year Variation Notice is not compliant with clause 3.3, the Reference Tariffs will not be varied.

(i) If a Determined Pass Through Amount is passed-through in Reference Tariffs under an intra-year variation, this amount is excluded from consideration for the

purposes of calculating PT_t for any annual Reference Tariff variation proposed for the next Financial Year.

3.9 Revised Reference Tariff Schedule

(a) Where Reference Tariffs are varied in accordance with clause 3.6, the Service Provider will publish a revised Reference Tariff Schedule on the Service Provider's website (which will replace the previously published version).

(b) The revised Reference Tariff Schedule, including the changed Reference Tariffs, will take effect from the date specified in that revised Reference Tariff Schedule.

3.10 Other relevant matters

(a) The Service Provider ~~determines its Reference Tariffs based on a revenue requirement that uses a building block approach, which calculates~~calculates ~~total revenues~~Total Revenue for each Financial Year of the Access Arrangement Period to derive Reference Tariffs including ~~-~~on the basis that depreciation for establishing the opening Capital Base for the current Access Arrangement Period is based on forecast regulatory depreciation.

(b) It is a fixed principle (as provided for in Rule 99 of the National Gas Rules) that depreciation for establishing the opening Capital Base will be based on forecast regulatory depreciation. This fixed principle remains in force for the Access Arrangement Period covered by this Access Arrangement. This principle is also fixed for the next access arrangement period.

(c) In applying a Reference Tariff variation mechanism the Service Provider will adopt the following rounding conventions:

(i) all proposed Reference Tariff components, elements or variables will be rounded before being applied in a tariff variation formula; and

(ii) the number of decimal places used for rounding a component will be consistent with that used for the relevant Reference Tariff component, element or variable.

(d) Where a clerical mistake, an accidental slip or omission, or a miscalculation, has been identified in the application of the annual Reference Tariff variation mechanism that applied in Financial Year *t-1*, that mistake, slip, omission or miscalculation may be corrected for the purposes of determining the value of Reference Tariff x in the application of the annual Reference Tariff variation mechanism for Financial Year *t*.

(e) For the avoidance of doubt:

(i) to the extent the calculation of a Reference Tariff or component, element or variable of a Reference Tariff is based on a forecast or estimate, the fact that the actual amount of the parameter being forecast or estimated is different to the forecast or estimated amount does not constitute a mistake, slip, omission or miscalculation;

(ii) to the extent the Service Provider may have over or under recovered revenue as a consequence of a mistake, slip, omission or miscalculation being made in relation to the setting of a tariff that has been approved by the AER, no adjustment may be made to the Reference Tariffs or component,

element or variable of a Reference Tariff under this clause 3.10(e)(ii) to reflect any over or under recovery amount; and

(iii) the Service Provider may submit in an annual Variation Notice, a correction for past clerical mistakes, accidental slips or omissions or miscalculations. The AER may also make the Service Provider aware that a past clerical mistake, accidental slips or omissions or miscalculations has occurred and require all future tariff variation notifications to take account of that past clerical mistake, accidental slip or omission or miscalculation. The Service Provider may consult with the AER on past clerical mistakes, accidental slips or omissions or miscalculations.

4 Tariff Classes for Reference Services

4.1 Application

This section 4 applies to all Delivery Points that receive the Reference Service.

4.14.2 Tariff Class Assignment

(a) The Service Provider will assign each Delivery Point ~~that receives a Haulage Reference Service~~ with a Tariff Class in accordance with the ~~tariff~~ Tariff ~~assignment~~ Assignment ~~criteria~~ Criteria~~set out in the Reference Tariff Schedule~~. The Initial Tariff Classes are set out in the Initial Reference Tariff Schedule.

(b) The assigned Tariff Class will determine which Reference Tariffs are payable ~~by a User or to be paid by a Prospective User for receipt of a Haulage Reference Service at~~in respect of a specific Delivery Point~~, in accordance with the Reference Tariff Schedule~~.

(c) Where a Delivery Point is eligible for more than one Tariff Class in accordance with the ~~tariff~~ Tariff A~~a~~ssignment C~~c~~riteria ~~set out in the Reference Tariff Schedule~~, the User or Prospective User may nominate in its Request ~~for Service~~ the Tariff Class ~~to~~ which it wants ~~its~~ the Delivery Point assigned. The Service Provider may refuse such a nomination ~~by a User or Prospective User~~ if it does not consider the Delivery Point to be eligible for the Tariff Class nominated.

(d) On request, a User or Prospective User must provide the Service Provider with sufficient information to enable the Service Provider to apply the ~~tariff~~ Tariff ~~assignment~~ Assignment ~~criteria~~ Criteria ~~set out in the Reference Tariff Schedule~~ and assign each Delivery Point ~~that receives a Haulage Reference Service~~ with a Tariff Class.

4.24.3 Tariff Class Re-assignment

(a) The Service Provider may re-assign a Delivery Point to ~~one or more~~a different Tariff Class~~es~~ in accordance with the ~~tariff~~ Tariff ~~assignment~~ Assignment ~~criteria~~ Criteria ~~set out in the Reference Tariff Schedule~~ at any time where:

(i) the Delivery Point has previously been wrongly assigned to a Tariff Class;

(ii) the Delivery Point no longer qualifies for the assigned Tariff Class; or

(iii) the assigned Tariff Class has been withdrawn.

(b) A User may request re-assignment of a Tariff Class for ~~the~~ a Delivery Point:

(i) at any time, if it can demonstrate to the Service Provider's reasonable satisfaction that there has been a change in the Energy requirements of the Customer or End Consumers ~~an end customer(s) who is supplied with, and consumes, Energy~~ at the premises served by the Delivery Point, in which case re-assignment may be requested based on that change; and

(ii) for any other reason, but not more than once a Year in respect of the same Delivery Point.

(c) The Service Provider will determine a User's request for re-assignment of a Delivery Point in accordance with the ~~tariff~~ Tariff ~~assignment~~ Assignment ~~criteria~~ Criteria~~set out in the Reference Tariff Schedule~~. The Service Provider will inform the User of its decision in respect of the request for re-assignment (and will, ~~.~~ ~~if~~ the Service Provider does not agree to the request, ~~decides not to re-assign a Delivery Point or decides to re-assign a Delivery Point to a Tariff Class other than that proposed by the User, the Service Provider must inform~~ provide the User with ~~of its~~ reasons for the decision).

~~(c)~~

5 Return on debt

~~5~~

5.1 Return on debt formula

The return on debt for each Financial Year of the Access Arrangement Period is to be calculated as follows:

(a) For Financial Year 2020-21: $kd_{2020-21} = (0.5 \times R_{2015-16}) + (0.1 \times R_{2016-17}) + (0.1 \times R_{2017-18}) + (0.1 \times R_{2018-19}) + (0.1 \times R_{2019-20}) + (0.1 \times R_{2020-21})$,

(b) For Financial Year 2021-22: $kd_{2021-22} = (0.4 \times R_{2015-16}) + (0.1 \times R_{2016-17}) + (0.1 \times R_{2017-18}) + (0.1 \times R_{2018-19}) + (0.1 \times R_{2019-20}) + (0.1 \times R_{2020-21}) + (0.1 \times R_{2021-22})$,

(c) For Financial Year 2022-23: $kd_{2022-23} = (0.3 \times R_{2015-16}) + (0.1 \times R_{2016-17}) + (0.1 \times R_{2017-18}) + (0.1 \times R_{2018-19}) + (0.1 \times R_{2019-20}) + (0.1 \times R_{2020-21}) + (0.1 \times R_{2021-22}) + (0.1 \times R_{2022-23})$,

(d) For Financial Year 2023-24: $kd_{2023-24} = (0.2 \times R_{2015-16}) + (0.1 \times R_{2016-17}) + (0.1 \times R_{2017-18}) + (0.1 \times R_{2018-19}) + (0.1 \times R_{2019-20}) + (0.1 \times R_{2020-21}) + (0.1 \times R_{2021-22}) + (0.1 \times R_{2022-23}) + (0.1 \times R_{2023-24})$,

(e) For Financial Year 2024-25: $kd_{2024-25} = (0.1 \times R_{2015-16}) + (0.1 \times R_{2016-17}) + (0.1 \times R_{2017-18}) + (0.1 \times R_{2018-19}) + (0.1 \times R_{2019-20}) + (0.1 \times R_{2020-21}) + (0.1 \times R_{2021-22}) + (0.1 \times R_{2022-23}) + (0.1 \times R_{2023-24}) + (0.1 \times R_{2024-25})$,

~~(a) For Financial Year 2015-16: $kd_{2015-16} = R_{2015-16}$;~~

~~(b) For Financial Year 2016-17: $kd_{2016-17} = (0.9 \times R_{2015-16}) + (0.1 \times R_{2016-17})$;~~

~~(c) For Financial Year 2017-18: $kd_{2017-18} = (0.8 \times R_{2015-16}) + (0.1 \times R_{2016-17}) + (0.1 \times R_{2017-18})$;~~

~~(d) For Financial Year 2018-19: $kd_{2018-19} = (0.7 \times R_{2015-16}) + (0.1 \times R_{2016-17}) + (0.1 \times R_{2017-18}) + (0.1 \times R_{2018-19})$;~~

~~(e) For Financial Year 2019-20: $kd_{2019-20} = (0.6 \times R_{2015-16}) + (0.1 \times R_{2016-17}) + (0.1 \times R_{2017-18}) + (0.1 \times R_{2018-19}) + (0.1 \times R_{2019-20})$,~~

where:

kd_t is the return on debt for Financial Year t of the Access Arrangement Period;

and

R_t is the annual return on debt observation for each Financial Year t of the Access Arrangement Period ~~(other than Financial Year 2015-16)~~, calculated in accordance with the on-the-day return on debt calculation set out in the Rate of Return Instrument.~~section 5. For Financial Year 2015-16, $R_t = 4.28$ per cent.~~

~~5.2 Calculation of the annual return on debt observation~~

~~(a) The return on debt observation for each Financial Year will be calculated by automatic application of the following formula. This requires three stages:~~

(i) the adjusted RBA estimate

(ii) the adjusted BVAL estimate

(iii) the final estimate – where the AER combines its implementations of the RBA estimate and the BVAL estimate.

(b) These formula steps relate to the approach specified in the AER's Final Decision . In the event that data availability changes during the access arrangement period, the formulas below will change to reflect the contingencies set out in section 5.4.

Calculation of the adjusted RBA estimate

(c) Download RBA table F3 – 'Aggregate measures of Australian corporate bond yields' from the RBA website.

(d) From this file, download the 7 and 10 year 'Non-financial corporate BBB-rated bonds – Yield' entries for dates:

(i) from the most recent published RBA date prior to the commencement of the nominated averaging period for debt

(ii) to the first published RBA date following the conclusion of the nominated averaging period for debt

(iii) all published dates between i. and ii.

(e) Download, from RBA table F16 – 'Indicative Mid Rates of Commonwealth Government Securities - 2013 to Current', daily yields on CGSs for dates within the service provider's averaging period.

(f) Linearly interpolate between the two nearest bonds straddling 7 years remaining term to maturity, and the two nearest CGS bonds straddling 10 years remaining term to maturity. This should be done using the following formula:

(i) $\text{yield}_{\text{interpolated}} = \text{yield lower straddle bond} + (\text{yield}_{\text{upper straddle bond}} - \text{yield}_{\text{lower straddle bond}}) * (\text{date}_{\text{10 years from interpolation date}} - \text{maturity date}_{\text{lower straddle bond}}) / (\text{maturity date}_{\text{upper straddle bond}} - \text{maturity date}_{\text{lower straddle bond}})$.

(g) Linearly extrapolate the published RBA 10 year yield (from step 5.2(d)) from its published effective term to an effective term of 10 years using the formula in schedule 8 – clause 1.1.

(h) Linearly extrapolate the published RBA 7 year yield (from step 5.2(d)) from its published effective term to an effective term of 7 years using the formula in schedule 8 – clause 1.2(b).

(i) Subtract from the extrapolated 10 year RBA yield on each publication date the interpolated CGS yield on that date. For the 10 year term, use the RBA series as adjusted in step 5.2(g). These are the adjusted RBA 10 year spreads.

(j) Obtain daily RBA spread estimates by linear interpolation of the adjusted RBA spreads (from steps 5.2(g) and 5.2(h)) for both 7 and 10 year terms between the published dates identified in step 5.2(d). Use the adjusted RBA spread estimates as calculated in step 5.2(i). This should be done using the following formula:

(i) spread interpolated = spread first straddling publication date + (date interpolation - date first straddling publication date) * (spread second straddling publication date - spread first straddling publication date) / (date second straddling publication date - date first straddling publication date)

(k) If the annual return on debt estimate must be finalised before a final published RBA month-end estimate is available, hold the last observed RBA spread constant to the end of the averaging period.

(l) Add to these daily spreads (from step 5.2(j)), daily interpolated estimates of the CGS (from step 5.2(f)) for all business days in the service providers averaging period. Specifically:

(i) add the 7 year interpolated CGS estimates to the 7 year interpolated RBA spreads. These are the interpolated RBA daily 7-year yield estimates.

(ii) add the 10 year interpolated CGS estimate to the 10 year interpolated RBA spread. These are the interpolated RBA daily 10-year yield estimates.

(m) Convert the interpolated daily yield estimates (from step 5.2(l)) to effective annual rates, using the formula:

(i) effective annual rate = $((1 + \text{yield} / 200)^2 - 1)*100$

(n) Average the yield estimate for the 10 year RBA yield estimate over all business days in the service provider's averaging period. This is the adjusted RBA estimate.

Calculation of the adjusted BVAL estimate

(o) For dates after 14 April 2015, download the 10 year Corporate BBB rated Australian BVAL curve (BVCSAB10). For dates before 14 April 2015, download from Bloomberg the 7 year Corporate BBB rated Australian BVAL curve (BVCSAB07 index) for all business days in the Service Provider's averaging period.

(p) For dates before 14 April 2015, add to the 7 year yield the difference between the 7 and 10 year daily RBA adjusted yields (as calculated in steps 5.2(g) and 5.2(h) of the RBA process). This is the extrapolated daily estimate of the BVAL 10 year yield.

(q) For all dates, convert the 10 year yields into effective annual rates, using the formula:

(i) effective annual rate = $((1 + \text{yield} / 200)^2 - 1)*100$

(r) Average the extrapolated daily estimates of the BVAL 10 year yield over all business days in the service provider's averaging period. This is the adjusted BVAL estimate.

Final estimate

(s) Take the simple average of the adjusted RBA estimate (from step 5.2(n) in the RBA data section) and the adjusted BVAL estimate (from step 5.2(r) in the BVAL data section). This is the annual estimate of the return on debt.

(t) For the purposes of clause 5.2, business day means a day other than a Saturday, Sunday or a day recognised as a national public holiday or a public holiday in NSW.

5.3 [DELETED]

5.4 Annual return on debt observation where relevant data not available

For any Financial Year of the Access Arrangement Period, with the exception of the Financial Year 2015-16, for which an annual return on debt observation cannot be calculated in accordance with clause 5.2, due to changes in data availability, adjust the approach in accordance with the contingencies as follows:

Event	Change to approach
Either the RBA or Bloomberg ceases publication of Australian yield curves that reflect a broad BBB rating.	The AER will estimate the annual return on debt using the remaining curve.
A different third party commences publication of a 10 year yield estimate.	The AER will not apply estimates from a third party data provider that it has not evaluated and included during the determination process. The AER will consider any new data sources in future determinations.
Either Bloomberg or RBA substitutes its current methodology for a revised or updated methodology.	The AER will adopt the revised or updated methodology. Then, at the next regulatory determination, the AER will review this updated methodology. As noted above, the AER would also review any new data sources.
Bloomberg reduces the maximum published BVAL term from 7 years	If Bloomberg still publishes the BVAL curve to 5 or more years, the AER will extrapolate the BVAL curve from the longest published term using the 5 to 10 year yield margin from the RBA curve. The AER has adopted this approach for the period from 15 September 2014 to 3 November 2014 where the 7 year BVAL curve was unavailable. If Bloomberg no longer publishes the BVAL curve to 5 years, the AER will rely entirely on the RBA curve.
The RBA ceases publication of a 10 year yield estimate.	If the RBA ceases publication of a 10 year yield estimate, the AER will extrapolate the RBA estimate to 10 years using: • if available, the margin between spreads in the Bloomberg curve,[1] from the RBA's

[1] Specifically, the spread to CGS.

Event	Change to approach
	longest published effective term to 10 years otherwise, the actual CGS margin from the RBA's longest published estimate to 10 years, plus the average DRP spread for the same term margin over the last month prior to the end of its publication.
Bloomberg increases the maximum published BVAL term from 7 years.	If the longest published term is between 7–10 years, the AER will extrapolate it to a 10 year term using the corresponding margin from the RBA curve. If the longest term is 10 or more years, the AER will apply the 10 year BVAL curve un-extrapolated, but still adjusted to be an effective annual rate.
The RBA commences publication of daily estimates.	The AER will cease interpolating the RBA monthly yields. Instead, the AER will estimate both the RBA yield and the RBA year extrapolation margin (used with the BVAL curve) using these daily estimates.
Either Bloomberg or the RBA publishes a BBB+ or utilities specific yield curve.	The AER will adopt the BBB+ or utilities curve in place of the provider's existing curve, on the basis that it is a closer fit to the AER's benchmark efficient entity.

5.55.2 Averaging periods

(a) The averaging periods specified in confidential appendix J of attachment 3 of the AER's Final Decision must be used for the purposes of calculating the annual return on debt observation for each Financial Year of the Access Arrangement Period, .

5.6 [DELETED]

5.7 [DELETED]

5.85.3 Notification and AER determination of the annual return on debt observation

(a) In the 'PTRM Inputs|Costs' sheet of the JGN's revenue Revenue modelModel, update the relevant cell to reflect the updated return on debt estimate (kd_t) each Financial Year of the Access Arrangement Period. This is:

(i) $kd_{2016-17}$: Cell O240

(ii) $kd_{2017-18}$: Cell P240

(iii) $kd_{2018-19}$: Cell Q240

(iv)(a) $kd_{2019-20}$: Cell R240.

(b) Then, set all subsequent estimates equal to the most recently updated return on debt value. For example, when updating the return on debt portfolio for $kd_{2017-18}$,

~~update the cells for 2018–19 (Q240) and 2019–20 (R240) so they are equal to $kd_{2017-18}$ (P240).~~

~~(c)~~(b) On the '~~Calc~~|X factor~~s~~' sheet of the JGN~~'s revenue~~ Revenue ~~model~~Model, update the relevant X factor ~~as follows~~each Financial Year of the Access Arrangement Period~~:~~.

~~(i) $kd_{2016-17}$: 'Solve year 2'~~

~~(ii) $kd_{2017-18}$: 'Solve year 3'~~

~~(iii) $kd_{2018-19}$: 'Solve year 4'~~

~~(iv) $kd_{2019-20}$: 'Solve year 5'.~~

~~(d)~~(c) The AER will notify ~~JGN~~ the Service Provider of the updated Return on Debt and X factor within 15 business days after the end of ~~JGN's~~ the Service Provider's averaging period.

~~5.9 [DELETED]~~

~~5.10 [DELETED]~~

6 Speculative capital expenditure and investment policy

6.1 General

(a) If, during the Access Arrangement Period, the Service Provider makes capital expenditure (in whole or in part) that is non-conforming capital expenditure under the National Gas Rules, it may:

(i) recover the amount of the expenditure in full or in part by means of a capital contribution by a User or Users; and/or

(ii) notify the AER that it proposes to recover the amount or part of the amount of the expenditure by means of a surcharge to be approved by the AER,

in accordance with the National Gas Rules.

(b) To the extent that the amount of the non-conforming capital expenditure is not to be recovered pursuant to clause 6.1(a) ~~above~~, the Service Provider will add that amount to its speculative capital expenditure account in accordance with the National Gas Rules.

7 Queuing ~~policy~~

This Access Arrangement does not need to include queuing requirements unless, in accordance with rule 103(1)(b) of the National Gas Rules, the AER has notified the Service Provider that this Access Arrangement must contain queuing requirements. At the Effective Date, the AER has not notified the Service Provider of the need to include queuing requirements.

~~7.1 Forming a queue~~

~~(a) Where the Service Provider receives a Request from a User or Prospective User, and there is insufficient capacity to satisfy the Request, a queue will be formed.~~

~~(b) A queue will include all relevant Requests which cannot be satisfied. When the queue is formed, the following priorities will apply:~~

~~(i) where an offer to provide a Service has been made in response to a Request received prior to formation of the queue, that Request will take first position in the queue;~~

~~(ii) where a number of offers have been made in response to Requests received prior to the formation of the queue, those Requests will take positions in the queue according to the Priority Date of those Requests on a "first in, first served" basis, and will be ahead of any Requests for which offers have not been made at the time of the formation of the queue;~~

~~(iii) other Requests made before the formation of the queue will take their positions in the queue according to the Priority Date of those Requests, on a "first in, first served" basis, but subject to clauses 7.3 and 7.4 and behind any Requests described in clauses 7.1(b)(i) or 7.1(b)(ii) above;~~

~~(iv) subject to clauses 7.3 and 7.4, requests made after the formation of the queue will take their positions in the queue according to the Priority Date of those Requests on a "first in, first served" basis.~~

~~(c) At the time a Request is placed in a new or existing queue, the Service Provider will advise a User or Prospective User of:~~

~~(i) its position in the queue;~~

~~(ii) the aggregate capacity sought by Requests which are ahead in the queue;~~

~~(iii) its estimate of when capacity may become available; and~~

~~(iv) the amount any surcharge that may apply to Developable Capacity.~~

~~(d) When the position of a Request changes relative to other Requests which are ahead in the queue (such as where a Request ceases to be in the queue) or where the timing of availability of a new tranche of Developable Capacity changes, the Service Provider will provide revised information to the User or Prospective User.~~

~~(e) Where a Request is made for a Service to a Delivery Point and the Service Provider is satisfied that the Request is for the same tranche of capacity which is already provided to another User in respect of that Delivery Point, then the Service~~

Provider may make that tranche of capacity available in response to the Request to the extent that the existing User is otherwise entitled to maintain or extend that tranche of capacity. That Request does not form part of the queue.

7.2 Conditions applicable on queue

(a) Following a Prospective User's Request forming, or being added, to a queue:

(i) the Prospective User may, by notice to the Service Provider, reduce but not increase the capacity sought in a Request which is in a queue;

(ii) once every three months, the Service Provider may seek confirmation from the Prospective User that it wishes to continue with its Request. If the Prospective User fails to respond within 14 days, the Request will be deemed to have lapsed.

(b) A Prospective User must advise the Service Provider if it does not wish to proceed with a Request that is in a queue, which will then lapse.

(c) Any lapsed Request will be removed from the queue and priority will be lost.

(d) A Prospective User may only assign a Request in a queue to a bona fide purchaser of the Prospective User's business and/or assets, subject to that purchaser being able to demonstrate, if requested by the Service Provider, its ability to meet all financial obligations and demonstrate credit worthiness pursuant to clause 28 of the Reference Service Agreement.

(e) If there is a transfer of a controlling interest in the shares of the Prospective User that has a Request in a queue, the Service Provider may request that the transferee of those shares demonstrate its ability to provide security pursuant to clause 28 of the Reference Service Agreement in the event that an offer of capacity is made to the Prospective User. In the event the transferee fails to demonstrate that ability, the Service Provider may deem a Request to have lapsed.

7.3 Procedure when capacity can be made available

When capacity can be made available which meets in full or in part the requirements of any Request in a queue:

(a) the Service Provider will advise each of those Users and Prospective Users of its plans to make capacity available, the capacity that is available, and the terms and conditions on which the capacity will be available;

(b) the available capacity will be progressively offered to each User and Prospective User in the queue in order of priority (notwithstanding that such capacity may not be sufficient to meet the needs of any such User or Prospective User); and

(c) a Prospective User will have 20 Business Days after an offer of capacity is made to enter into a Service Agreement (conditional, if necessary, on the Service Provider entering into Service Agreements with other Prospective Users), failing which:

(i) if the offer of capacity meets in full the requirements of a Request, that Request will lapse and lose priority to those entering into such a Service Agreement (upon that Service Agreement becoming unconditional);

(ii) if the offer of capacity meets in part the requirements of the Request, the position of the Request in the queue will be held until capacity that meets the requirements of the Request in full is available, at which point the Request will be prioritised ahead of others in the queue that were received at a later date.

7.4 Priority of Prospective Users in obtaining Services

(a) The Priority Date of a Request is the date a complete Request is received by the Service Provider.

(b) Where the Service Provider determines that two or more Requests relate to the same tranche of capacity for the same Delivery Point, all those Requests will have the Priority Date of the earliest of those Requests.

(c) A Request for a Service relating to less than 1 TJ of Gas per annum will have priority over a Request for a Service relating to more than 1 TJ of Gas per annum.

(d) A Request for the Reference Service will have priority over a Request for a Negotiated Service.

7.5 Compensation for holding capacity

(a) The Service Provider may require the User or Prospective User to pay compensation for the Service Provider agreeing to commence a Service more than 20 Business Days from the execution of a Service Agreement where the commitment of capacity to meet the requirements of the User or Prospective User contributes to:

(i) the continuation of a queue,

(ii) the formation of a queue at any time prior to the commencement date for that Service; or

(iii) the acceleration of investment by the Service Provider to provide capacity for other Users on the transportation route.

7.6 General

(a) A Request will not lapse and will retain its priority in a queue in the event of a dispute about that Request being notified, until that dispute has been resolved in accordance with the National Gas Law and National Gas Rules.

(b) Where a queue exists a Prospective User must on request demonstrate to the Service Provider that the Prospective User will have access to a supply of gas at the time it is anticipated that the Prospective User will be offered access to the Service.

(c) When administering a queue (including but not limited to forming a queue, assigning priority within a queue and determining when to or when not to offer capacity in response to a Request), the Service Provider may take into account a connection contract that the Service Provider has entered into, including a connection contract under Part 12A of the National Gas Rules. In that circumstance the Priority Date of the corresponding Request will be the earlier of the date of the Request and the date on which the connection contract was made.

8 Extensions and expansions policy

8.1 Expansions of capacity

This Access Arrangement will apply to incremental services to be provided as a result of any expansion of the capacity of the Network made during the Access Arrangement Period.

8.2 Extensions other than new network sections

This Access Arrangement will apply to incremental services to be provided as a result of any extension of the Network made during the Access Arrangement Period, except for new network sections which are determined by the AER not to form part of the Network in accordance with clause 8.3.

~~8.1~~8.3 Method for determining if Access Arrangement is to apply to ~~extension or expansion~~new network section ~~forms part of the Covered Pipeline~~

The method below shall be used to determine whether a new network~~n extension~~ section ~~or expansion of a Covered Pipeline~~ should be taken to form part of the ~~Covered Pipeline~~Network.

(a) Subject to clause 8.3(d)~~8.1(d)~~, if the Service Provider proposes a new network section during the Access Arrangement Period ~~of the Covered Pipeline~~, it must apply to the AER ~~in writing~~ to decide whether the Access Arrangement will apply to incremental services to be provided by the new network section. The application must include the information required by clause 8.3(c)~~8.1(c)~~;

(b) For the purposes of this clause 8.3~~8.1~~, a **new network section** means an extension to the ~~Service Provider's Covered Pipeline~~Network where that extension has a direct connection to a transmission pipeline and which is designed to provide reticulated Gas either to a new development or an existing development not serviced with reticulated Gas;

(c) The Service Provider must apply to the AER under clause 8.3(a)~~8.1(a)~~ before the proposed new network section comes into service:

(i) in writing;

(ii) stating whether the Service Provider intends for the Access Arrangement to apply to incremental services to be provided as a result of the proposed new network section; and

(iii) describing the new network section and setting out why it is being undertaken.

(d) The Service Provider is not required to advise the AER under clause 8.3(a)~~8.1(a)~~ if the cost of the new network section has already been included in the calculation of Reference Tariffs, in which case the Access Arrangement applies to the incremental services to be provided by the new network section.

(e) After considering the Service Provider's application, and undertaking such consultation as the AER considers appropriate, the AER will inform the Service Provider of its decision on the Service Provider's proposed coverage approach for the new network section.

(f) The AER's decision referred to in clause 8.3(e)~~8.1(e)~~ above, may be made on such reasonable conditions as determined by the AER and will have the effect stated in the decision.

If the AER determines that the new network section is to form part of the Network, t~~T~~his Access Arrangement will apply to incremental services to be provided by the new network section. ~~all extensions to existing low or medium pressure pipelines and expansions of low and medium pressure capacity of the Network carried out by the Service Provider.~~

~~(f)~~(g)

~~8.2~~8.4 ~~General~~Effect on Reference Tariffs

~~(a) This Access Arrangement will apply to incremental services to be provided as a result of any extensions to and expansions of the capacity of the Network which are not new network sections within the meaning of clause 8.1(b).~~

~~(b)~~(a) ~~This Access Arrangement will apply to incremental services to be provided by all extensions to existing low or medium pressure pipelines and expansions of low and medium pressure capacity of the Network carried out by the Service Provider.~~

~~(c)~~(a) The Service Provider will offer the Reference Service in respect of any extensions or expansions to which this Access Arrangement applies at the Reference Tariffs.

~~(d)~~(b) The Service Provider will notify the AER of any proposed surcharge to be levied on users of incremental services and designed to recover non-conforming capital expenditure or a specified portion of non-conforming capital expenditure (non-conforming capital expenditure which is recovered by means of a surcharge will not be rolled into the ~~capital~~ Capital ~~base~~Base).

9 Capacity trading

9.1 Transfer of contracted capacity for ~~a Haulage~~the Reference Service

Where the Reference Service Agreement provides a~~A~~ User with contracted capacity, the User may transfer all or any of its contracted capacity for ~~a Haulage~~the Reference Service to another User in accordance with the provisions of the Reference Service Agreement to the extent those provisions are consistent with the capacity trading requirements in the National Gas Rules and applicable market procedures governing transfers of capacity.

9.2 Transfer of contracted capacity for a Non-Reference ~~Pipeline~~ Service ~~other than a Haulage Reference Service~~

Where a Service Agreement for a Non-Reference Service provides a User with contracted capacity, the ~~A~~ User may transfer all or any of its contracted capacity for ~~a~~ the ~~Pipeline Service other than a Haulage~~Non-~~-~~Reference Service to another User in accordance with the provisions of its Service Agreement ~~with the Service Provider~~ to the extent those provisions are consistent with the capacity trading requirements in the National Gas ~~National Gas~~ Rules and applicable market procedures governing transfers of capacity.

10 Changing ~~receipt~~ Receipt and ~~delivery~~ Delivery ~~points~~ Points

10.1 Change of Receipt Point or Delivery Point for ~~a Haulage~~the Reference Service

A User may, with the Service Provider's consent, change the User's Receipt Point or Delivery Point for the delivery of ~~a Haulage~~the Reference Service in accordance with the provisions of the Reference Service Agreement.

10.2 Change of Receipt Point or Delivery Point for a Non-~~Pipeline Service other than a Haulage~~ Reference Service

Where a Service Agreement for a Non-Reference Service specifies a Receipt Point or a Delivery Point, the ~~A~~ User may, with the Service Provider's consent, change the User's Receipt Point or Delivery Point for the ~~delivery~~ provision of ~~a~~ the ~~Pipeline Service other than a Haulage~~Non-~~-~~Reference Service in accordance with the provisions of its Service Agreement ~~with the Service Provider~~ to the extent those provisions are consistent with the provisions governing the change of Receipt and Delivery Points by Users in the National Gas Rules.

10.3 Service Provider's consent

The Service Provider must not withhold its consent under clauses 10.1 or ~~clause~~ 10.2, as relevant, unless it has reasonable grounds, based on technical or commercial considerations, for doing so.

11 Consolidated Access Arrangement

11.1 Background

(a) The Network is comprised of the following four Covered Pipelines:

(i) Wilton-Newcastle pipeline (the '**Northern Trunk**');

(ii) Wilton-Wollongong pipeline (the '**Southern Trunk**');

(iii) NSW Distribution System; and

(iv) Central West Distribution System,

(b) The Service Provider is the authorised reticulator for the NSW Distribution System and the Central West Distribution System under the Gas Supply Act.

(c) The Northern Trunk and Southern Trunk are part of the Network in the Newcastle, Sydney, Central Coast and Wollongong areas. On 29 June 2009, the NCC approved the reclassification of these trunk pipelines as distribution pipelines.

(d) The Northern Trunk consists of the following four pipeline sections, between Wilton and Newcastle, each of which is licensed under the Pipelines Act:

(i) Wilton to Horsley Park Natural Gas Pipeline (Pipeline Licence No. 1);

(ii) Horsley Park to Plumpton Natural Gas Pipeline (Pipeline Licence No. 3);

(iii) Plumpton to Killingworth Natural Gas Pipeline (Pipeline Licence No. 7); and

(iv) Killingworth to Kooragang Island Natural Gas Pipeline (Pipeline Licence No. 8).

(e) The Southern Trunk consists of one licensed pipeline section, comprising Wilton to Wollongong Natural Gas Pipeline (Pipeline Licence No. 2).

~~11.1~~11.2 Consolidated Access Arrangement

~~(a)~~ The AER issued a direction to the Service Provider under Rule 53 of the National Gas Rules to consolidate the access arrangements for its four Covered Pipelines, ~~:~~

~~(i) Wilton-Newcastle trunk pipeline;~~

~~(ii) Wilton-Wollongong trunk pipeline;~~

~~(iii) NSW Distribution System; and~~

~~(iv) Central West Distribution System,~~

(a) subject to the following conditions:

~~(v)~~(i) the consolidation remains in force until revoked by the AER; and

~~(vi)~~(ii) the Service Provider must separately prepare, maintain and keep information about the Capital Base of the:

(A) ~~Wilton-Newcastle~~Northern ~~trunk~~Trunk ~~pipeline~~;

(B) ~~Wilton-Wollongong~~Southern ~~trunk~~Trunk ~~pipeline~~; and

(C) the NSW Distribution System and the Central West Distribution System.

(b) The AER must notify the Service Provider no later than 18 months prior to the Revision Commencement Date if it intends to revoke its direction to the Service Provider to consolidate the access arrangements for its four Covered Pipelines.

~~(b)~~

~~11.2~~11.3 Fixed principle

The principle in clause 11.2 ~~11.1~~ is a fixed principle (as provided for in Rule 99 of the National Gas Rules). This fixed principle remains in force for the Access Arrangement Period ~~covered by this Access Arrangement~~. The principle is also fixed for the next access arrangement period.

12 Operating expenditure efficiency carryover mechanism

12.1 Incentive mechanism

(a) The incentive mechanism will apply to operating expenditure.

(b) The incentive mechanism will operate in the following way:

(i) the Service Provider will retain the benefit of actual operating expenditure being lower, or incur the cost of actual operating expenditure being higher, than forecast operating expenditure included in the Total Revenue in each Financial Year of the Access Arrangement Period;

(ii) the mechanism carries forward the Service Provider's incremental efficiency gains (or losses) for five Financial Years from the Financial Year those gains (or losses) occur;

(iii) annual carryover amounts accrue in each Financial Year of the subsequent access arrangement period as the summation of the incremental efficiency gains (or losses) in the immediately prior access arrangement period that are carried forward for five years or less into the Financial Year; and

(iv) the annual carryover amounts are added to the Service Provider's Total Revenue in each Financial Year of the subsequent access arrangement period. If necessary, the annual efficiency gain (or loss) is carried forward into the access arrangement period commencing 1 July ~~2020~~ 2025 until it has been retained by the Service Provider for a period of five years.

(c) The incremental efficiency gain (or loss) for the Financial Year ~~2015~~2020-21~~16~~ will be calculated as:

$$(F_{20\,2015-2116} - A_{20\,2015-2116}) - [(F_{2019-20} - A_{2019-20}) - (F_{2018-19} - A_{2018-19})] - non - recurrent\ efficiency\ gain_{2018-19}$$

where:

$F_{20\,2015-2116}$ is the forecast operating expenditure for Financial Year ~~2015~~2020-21~~16~~; ~~and~~

$A_{20\,2015-2116}$ is the actual operating expenditure for Financial Year 20~~20~~15-21~~16~~;~~.~~

$F_{2019-20}$ is the forecast operating expenditure for Financial Year 2019-20;

$A_{2019-20}$ is the actual operating expenditure for Financial Year 2019-20;

$F_{2018-19}$ is the forecast operating expenditure for Financial Year 2018-19; and

$A_{2018-19}$ is the actual operating expenditure for Financial Year 2018-19.

$non - recurrent\ efficiency\ gain_{2018-19}$ is the adjustment made to $A_{2018-19}$ used to forecast operating expenditure in the access arrangement period commencing 1 July 2020 to account for operating expenditure associated with one-off factors.

(d) The incremental efficiency gain (or loss) for Financial Years ~~2016~~2021-~~17~~ 22 to ~~2018~~2023-~~24~~19 (inclusive) will be calculated as:

$$E_t = (F_t - A_t) - (F_{t-1} - A_{t-1})$$

where:

E_t is the incremental efficiency gain (or loss) in Financial Year *t* of the Access Arrangement Period;

F_t is the forecast operating expenditure in Financial Year *t* of the Access Arrangement Period;

A_t is the actual operating expenditure in Financial Year *t* of the Access Arrangement Period;

F_{t-1} is the forecast operating expenditure in Financial Year *t*–1 of the Access Arrangement Period; and

A_{t-1} is the actual operating expenditure in Financial Year *t*–1 of the Access Arrangement Period.`

(e) The incremental efficiency gain (or loss) for Financial Year 20~~24~~19-2~~5~~0 will be calculated as:

$$(F_{20\,24\,19-2\,5\,0} - A_{20\,24\,19-2\,5\,0}*) - (F_{20\,23\,18-2\,4\,19} - A_{20\,23\,18-2\,4\,19})$$

where actual operating expenditure in the Financial Year 20~~24~~19-2~~5~~0 is to be estimated using the following equation:

$$A_{20\,19\,24-2\,0\,5}* = F_{20\,24\,19-2\,0\,5} - (F_{20\,18\,23-19\,24} - A_{20\,18\,23-19\,24}) + non-recurrent\ efficiency\ gain_{20\,18\,23-19\,24}$$

and where:

$A_{20\,24\,19-2\,5\,0}*$ is the estimate of operating expenditure for Financial Year 20~~24~~19-2~~5~~0;

$F_{20\,24\,19-2\,5\,0}$ is the forecast operating expenditure for Financial Year ~~2019~~2024-~~20~~25;

$F_{20\,23\,18-2\,4\,19}$ is the forecast operating expenditure for Financial Year ~~2018~~2023-~~19~~24;

$A_{20\,23\,18-2\,4\,19}$ is the actual operating expenditure for Financial Year ~~2018~~2023-~~19~~24 ; and

$non-recurrent\ efficiency\ gain_{20\,23\,18-2\,4\,19}$ is the adjustment made to $A_{20\,18\,23-19\,24}$ used to forecast operating expenditure in the access arrangement period commencing 1 July ~~2020~~ 2025 to account for operating expenditure associated with one-off factors.

(f) For the avoidance of doubt:

~~(i) [DELETED]~~

~~(ii)~~(i) the incremental efficiency gain (or loss) for Financial Year ~~2020~~2025-~~21~~ 26 will be carried over for 5 years and be calculated with reference to the actual operating expenditure for Financial Year ~~2019~~2024-~~20~~ 25 and not $A_{20\,19\,24-20\,05}$ *; and

~~(iii)~~(ii) the incremental efficiency gains (or losses) are carried over from Financial Year to Financial Year in real dollars to ensure that these gains (or losses) are not eroded by inflation. The price indices used in this calculation are to be consistent with those used in the Access Arrangement Information .

(g) Increments or decrements from the summation of incremental efficiency gains or losses calculated in accordance with the approved incentive mechanism in the Access Arrangement Period will give rise to an additional 'building block' in the calculation of the Total Revenue amounts for each Financial Year of the subsequent access arrangement period.

(h) The following costs will be excluded from the operation of the efficiency carryover mechanism:

(i) UAG Costs;

(ii) licence fee costs;

(iii) debt raising costs;

(iv) Carbon Costs;

(v) the cost of any Relevant Tax;

~~(v) and~~

(vi) any cost category that~~: (1)~~ is not forecast using a single year revealed cost approach in the access arrangement period following this Access Arrangement Period (intended to commence 1 July ~~2020~~2025); and

(vii) any other cost that the Service Provider and the AER agree to exclude from the operation of the efficiency carryover mechanism.~~; and (2) the AER determines, as part of a decision on revisions to apply to this Access Arrangement (and following the consultation processes associated with that decision), to exclude from the operation of the efficiency carryover mechanism because it is satisfied that it would not promote the National Gas Objective.~~

~~(vi)~~

(i) For ~~the~~ avoidance of doubt, the forecast expenditure amounts that are used as the basis for measuring efficiencies are equal to the forecast operating cost for that Financial Y~~y~~ear as shown in the table below, which exclude the costs listed in clause 12.1(h), adjusted for any Determined Pass Through Amounts:

Financial Year	202015-2116	20162021-1722	20172022-1823	20182023-1924	20192024-2025
Forecast operating expenditure for incentive mechanism purposes ($million, real 20152020)	158.2137.08	137.92 168.8	138.84 174.5	143.45 174.7	142.67 178.7

(j) Where the Service Provider changes its approach to classifying costs as either capital expenditure or operating expenditure during the Access Arrangement Period, the Service Provider will adjust the forecast operating expenditure in the Access Arrangement Information so that the forecast expenditures are consistent with the capitalisation policy changes.

(k) If there is a change in the Service Provider's approach to classifying costs as either capital expenditure or operating expenditure, the Service Provider must provide to the AER a detailed description of the change and a calculation of its impact on forecast and actual operating expenditure.

12.2 Fixed principle

12.3 Except for clause 12.1(h)(vi), tThe principle in clause 12.1 is a fixed principle (as provided for in Rule 99 of the National Gas Rules). This fixed principle remains in force for the Access Arrangement Period covered by this Access Arrangement. The principle is also fixed for the next two access arrangement periods.

~~13~~

13 Capital expenditure incentive mechanism

13.1 Incentive mechanism

(a) The incentive mechanism will apply to capital expenditure (defined to exclude certain expenditure as per clause 13.1(b)(v)) and be referred to as the Capital Expenditure Sharing Scheme or the CESS. The CESS may result in a CESS benefit or penalty for the Service Provider.

(b) The CESS will operate in the following way:

(i) The annual efficiency gain or loss under the CESS will be calculated by subtracting the Service Provider's actual capital expenditure from the approved capital expenditure allowance in each year of the Access Arrangement Period. For the final year (and in some instances the penultimate year) an estimate of actual capital expenditure will be used.

(ii) The efficiency gain for each Financial Year will be discounted into its Net Present Value (**NPV**) as at the end of the Access Arrangement Period. In doing so, it is assumed that capital expenditure is occurred in the middle of the year.

(iii) The total efficiency gain will be shared between the Service Provider and Users who are provided the Reference Service. The CESS benefit or penalty to the Service Provider will be calculated by adjusting its share of the total efficiency gain for any financing benefits or costs and deterioration in average asset performance.

(iv) For the purpose of calculating the annual efficiency gain or loss, the approved capital expenditure allowance is to be adjusted to take into account a change in the scope of activities in accordance with the approach outlined in clause 13.1(h)(iii) below or for any approved Cost Pass Through Event.

(v) For the purposes of applying the CESS capital expenditure is defined to:

(A) exclude expenditure related to connecting customers (i.e. 'new customer connections capex');

(B) reduce by any capital contributions towards expenditure not covered by subclause (A) above; and

(C) reduce by any asset disposals.

(vi) A discount rate will be applied to account for the time value of money. This adjustment will also be required for the penultimate year of the Access Arrangement Period where finalised actual capital expenditure figures are not available before finalising the regulatory determination.

(c) The total efficiency gain is calculated as:

$$Total\ efficiency\ gain = \sum_{n=1}^{p} \frac{1}{(1+WACC)^{n-p-0.5}} \times (F_n^C - A_n^C)$$

where:

n is the sequence number of Financial Year in the Access Arrangement Period (2020-21 is 1, 2021-22 is 2, 2022-23 is 3, 2023-24 is 4 and 2024-25 is 5);

$WACC$ is the real vanilla weighted average cost of capital set out in the AER's Final Decision and updated annually within the JGN Revenue Model;

p is the length of the Access Arrangement Period (e.g. 5 years);

F_n^C is the capital expenditure allowance for Financial Year *n*; and

A_n^C is actual capital expenditure for Financial Year *n*.

(d) For the avoidance of doubt, the WACC parameter referred to in clause 13.1(c) above and 13.1(f)(iv) below shall reflect the annual update to return on debt. For instance, if n = 3 (being the 2022-23 Financial Year), then the WACC will be calculated as follows:

$$WACC = [(1 + WACC_{2022-23})^{0.5} \times (1 + WACC_{2023-24}) \times (1 + WACC_{2024-25})]^{1/2.5} - 1$$

(e) The CESS will share efficiency gains or losses in the following way:

(i) A sharing factor of 30% will apply to the total efficiency gain or loss. This means that the Service Provider will bear 30% of any loss and will retain 30% of any gain. The remaining 70% will be returned to Users who are provided the Reference Service.

(ii) The Service Provider's share of the total efficiency gain is calculated as follows:

$$Service\ Provider's\ share = Total\ efficiency\ gain \times 30\%$$

(f) The CESS will account for net financing benefits in the following way:

(i) The CESS takes into account benefits or costs that have already accrued to the Service Provider during the Access Arrangement Period in order to ensure that the power of the incentive is the same in each Financial Year. This is the financing benefit of any underspend and the financing cost of any overspend.

(ii) Capital expenditure is assumed to be incurred in the middle of each Financial Year and would be adjusted to end of year terms. In the case of an underspend, the Service Provider will recover a financing benefit (in the year following an underspend) equal to the underspend, in the preceding years, multiplied by WACC.

(iii) The financing benefit from preceding years will be compounded, namely, the financing benefit for each year will be discounted to its NPV at the end of the Access Arrangement Period. In doing so it is assumed financing benefits accrue at the end of the year. To calculate the total financing benefit, the annual financing benefits in NPV terms are summed.

(iv) The net financing benefit is calculated using the following equation:

$$Net\ financing\ benefit = \sum_{n=1}^{p} \frac{1}{(1+WACC)^{n-p}} \times year\ n\ financing\ benefit$$

(g) The CESS will account for rewards and penalties in the following way:

(i) The CESS reward or penalty payable to the Service Provider is calculated by subtracting the net financing benefit from the Service Provider's share of the cumulative efficiency gain and by adjusting for asset performance in certain circumstances.

(ii) The CESS reward or penalty is calculated as follows:

$$CESS\ reward = (Service\ Provider\ share - net\ financing\ benefit) \times CPF$$

where:

CPF is the Contingent Payment Factor calculated as:

Service Provider's share	Contingent Payment Index (CP)	Contingent payment factor (CPF)
> Greater than net financing benefit	CP > or = 100	1
	80 < CP < 100	$\frac{API - 80}{20}$
	CP < or = 80	0
< Less than or = equal to net financing benefit	Any value	1

API is the Contingent Payment Index calculated for the Access Arrangement Period in accordance with Schedule 9.

(iii) The CESS reward or penalty will give rise to an additional 'building block' revenue requirement and will be included in the calculation of the total revenue amount for each Financial Year of the subsequent access arrangement period.

(h) The CESS will account for actual capital expenditure for the final year of the Access Arrangement Period in the following way:

(i) Actual capital expenditure for the final year of the Access Arrangement Period will not be available when the rewards or penalties for the CESS are calculated for that Access Arrangement Period. Instead, an estimate of

capital expenditure will be used to calculate the efficiency gains or losses for the final year.

(ii) Prior to the revisions submission date for the access arrangement period intended to commence 1 July 2030, actual capital expenditure data will be available for the final year of the Access Arrangement Period. Where the Service Provider's actual capital expenditure differs from the capital expenditure estimate used to calculate the CESS, an adjustment will be made to account for the difference.

(iii) The adjustment for the final year of the Access Arrangement Period will be (in present value terms as at 30 June 2030):

$$Final\ year\ adjustment = \left(A_p^{C*} - A_p^C\right) \times \left[\frac{Sharing\ factor - 1}{\left(1 + WACC_p\right)^{-0.5}} + 1\right] \times (1 + WACC_{NextAA})^5 \times CPF$$

where:

A_p^{C*} is the estimate of actual capital expenditure in the final year of the Access Arrangement Period that has been used to initially calculate the CESS rewards or penalties;

A_p^C is actual capital expenditure in the final year of the Access Arrangement Period;

CPF is the Contingent Payment Factor calculated in accordance with clause 13.1(g)(ii) above;

$WACC_p$ is the real vanilla weighted average cost of capital updated annually within the JGN Revenue Model for the final year of the Access Arrangement Period;

$WACC_{NextAA}$ is the average real vanilla weighted average cost of capital determined by the AER for each year of access arrangement period intended to commence 1 July 2025; and

$Sharing\ factor$ is the sharing factor of 30% referred to in clause 13.1(e)(i) above.

(iv) For the avoidance of doubt, the adjustment referred to in clause 13.1(h)(ii) should only adjust for any financing benefit or cost resulting from the difference between estimated and actual capital expenditure in the final year of the Access Arrangement Period to the extent that that benefit or cost was included within the CESS reward or penalty applicable to that Financial Year.

Financial Year	2020-21	2021-22	2022-23	2023-24	2024-25
Forecast capital expenditure for CESS purposes ($million, real 2020)	102.5	102.9	87.6	82.8	81.9

(i) The CESS will adjust actual or allowed capital expenditure in certain circumstances as follows:

(i) CESS payments will be adjusted where the Service Provider defers capital expenditure projects in the Access Arrangement Period to the next access arrangement period; and

(A) the amount of the deferred capital expenditure in the Access Arrangement Period is material;

(B) the amount of the estimated underspend in capital expenditure in the Access Arrangement Period is material; and

(C) total approved forecast capital expenditure in the subsequent access arrangement period is materially higher than it is likely to have been if a material amount of capital expenditure was not deferred in the Access Arrangement Period.

If the AER determines that an adjustment will be made, the adjustment is the present value of the estimated marginal increase in forecast capital expenditure in the subsequent access arrangement period attributable to capital expenditure deferred in the Access Arrangement Period.

(ii) Actual capital expenditure will be adjusted to remove any expenditure that is not rolled in to the Service Provider's regulatory asset base used to determine revenue over the subsequent access arrangement period.

(iii) Allowed capital expenditure will be adjusted for any capital expenditure approved as a pass-through by the AER under clause 3.4. For the avoidance of doubt, an adjustment may be positive or negative.

13.2 Fixed principle

The principle in section 13 is a fixed principle (as provided for in Rule 99 of the National Gas Rules). This fixed principle remains in force for the Access Arrangement Period covered by this Access Arrangement. The principle is also fixed for the next two access arrangement periods.

Schedule 1 Definitions and interpretation

1 Definitions

In this Access Arrangement:

~~2010~~2015~~-15~~ 20 **Access Arrangement** means the Access Arrangement that applied to the Network immediately prior to the Effective Date~~, as approved by the AER on 11 June 2010, amended by order of the Australian Competition Tribunal on 30 June 2011, and further amended by the AER on 26 September 2011~~;

~~**2010-15 Access Arrangement Period** means the period during which the 2010-15 Access Arrangement applied to the Network;~~

Access Arrangement means this access arrangement setting out terms and conditions for access to the ~~Services~~ Reference Service and Non-Reference Services provided by the Service Provider for the Access Arrangement Period ~~that is lodged with, and~~ approved by~~,~~ the AER under the National Gas Rules;

Access Arrangement Information means the information relating to this Access Arrangement ~~and submitted by the Service Provider~~ pursuant to Rule 42 of the National Gas Rules~~, amended to reflect the AER's Final Decision~~;

Access Arrangement Period means ~~, for this Access Arrangement,~~ the period commencing from the Effective Date until the revisions to this Access Arrangement take effect (intended to be 1 July ~~2020~~2025);

AER means the Australian Energy Regulator ~~established by section 44AE of the *Competition and Consumer Act 2010* (Cth)~~;

AER's Final Decision means the final decision of the AER with respect to this Access Arrangement under Rule 62 of the National Gas Rules;

Applicable Law means any legislation, subordinate legislation, licence, code, rules, sub-code, guideline, safety case, order or regulation that applies to the Service Provider, the Network, the operation of the Network, and ~~/~~ or provision of services on the Network, whether specific to the Service Provider or regulating the gas industry or aspects of the gas industry more generally;

Business Customer means a Customer who is not a Residential Customer;

Capital Base means the capital value to be attributed, in accordance with Part 9 of the National Gas Rules, to pipeline assets;

Carbon Costs means the costs incurred in connection with an obligation that is imposed under any Carbon Scheme, including without limitation any charges or fees payable in respect of greenhouse gas emissions, costs of acquiring permits, allowances, credits, or certificates, costs associated with undertaking activities to abate or sequester greenhouse gas emissions and costs associated with reducing liability under any Carbon Scheme;

Carbon Scheme means any law or regulation of the Commonwealth of Australia or of a State or Territory of Australia, with respect to the production or emission of, or to reduce, limit, cease, prevent, offset, remove or sequester greenhouse gas emissions;

Central West Distribution System means the ~~covered~~ Covered ~~natural gas distribution p~~Pipeline~~s~~ owned by the Service Provider which has Receipt Points and services the areas ~~and as~~ described in Schedule 8~~Schedule 9~~;

CESS means the capital expenditure incentive mechanism set out in section 13;

~~**Charge** for a Service means the amount that is payable by a User to the Service Provider for the provision of the Service to that User;~~

Contingent Payment Factor is defined in clause 13.1(g)(ii);

Contingent Payment Index is described in Schedule 9;

Cost Pass Through Event means the events listed in clause 3.4;

~~**Coverage Determination** means a determination of a Relevant Minister under Chapter 3 Part 1 Division 1 of the National Gas Law;~~

Covered Pipeline ~~means a pipeline:~~

~~(a) to which a Coverage Determination applies; or~~

~~(b) deemed to be a Covered Pipeline by operation of section 126 or 127 of the~~has the meaning set out in the National Gas Law;

CPI means the All Groups Consumer Price Index that is the weighted average of the 8 capital cities as first published by the Australian Bureau of Statistics;

Customer ~~means:~~

~~(a) the person who purchases the Gas supplied at a Delivery Point; or~~

~~(b) a consumer of hot water in a residential unit where hot water is supplied through a centralised gas-fired hot water system and whose Energy consumption is individually metered by the Service Provider to measure Gas withdrawn at the relevant Delivery Point;~~ has the same meaning as set out in the Reference Service Agreement;

~~**Developable Capacity** means the difference between the current capacity of a Covered Pipeline and the capacity of a Covered Pipeline which would be available if a new facility was constructed, but does not include any new capacity of a Covered Pipeline resulting from an extension to the geographic range of a Covered Pipeline;~~

Delivery Point means a point on the Network from which Gas is or may be withdrawn;

Delivery Station means facilities at a Delivery Point through which Gas is delivery from the Network;

Determined Pass Through Amount means the amount that the AER has determined should be passed through in Reference Tariffs in respect of a Cost Pass Through Event in accordance with clause 3.4(i);

Downstream Network means a distribution system or a pipeline not owned and operated by the Service Provider, which receives Gas from the Network for the purpose of use by third parties and, for the avoidance of doubt, does not include embedded networks in shopping centres, apartment buildings or similar;

Effective Date means the later of:

(a) 1 July ~~2015~~2020; and

(b) ~~if~~ the date that the AER's approval of this Access Arrangement takes effect under the National Gas Rules ~~on a date after 1 July 2015, that date~~;

~~**Embedded Network** means a distribution system or a pipeline not owned and operated by the Service Provider, which is connected to and receives gas from the Network for the purpose of use by third parties;~~

~~**Embedded Network Operator** means the licensed owner or operator of an Embedded Network;~~

End Consumer has the same meaning set out in the Reference Service Agreement;

Energy ~~means energy (or an energy source) in any form and includes natural gas, electricity or thermal energy in any form (for example, steam or hot water, and whether used for heating, cooling or some other purpose)~~has the same meaning set out in the Reference Service Agreement;

Financial Year means the 12-month period ending on 30 June in any year;

Fixed Charge means a fixed charge as specified in the Reference Tariff Schedule;

Gas means natural gas;

Gas Supply Act means the *Gas Supply Act 1996* (NSW);

~~**Haulage Reference Service** means the Service described in clause 2.2(b) and provided by the Service Provider in accordance with the Reference Service Agreement;~~

~~**Haulage Reference Tariff** or **Reference Tariff** means a tariff which relates to a Haulage Reference Service, as specified in the Reference Tariff Schedule;~~

Initial Reference Tariffs means the Reference Tariffs applying on and from the Effective Date, until amended in accordance with ~~clause~~ section 3;

Initial Reference Tariff Schedule means Schedule 2 of this Access Arrangement;

Initial Tariff Classes means the Tariff Classes applying ~~and~~ from the Effective Date~~,~~ until amended in accordance with ~~clause~~ section 3;

Insurance Cap Event means an event where:

(a) the Service Provider makes a claim or claims and receives the benefit of a payment or payments under a relevant insurance policy;

(b) the Service Provider incurs costs beyond the relevant policy limit; and

(c) the costs beyond the relevant policy limit increase the costs to the Service Provider of providing the Reference Service.

For this Insurance Cap Event:

~~(a) the relevant policy limit is the greater of:~~

~~(i) the Service Provider's actual policy limit at the time of the event that gives, or would have given rise to the claim; and~~

~~(ii) the policy limit that is explicitly or implicitly commensurate with the allowance for insurance premiums that is included in the forecast operating expenditure allowance approved in the AER's final decision for the Access Arrangement Period;~~

~~(b)~~(d) a relevant insurance policy is an insurance policy held during the Access Arrangement Period or a previous period in which access to the pipeline services was regulated; and

~~(c)~~(e) the Service Provider will be deemed to have made a claim on a relevant insurance policy if the claim is made by a related party of the Service Provider in relation to any aspect of the Network or the Service Provider's business.

Note for the avoidance of doubt, in making a determination on an Insurance Cap Event pursuant to clause 3.4(j)~~3.4(j)~~, the AER will have regard to, amongst other things:

(i) the insurance policy for the event, and

(ii) the level of insurance that an efficient and prudent ~~Service~~ service ~~Provider~~ provider would obtain in respect of the event;

Insurer Credit Risk Event means an event where:

(a) ~~-~~A nominated insurer of the Service Provider becomes insolvent, and as a result, in respect of an existing, or potential, claim for a risk that was insured by the insolvent insurer, the Service Provider:

~~(iii)~~(i) is subject to a higher or lower claim limit or a higher or lower deductible than would have otherwise applied under the insolvent insurer's policy; or

~~(iv)~~(ii) incurs additional costs associated with self-funding an insurance claim, which would otherwise have been covered by the insolvent insurer.

Note for the avoidance of doubt, in making a determination on an Insurer Credit Risk Event pursuant to clause 3.4(j), the AER will have regard to, amongst other things:

~~(i)~~(iii) ~~-~~the Service Provider's attempts to mitigate and prevent the event from occurring by reviewing and considering the insurer's track record, size, credit rating and reputation, and

~~(ii)~~(iv) in the event that a claim would have been made after the insurance provider became insolvent, whether the Service Provider had reasonable opportunity to insure the risk with a different provider~~.~~;

Interconnection ~~of Embedded Network~~ Service means the ~~Service~~ service described in clause 2.5;

JGN Revenue Model means the revenue model that is used by the Service Provider to calculate Reference Tariffs for the Access Arrangement Period ~~and~~ as approved in the AER's ~~final~~ Final ~~decision~~ Decision~~for this Access Arrangement Period~~;

Load Shedding has the meaning set out in the Reference Service Agreement;

Maximum Daily Quantity or **MDQ** means the maximum Quantity of Gas (in GJ) which the Service Provider is obliged to transport and delivery to a particular Delivery Point on behalf of the User on any Day (excluding Overruns as defined in the Reference Service Agreement);

Maximum Hourly Quantity or **MHQ** means the maximum Quantity of Gas (in GJ) which the Service Provider is obliged to transport and delivery to a particular Delivery Point on behalf of the User in any Hour (excluding Overruns as defined in the Reference Service Agreement);

~~**Month** means calendar month;~~

National Gas Law means the *National Gas Law* adopted under the *National Gas (New South Wales) Act 2008* (NSW);

~~**National Gas Objective** means the objective set out in section 23 of the National Gas Law;~~

National Gas Rules or **Rules** means the National Gas Rules made by the AEMC under the National Gas Law;

Natural Disaster Event means ~~a~~A~~A~~ny major fire, flood, earthquake or other natural disaster that occurs during the ~~2015-20~~ Access Arrangement Period and increases the costs to the Service Provider in providing the Reference Service, provided the fire, flood or other event was not a consequence of the acts or omissions of the Service Provider~~.~~;

The term 'major' in the above paragraph means an event that is serious and significant.

Note for the avoidance of doubt, in making a determination on a Natural Disaster Event pursuant to clause 3.4(j), the AER will have regard to, amongst other things:

(i) whether the Service Provider has insurance against the event; and

(ii) the level of insurance that an efficient and prudent service provider would obtain in respect of the event~~, and~~;

~~(iii) whether a relevant government authority has made a declaration that a natural disaster has occurred.~~

NCC means National Competition Council;

Negotiated Service means ~~a~~the service ~~for the transportation of Gas on terms and conditions different to those applicable to the Reference Service or an Interconnection of Embedded Network Service~~described in clause 2.6;

~~**Negotiated Service Agreement** means a contract between the Service Provider and a User or Prospective User for the provision of a Negotiated Service;~~

~~**Network User Failure Event** means an event where:~~

~~(a) a Retailer of Last Resort (RoLR) Event as defined in section 122 of the National Energy Retail Law has occurred, and~~

~~(b) the Service Provider incurs costs in responding to the RoLR event in accordance with its obligations under the NERL, NERR, NGL or NGR (including Guidelines and procedures that are binding under those instruments), and~~

~~(c) the costs are not recoverable by the Service Provider under other provisions of the NERL, NERR, NGL or NGR as in force at the time of the event, including but not limited to rule 531 of the NGR and other pass through events in this Access Arrangement.~~

~~Note for the avoidance of doubt, in making a determination on a Network User Failure Event pursuant to clause 3.4(j), the AER will have regard to, amongst other things, the extent to which the Service Provider has taken steps to minimise the costs associated with its responsibilities in a RoLR Event, both prior to, and after, the RoLR Event was triggered;~~

Network means the Covered Pipelines set out in clause 11.1, including any extension or expansion to which this Access Arrangement applies in accordance with section 8;

Network Section means (as the case may be) the Wilton-Newcastle Network Section, the Wilton-Wollongong Network Section or a country sub-network served by a particular Receipt Point;

Non-Reference Service means each of:

(a) the Interconnection ~~of Embedded Network~~ Service; and

(b) a Negotiated Service;

Northern Trunk means the Covered Pipeline described in clause 11.1(a)(i);

NSW Distribution System means the ~~covered~~ Covered ~~natural gas distribution pipelines~~Pipeline owned by the Service Provider, which ~~have~~ has the Receipt Points and service~~s~~ the areas ~~in New South Wales as~~ described in Schedule 8~~Schedule 10~~;

Operational Schedule means Schedule 7 to this Access Arrangement;

Pipeline Service has the meaning given to it in the National Gas Law;

Pipelines Act means the *Pipelines Act 1967* (NSW);

~~**Priority Date** means the date a complete Request is received by the Service Provider from a Prospective User;~~

Prospective User means:

(a) a person who seeks ~~or wishes~~ to be provided with a Pipeline Service by means of the Network;

(b) for the avoidance of doubt, a User is also a Prospective User if the User seeks ~~or wishes~~ to be provided with a Pipeline Service by means of the Network other than a Pipeline Service already provided to them under:

(i) a ~~contract~~Service Agreement; or

(ii) an access determination;

Provision of Basic Metering Equipment Charge means an annual charge specified in the Reference Tariff Schedule;

Rate of Return Instrument means the AER's Rate of Return Instrument published December 2018, as amended from time to time;

~~**RBA** means the Reserve Bank of Australia;~~

Receipt Point means a point at which Gas is received into the Network;

Receipt Station means the facilities at a Receipt Point through which Gas is received into the Network;

Reference Service means the ~~Haulage Reference Service~~service described ~~specified~~ in clause 2.2;

Reference Service Agreement means the contract between the Service Provider and a User ~~or Prospective User~~ for the provision of the Reference Service as set out in Schedule 4;

Reference Tariff means the tariff applicable to the provision of the Reference Service, as specified in the Reference Tariff Schedule;

Reference Tariff Schedule means the schedule of Reference Tariffs ~~currently in place, as~~ approved by the AER and amended from time to time in accordance with this Access Arrangement;

Regulatory Change Event means the introduction of, or a change in, a regulatory obligation or requirement that falls within no other category of Cost Pass Through Event and substantially affects the manner in which the Service Provider provides the Reference Service;

~~**Relevant Minister** means if, in a coverage recommendation, no coverage recommendation, classification decision under the National Gas Rules or reclassification decision, the NCC determines the pipeline is:~~

~~(a) a cross boundary transmission pipeline – the Commonwealth Minister;~~

~~(b) a transmission pipeline situated wholly within a participating jurisdiction – the designated Minister;~~

~~(c) a distribution pipeline situated wholly within a participating jurisdiction – the Minister of the participating jurisdiction;~~

~~(d) a cross boundary distribution pipeline – the Minister of the participating jurisdiction determined by the NCC in the recommendation as being the participating jurisdiction with which the cross boundary distribution pipeline is most closely connected;~~

Relevant Tax means any Tax other than:

(a) any tax in the nature of an income tax or a capital gains tax;

(b) penalties, charges, fees and interest on late payments, or deficiencies in payments, relating to any Tax;

(c) stamp duty, or similar taxes and duties; and

(d) any Tax that replaces or is the equivalent of or similar to any of the taxes referred to above;

Request means a request for a Reference Service or Non-Reference Service using the request for service form set out in Schedule 6 or such other request for service form as the Service Provider publishes from time to time on its website;

Residential Customer means a Customer who consumes Energy principally for personal, domestic or household use;

SAIDI means the System Average Interruption Duration Index, which measures the length of time each customer is without supply averaged over all customers in the Network;

SAIFI means the System Average Interruption Frequency Index, which measures the number of supply interruptions each customer experiences for the year averaged over all customers in the Network;

~~**Service** means a service provided by the Service Provider in relation to the Network including the Reference Service;~~

Service Agreement means a contract between the Service Provider and a User ~~or Prospective User~~ for the provision of a Pipeline Service;

Service Provider means Jemena Gas Networks (NSW) Ltd;

Service Standard Event means a legislative or administrative act or decision that has the effect of:

(a) ~~Varying~~substantially varying, during the course of an Access Arrangement Period, the manner in which the Service Provider is required to provide the Reference Service; ~~or~~

(b) ~~Imposing~~imposing, removing or varying, during the course of an Access Arrangement Period, minimum service standards applicable to the Reference Service; or

(c) ~~Altering~~altering, during the course of an Access Arrangement Period, the nature or scope of the Reference Service provided by the Service Provider;

Southern Trunk means the Covered Pipeline described in clause 11.1(a)(ii);~~**Tariff** means a rate by which a charge for a Pipeline Service is calculated;~~

Tariff Assignment Criteria means the tariff assignment criteria set out in part 2 of the Reference Tariff Schedule;

Tariff Class means ~~customers~~ Customers ~~for the Reference Service~~ who constitute a tariff class under ~~this~~ the Reference Tariff Schedule~~Access Arrangement~~;

Tax means any royalty, duty, excise, tax, impost, levy, fee, assessment, penalty or other compliance cost or charge (including without limitation, any goods and services tax) imposed by the Commonwealth of Australia, any State or Territory of Australia, any local government or statutory authority or any other body (authorised by law to impose such an impost, tax or charge) on or in respect of the Network (or any part of it) or on or in respect of the operation, repair, maintenance, administration or management of the Network (or any part of it) or on or in respect of the provision of any Network Service (other than a levy, fee or charge that arises as a result of the Service Provider's breach of a law or failure to pay a tax or charge by the due date for payment);

Terrorism Event means an act (including, but not limited to, the use of force or violence or the threat of force or violence) of any person or group of persons (whether acting alone or on behalf of or in connection with any organisation or government), which from its nature or context is done for, or in connection with, political, religious, ideological, ethnic or similar purposes or reasons (including the intention to influence or intimidate any government and/or put the public, or any section of the public, in fear) and which increases the cost to the Service Provider in providing the Reference Service;.

Note for the avoidance of doubt, in making a determination on a Terrorism Event pursuant to clause 3.4(j), the AER will have regard to, amongst other things:

(i)(a) whether the Service Provider has insurance against the event,

(ii)(b) the level of insurance that an efficient and prudent service provider would obtain in respect of the event, and

(iii)(c) whether a declaration has been made by a relevant government authority that a terrorism event has occurred;

Total Revenue is the revenue requirement for each Financial Year of the Access Arrangement Period amount determined for the Reference Service in accordance with rule 76 of the National Gas Rules;

UAG Costs means the average cost per gigajoule incurred by the Service Provider for purchases ofto procure gas Gas to make up for as unaccounted for gas (**UAG**) in the Network (**UAG**) during a Financial Year, including costs for transmission haulagetransportation and other direct costs reasonably incurred by the Service Provider to acquire in connection with that UAG through a competitive market or process;

Upstream Facility means a facility (including a Gas production or storage facility or transmission pipeline) not owned and operated by the Service Provider, from which Gas is delivered into the Network;

User means a person who:

(a) is a party to a contract Service Agreement with the Service Provider under which the Service Provider provides or intends agrees to provide a Pipeline Service to that person by means of the Network; or

(b) has a right under an access determination to be provided with a Pipeline Service by means of the Network;

Variation Notice means a notice submitted by the Service Provider to the AER under clause 3.6;

WACC means the real vanilla w~~W~~eighted ~~Average~~ average ~~Cost~~ cost of ~~Capital~~capital as set out in the AER's Final Decision and updated annually within the JGN Revenue Model; ~~and~~

Wilton Network Section means the Wilton-Newcastle Network Section and the Wilton-Wollongong Network Section;

Wilton-Newcastle Network Section means the Northern Trunk and those parts of the Network supplied from the Northern Trunk;

Wilton-Wollongong Network Section means the Southern Trunk and those parts of the Network supplied from the Southern Trunk; and

Year means a period of 365 consecutive Days but, for any Year which contains a date of 29 February, means 366 consecutive Days.

2 Interpretation

In the construction of the Access Arrangement, unless the context otherwise requires:

(a) a reference to a section, clause or a schedule is to a section of, clause in, or schedule to, this Access Arrangement;

~~(a)~~(b) a reference to a part or paragraph, is to a part or paragraph in a Schedule to this Access Arrangement;

~~(b)~~(c) a word importing the singular includes the plural and vice versa, and a word of any gender includes the corresponding words of any other gender;

~~(c)~~(d) references to any statute, regulations, or other statutory instrument, standard or by-laws shall be deemed to be references to the statute, regulation, statutory instrument, standard or by-law as from time to time amended, consolidated, re-enacted or replaced including substituted provisions that substantially correspond to those referred to;

~~(d)~~(e) references to any agreement, deed, instrument, or publication shall be deemed to be references to the agreement, deed, instrument or publication as from time to time amended, supplemented, novated or replaced;

~~(e)~~(f) clause or condition headings are inserted for convenience only and do not affect the interpretation of the Access Arrangement;

~~(f)~~(g) expressions referring to writing will be construed as including references to words printed, type-written, telexed, lithographed, facsimiled or otherwise traced, copied or reproduced;

~~(g)~~(h) a reference to a party includes a reference to its successors in title and permitted assigns;

~~(h)~~(i) an agreement, representation or warranty on the part of two or more persons binds them jointly and severally or if given in favour of two or more persons may be enjoyed by them jointly or severally or jointly and severally;

~~(i)~~(j) when referring to a particular Day, the date of the Day shall be the date on which that Day begins; and

~~(j)~~(k) the words "include", "including", "for example" or "such as" are not used as, nor are they to be interpreted as, words of limitation, and, when introducing an example, do not limit the meaning of the words to which the example relates to that example or examples of a similar kind.

~~(k)~~(l) if a word or phrase is given a defined meaning, any other part of speech or grammatical form of that word or phrase has a corresponding meaning;

~~(l)~~(m) a reference to a person includes an individual, the estate of an individual, a corporation, an authority, an association or parties in a joint venture, a partnership and a trust;

~~(m)~~(n) a reference to an agency or body if that agency or body ceases to exist or is reconstituted, renamed or replaced or has its powers or function removed (obsolete body), means the agency or body which performs most closely the functions of the obsolete body; and

~~(n)~~(o) a reference to $ or dollar is to Australian currency.

Schedule 2 Initial Reference Tariff Schedule

1 Introduction

(a) This Initial Reference Tariff Schedule sets out the Initial Tariff Classes and Initial Reference Tariffs that apply for the Reference Service under this Access Arrangement.

(b) The Initial Reference Tariffs are expressed in real 2015-2020-/2016-21 dollars, and are exclusive of GST.

~~(c) There may be more than one Initial Reference Tariff for the Reference Service.~~

~~(d)~~(c) The Initial Reference Tariffs applicable to a Delivery Point ~~available for the Reference Service~~ depends upon the Initial Tariff Class assigned by the Service Provider to the Delivery Point ~~to which the Reference Service will be provided~~.

~~(e)~~(d) In addition to setting out the Initial Tariff Classes and the Initial Reference Tariffs, this Initial Reference Tariff Schedule sets out ~~and explains~~ the tariff components and assignment criteria used in determining the availability of different ~~Initial~~ Reference Tariffs for a Delivery Point.

~~(f)~~(e) The Initial Reference Tariffs will take effect from the Effective Date and will apply until amended in accordance with ~~clause~~ section 3 of the Access Arrangement. When the Reference Tariffs are amended, the updated Reference Tariff Schedule will be published on the Service Provider's website.

2 Tariff Assignment ~~criteria~~ Criteria ~~for a Tariff Class~~

2.1 Elements for ~~tariff~~ assignment to a Tariff Class

(a) The Service Provider determines the appropriate Tariff Class for a Delivery Point based on each of the following elements:

(i) customer groups (see paragraph 2.2);

(ii) tariff categories (see paragraph 2.3); and

(iii) ~~classification by~~ location (see paragraph 2.4).

(b) The assignment criteria for each relevant element must be satisfied in order for a Delivery Point to qualify for a particular Tariff Class.

(c) Each Tariff Class is allocated a code which reflects the assignment criteria for each of the elements using the following format:

[G][CAT]-[Location]

where:

[G] ~~is a single character defining~~refers to the customer group (V for Volume or D for Demand). Customer groups are described in ~~clause~~ paragraph 2.2 below;

[CAT] is a category name or abbreviation. If omitted then the Tariff Class is not described by reference to a tariff category. The assignment criteria for the tariff categories are described in ~~clause~~ paragraph 2.3 below; and

[Location] is the location identifier. If equal to 0, or omitted, then the Tariff Class is not described by reference to a specific part of the Network. The assignment criteria for classification by location is described in ~~clause~~ paragraph 2.4 below.

2.2 ~~Tariff c~~Customer groups

(a) The ~~tariff~~ customer group that applies to a Delivery Point ~~to which a Haulage Reference Service is provided~~ is determined on the basis of the characteristics of the Energy requirements of the Customer and any ~~other end customer~~End Consumer ~~that is supplied with, and consumes, Energy as a result of Gas being delivered to~~at that Delivery Point ~~under that Haulage Reference Service~~.

(b) The assignment criteria for determining the customer group are as follows:

(i) **Demand Tariff:** A Delivery Point can be assigned to the ~~a~~ Demand Tariff customer group where:

(A) the Quantity of Gas withdrawn at that Delivery Point is reasonably expected to be equal to or greater than 10 TJ of Gas per annum; ~~and~~

~~(A)~~(B) all Gas delivered to that Delivery Point is used on the premises to meet the production or Energy requirements of:

- a single Business Customer occupying those premises; or
- a Customer operating a centralised gas-fired electricity generation plant or system that supplies electricity and cogenerated thermal energy directly to a group of substantially non-residential ~~end~~ End ~~customers~~Consumers[2] occupying the same or nearby premises[3]; and

~~(B)(A) the Quantity of Gas withdrawn at that Delivery Point is reasonably expected to be equal to or greater than 10 TJ of Gas per annum; and~~

(C) the Service Provider has accurate and complete information to enable Load Shedding procedures to be implemented at the Delivery Point.

Assignment to a Demand Tariff is for a minimum period of 12 months~~;~~.

(ii) **Volume Tariff:** A Delivery Point can be assigned ~~a~~ to the Volume Tariff customer group where the Delivery Point does not satisfy the Demand Tariff customer group assignment criteria. Examples of Delivery Points which will be assigned to the Volume Tariff customer group include Delivery Points

[2] As a guide, the Service Provider will consider a group of ~~end customers~~ End Consumer to be substantially non-residential where less than 50% (by number of ~~end~~ End ~~customers~~Consumers) of the group use Energy principally for personal, domestic or household purposes.

[3] In these circumstances, only the Delivery Point of the Customer would be recognised in the Service Provider's systems. Subsequent on-supply to ~~end customers~~End Consumers by that Customer would not be individually represented in the Service Provider's ~~or retail market~~ systems ~~(subject to application of the exempt seller regime in the National Energy Retail Law)~~.

where ~~and~~ all Gas delivered to that Delivery Point is used on the premises to meet the production or Energy requirements of:

(A) a single Residential Customer;

(B) a single Business Customer who is reasonably expected to consume less than 10 TJ of Gas per annum;

(C) a Customer operating a centralised gas-fired electricity generation plant or system that supplies electricity and cogenerated thermal energy directly to a group of substantially non-residential ~~end~~ End ~~customers~~[1] Consumers occupying the same or nearby premises,[2] and the Delivery Point is reasonably expected to withdraw less than 10 TJ of Gas per annum; or

(D) a group of ~~end~~ End ~~customers~~ Consumers (business and/or residential) occupying a single, multi-occupancy premises where Gas is withdrawn ~~withdrawn~~ by~~by~~ a single Customer at a ~~single~~ Delivery Point (other than as contemplated under paragraph (C) above).

2.3 Tariff category

(a) Where convenient, the Service Provider uses a tariff category to group a number of Tariff Classes together to describe a common, but not complete, sub-set of assignment criteria. For example, the assignment criteria for all Demand Tariffs that fall into the capacity category have a common "category criteria" but separate "location criteria".

(b) Tariff categories for Demand Tariffs, and the ~~corresponding category~~ assignment criteria are as follows:

Abbreviation	Category	Criteria
DC	Capacity	This category is used for Delivery Points which meet the criteria for a Demand Tariff, and have not been assigned to another Demand Tariff category, such as the 'Capacity - 1st Response' or 'Throughput' categories.
DCFR	Capacity – 1st Response	~~Tariffs within this category have been grandfathered from 1 July 2015 and this category is not available for new delivery points. See clause 5.2 of this schedule for more information.~~ This category is only available for Delivery Points that were assigned to this category on or before 1 July 2015 and have continued to be assigned to this category. ~~Grandfathered~~ Delivery Points in this tariff category must continue to satisfy (to the Service Provider's reasonable satisfaction) the following criteria: a) peak hourly historical demand is consistently greater than 350 GJ/hr, but no more than the MHQ; b) the User has provided the Service Provider with a documented Curtailment Plan (as defined in the Reference Service Agreement) for the Delivery Point which is acceptable to the Service Provider and contains ELMS Data (as defined in the Reference Service Agreement) required by the Service Provider, contact personnel and site procedures for reducing load in accordance with the ELMS Data, including times for various stages of load reduction;

Abbreviation	Category	Criteria
		c) under the Curtailment Plan and ELMS Data held by the Service Provider, at least 40% of peak historical hourly demand is nominated for reduction in Load Shedding priority 1 and that reduction could be expected to be reduced within no more than 6 hours of first contact; d) the Curtailment Plan and all ELMS Data is up to date (with a minimum review period of 24 months); e) the Service Provider is able to continuously monitor hourly demand from the Delivery Station at the site, or other sampling frequency acceptable to the Service Provider; and f) in any Load Shedding procedure initiated by the Service Provider in the past two years which involved the Delivery Point, the level of hourly demand at the Delivery Point was no more than the hourly demand anticipated after each stage of reduction as set out in the Curtailment Plan.
DT	Throughput	Assignment to this tariff category is made upon User request. This tariff category is used for Delivery Points which meet the criteria for a Demand Tariff.
DMT	Major End Customer Throughput	Assignment to this tariff category is made upon User request. This tariff category is used for Delivery Points which meet the criteria for a Demand Tariff and which also satisfy the following additional criteria: a) the average daily consumption in any 12 month period multiplied by 1.33 is greater than 10 times the contractual MHQ[4] for the Delivery Point for the same period; and b) the Delivery Point is located in location identifiers 1, 2, 3, 4 or 5.
DMTFR	Major End Customer Throughput – First Response	This category is only available for Delivery Points that were assigned to this category on or before 1 July 2015 and have continued to be assigned to this category. ~~Tariffs within this category have been grandfathered from 1 July 2015 and this category is not available for new delivery points. See section 5.2 of this schedule for more information.~~ ~~Grandfathered~~ Delivery Points in this tariff category ~~meet~~ must continue to meet the criteria for a Major End Customer Throughput Tariff and ~~must~~ satisfy (to the Service Provider's reasonable satisfaction) the following additional criteria: a) peak hourly historical demand is consistently greater than 350 GJ/hr, but no more than the MHQ; b) the User has provided the Service Provider with a documented Curtailment Plan for the Delivery Point which is acceptable to the Service Provider and contains ELMS Data (as defined in the Reference Service Agreement) required by the Service Provider, contact personnel and site procedures for reducing load in accordance with the ELMS Data, including times for various stages of load reduction; c) under the Curtailment Plan and ELMS Data held by the Service Provider, at least 40% of peak historical hourly

[4] If the contractual MHQ has changed in a period then the lowest contractual MHQ is used.

Abbreviation	Category	Criteria
		demand is nominated for reduction in Load Shedding priority 1 and that reduction could be expected to be reduced within no more than 6 hours of first contact; d) the Curtailment Plan and all ELMS Data is up to date (with a minimum review period of 24 months); e) the Service Provider is able to continuously monitor hourly demand from the Delivery Station at the site, or other sampling frequency acceptable to the Service Provider; and f) in any Load Shedding procedure initiated by the Service Provider in the past two years which involved the Delivery Point, the level of hourly demand at the Delivery Point was no more than the hourly demand anticipated after each stage of reduction as set out in the Curtailment Plan.

(c) Tariff categories for Volume Tariffs and ~~corresponding~~ assignment criteria are as follows:

Abbreviation	Category	Criteria
VI	Individual	This category applies where either: • all Gas withdrawn at the Delivery Point is measured by the Service Provider by individually metering the Energy consumption of the ~~end customer(s)~~Customer (including the consumption of hot water supplied through a centralised residential gas hot water system) other than for Delivery Points described in the note below~~)~~; ~~-~~or • the Delivery Point meets the Volume Tariff customer group assignment criteria in paragraph 2.2(b)(ii)(C) above. ~~-~~ Note: Where there is a centralised residential gas hot water system at the Delivery Point, this tariff category is only available where a construction certificate for the property was issued by the relevant local council before 1 July 2020.
VB	Boundary	This category applies where a Delivery Point meets the Volume Tariff customer group assignment criteria in paragraph 2.2(b)(ii)(D) ~~-~~and ~~the Gas withdrawn at the Delivery Point is measured by the Service Provider using a single gas metering installation for all Gas delivered to the Delivery Point (i.e. the Service Provider does not meter the Energy consumption of each individual end customers) and~~ has not been assigned to a tariff in the VRT category.[2]
VRT	Residential Distributed Generation Technology	Assignment to this category is made upon User request. This category is available for a Delivery Point at ~~-~~which all Gas is consumed on the premises by a Customer operating a ~~gas~~gas-fired electricity generation plant or system that supplies electricity and cogenerated thermal energy directly to a group of substantially residential ~~end customers~~End Consumers[5] occupying the same or nearby premises, and the Delivery Point is reasonably expected to withdraw more than 25~~0~~ TJ of Gas per annum.[2]

(d) Where a Delivery Point is eligible for more than one tariff category, the User or Prospective User can nominate the discretionary element of the tariff category in accordance with ~~clause~~ part 4 of this Schedule. For example, a User or Prospective User may request to be placed in the 'Throughput' category. The Service Provider may refuse a nomination by a User or Prospective User if it does not consider the Delivery Point to be eligible.

[5] As a guide, the Service Provider will consider a group of ~~end customers~~ End Consumers to be substantially residential where more than 50% (by number) of the group use Energy principally for person, domestic or household purposes.

2.4 Classification by Location

Where assignment criteria for a Tariff Class depends upon the location of the Delivery Point, the following location criteria will be used.

Location Identifier	Applies to Delivery Points located in:	
0 or omitted	All areas in the Network	
Coastal	The Wilton Network Section (used for VI and VB Volume Tariffs only – see identifiers 1 to 11 for location criteria in the Wilton Network Section for other Tariff Classes)	
Country	Network Sections other than the Wilton Network Section	
1	2164, 2171, 2175, 2571, 2761, 2762, 2766, 2768, Appin	Location identifiers refer to the first 4 numbers of the Delivery Station Identifier used by the Service Provider to identify individual Demand Customer and daily metered Delivery Points. Location identifiers are listed for existing Delivery Points.[6]
2	2141, 2142, 2143, 2144, 2145, 2147, 2148, 2161, 2162, 2163, 2165, 2166, 2170, 2565, 2750, 2759, 2760, 2765, 2770	
3	2006, 2007, 2015, 2017, 2019, 2020, 2033, 2036, 2040, 2044, 2046, 2050, 2112, 2113, 2115, 2116, 2128, 2135, 2136, 2137, 2138, 2140, 2146, 2151, 2152, 2153, 2157, 2173, 2190, 2193, 2199, 2200, 2204, 2205, 2211, 2212, 2214, 2216, 2217, 2560[7], 2566, 2570, 2567, 2747, 2755, 2756, 2777	
4	2000, 2008, 2009, 2010, 2011, 2018, 2021, 2022, 2031, 2032, 2034, 2035, 2037, 2039, 2064, 2065, 2066, 2067, 2111, 2120, 2122, 2154, 2196, 2208, 2220, 2223, 2224, 2228, 2229, 2231, 2232	
5	2028, 2060, 2076, 2077, 2080, 2085, 2095, 2099, 2100, 2102, 2103, 2780	
6	2250, 2259, 2284, 2285, 2286, 2304, 2308, 2322	
7	2256, 2258, 2260, 2261, 2262, 2263, 2264, 2265, 2294, 2295, 2298, 2303, 2305, 2320, 2323, 2326, 2327	
8	2290, 2300, 2314, 2321, 2324, 2325, 2330	
9	2505-BHP	
10	2500, 2502, 2505, 2526, 2530	
11	2516, 2527	

[6] The Service Provider shall assign new Delivery Points to location classifications on the basis of 1997 Australia Post postcode boundaries, and where new postcodes must be added to the table, the Service Provider will allocate a locational identifier to new postcode, which is comparable with the existing postcodes.

[7] Excludes Appin - see location classification 1.

3 Initial Tariff Classes and Tariff charge components for the ~~Haulage~~ Reference Service

(a) A User must pay the Service Provider all charges applicable to the ~~Haulage~~ Reference Service provided based on the relevant Tariff Class.

(b) The tables below sets out the tariff charge components applicable to each Tariff Class.

(c) In addition, other charges are payable in accordance with the Reference Service Agreement.

(d) Volume Tariffs

Customer Type/Category	Tariff Class	~~Haulage~~ Reference Service -- Reference Tariff Components
Volume Individual	VI-Coastal VI- Country	Volume Throughput Rate (~~clause~~ paragraph 4.1(h)) Fixed Charge (~~clause~~ paragraph 4.1(i)) Ancillary Charges (~~clause~~ paragraph 4.1(j)) ~~Clean Energy Act Repeal Settlement (clause 4.1(k))~~
Volume Boundary	VB-Coastal VB-Country	Volume Throughput Rate (~~clause~~ paragraph 4.1(h)) Fixed Charge (~~clause~~ paragraph 4.1(i)) Ancillary Charges (~~clause~~ paragraph 4.1(j))
Volume Residential Distributed Generation Technology	VRT-03 VRT-04 VRT-06 VRT-10	Demand Capacity Rate (~~clause~~ paragraph 4.1(a)) Provision of Basic Metering Equipment Charge (~~clause~~ paragraph 4.1(g)) Ancillary Charges (~~clause~~ paragraph 4.1(j))

(e) Demand Tariffs

Customer Type/Category	Tariff Class	~~Haulage~~ Reference Service -- Reference Tariff Components
Demand Capacity	DC-1 To DC-11	Demand Capacity Rate (~~clause~~ paragraph 4.1(a)) Provision of Basic Metering Equipment Charge (paragraph ~~clause~~ 4.1(g)) Ancillary Charges (paragraph ~~clause~~ 4.1(j))
	DC Country	Demand Capacity Rate comprised of: • Capacity Distance Rate (paragraph ~~clause~~ 4.1(b)), and • Pressure Reduction Rate (paragraph ~~clause~~ 4.1(c)) Provision of Basic Metering Equipment Charge (paragraph ~~clause~~ 4.1(g)) Ancillary Charges (paragraph ~~clause~~ 4.1(j))
Demand Throughput	DT	Demand Throughput Rate (paragraph ~~clause~~ 4.1(f)) Provision of Basic Metering Equipment Charge (paragraph ~~clause~~ 4.1(g)) Ancillary Charges (paragraph ~~clause~~ 4.1(j))
Demand Capacity - 1st Response	DCFR-1 DCFR-6	Discounted Demand Capacity Rate (paragraph ~~clause~~ 4.1(d)) Provision of Basic Metering Equipment Charge (paragraph ~~clause~~ 4.1(g)) Ancillary Charges (paragraph ~~clause~~ 4.1(j))
Demand Major End Customer Throughput	DMT-01 To DMT-05	Fixed Charge (paragraph ~~clause~~ 4.1(i)) Demand Throughput Rate (~~clause~~ paragraph 4.1(f)) Provision of Basic Metering Equipment Charge (paragraph ~~clause~~ 4.1(g)) Ancillary Charges (paragraph ~~clause~~ 4.1(j))
Demand Major End Customer Throughput - 1st response	DMTFR-3	Discounted Fixed Charge (paragraph ~~clause~~ 4.1(e)) Discounted Demand Throughput Rate (paragraph ~~clause~~ 4.1(e)) Provision of Basic Metering Equipment Charge (paragraph ~~clause~~ 4.1(g)) Ancillary Charges (paragraph ~~clause~~ 4.1(j))

4 Initial Reference Tariffs

4.1 ~~Haulage~~ Reference Service

(a) Demand Capacity Rate

Customer Type	Tariff Class	Unit Rate – dollars per GJ of Chargeable Demand (CD) per annum ($/GJ.CD.pa) *Period ending 30 June ~~2016~~2021* Prices are real ~~2015-2016~~2020-21 GST exclusive dollars					
		First 50 GJ of CD	Next 150 GJ of CD	Next 400 GJ of CD	Next 1000 GJ of CD	Next 2000 GJ of CD	Rest of CD
Volume	VRT-03	405.788 ~~450.556~~	379.965 ~~421.884~~	181.940 ~~202.012~~	131.963 ~~146.522~~	111.119 ~~123.378~~	101.603 ~~112.812~~
	VRT-04	669.530 ~~743.395~~	626.924 ~~696.088~~	288.191 ~~319.986~~	203.867~~22~~ ~~6.359~~	169.289~~1~~ ~~87.965~~	153.839 ~~170.811~~
	VRT-06	139.611 ~~155.014~~	130.727 ~~145.15~~	66.302 ~~73.616~~	57.062 ~~63.358~~	57.045 ~~63.338~~	56.834 ~~63.104~~
	VRT-10	217.852 ~~241.886~~	203.988 ~~226.493~~	98.185 ~~109.017~~	77.200 ~~85.717~~	67.775 ~~75.252~~	67.316 ~~84.186~~
Demand	DC-1	275.598 ~~306.002~~	258.060 ~~286.53~~	121.714 ~~135.142~~	92.890 ~~103.138~~	81.927 ~~90.965~~	81.872 ~~90.904~~
	DC-2	306.154 ~~339.929~~	286.670 ~~318.297~~	134.173 ~~148.975~~	101.183 ~~112.346~~	85.770 ~~95.232~~	73.590 ~~20.707~~
	DC-3	405.788 ~~450.556~~	379.965 ~~421.884~~	181.940 ~~202.012~~	131.963 ~~146.522~~	111.119 ~~123.378~~	101.603 ~~112.812~~
	DC-4	669.530 ~~743.395~~	626.924 ~~696.088~~	288.191 ~~319.986~~	203.867 ~~226.359~~	169.289 ~~187.965~~	153.839 ~~170.811~~
	DC-5	1,801.278 ~~2000.000~~	786.712 ~~877.939~~	414.481 ~~460.208~~	288.659 ~~320.505~~	226.870 ~~251.899~~	174.784 ~~194.066~~
	DC-6	139.611 ~~155.014~~	130.727 ~~145.15~~	66.302 ~~73.616~~	57.062 ~~63.358~~	57.045 ~~63.338~~	56.834 ~~63.104~~
	DC-7	448.261 ~~497.715~~	419.735 ~~466.042~~	196.056 ~~217.686~~	142.452 ~~158.167~~	124.416 ~~138.142~~	106.232 ~~117.951~~
	DC-8	844.444 ~~937.605~~	790.706 ~~877.939~~	414.481 ~~460.208~~	288.659 ~~320.505~~	226.870 ~~251.899~~	174.784 ~~194.066~~
	DC-9	65.472 ~~67.606~~	61.305 ~~63.304~~	47.590 ~~49.141~~	47.432 ~~48.979~~	46.977 ~~49.415~~	46.373 ~~56.734~~
	DC-10	217.852 ~~241.886~~	203.988 ~~226.493~~	98.185 ~~109.017~~	77.200 ~~85.717~~	67.775 ~~75.252~~	67.316 ~~84.186~~
	DC-11	844.444 ~~937.605~~	790.706 ~~877.939~~	414.481 ~~460.208~~	288.659 ~~320.505~~	226.870 ~~251.899~~	174.784 ~~194.066~~
	DC-Country	Demand Capacity Rate for DC-Country is comprised of two components of demand charge: (i) the Capacity Distance Rate; and (ii) the Pressure Reduction Rate. See tables Capacity Distance Rate (paragraph ~~clause~~ 4.1(b)), and Pressure Reduction Rate (paragraph ~~clause~~ 4.1(c)) below. These charges will be					

Customer Type	Tariff Class	Unit Rate – dollars per GJ of Chargeable Demand (CD) per annum ($/GJ.CD.pa) *Period ending 30 June ~~2016~~2021* Prices are real ~~2015-2016~~2020-21 GST exclusive dollars
		calculated for each Delivery Point and expressed as a single rate $/GJ.CD.per annum for billing purposes.

(b) DC Country Demand Capacity Rate, Component 1 – Capacity Distance Rate

Customer Type	Tariff Class	Distance Unit Rate – dollars per GJ of Chargeable Demand per annum per km ($/(GJ.CD).pa per km) *Period ending 30 June ~~2016~~2021* Prices are real ~~2015-2016~~2020-21 GST exclusive dollars					
		First 50 GJ of CD	Next 150 GJ of CD	Next 400 GJ of CD	Next 1000 GJ of CD	Next 2000 GJ of CD	Rest of CD
Demand	DC-Country	59.284 ~~65.825~~	55.512 ~~61.636~~	24.162 ~~26.827~~	16.107 ~~17.884~~	12.813 ~~14.227~~	9.733 ~~10.807~~
Rates apply per km of the straight line distance from the relevant country Receipt Point rounded up to the nearest 0.5 km as determined by the Service Provider							

(c) DC Country Demand Capacity Rate, Component 2 – Pressure Reduction Rate

Customer Type	Tariff Class	Pressure Reduction Unit Rate – dollars per GJ of Chargeable Demand per annum ($/GJ.CD.pa) *Period ending 30 June 2021~~2016~~* Prices are real ~~2015-2016~~2020-21 GST exclusive dollars					
		First 50 GJ of CD	Next 150 GJ of CD	Next 400 GJ of CD	Next 1000 GJ of CD	Next 2000 GJ of CD	Rest of CD
Demand	DC-Country	21.041 ~~23.363~~	19.703 ~~21.876~~	8.573 ~~9.519~~	5.717 ~~6.348~~	4.546 ~~5.048~~	3.453 ~~3.834~~

(d) Demand Capacity Rates for Discounted DCFR Tariff~~s~~

Customer Type	Tariff Class	Demand Capacity Unit Rate – dollars per GJ of Chargeable Demand per annum ($/GJ.CD.pa) *Period ending 30 June ~~2016~~2021*
Demand	DCFR-1 DCFR-6	Demand Capacity Rates set out in paragraph ~~clause~~ 4.1(a) for the relevant DC~~-6~~ tariff less 50%.

(e) Fixed Charges and Demand Throughput Rates for Discounted DMTFR Tariff

Customer Type	Tariff Class	Fixed Charge – dollars per annum *Period ending 30 June 2021~~2016~~*	Demand Throughput Unit Rates – ($/GJ) *Period ending 30 June ~~2016~~2021*
Demand	DMTFR-3	Fixed Charge set out in paragraph ~~clause~~ 4.1(i)) for the DMT-3 tariff less 50%.	Demand Throughput Rates set out in paragraph ~~clause~~ 4.1(f) for the DMT-3 tariff less 50%

(f) Demand Throughput Rate

Customer Type	Tariff Class	Demand Throughput Rate ($/GJ) *Period ending 30 June ~~2016~~2021* Minimum chargeable quantity of 833 GJ/month Prices are real ~~2015-2016~~2020-21 GST exclusive dollars		
		First 1667 GJ per month	Next 2500 GJ per month	Rest
Demand	DT	4.326 ~~5.16~~	3.505 ~~4.18~~	3.111 ~~3.71~~
Customer Type	**Tariff Class**	**Demand Throughput Rate ($/GJ) Period ending 30 June ~~2016~~2021 Prices are real ~~2015-2016~~2020-21 GST exclusive dollars**		
		First 41,667 GJ per month	**Next 41,667 GJ per month**	**Rest**
Demand	DMT-1	0	0.204 ~~0.227~~	0.186 ~~0.206~~
	DMT-2	0	0.204 ~~0.227~~	0.187 ~~0.208~~
	DMT-3	0	0.354 ~~0.394~~	0.303 ~~0.336~~
	DMT-4	0	0.786 ~~0.873~~	0.735 ~~0.816~~
	DMT-5	0	0.967 ~~1.073~~	0.944 ~~1.162~~

(g) Provision of Basic Metering Equipment Charge~~s~~

Customer Type	Tariff Class	Standing Charge : $/pa per Delivery Station Charges based on Delivery Point MHQ *Period ending 30 June ~~2016~~2021* Prices are real ~~2015-2016~~2020-21 GST exclusive dollars					
			MHQ<10 GJ/hr	MHQ 10 to < 50 GJ/hr	MHQ 50 to < 100 GJ/hr	MHQ 100 to <1000 GJ/hr	MHQ 1000 GJ/hr and greater
Demand	All Demand Classes	Single Run	7,466 ~~8,289~~	9,262 ~~10,284~~	15,806 ~~17,549~~	20,531 ~~22,797~~	26,297 ~~29,198~~
		Double Run	12,601 ~~13,991~~	16,194 ~~17,981~~	29,281 ~~32,511~~	38,733 ~~43,007~~	50,266 ~~55,811~~
Volume	VRT 03, 04, 06, 10	Single Run	7,466 ~~8,289~~	9,262 ~~10,284~~	15,806 ~~17,549~~	20,531 ~~22,797~~	26,297 ~~29,198~~
		Double Run	12,601 ~~13,991~~	16,194 ~~17,981~~	29,281 ~~32,511~~	38,733 ~~43,007~~	50,266 ~~55,811~~

(h) Volume Throughput Rate

Customer Type	Tariff Class	Volume Throughput Rate ($/GJ) *Period ending 30 June ~~2016~~2021* Prices are real ~~2015-2016~~2020-21 GST exclusive dollars					
Volume Individual	Block size (GJ per month)	First 0.63 GJ	Next 0.62 GJ	Next 1.50 GJ	Next 80.75 GJ	Next 333.5 GJ	All additional
	Block size (GJ per qtr)	First 1.89 GJ	Next 1.86 GJ	Next 4.50 GJ	Next 242.25 GJ	Next 1000.5 GJ	
	VI-Coastal	19.598 ~~21.195~~	6.436 ~~9.384~~	6.122 ~~8.886~~	6.050 ~~8.693~~	5.530 ~~7.612~~	2.991 ~~4.108~~
	VI-Country	19.173 ~~20.735~~	6.245 ~~9.105~~	5.907 ~~8.576~~	5.835 ~~8.383~~	5.305 ~~7.302~~	2.767 ~~3.798~~

Customer Type	Tariff Class	Volume Throughput Rate ($/GJ) *Period ending 30 June ~~2016~~2021* Prices are real ~~2015-2016~~2020-21 GST exclusive dollars			
Volume Boundary	Block size (GJ per month)	First 20.83 GJ	Next 20.83 GJ	Next 41.66 GJ	All additional
	Block size (GJ per qtr)	First 62.49 GJ	Next 62.49 GJ	Next 124.90 GJ	
	VB-Coastal	14.436 ~~19.075~~	5.174 ~~8.446~~	4.555 ~~7.998~~	4.410 ~~7.964~~
	VB-Country	14.122 ~~18.661~~	5.020 ~~8.195~~	4.395 ~~7.719~~	4.256 ~~7.685~~

(i) Fixed Charge

Customer Type	Tariff Class	Standing Charge – dollars per annum *Period ending 30 June ~~2016~~2021* Prices are real ~~2015-2016~~2020-21 GST exclusive dollars
Volume Individual	VI-Coastal & VI-Country	47.175 ~~49.497~~
Volume Boundary	VB-Coastal & VB-Country	1,228.536 ~~1,484.910~~
Demand	DMT-1	208,343 ~~231,327.41~~
	DMT-2	230,096 ~~255,481.11~~
	DMT-3	280,136 ~~311,040.74~~
	DMT-4	518,860 ~~576,102.53~~
	DMT-5	972,863 ~~1,080,192.18~~

(j) Ancillary Charges

Ancillary Charges applicable to all Tariff Classes **Period Ending 30 June ~~2016~~2021** **Prices are real ~~2015~~2020-~~2016~~ 2021 GST exclusive dollars**		
~~Fee Type~~Activity	Description	Charge
Hourly Charge – non-standard User-initiated requests and queries	The assessment of a User's or Prospective User's requirements, collation of information and provision of a response to a User or Prospective User in relation to non-standard requests and queries. Examples include, but are not limited to: • ~~large~~ customer connection or upgrade inquiries requiring additional investigation by the Service Provider due to the nature of the request; and • requests for measurement data additional to data provided in standard reports. Not applicable to the processing of ~~-~~connections and alterations which fall under Part 12A of the National Gas Rules.	$~~100~~153 ~~, plus $100~~ per hour ~~after the first hour~~
Disconnection (and Reconnection) – ~~(small and large customers~~Volume Customer Delivery Points[2]~~)~~	Disconnection of supply to a ~~single~~ Delivery Point ~~at the request of the User or Customer~~ and where the User ~~or Customer~~ also requests that the meter is not to be moved or removed. ~~For small customers, t~~The charge also covers the cost of subsequent reconnection made in accordance with National Energy Retail Law or National Gas Rules, the Reference Service Agreement, or in other circumstances (at the Service Provider's discretion, acting reasonably) where Delivery Station components and pipework are still installed at the Delivery Point and can be re-energised without alteration or replacement. Reconnection in circumstances other than those described above requires a new connection and a new Request to be made. A request for disconnection is also a request to remove ~~a~~ the Delivery Point from the Volume Customer List under the User's Service Agreement. The specific method of disconnection will be at the discretion of the Service Provider~~,~~ to ensure the site is able to be left in a safe state. Note: Disconnection for Demand Customer Delivery Points will be individually priced. ~~Reconnection of small customers in circumstances other than those described above and reconnection of large customers would require a new connection and a new Request for Service to be made.~~ ~~(This charge is for providing disconnection services in accordance with the relevant Applicable Law in force at the Effective Date.)~~	$~~182~~150 ~~Charge applies~~ per meter ~~meter set~~disconnection Note: $66 per meter for a wasted visit for disconnection[1]
~~Temporary disconnection for large customers~~	~~Disconnection of supply to a single Delivery Point on a temporary basis at the request of a User for a large customer (as classified by the Service Provider at the time the request is received). The charge also covers the cost of subsequent reconnection.~~ ~~A request for temporary disconnection of a large customer is not a request to remove a Delivery Point from the User's Service Agreement. Distribution charges will continue to apply and the MHQ and MDQ (if any) for a Delivery Point will be maintained.~~ ~~The specific method of isolation will be at the discretion of the Service Provider, to ensure the site is able to be left in a safe state.~~ ~~(This charge is for providing disconnection and reconnection in accordance with the relevant Applicable Law in force at the Effective Date.)~~	~~$150~~ ~~Charge applies per meter set~~

Ancillary Charges applicable to all Tariff Classes Period Ending 30 June ~~2016~~2021 Prices are real ~~2015~~2020 ~~2016~~ 2021 GST exclusive dollars		
~~Decommissioning and meter removal~~Abolishment	Permanent decommissioning of a Delivery Point, typically including the removal of the meter. A request for ~~decommissioning and meter removal~~abolishment is also a request to remove ~~a~~ the D~~d~~elivery ~~point~~ Point from the Customer List under the User's Service Agreement. The specific method of ~~disconnection~~ abolishment will be at the discretion of the Service Provider~~,~~ to ensure the site is able to be left in a safe state. Subsequent reconnection of the Delivery Point ~~is not included. Reconnection of small and large customers would~~ require~~s~~ a new connection and a new Request ~~for Service~~ to be made. ~~(This charge is for providing disconnection services in accordance with the relevant Applicable Law in force at the Effective Date.)~~	~~Charges apply per meter:~~ $1038 per ~~(i)~~ ~~m~~meter~~s~~ with a capacity of less than or equal to ~~6m~~^{3}25m^3/hr~~:~~ ~~$1050~~ Note: ~~(ii)~~ meters with a capacity of greater than ~~6m~~^{3}25m^3/hr ~~:~~ ~~$2188~~to be individually priced
Special Meter Reads[2]	For meter reading ~~requested by a User~~ for a Delivery Point ~~that is~~ in addition to the scheduled ordinary meter reading comprised in the ~~Haulage~~ Reference Service (for instance, when the meter reader makes a special visit to read a particular meter out of the usual meter reading route or schedule). This service must be scheduled by the User with the Service Provider in accordance with the ~~NSW Retail Market Procedures~~applicable market procedures.	$11.30 ~~14.80~~ per meter read Note: $11.30 charge applies per wasted visit[1]
Expedited reconnection	Reconnection of a Volume Customer Delivery Point in a shorter time-frame than required under the Applicable Law (typically on the day of the request for reconnection or as otherwise agreed between the User and the Service Provider). The reconnection is performed between 4.00 PM and 7.00 PM on a Business Day. The Service Provider's ability to perform the reconnection on the requested day will depend upon, among other factors, the extent of notice provided by the User (at a minimum, the request must be received prior to 2.00 PM)	$160 per meter for successful or attempted reconnection. Note this is in addition to the charge for disconnection.

Note~~s~~ to table:~~.~~

(1) Wasted visit involves the attendance by the Service Provider at a Delivery Point in response to a request for a Disconnection or Special Meter Read where the Service Provider is unable to gain safe or unhindered access to complete the requested activity.

(2) For the Disconnection and Special Meter Read Service activities, the User may request that the Service Provider provide an "AM" or "PM" appointment to undertake the activity. There is no additional cost for this request. An "AM" appointment is at any time between 7.00 AM and 12.00 mid-day and a "PM" appointment is at any time between mid-day and 5.00 PM on a Business Day. The Service Provider's ability to offer an appointment during the requested timeframe will depend upon, amongst other factors, the extent of notice provided by the User.

(3) The charges above are for providing the services in accordance with the relevant Applicable Law in force at the Effective Date.

(4) Volume Customer Delivery Point and Demand Customer Delivery Point means a Delivery Point which has been assigned to the Volume Tariff and Demand Tariff customer groups respectively.

~~Small customer and large customer have the meaning given to those terms in the National Energy Retail Law.~~

~~(k) Clean Energy Act repeal settlement[8]~~

~~Customer Type~~	~~Tariff Class~~	~~Clean Energy Act repeal settlement – dollars per annum~~ ~~*Period ending 30 June 2016*~~ ~~Prices are real 2015-2016 GST exclusive dollars~~
~~Volume Individual~~	~~VI Coastal & VI Country~~	~~-0.497~~

5 Initial Chargeable Demand~~, grandfathering of tariffs and assignment of 2010 AA V-Coastal and V-Country Tariff Classes~~

5.1 Initial Chargeable Demand for Delivery Points existing at the Effective Date

(a) For existing Delivery Points at the Effective Date that are assigned to a Tariff Class that includes ~~the~~ a demand capacity rate charge component (including Delivery Points assigned to the VRT tariff category), ~~if~~ the Chargeable Demand ~~applicable on~~from the Effective Date will be equal to the lesser of:

(i) the Chargeable Demand applicable to the Delivery Point on 30 June 2020; and

~~(i)~~(ii) ~~is greater than~~ the amount calculated in accordance with paragraph (b) below~~, the Service Provider will reduce the Chargeable Demand to equal the amount calculated in paragraph (b). These changes will be made with effect from the Effective Date.~~

(b) The maximum Chargeable Demand for a Delivery Point existing on the Effective Date in accordance with paragraph 5.1(a) is the larger of the following three values:

(i) the ninth highest Quantity of Gas withdrawn at that Delivery Point ~~in~~ on any one Day between 1 July ~~2014~~ 2019 and 30 June ~~2015~~2020;

(ii) ten times the MHQ of that Delivery Point on 30 June ~~2015~~2020; and

(iii) the MDQ of that Delivery Point on 30 June ~~2015~~2020.

(c) A reduction in ~~chargeable~~ Chargeable ~~demand~~ Demand under paragraph (a) above will not change the current Demand Reset Date (as defined in the Reference Service Agreement) for a Delivery Point and will not be regarded as a reduction request in any future reduction request initiated by the User.

~~5.2 Grandfathering of first response Tariffs~~

~~(a) From the Effective Date, the DCFR and DMTFR Demand Tariffs are only available for an existing Delivery Point that was considered to be assigned to these Tariff~~

~~[8] Consistent with the approach agreed by the AER in its November 2014 tariff variation notice, this Clean Energy Act repeal settlement tariff component applies only to the period ending 30 June 2016 and is not taken into account in the reference tariff variation mechanism at section 3 of the access arrangement for tariffs from 2016-17. As such, it will be removed from future reference tariff schedules.~~

Classes in the Service Provider's revenue forecast for the Access Arrangement Period.

(b) No other Delivery Points may qualify for assignment to the DCFR and DMTFR Tariff Classes from the Effective Date.

(c) The Service Provider will confirm whether the DCFR or DMTR Demand Tariffs are available to a particular Delivery Point in response to reasonable requests from Users or Customers.

5.3 Delivery Points assigned to the 2010 AA V-Coastal and V-Country Tariffs

From the Effective Date, all Delivery Points previously assigned to the V-Coastal and V-Country Tariff Classes will be re-assigned to the VI-Coastal and VI-Country Tariff Classes, respectively.

Schedule 3 Reference Tariff adjustment factors

~~Schedule 3~~

1 Automatic adjustment factor (A)

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

where:

A'_{t-1} is:

(a) zero when *t-1* refers to Financial Year 20~~15-16, Financial Year 2016-17, Financial Year 2017-18, Financial Year 2018-19~~20-21; or

(b) the value of A'_t determined in the Financial Year *t-1* for all other years;

and

$$A'_t = \frac{(L_{t-2}+U_{t-2}+C_{t-2}+T_{t-2})\left[(1+realWACC_{t-1})(1+realWACC_t)(1+CPI_{t-1})\right]}{(1-X_t)\sum_{x=1}^{n}\sum_{y=1}^{m} p_{t-1}^{xy} q_{t-2}^{xy}}$$

where:

L_{t-2} is the licence fee factor amount, as defined in ~~this~~ part 2 of this Schedule 3, for Financial Year *t-2*.

When *t-2* is Financial Year 20~~17-18~~19-20, L_{t-2} is~~:~~ ~~the sum of:~~

~~L_{2}2018-~~~~0~~19~~4~~*(1+*realWACC*~~20~~12019-20~~5~~)*(1+*CPI*~~20~~2019-20~~5~~)*(1+*realWACC*~~2016~~)*(1+*CPI*~~2016~~) + $L_{2019\text{-}20}$ *(1+*realWACC*~~2017~~)*(1+*CPI*~~2017~~) *(1+*realWACC*~~2018~~)*(1+*CPI*~~2018~~); and~~

~~L_{2015}*(1+*realWACC*~~2016~~)*(1+*CPI*~~2016~~) *(1+*realWACC*~~2017~~)*(1+*CPI*~~2017~~) *(1+*real WACC*~~2018~~)*(1+*CPI*~~2018~~); and~~

~~L_{2016}*(1+*realWACC*~~2017~~)*(1+*CPI*~~2017~~)*(1+*realWACC*~~2018~~)*(1+*CPI*~~2018~~); and~~

~~L_{2017}*(1+*realWACC*~~2018~~)*(1+*CPI*~~2018~~); and~~

~~L_{2018}~~

where:

$L_{2018\text{-}19\text{:}5}$ is the licence fee factor amount~~, as defined in this Schedule 3,~~ for Financial Year 20~~18-19~~3-14;

$L_{2019\text{-}20}$~~$_{:16}$~~	is the licence fee factor amount~~, as defined in this Schedule 3,~~ for Financial Year 20~~14-15~~19-20;
$realWACC_{2019\text{-}20}$~~$_{:5}$~~	~~means~~ is the real vanilla weighted average cost of capital ~~of 7.63 per cent~~determined for Financial Year 2019-20; and
$CPI_{2019\text{-}20:}$	~~means~~ is the value of CPI_t determined for the Financial Year 2019-20~~the consumer price index of 1.72 per cent~~;

~~CPI_{2016} means the consumer price index of 1.69 per cent;~~

~~CPI_{2017} means the consumer price index of 1.48 per cent;~~

~~CPI_{2018} means the consumer price index of 1.91 per cent;~~

U_{t-2}	is the UAG factor amount, as defined in part 2 of this ~~this~~ Schedule 3, for Financial Year *t-2*;

When *t-2* is Financial Year 201~~7-18~~9-20, U_{t-2} ~~is the sum of~~:

$U_{2018\text{-}19}$~~$_5$~~*(1+*realWACC*$_{2019\text{-}20}$~~$_6$~~)*(1+*CPI*$_{2019\text{-}20}$~~$_6$~~)
~~*(1+*realWACC*$_{2017}$~~)*(1+*CPI*$_{2017}$~~) *(1+*real WACC*$_{2018}$~~)*(1+*CPI*$_{2018}$~~); and~~+

~~U_{2016}*(1+*realWACC*$_{2017}$~~)*(1+*CPI*$_{2017}$~~)*(1+*realWACC*$_{2018}$~~)*(1+*CPI*$_{2018}$~~); and~~

~~U_{2017}*(1+*realWACC*$_{2018}$~~)*(1+*CPI*$_{2018}$~~); and~~

$U_{2019\text{-}20}$~~$_{18}$~~

where:

$U_{2018\text{-}19}$~~$_{:5}$~~	is the UAG factor amount ~~, as defined in this Schedule 3,~~ for Financial Year ~~2014-15~~2018-19;
$U_{2019\text{-}20:}$~~$_{16}$~~	is the UAG factor amount~~, as defined in this Schedule 3,~~ for Financial Year 20~~15-16;~~19-20;
$realWACC_{2019\text{-}20:}$~~$U_{2017\ 5}$~~	is the real vanilla weighted average cost of capital determined for Financial Year 2019-20; and
$CPI_{2019\text{-}20:}$	is the value of CPI_t determined for the Financial Year 2019-20.

~~is the UAG factor amount, as defined in this Schedule 3, for Financial Year 2016-17;~~

~~U_{2018} is the UAG factor amount, as defined in this Schedule 3, for Financial Year 2017-18;~~

C_{t-2}	is the Carbon Cost factor amount, as defined in part 2 of this ~~this~~ Schedule 3, for Financial Year *t-2*.

When *t-2* is the Financial Year 201~~4-15~~9-20, $C_{2019\text{-}20}$~~$_5$~~=0;

~~When *t-2* is Financial Year 2017-18, C_{t-2} is the sum of:~~

~~C_{2016}*(1+*realWACC*$_{2017}$)*(1+*CPI*$_{2017}$)*(1+*realWACC*$_{2018}$)*(1+*CPI*$_{2018}$); and~~

~~C_{2017}*(1+*realWACC*$_{2018}$)*(1+*CPI*$_{2018}$); and~~

~~C_{2018}~~

~~where:~~

~~C_{2016} is the Carbon Cost factor amount, as defined in this Schedule 3, for Financial Year 2015-16;~~

~~C_{2017} is the Carbon Cost factor amount, as defined in this Schedule 3, for Financial Year 2016-17;~~

~~C_{2018} is the Carbon Cost factor amount, as defined in this Schedule 3, for Financial Year 2017-18;~~

T_{t-2} is the Relevant Tax factor amount, as defined in part 2 of this Schedule 3, for Financial Year *t-2*;

When *t-2* is Financial Year ~~2017~~2019-20~~18~~, T_{t-2} is ~~the sum of~~:

$T_{2018-19}$*(1+*realWACC*$_{2019-20}$)*(1+*CPI*$_{2019-20}$)
~~+*(1+*realWACC*$_{2017}$)*(1+*CPI*$_{2017}$) *(1+*realWACC*$_{2018}$)*(1+*CPI*$_{2018}$); and~~

~~T_{2016}*(1+*realWACC*$_{2017}$)*(1+*CPI*$_{2017}$)*(1+*realWACC*$_{2018}$)*(1+*CPI*$_{2018}$); and~~

~~T_{2017}*(1+*realWACC*$_{2018}$)*(1+*CPI*$_{2018}$); and~~

$T_{2019-1820}$

where:

$T_{2018-1595}$ is the Relevant Tax factor amount~~, as defined in this Schedule 3,~~ for Financial Year 2018~~4~~-19~~5~~;

$T_{2019-2016\ 16}$ is the Relevant Tax factor amount~~, as defined in this Schedule 3,~~ for Financial Year 2019~~5~~-2016;

realWACC$_{2019-20}$ ~~*U*$_{2017\ 5}$~~ is the real vanilla weighted average cost of capital determined for Financial Year 2019-20; and

CPI$_{2019-20}$ is the value of CPI_t determined for the Financial Year 2019-20;

and where:

~~T_{2017} is the Relevant Tax factor amount, as defined in this Schedule 3, for Financial Year 2016-17;~~

~~T_{2018} is the Relevant Tax factor amount, as defined in this Schedule 3, for Financial Year 2017-18;~~

$realWACC_t$	is the real vanilla weighted average cost of capital as ~~per that~~ set out in the AER's Final Decision and updated annually within the JGN~~'s revenue~~ Revenue ~~model~~Model;
CPI_t	has the same meaning as set out in clause 3.2;
CPI_{t-1}	is the value of CPI_t determined in the Financial Year *t-1*;
X_t	has the same meaning as set out in clause 3.2;
p_{t-1}^{xy}	has the same meaning as set out in clause 3.2; and
q_{t-2}^{xy}	has the same meaning as set out in clause 3.2.

2 Factor amounts

2.1 Licence fee factor amount

The licence fee factor amount for a Financial Year is to be calculated as follows:

(a) the actual cost incurred in that Financial Year ~~by~~ the Service Provider as a result of any AER, IPART, AEMO, EWON or any other relevant regulator, authority or State or Commonwealth Government's authorisation fees, licence fees or statutory charges imposed on the Service Provider which is related to the ownership or operation of the Network ~~in the Financial Year~~,

minus

(b) the forecast of the cost incurred by the Service Provider as a result of any AER, IPART, AEMO, EWON or any other relevant regulator, authority or State or Commonwealth Government's authorisation fees, licence fees or statutory charges imposed on the Service Provider which is related to the ownership or operation of the Network included in the AER's relevant final decision for that Financial Year.

2.2 UAG factor amount

~~When *t-2* is Financial Year 2014-15, the UAG factor amount for *t-2* is to be calculated as follows:~~

~~(a) the benchmark cost incurred by the Service Provider for purchases of gas as UAG, calculated as the product of:~~

~~(i) gas receipts in gigajoules for Financial Year 2014-15;~~

~~(ii) the UAG Cost for Financial Year 2014-15 in $/gigajoule;~~

~~(iii) the UAG target rate of 2.34 per cent of gas receipts,~~

~~minus~~

~~(a) $13.1M ($2010), being the forecast of the total UAG costs included in the AER's final decision for Financial Year 2014-15 as set out in Schedule 8 of the 2010-15 Access Arrangement.~~

~~For all other Financial Years in the Access Arrangement Period, t~~The UAG factor amount for ~~the~~ a Financial Year is to be calculated as follows:

(a) the benchmark cost incurred by the Service Provider for purchases of ~~gas~~ Gas as UAG, calculated as the sum of:

the product of:

(i) aggregate ~~gas~~ Gas withdrawals at all daily metered Delivery Points in gigajoules during the Financial Year;

(ii) the UAG Cost for the Financial Year in $/gigajoule; and

(iii) the UAG component target rate ~~of 0.427 per cent of~~for daily metered withdrawals,

and the product of:

(iv) aggregate volume market residual receipts in gigajoules for the Financial Year, calculated as aggregate Gas receipts for the Financial Year less aggregate ~~gas~~ Gas withdrawals at all daily metered Delivery Points during the Financial Year;

(v) the UAG Cost for the Financial Year in $/gigajoule; and

(vi) the UAG component target rate ~~of 5.16per cent of~~for volume market residual receipts:

minus

(b) the forecast allowance of the total UAG costs included in the AER's relevant final decision for ~~the~~ that Financial Year.

noting that the following target rates apply in the above calculation for the relevant Financial Years:

Target rate	Where Financial Year is 2018-19 and 2019-20	For all other Financial Years
UAG component target rate for daily metered withdrawals	0.427%	0.665%
UAG component target rate for volume market residual receipts	5.16%	5.593%

Reference Tariffs will be adjusted in the event that total UAG costs cease to be a Network cost during the Access Arrangement Period.

2.3 Carbon Cost factor amount

The Carbon Cost factor amount for a Financial Year is to be calculated as follows:

(a) the actual cost incurred by the Service Provider, as approved by the AER, as a result of the operation of a Carbon Scheme, in the Financial Year,

minus

(b) the forecast of the cost incurred by the Service Provider, as approved by the AER, as a result of the operation of a Carbon Scheme and included in the AER's relevant final decision, in that Financial Year.

2.4 Relevant Tax factor amount

The Relevant Tax factor amount for a Financial Year is to be calculated as follows:

(a) the actual cost incurred by the Service Provider in paying any Relevant Tax~~,~~ in the Financial Year,

minus

(b) the forecast of the cost incurred by the Service Provider in paying any Relevant Tax included in the AER's relevant final decision, in that Financial Year.

2.5 Cost ~~Pass~~ pass ~~Through~~ through factor

$$PT_t = \frac{(1+PT'_t)}{(1+PT'_{t-1})} - 1$$

where:

PT'_{t-1} is:

(a) zero when t-1 refers to Financial Year ~~2014-15, Financial Year 2015-16, Financial Year 2016-17, Financial Year 2017-18, Financial Year~~ 201~~8~~-20~~19~~;

(b) the value of PT'_t determined in the Financial Year *t-1* for all other Financial Years in the Access Arrangement Period,

and

$$PT'_t = \frac{AP_t}{(1+CPI_t)(1-X_t)(1+A_t)\sum_{x=1}^{n}\sum_{y=1}^{m} p_{t-1}^{xy} q_{t-2}^{xy}}$$

where,

AP_t is:

(a) any Determined Pass Through Amount that the Service Provider proposes to pass through in whole or in part in Financial Year *t*; and / or

(b) any pass through amounts arising from cost pass through events (as that term is defined in the access arrangement applying to this Network in the immediately prior access arrangement period) occurring in the immediately prior access arrangement period that the Service Provider proposes to pass through in whole or in part in Financial Year *t*,

that includes an amount to reflect the time value of money between incurring the costs and recovering the costs, and excludes any amounts already passed through in Reference Tariffs;

CPI_t has the same meaning as set out in clause 3.2;

X_t has the same meaning as set out in clause 3.2;.

A_t is the automatic adjustment factor for Financial Year *t* as defined in this Schedule 3;

p_{t-1}^{xy} has the same meaning as set out in clause 3.2; and

q_{t-2}^{xy} has the same meaning as set out in clause 3.2.

Schedule 4 Reference Service Agreement

The terms and conditions for the Reference Service are set out in the separate Reference Service Agreement, 1 July ~~2015~~ 2020 – 30 June ~~2020~~2025. The Reference Service Agreement, 1 July ~~2015~~ 2020 – 30 June ~~2020~~ 2025 forms part of this Access Arrangement.

Schedule 5 Interconnection ~~of Embedded Network~~ Service

The Service Provider ~~ordinarily~~ will provide~~s~~ the Interconnection ~~of Embedded Network~~ Service ~~specified in clause 2.5 of the Access Arrangement~~ on the following terms and conditions.[9]

1.1 ~~Availability~~Requirements

~~(a) The Interconnection of Embedded Network Service is available to any Embedded Network Operator to establish a single Delivery Point connected to an Embedded Network.~~

~~(b) A Prospective User of an Interconnection of Embedded Network Service may request the Service Provider to provide and maintain an interconnection between a Delivery Point on the Network and a pipe or system of pipes constructed and operated by that Embedded Network Operator.~~

~~1.2 MDQ and MHQ~~

(a) In addition to the general requirements set out in Schedule 6, when seeking the Interconnection Service, the Prospective User must:

~~(a)~~(i) ~~The Embedded Network Operator will be required to~~ specify an annual quantity, MHQ and MDQ which fairly reflects the expected maximum annual, Hourly and Daily requirements at the proposed Receipt Point or Delivery Point (as applicable), as well as the 24 hour profile of hourly flow; ~~based on prior consumption where that information is available.~~

~~(b) The Service Provider's maximum obligation to deliver gas to the Delivery Point under Service Agreements with all Users is the MHQ in any Hour and the MDQ on any Day specified by the Embedded Network Operator and agreed by the Service Provider.~~

~~1.3 Metering~~

~~(a) The Service Provider will provide Measuring Equipment for the Delivery Point.~~

~~(b) Measuring Equipment will be designed to accurately measure the quantities specified by the Embedded Network Operator and will provide daily meter reading.~~

~~(c) The Measuring Equipment will be commissioned on the commencement of the first transportation service to the Embedded Network Delivery Point on behalf of any User.~~

~~(d) The Measuring Equipment will be decommissioned when there is no agreement with any User under which a Service is provided to the Delivery Point.~~

[9] The term "Daily", "Day", "Hourly" and "Quantity" used in this Schedule have the meaning set out in the Reference Service Agreement.

~~**1.4 demonstrate that it has or will have Authorisation of Embedded Network**~~

~~(a) Conditions precedent to the Service Provider providing an Embedded Network Service will include the Embedded Network Operator:~~

(ii) ~~having~~ in place all relevant authorisations, approvals and licences required to operate the ~~Embedded~~ Downstream Network or Upstream Facility; and

~~(i)~~(iii) provide detailed specifications, as reasonably requested by the Service Provider, including with respect to the design, operation and maintenance principles relevant to the Downstream Network or Upstream Facility.

(b) Without limiting the terms to be agreed in the Service Agreement, the Interconnection Service will be provided on the basis that:

(i) the location of the Delivery Point or Receipt Point will be at a location agreed to by the Service Provider, acting reasonably;

(ii) the Service Provider's maximum obligation to deliver Gas to the Delivery Point or to receive Gas at the Receipt Point will be the MHQ in any Hour and the MDQ on any Day;

(iii) the Service Provider will not be liable for, and will be indemnified, with respect to any claim for loss or damage in connection with the Downstream Network or Upstream Facility; and

(iv) the relevant requirements in Schedule 7 apply.

~~(ii) entering into an agreement with the Service Provider for an Interconnection of Embedded Network Service.~~

~~(b)~~(c) For the avoidance of doubt, an Interconnection ~~of Embedded Network~~ Service is separate from and additional to a s~~S~~ervice~~(s)~~ requested by a Prospective User or any other person for the transportation of ~~gas~~ Gas through the Network (including the Reference Service) from the Receipt Point or to the Delivery Point ~~to the Embedded Network Delivery Point~~.

~~**1.5 Delivery Station and Delivery Point**~~

~~(a) The location of the Embedded Network Delivery Point on the Network will be agreed by the Embedded Network Operator and the Service Provider. The Service Provider will only withhold its agreement to a location proposed by the Embedded Network Operator on the basis of legal, technical, operational or safety considerations.~~

~~(b) The hot tap connection to connect the Delivery Station to the Network will be designed and constructed in accordance with the Service Provider's usual standards and requirements, including Australian Standard 2885.~~

~~(c) The Delivery Station will comprise metering facilities sufficient to accurately measure the flow over the full range of anticipated flow conditions and will be designed and constructed in accordance with the Service Provider's usual standards and requirements, including Australian Standard 2885. If the hot tap connection is located at a point on the Network where the maximum allowable operating pressure is above 1,050kPa, the Delivery Station will include a remotely controlled isolation valve.~~

(d) Unless otherwise specified by the Service Provider, the Delivery Point between the Network and the Embedded Network Operator's pipe or system of pipes will be at the flange immediately downstream of the Delivery Station described above.

(e) All facilities upstream of the outlet flange of the Delivery Station will be designed, procured, constructed, installed, owned and operated by the Service Provider at the reasonable cost of the Embedded Network Operator.

(f) All facilities downstream of the outlet flange of the Delivery Station will be the responsibility of the Embedded Network Operator.

(g) Modifications to the Delivery Station and hot tap connection to the Network which are required:

(i) as a result of changes in law or applicable technical standards;

(ii) to enable enhanced measurement performance; or

(iii) as a result of changes in the flow conditions through the Embedded Network Delivery Point,

will be made by the Service Provider at the reasonable cost of the Embedded Network Operator unless the Service Provider has otherwise recovered the costs from Users of the Embedded Network Delivery Point.

1.6 Load Shedding

(a) The Embedded Network Operator will be subject to Load Shedding arrangements. The Embedded Network Operator must have facilities available to it to reduce or discontinue the withdrawal of Gas if called upon to do so.

(b) Unless there is an agreement on Load Shedding between the Service Provider and the Embedded Network Operator, all load of the Embedded Network Operator will be subject to Load Shedding priority 2 as described in Schedule 7. Network transportation services for the delivery of Gas to the Embedded Network Delivery Point will be subject to the same Load Shedding priority.

(c) The Embedded Network Operator will participate in gas balancing arrangements if required.

1.7 Cathodic Protection of Facilities

The Embedded Network Operator must design, install, and operate, any cathodic protection system necessary to protect its Embedded Network at its own cost. Cathodic protection facilities must be installed in such a manner as to avoid any interference which may be detrimental to the Service Provider's facilities and must be electrically isolated from the Service Provider's facilities.

1.8 Installation and Operation

In the interests of safety and ensuring the integrity of the Service Provider's pre-existing facilities, the Embedded Network Operator must cooperate with the Service Provider to establish, in a timely manner, appropriate arrangements and procedures for the safe installation and operation of the Embedded Network Operator's facilities, and for the management of emergency situations involving those facilities and the Network.

~~**1.9 Abandonment/Disconnection**~~

~~In the event that facilities cease to be used to take Gas at the Embedded Network Delivery Point then the Service Provider will, at the Embedded Network Operator's expense, ensure that the facilities are disconnected and isolated from the Service Provider's facilities. This requirement does not apply where the cessation of use is temporary.~~

~~**1.10** Approvals and Indemnity~~

~~(a) The Embedded Network Operator will provide the Service Provider with evidence that it has fulfilled all applicable statutory requirements and that it holds all necessary permits and licences in relation to its facilities downstream of the Embedded Network Delivery Point. That evidence must be provided before the commencement of any service to the Delivery Point, as well as subsequently, following the Service Provider's reasonable request.~~

~~(b) The Embedded Network Operator will be liable for and indemnify the Service Provider against any claim of liability in relation to or arising out of those facilities.~~

~~1.11~~1.2 **Charges**

(a) T~~T~~he following charges will be payable by the Prospective User, as will ~~will~~ be agreed ~~between the Embedded Network Operator and the~~by the Service Provider:

(i) ~~Charge~~ charge for engineering and associated investigations;

(ii) ~~Charge~~ charge for construction and provision of interconnection facilities; and

(iii) charge for construction and provision of equipment and facilities required to measure the Quantity of Gas delivered to or at the Delivery Point or Receipt Point~~Measuring Equipment~~.

(b) In addition, modifications may be required to the Network and/or the Service Provider's systems to facilitate the provision of the Interconnection Service. These requirements will vary depending on the nature and location of the Delivery Point or Receipt Point. The Prospective User will bear the reasonable costs of such modifications, whether identified before or after installation of the Delivery Point or Receipt Point, unless the Service Provider can recover costs from Users of the Delivery Point or Receipt Point.

Schedule 6 Request for sService procedures

~~Schedule 6~~

1 ~~Access and~~ Requests for Reference Services

1.1 Application

The following requirements apply to a User or Prospective User seeking:

(a) ~~In order to obtain~~ access to ~~a Negotiated Service or a~~the ~~Haulage~~ Reference Service; ~~a User~~

(b) to vary the MDQ or MHQ applicable to a Delivery Point under the Reference Service Agreement; or

(c) add a new Delivery Point to the Reference Service Agreement.

1.2 Request~~or Prospective User will observe the following requirements:~~

(a) The User or ~~A~~ Prospective User must lodge a Request in the form set out below or as published by the Service Provider from time to time on its website;

(b) The Request must also include the following information:

(i) if requesting the Reference Service for the first time (or if otherwise required by the Service Provider), sufficient information to demonstrate that the User or Prospective User satisfies the legal standing ~~and meet all financial obligations~~ and ~~demonstrate~~ creditworthiness ~~pursuant to clause 28 of the Reference Service Agreement~~requirements set out in part 3 of this Schedule 6, including provision of any security as reasonably requested by the Service Provider; and.

(ii) ~~Where~~ where the Request relates to a specific Delivery Point and the MHQ is expected to exceed 6m^3/Hour ~~a Request~~, as ~~must include as~~ a minimum, the ~~level of~~ details ~~envisaged~~ prescribed by this Schedule 6. Where the MHQ is expected to be less than 6m^3/Hour the Request must include such details as requested by the Service Provider from time to time.~~.~~

~~1.1~~

~~(a) A Prospective User may have only one active Request in relation to the same tranche of capacity for a particular Delivery Point.~~

(a) The Service Provider ~~will~~ must ~~within the shortest reasonable time and in any event within 20 Business Days of receiving a complete Request,~~ respond to the Request in accordance with rule 112 of the National Gas Rules.

2 Request for Non-Reference Service

2.1 Application

The following requirements apply where a Prospective User seeks access to a Non-Reference Service.

2.2 Request

(a) The Prospective User must lodge a Request in the form prescribed below or as published by the Service Provider from time to time on its website. The Prospective User must complete those aspects of the form which are relevant to the Non-Reference Service requested by the Prospective User.

(b) The Request must also include the following information:

(i) evidence to demonstrate that the Prospective User satisfies the legal standing and creditworthiness requirements set out in part 3 of this Schedule 6, including provision of any security as reasonably requested by the Service Provider; and

(ii) where the Request relates to a specific Delivery Point and the MHQ is expected to exceed 6m^3/Hour, as a minimum, the details prescribed by this Schedule 6. Where the MHQ is expected to be less than 6m^3/Hour the Request must include such details as requested by the Service Provider from time to time.

(c) Without limiting paragraphs (a) and (b) above, the Prospective User must provide sufficient information to enable the Service Provider to understand the nature and extent of the Prospective User's requirements.

(d) The Service Provider must respond to the Request in accordance with requirements under any Applicable Law, including the National Gas Rules.

3 Legal status and creditworthiness requirements

The following requirements apply where a Prospective User seeks access to a Reference Service or a Non-Reference Service.

(a) The Prospective User must be a resident in Australia or have a permanent establishment in Australia.

(b) Where the Prospective User is incorporated or constituted other than under the *Corporations Act 2001* (Cth), the Prospective User must demonstrate to the Service Provider's satisfaction the legal capacity of the Prospective User to enter into and perform the Service Agreement.

(c) The Prospective User must also demonstrate its financial capability to satisfy its obligations under the Service Agreement.

(d) Except where the credit support rules set out in Division 4 Part 21 of the National Gas Rules apply to all Delivery Points to which a Pipeline Service is to be provided, the Prospective User must have an acceptable credit rating (BBB or higher as rated by Standard & Poors or equivalent) or provide the Service Provider with security on terms and conditions acceptable to the Service Provider.

(e) For the purposes of paragraph (d) above, acceptable security may comprise:

(i) a guarantee of the Prospective User's obligations given by an entity, which has an acceptable credit rating; or

(ii) a bank guarantee given by an Australian bank (reasonably acceptable to the Service Provider) for an amount set out in the Reference Service Agreement

(if applicable) or otherwise as reasonably required by the Service Provider, having regard to the type and nature of services provided.

~~(b)~~

~~(c) A Request will lapse unless, within 20 Business Days of the Service Provider advising that capacity is available for the Request, the Prospective User has either entered into a Reference Service Agreement or commenced bona fide negotiations to do so.10~~

~~(d) Where there is sufficient capacity to meet a Request, there will be no queue.~~

~~(e) Where there is insufficient capacity to satisfy a Request, then a queue will be formed and the Queuing Policy will apply.~~

~~10 A Request for Service will not lapse in the event of a dispute being notified under the National Gas Law until that dispute has been resolved in accordance with the National Gas Law.~~

4 Request for ~~Service~~ service f~~F~~orm

~~Sections~~ Parts 4.1, 4.2, 4.3, 4.4, and 4.5 must be completed for all Requests.

~~Sections~~ Parts 4.6 and 4.7 must be completed for increased capacity at an existing site.

~~Sections~~ Parts 4.6, 4.7, 4.8, and 4.*9* must be completed for new ~~delivery~~ Delivery ~~points~~Points.

~~1~~4.1 User / Prospective User Information

Name of User / Prospective User:

A.B.N ----------

Contact Officer ----------

Position Title ----------

Telephone ----------

Email ----------

Fax ----------

Customer Contact Details:

Name ----------

Position Title ----------

Telephone ----------

Fax ----------

~~2~~4.2 Receipt Point Information

Receipt Point Location ----------

Entity supplying inlet gas ----------

34.3 Delivery Point Information

Delivery Point Business Name ----------

A.B.N. ----------

Delivery Point Street Address ----------

Postcode ----------

Delivery Point is Metres (N, S, E or W) from (nearest cross Street)

Delivery Point is located on the (N, S, E or W) side of the Street.

44.4 Transportation Information

Service Requested	~~Haulage~~ Reference Service / Interconnection Service / Negotiated Service
	Increase in MDQ or MHQ / change in Delivery Station characteristics

Service Commencement Date ----------

Duration of Service Agreement Sought ----------

ANZIC code(s) ----------

Gas Applications ----------

AQ (GJ/yr) Annual Quantity ----------

MDQ (GJ/day) Maximum Daily Quantity ----------

MHQ (GJ/hr) Maximum Hourly Quantity ----------

54.5 Delivery Station Pressure

Delivery Station Pressure (kPa) —

Metering pressure (1.38, 2.75, 7.0, 35, 100, if other please specify)

~~6~~4.6 Appliance & Gas Load Information

Appliance Type	Hourly Rate (MJ/hr)	Operating Capacity (%)	Hour/ Day	Days/ week	Weeks/ year	Total Annual Quantity (TJ/yr)
Total						

Do any of these appliances have pilots or small flow rates? If so, which ones?

~~7~~4.7 Fuel Conversion Information

(if applicable)

Current Fuel Type ---

Current Annual Consumption (GJ/yr) ---

~~8~~4.8 Delivery Station Information

If the customer requires other than a standard single run meter set, please specify:

Is the proposed meter set located indoors? Y / N

Is a security compound required? Y / N

~~9~~4.9 Delivery ~~station~~ Station location sketch

Please provide a sketch showing the proposed location of the meter set and the following:

1. length of ~~customer~~ service (path valve to meter set);
2. surface restoration from front boundary to meter set;
3. any walls to be pierced or other obstacle, e.g. stairs, retaining walls etc. to be negotiated;
4. all buildings and any other permanent structures on the site;

5. side and front building lines, and kerb line;

6. bearing (north).

Schedule 7 Operational Schedules

This Schedule 7 is structured as follows:

1 Load Shedding

1.1 Load Shedding Principles

(a) Load shedding is defined as a controlled interruption to, or reduction in, the delivery of gas to Delivery Points. If at any time for any reason there is, or the Service Provider reasonably believes or anticipates that there may be, a failure of supply or shortfall in supply in or to any part of the Network, the Service Provider is entitled to curtail or interrupt the receipt, transportation or delivery of Gas and is entitled to implement Load Shedding.

(b) Load shedding Shedding includes the process of the Service Provider contacting Users and/or User's customer Customers sites to notify them of a requirement to reduce or cease withdrawals of Gas from the Network, and again when the requirements are lifted or relaxed. All Users of the Network and their customers Customers are required to participate in and comply with Load Shedding and the provision of ELMS ELMS Data (as defined in the Reference Service Agreement).

(c) For prompt and effective responses during emergency events it is necessary for Users, if requested by the Service Provider, to take responsibility for notifying their customers Customers to reduce Gas withdrawals Load to meet the Load Shedding requirements for each site. The Service Provider may also Contact contact Customers to confirm or of individual sites by the Service Provider is used to support and reinforce the site contact procedures where deemed necessary by the Service Provider and to generate and monitor required levels and timeliness of User's cCustomer responses.

1.2 Load Shedding Priorities

Load Shedding will be implemented by the Service Provider according to the following schedule of priorities:. The term "Load" has the same meaning in the Reference Service Agreement.

Load Shedding Priority	Load Type
1	All interruptible Loads.
2	All Load at a Delivery Point which serves more than one customer Customer or other end End userConsumer, and where no arrangement exists between the Service Provider and the operator of the facilities beyond the Delivery Point for shedding loads served by those facilities. The agreed Load at a Delivery Point assigned to VB or VRT tariff category where an arrangement exists between the Service Provider and

Load Shedding Priority	Load Type
	the operator of facilities beyond the Delivery Point for shedding loads served by those facilities.
3	All Load at sites where ~~gas~~ Gas is not used for production.
4	All Load at sites where load is transferable to an alternative fuel.
5	Load that may be reduced without damage to product or plant.
6	Load that may be halted without damage to product or plant.
7	Load where halting will cause product damage.
8	Load where halting will cause plant damage.
9	Load not transferable to alternative fuel at hospital and essential service sites.
10	All Load at: • ~~-~~Volume Tariff Delivery Points expected to consume less than 10 TJ per annum (Residential, Commercial and Industrial); and • Delivery Points assigned to the VRT tariff category, except to the extent provided otherwise in an agreement between the Service Provider and the operator of the facilities beyond the Delivery Point for shedding loads served by those facilities.~~-~~

1.3 Restoration of Service

Where feasible, permission to resume withdrawing Gas from the Network will be ~~restored~~ given in reverse order to that in which Load Shedding was implemented.

1.4 Suspension

If a User fails to cease or reduce deliveries, withdrawals or taking of Gas from the Network as requested by the Service Provider in accordance with these principles and their Service Agreement (or fails to procure that withdrawals be ceased or reduced), the Service Provider may suspend the delivery of Gas to any relevant Delivery Point.

1.5 Liability

The Service Provider will not be liable for any losses, liabilities or expenses incurred by ~~the~~ any User, ~~and/or a User's customer~~ Customer or End Consumer arising from Load Shedding, where the Service Provider acts in accordance with the principles of this Access Arrangement in good faith.

1.6 Emergency Load Management Systems (ELMS)

(a) ELMS are computer based systems used by the Service Provider as an aid in identifying, contacting and recontacting Users and ~~'s Ce~~customers ~~sites~~ by the Service Provider in the event of a supply failure. Information held by the Service Provider relating to a User's Customer is available to the User upon request.

(b) Site and Network information is maintained through ELMS, in consultation with Users, and is used as the basis of operational implementation of Load Shedding by the Service Provider.

(c) Users must advise the Service Provider of the emergency contact details for the User's ~~customers~~ Customers at Demand Customer Delivery Points and ~~delivery~~ Delivery ~~points~~ Points at which ~~Negotiated~~ Non-Reference Services are provided

and must ensure that such contact details are current at all times for the purposes of ELMS.

(d) Users must advise the Service Provider of the emergency contact details for the User to enable communication between the Service Provider and the User during Load Shedding. User emergency contact personnel must be available to assist the Service Provider during Load Shedding if required.

(e) If during a Load Shedding event, or simulation of a Load Shedding event, the Service Provider ~~determines~~ identifies that site or ~~User's c~~Customer details have changed or do not match the Service Provider's records, the Service Provider may update its records on the basis of advice from the site or the ~~User's c~~Customer. ~~The User may then confirm the contact information provided.~~ This does not affect the Users' obligation to provide accurate and current information in any way.

2 ~~Establishment of Receipt Points~~ Requirements for new Receipt Points being established under an Interconnection Service

~~2~~

~~(a) Any person (including a User or Prospective User) seeking to interconnect with the Network for the purpose of enabling a User or Prospective User to deliver gas to the network for onward transportation may seek to establish a new Receipt Point.~~

~~(b) A new Receipt Point may only be established on the Network if the Service Provider consents to the proposed location of the new Receipt Point. The Service Provider will only withhold its consent to a proposed location of a new Receipt Point on the basis of technical, operational or safety considerations.~~

~~(c) The person seeking to establish a new Receipt Point must enter into an agreement with the Service Provider covering, without limitation, the following matters:~~

2.1 Minimum requirements for new Receipt Points and Equipment Upstream

~~(i)~~ The ~~new~~ Receipt Point, and the pipe or system of pipes upstream of the ~~new~~ Receipt Point, must comply with the following requirements in order to ensure that the integrity, safety and operating ability of the Network is not compromised:

~~(A)~~(a) the new Receipt Point must have an associated Receipt Station (as described in ~~the Service Agreement~~section 3 of this Schedule 7);

~~(B)~~(b) to safeguard against the hazards of over pressurisation of the Network, the Receipt Station must be equipped with overpressure protection facilities in accordance with the Service Provider's usual standards and requirements, including Australian Standard 2885, at the expense of the ~~person seeking to establish the new Receipt Point~~Prospective User;

~~(C)~~(c) a remotely controlled isolation valve operable by the Service Provider must be installed at the outlet of the Receipt Station upstream of the new Receipt Point, at the expense of the Prospective User~~person seeking to establish the new Receipt Point~~;

~~(D)~~(d) the new Receipt Point will be at the flange immediately upstream of the facilities described above, or as otherwise agreed by the Service Provider. All facilities

upstream of the new Receipt Point will be the responsibility of the Prospective Userperson seeking to establish the new Receipt Point;

(E)(e) the operational mode of a Receipt Station for a new Receipt Point must be compatible with the operational mode of the Network; and

(F)(f) the hot tap connection to connect the facilities to the Network will be designed and constructed with the Service Provider's usual standards and requirements, including Australian Standard 2885, at the expense of the Prospective Userperson seeking to establish the new Receipt Point;.

(ii) Modifications may be required to the Network and/or the Service Provider systems to integrate the new Receipt Point into the operation of the Network. Requirements will vary depending on the location of the new Receipt Point. The party seeking to establish the new Receipt Point will bear the reasonable costs of such modifications, whether identified before or after installation of the new Receipt Point unless the Service Provider can recover them from Users of the new Receipt Point.

2.2 Cathodic Protection of Facilities

(iii) The Prospective User person seeking to establish the new Receipt Point must design, install, and operate, any cathodic protection system necessary to protect its facilities at its own cost. Cathodic protection facilities must be installed in such a manner as to avoid any interference which may be detrimental to the Service Provider's facilities and must be electrically isolated from the Service Provider's facilities.

2.3 Equipment and facilities at Receipt Station

(a) The Receipt Station associated with the Receipt Point must include equipment and facilities as required by part 3 of this Schedule 7, and such equipment and facilities must be commissioned before the commencement of the first transportation service from the Receipt Point on behalf of any User.

(b) Any such equipment or facilities will be decommissioned if there is no Service Agreement under which the Interconnection Service is provided in respect of the Receipt Point.

2.4 Installation and Operation

In the interests of safety and ensuring the integrity of the Service Provider's pre-existing facilities, the Prospective User person seeking to establish the new Receipt Point must cooperate with the Service Provider to establish, in a timely manner, appropriate arrangements and procedures for:

(a) the safe installation and operation of the facilities described aboveabove,

(b) the testing of Gas in accordance with the Service Provider's requirements; and

(c) and for the management of emergency situations involving those facilities and the Network.

2.5 Gas specification

(a) Gas to be injected into the Network through a Receipt Point must comply with the specification applicable under the Reference Service Agreement from time to time (the **Specification**).

(b) Where the Service Provider changes the specification under the Reference Service Agreement, the Service Provider must use reasonable endeavours to notify the Prospective User prior to any change.

2.6 Measurement of quality

The Prospective User must provide the following:

(a) evidence to the satisfaction of the Service Provider that facilities and management plans will exist to enable satisfactory measurement of the quality of Gas at the Receipt Point;

(b) facilities to enable the Service Provider to monitor continuously the quality of Gas at the Receipt Point;

(c) evidence that quality measurement equipment at the Receipt Point will be maintained and calibrated in accordance with good industry practice and appropriate Australian and internationally recognised standards; and

(d) access to maintenance records for any quality measurement equipment at the Receipt Point.

2.7 Preventative measures

The Prospective User must satisfy the Service Provider that the Prospective User has or will have appropriate contractual or other legal rights and management procedures in place to prevent Gas which does not meet the Specification being injected into the Network at the Receipt Point.

2.8 User responsible for Gas Testing

The Prospective User must:

(a) test the Gas; or

(b) cause the Gas to be tested,

in accordance with the requirements of the Reference Service Agreement from time to time.

3 Requirements for new and existing Receipt Stations

3.1 Receipt Station to be at each Receipt Point

Prior to establishing, taking Gas at or using any relevant Receipt Point, Users must ensure that there is a Receipt Station at each Receipt Point that:

(a) is in physical operation at the Receipt Point;

(b) is immediately upstream of any connection to the Network; and

(c) meets the requirements of this part 3.

For the avoidance of doubt, the requirements in this part 3 also apply to a Prospective User seeking to establish a new Receipt Point under an Interconnection Service.

3.2 Requirements for Receipt Stations

Users must ensure that a Receipt Station referred to in paragraph 3.1:

(a) complies with specifications approved by the Service Provider from time to time; and

(b) conforms with the technical requirements for such facilities set out in this Access Arrangement or as published from time to time by the Service Provider, which requirements will be in accordance with good industry practice for this type of facility and conform to appropriate Australian and internationally recognised standards and codes (including AS2885).

3.3 Approval of for Receipt Stations

(a) Users must, at least 20 Business Days prior to installation or modification of a Receipt Station, submit specifications comprising design, operation and maintenance principles to the Service Provider.

(b) The User must not install or modify a Receipt Station unless and until the Service Provider gives written approval (which must not be unreasonably withheld or delayed) to the specifications submitted to it by the User.

3.4 Systems at a Receipt Station

Except to the extent to which the Service Provider has agreed to provide them, the Service Provider may require the User to provide any or all of the following systems at a Receipt Station:

(a) a filtration and liquid separation system (**Filtration and Liquid Separation System**);

(b) a Gas quality measurement system (**Gas Quality Measurement System**);

(c) a flow and pressure control system (**Flow and Pressure Control System**); and

(d) if the Service Provider reasonably requires, a Gas quantity measurement system (**Gas Quantity Measurement System**),

in accordance with the requirements set out in parts A-D below.

A. Filtration and Liquid Separation System

The Receipt Station shall include a Filtration and Liquid Separation System which meets the following requirements:

(a) the filter and separator shall not be fitted with a bypass;

(b) a minimum of 2 parallel filter and separator runs are to be installed, each capable of treating the MHQ of the Receipt Station at the lowest inlet pressure;

(c) the Gas filter shall be capable of removing all solid particles greater than 1 micrometre in diameter;

(d) the liquid separator shall remove all liquids travelling in the Gas stream; and

(e) the filter differential pressures and the liquid level of the separator holding vessel shall be continuously measured and the signals telemetered to the SCADA system.

B. Gas Quality Measurement System

B.1 Requirements of Gas Quality Measurement System

The Receipt Station shall include a Gas Quality Measurement System which enables the following measures of Gas quality to be determined continuously and telemetered in real time to the SCADA system:

(a) outlet temperature;

(b) relative density;

(c) Heating Value (as defined in the Reference Service Agreement);

(d) water dew point;

(e) carbon dioxide content;

(f) hydrocarbon dew point;

(g) oxygen content;

(h) total sulphur content;

(i) hydrogen sulphide content; and

(j) odorant content.

B.2 Measurement other than at a Receipt Station

(a) If the Service Provider consents, qualities other than the Gas outlet temperature may be measured at a location other than the Receipt Point. The Service Provider shall be entitled to withhold its consent if it reasonably believes that measurement at such other location will not give a true indication of the quality of Gas being delivered at the Receipt Point.

(b) If the Service Provider has consented to any quality being measured at a location other than the Receipt Point, the Service Provider may at any later time withdraw that consent and require the quality to be measured at the Receipt Point if it believes that measurement at such other location is not giving a true indication of the quality of Gas being delivered at the Receipt Point.

(c) If measured other than at a Receipt Station, all equipment used for measuring the qualities of Gas shall be designed, maintained and calibrated in accordance with good engineering practice and industry standards as agreed by the Service Provider.

B.3 Calibration and testing of equipment

(a) The Service Provider may at any time require the User to test or calibrate the Gas Quality Measurement System.

(b) The Service Provider is entitled to be present at a test or calibration of equipment and to receive copies of all test results.

(c) The Service Provider shall bear the costs of a test or calibration if the test or calibration results show that the Gas Quality Measurement System was accurate within the tolerances agreed between the Service Provider and the User.

(d) If the Gas Quality Measurement System is being tested or calibrated other than under paragraph (a) above:

(i) the User shall notify the Service Provider of the timing of such testing or calibration;

(ii) the Service Provider is entitled to attend such testing or calibration; and

(iii) promptly after receiving the results of such testing or calibration, the User must provide the Service Provider with a copy of those results.

C. Gas Quantity Measurement System

(a) A Receipt Station shall include a Gas Quantity Measurement System which ensures that continuous measurement is maintained in the event of routine calibration, equipment maintenance, individual equipment malfunction, loss of external electricity supplies or loss of telemetry signals.

(b) The Gas Quality Measurement System must be such that the Primary Measurements and Secondary Measurements required to convert the Primary Measurement to Standard Conditions and to calculate the Quantity of Gas are duplicated. The individual Primary and Secondary Measurements as well as the calculated Quantity of Gas shall be telemetered in real time to the SCADA system.[11]

(c) The Service Provider may at any time require the User to test or calibrate the Gas Quantity Measurement System.

(d) The Service Provider is entitled to be present at a test or calibration and to receive copies of all test results.

(e) The Service Provider shall bear the costs of a test or calibration if the test or calibration results show that the Gas Quantity Measurement System was accurate to within the tolerances agreed between the Service Provider and the User.

(f) If the Gas Quantity Measurement System is being tested or calibrated other than under paragraph (c) above;

(i) the User shall notify the Service Provider of the timing of such testing or calibration;

(ii) the Service Provider is entitled to attend such testing or calibration; and

(iii) promptly after receiving the results of such testing or calibration, the User shall provide the Service Provider with a copy of those results.

D. Flow and Pressure Control System

(a) The Flow and Pressure Control System shall be designed to:

[11] Refer to the Reference Service Agreement for definitions of "Primary Measurements", "Secondary Measurements", "Standard Conditions" and "Quantity of Gas".

(i) prevent over-pressure of the Network;

(ii) provide control of the Network pressures and inflows;

(iii) prevent backward flow through the Receipt Station;

(iv) enable the operation and balancing of a particular part of the Network when more than one Receipt Station supplies that part; and

(v) enable the immediate termination of supply.

(b) The Service Provider may on giving reasonable notice to the User:

(i) operate at the cost (such costs to be reasonable) of the User the Flow and Pressure Control System of any Receipt Station which is not owned by the Service Provider; and/or

(ii) modify the extent of the flow and pressure control requirements referred to in paragraph D(a) above applicable to any existing or proposed Receipt Station and require the User to undertake such work as, in the reasonable opinion of the Service Provider, is necessary to ensure that the Receipt Station complies with such modified requirements.

4 Requirements for new Delivery Points being established under an Interconnection Service

4.1 Measurement Equipment

(a) The Service Provider will provide Measuring Equipment (as defined in the Reference Service Agreement) relevant to the Delivery Point.

(b) The Measuring Equipment will be:

(i) designed to accurately measure the quantities specified by the Prospective User and provide daily meter reading; and

(ii) commissioned before the commencement of the first transportation service to the Delivery Point.

(c) The Measuring Equipment will be decommissioned by the Service Provider if there is no Service Agreement in respect of the Interconnection Service for that Delivery Point.

4.2 Delivery Station and Delivery Point

(a) The Delivery Station will comprise metering facilities sufficient to accurately measure the flow over the full range of anticipated flow conditions and will be designed and constructed in accordance with the Service Provider's usual standards and requirements, including Australian Standard 2885.

(b) If the hot tap connection to connect the Delivery Station at the Delivery Point to the Network is located at a point on the Network where the maximum allowable operating pressure is above 1,050kPa, the Delivery Station will include a remotely controlled isolation valve.

(c) The hot tap connection to connect the Delivery Station at the Delivery Point to the Network will be designed and constructed in accordance with the Service Provider's usual standards and requirements, including Australian Standard 2885.

(d) Unless otherwise specified by the Service Provider, the Delivery Point between the Network and the Prospective User's pipe or system of pipes will be at the flange immediately downstream of the Delivery Station. Accordingly, all facilities:

(i) upstream of the outlet flange of the Delivery Station will be designed, procured, constructed, installed, owned and operated by the Service Provider at the reasonable cost of the Prospective User; and

(ii) downstream of the outlet flange of the Delivery Station will be the responsibility of the Prospective User.

(e) Modifications to the Delivery Station and hot tap connection to the Network which are required:

(i) as a result of changes in the Applicable Law or applicable technical standards;

(ii) to enable enhanced measurement performance; or

(iii) as a result of changes in the flow conditions through the Delivery Point,

will be made by the Service Provider at the reasonable cost of the Prospective User unless the Service Provider has otherwise recovered the costs from Users of the Delivery Point.

4.3 Load Shedding

(a) The Delivery Point will be subject to Load Shedding arrangements set out in part 1 of this Schedule. The Prospective User must have facilities available to it to reduce or discontinue the withdrawal of Gas if called upon to do so.

(b) Unless there is an agreement on Load Shedding between the Service Provider and the Prospective User, all load of the Delivery Point will be subject to Load Shedding priority 2 as described in part 1 of this Schedule. Network transportation services for the delivery of Gas to the Delivery Point will be subject to the same Load Shedding priority.

(c) The Prospective User will participate in Gas balancing arrangements if required.

4.4 Cathodic Protection of Facilities

The Prospective User must design, install, and operate, any cathodic protection system necessary to protect its Downstream Network at its own cost. Cathodic protection facilities must be installed in such a manner as to avoid any interference which may be detrimental to the Service Provider's facilities and must be electrically isolated from the Service Provider's facilities.

4.5 Installation and Operation

In the interests of safety and ensuring the integrity of the Service Provider's facilities, the Prospective User must cooperate with the Service Provider to establish, in a timely manner, appropriate arrangements and procedures for the safe installation and operation

of the Prospective User's equipment and facilities, and for the management of emergency situations involving that equipment and facilities, and the Network.

4.6 Abandonment/Disconnection

In the event that facilities cease to be used to take Gas at or downstream of the Delivery Point, then the Service Provider will, at the Prospective User's expense, ensure that the User's facilities are disconnected and isolated from the Service Provider's facilities. This requirement does not apply where the cessation of use of the Delivery Point is temporary.

Schedule 8 Return on debt extrapolation

1 Extrapolation methodology

1.1 Extrapolation of the RBA data source using the AER extrapolation methodology

At each publication date, the RBA BBB yield at an effective tenor of 10 years is calculated as:

$$Yield_{10}^{RBA\,AER} = Yield_{10}^{RBA} + (10 - Tenor_{10}) * \frac{(Spread_{10} - Spread_{7})}{(Tenor_{10} - Tenor_{7})}$$

Where:

$Yield_{10}^{RBA\,AER}$ is the extrapolated RBA BBB yield at the effective 10 year tenor using the AER methodology;

$Yield_{10}^{RBA}$ is the RBA BBB yield estimate at the target 10 year tenor;

$Spread_{10}$ is the RBA's estimated spread to swap at the target 10 year tenor;

$Spread_{7}$ is the RBA's estimated spread to swap at the target 7 year tenor;

$Tenor_{10}$ is the effective tenor associated with the RBA's estimated spread to swap at the target 10 year tenor; and

$Tenor_{7}$ is the effective tenor associated with the RBA's estimated spread to swap at the target 7 year tenor.

1.2 Extrapolation of the BVAL data source using the AER extrapolation methodology

(a) Calculation of the BVAL 10 year yield extrapolated yield

The BVAL 10 year yield extrapolated yield using the AER methodology is given by:

$$Yield_{10}^{BVAL\,AER} = Yield_{T}^{BVAL} + \left(Yield_{10}^{RBA\,AER} - Yield_{T}^{RBA\,AER}\right)$$

Where:

$Yield_{10}^{BVAL\,AER}$ is the extrapolated BVAL yield at the effective 10 year tenor using the AER methodology;

T is the longest available tenor of 10 years or less at which the Bloomberg BVAL curve reports fair value yields.

$Yield_{T}^{BVAL}$ is the Bloomberg BVAL fair value yield for tenor T;

$Yield_{10}^{RBA\,AER}$ is the extrapolated RBA BBB yield at the effective 10 year tenor, extrapolated using the AER methodology in accordance with 1.1 above; and

$Yield_{T}^{RBA\,AER}$ is the RBA BBB yield estimate at effective tenor T, calculated in accordance with paragraph (b) below.

(b) Calculation of the RBA yield at effective tenor T

The RBA BBB yield at effective tenor T is calculated as:

$$Yield_T^{RBA\,AER} = Yield_T^{RBA} + (T - Tenor_T) * \frac{\left(Spread_{T_{high}} - Spread_{T_{low}}\right)}{\left(Tenor_{T_{high}} - Tenor_{T_{low}}\right)}$$

Where:

T	is the longest available tenor of 10 years or less at which the Bloomberg BVAL curve reports fair value yields;
T_{low}	is the target tenor associated with the highest effective tenor available from RBA data that is lower than T. If no effective tenor is lower than T then T_{low} is the lowest target tenor from RBA data. Notwithstanding this, if T is greater than all RBA effective tenors then T_{low} is equal to the second highest effective tenor available from RBA data;
T_{high}	is the target tenor associated with the lowest effective tenor available for RBA data that is higher than T. If no effective tenor is higher than T then T_{high} is equal to the highest target tenor from RBA data. Notwithstanding this, if T is less than all RBA effective tenors then T_{high} is equal to the second lowest effective tenor available from RBA data;
$Yield_T^{RBA}$	is the RBA BBB yield for target tenor T;
$Tenor_T$	is the effective tenor associated with target tenor T;
$Spread_{T_{high}}$	is the RBA's estimated spread to swap at target tenor T_{high};
$Spread_{T_{low}}$	is the RBA's estimated spread to swap at target tenor T_{low};
$Tenor_{T_{high}}$	is the effective tenor associated with target tenor T_{high}; and
$Tenor_{T_{low}}$	is the effective tenor associated with target tenor T_{low}.

Schedule 9Schedule 8 Receipt Point Pressures

The Service Provider will notify Users of changes to the requirements set out in this schedule, and publish the updated schedule on its website. The Service Provider may also add minimum or maximum flow requirements for flow controlled Receipt Points.

1 Country Network Sections of NSW Distribution System and Central West Distribution System

Upstream ~~pipeline~~Facility (Allows receipt of Gas from this asset, which does not form part of the Network)	Location of Receipt Point	Max. Receipt Pressure at Receipt Point (kPa)	Min. Receipt Pressure at Receipt Point (kPa)	Areas of Network downstream of Receipt Point
Country Network Sections				
MSPS- Moomba to Young	West Wyalong	6895	1750	West Wyalong
MSPS - Young to Lithgow	Cowra	10 ~~000~~200	1750	Cowra
	Blayney	10 200~~000~~	1750	Blayney
	Orange	10 200~~000~~	1750	Orange
	Millthorpe	10 200~~000~~	1750	Millthorpe
	Bathurst	10 200~~000~~	1750	Bathurst, Kelso, Raglan
	Oberon	10 200~~000~~	1750	Oberon
	Lithgow	10 200~~000~~	1750	Lithgow
	Wallerawang	10 200~~000~~	1750	Wallerawang
MSPS - Young to Wagga	Young	10 200~~000~~	1750	Young
	Cootamundra	10 200~~000~~	1750	Cootamundra
MSPS - Burnt Creek to Griffith	Junee	10 200~~000~~	1750	Junee
	Coolamon	6895*	1750	Coolamon
	Ganmain	6895*	1750	Ganmain
	Narrandera	6895*	1750	Narrandera
	Rockdale	6895*	1750	Rockdale
	Leeton	6895*	1750	Leeton, Yanko
	Murrami	6895*	1750	Murrami
	Yoogali (Griffith)	6895*	1750	Griffith
MSPS - Young to Wilton	Boorowa	6895	1750	Boorowa

Upstream ~~pipeline~~Facility (Allows receipt of Gas from this asset, which does not form part of the Network)	Location of Receipt Point	Max. Receipt Pressure at Receipt Point (kPa)	Min. Receipt Pressure at Receipt Point (kPa)	Areas of Network downstream of Receipt Point
	Yass	6895	1750	Yass
	Goulburn	6895	1750	Goulburn
	Marulan	6895	1750	Marulan
	Sally's Corner	6895	1750	Exeter, Bundanoon
	Moss Vale	6895	1750	MossVale, Berrima
	Bowral	6895	1750	Bowral, Mittagong
	Bargo	6895	1750	Bargo, Picton, Tahmoor
Central West Pipeline – Marsden to Dubbo	Dubbo[cw]	10~~,~~ 200~~000~~	1750	Dubbo, Wellington
	Dubbo West[cw]	10~~,~~ 200~~000~~	1750	Dubbo West
	Forbes[cw]	10~~,~~ 200~~000~~	1750	Forbes
	Parkes[cw]	10~~,~~ 200~~000~~	1750	Parkes
	Narromine[cw]	10~~,~~ ~~0~~20000	1750	Narromine

* Upgrades to the Service Provider's facilities are required to accommodate 10 200 ~~000~~ kPa.
"cw" Network Section forms part of the Central West Distribution ~~Network~~ System.

2 Coastal Network Sections of the NSW Distribution System and the ~~Wilton-Newcastle Pipeline~~Northern Trunk and the ~~Wilton~~ Southern Trunk ~~Wollongong Pipeline~~

Upstream ~~pipeline~~Facility (Allows receipt of Gas from this asset, which does not form part of the Network)	Location of Receipt Point	Max. Receipt Pressure at Receipt Point (kPa)	Min. Receipt Pressure at Receipt Point (kPa)	Areas of Network downstream of Receipt Point
Wilton~~-~~-Newcastle Network Section				
Eastern Gas Pipeline (EGP)	Horsley Park CTS	4500^^	3600+	Sydney Blue Mountains Central Coast Newcastle Lower Hunter
Eastern Gas Pipeline	Wilton CTS (EGP)	4500^^	3800+	
Moomba Sydney Pipeline System (MSP)	Wilton CTS (MSP)	4500^^~~6895~~	3800+	
Camden Coal Seam Methane	Rosalind Park CTS	4500^^	3800+	
Newcastle Gas Storage Facility (NGSF) ~~Tomago Hexham Pipeline (proposed)~~	Hexham CTS[1] ~~(proposed)~~	5,000**	2,200+	
Newcastle Gas Storage Facility (NGSF)	Tomago CTS	1050	525+	
Wilton~~-~~-Wollongong Network Section				
Eastern Gas Pipeline (EGP)	Port Kembla CTS	3,500	2,600+	Wollongong Shellharbour Kiama
Eastern Gas Pipeline (EGP)	Albion Park CTS	~~14,895~~1050	~~3,000~~525+	
Moomba Sydney Pipeline (MSP)	Wilton CTS (MSP)	~~6895~~4500^^	3800+	

If marked "+" then the Minimum Receipt Pressure may be subject to future increase to the Maximum Receipt Pressure

^^ 4500 kPa maximum Receipt Pressure limitation is in place to satisfy technical code & licence requirements due to third party activity. Maximum Receipt Pressures will be reinstated to 6895 kPa when code and licence requirements allow.

** Upgrades to the Service Provider's facilities are required to accommodate 6,895 kPa.

~~[1] Hexham CTS is expected to be established prior to 1 July 2015.~~

Schedule 9 ~~Maps of the Network~~CESS Contingent Payment Index

The Contingent Payment Index is calculated for the Access Arrangement Period as follows:

(a) Calculate the arithmetic average of the annual unplanned SAIFI per 1,000 customers for each of the four Financial Years from 1 July 2020 to 30 June 2024, measured for each year *t* as follows:

$$Unplanned\ SAIFI_t = \frac{\sum_{i=1}^{12} OUF_i^t}{(C^{t-1} + C^t)/2} \times 1000$$

where:

$\sum_{i=1}^{12} OUF_i^t$ is the summation of the count of outage events for all customers on the Network sourced from annual reporting to the AER for the 12 months in Financial Year *t*;

C^{t-1} is the total customer numbers on the Network at the end of the Financial Year *t* – 1 sourced from annual reporting to the AER;

C^t is the total customer numbers on the Network at the end of the Financial Year *t* sourced from annual reporting to the AER.

(b) Calculate the arithmetic average of the annual unplanned SAIDI per 1,000 customers for each of the four Financial Years from 1 July 2020 to 30 June 2024, measured for each year t as follows:

$$Unplanned\ SAIDI_t = \frac{\sum_{i=1}^{12} OUD_i^t}{(C^{t-1} + C^t)/2} \times 1000$$

where:

$\sum_{i=1}^{12} OUD_i^t$ is the summation of the total number of customer hours off supply lost through unplanned losses of supply for all instances on the Network where 5 or more customers were affected sourced from annual reporting to the NSW Department of Planning and Environment (or equivalent) for the 12 months in Financial Year *t*;

C^{t-1} is the total customer numbers on the Network at the end of the Financial Year *t* – 1 sourced from annual reporting to the AER; and

C^t is the total customer numbers on the Network at the end of the Financial Year *t* sourced from annual reporting to the AER.

(c) Calculate the arithmetic average of the annual publicly reported leaks for mains and services per kilometre of main in the Network for each of the four Financial Years from 1 July 2020 to 30 June 2024, measured for each year t as follows:

$$Mains + ServicesLeaks_t = \frac{\sum_{i=1}^{12} MAL_i^t + \sum_{i=1}^{12} SEL_i^t}{(L^{t-1} + L^t)/2}$$

where:

$\sum_{i=1}^{12} MAL_i^t$ is the summation of the total number of publicly reported mains leaks on the Network sourced from annual reporting to the AER for the 12 months in Financial Year *t*;

$\sum_{i=1}^{12} SEL_i^t$ is the summation of the total number of publicly reported services leaks on the Network sourced from annual reporting to the AER for the 12 months in Financial Year *t*;

L^{t-1} is the total length of mains in the Network at the end of the Financial Year *t* – 1 sourced from annual reporting to the AER; and

L^t is the total length of mains in the Network at the end of the Financial Year *t* sourced from annual reporting to the AER.

(d) Calculate the arithmetic average of the annual publicly reported leaks for meters per 1,000 customers for each of the four Financial Years from 1 July 2020 to 30 June 2024, measured for each year t as follows:

$$MeterLeaks_t = \frac{\sum_{i=1}^{12} MTL_i^t}{(C^{t-1} + C^t)/2} \times 1000$$

where:

$\sum_{i=1}^{12} MTL_i^t$ is the summation of the total number of publicly reported meter leaks on the Network sourced from annual reporting to the AER for the 12 months in Financial Year *t*;

C^{t-1} is the total customer numbers on the Network at the end of the Financial Year *t* – 1 sourced from annual reporting to the AER; and

C^t is the total customer numbers on the Network at the end of the Financial Year *t* sourced from annual reporting to the AER.

(e) Calculate the arithmetic average of the annual poor pressure events for mains, services and meters per 1,000 customers for each of the four Financial Years from 1 July 2020 to 30 June 2024, measured for each year t as follows:

$$PoorPressureEvents_t = \frac{\sum_{i=1}^{12} MAPPE_i^t + \sum_{i=1}^{12} SEPPE_i^t + \sum_{i=1}^{12} + MEPPE_i^t}{(C^{t-1} + C^t)/2} \times 1000$$

where:

$\sum_{i=1}^{12} MAPPE_i^t$ is the summation of the total number of poor pressure events on mains for the Network sourced from annual reporting to the AER for the 12 months in Financial Year *t*;

$\sum_{i=1}^{12} SEPPE_i^t$ is the summation of the total number of poor pressure events on services for the Network sourced from annual reporting to the AER for the 12 months in Financial Year *t*;

$\sum_{i=1}^{12} MEPPE_i^t$ is the summation of the total number of poor pressure events on meters for the Network sourced from annual reporting to the AER for the 12 months in Financial Year *t*;

C^{t-1} is the total customer numbers on the Network at the end of the Financial Year *t* – 1 sourced from annual reporting to the AER; and

C^t is the total customer numbers on the Network at the end of the Financial Year *t* sourced from annual reporting to the AER.

(f) Calculate the arithmetic average of the annual rate of meter read estimation for each of the four Financial Years from 1 July 2020 to 30 June 2024, measured for each year t as follows:

$$EstimationRate_t = \frac{\sum_{i=1}^{12} EREADS_i^t}{\sum_{i=1}^{12} TREADS_i^t}$$

where:

$\sum_{i=1}^{12} EREADS_i^t$ is the summation of the total number of estimated cyclic meter reads for the Network sourced from annual reporting to the AER for the 12 months in Financial Year *t*;

$\sum_{i=1}^{12} TREADS_i^t$ is the summation of the total number of cyclic meter reads for the Network sourced from annual reporting to the AER for the 12 months in Financial Year *t*; and

where estimated and actual meter reads are both adjusted to remove reads that were estimated because access was not possible for reasons outside of the Service Provider's control (e.g. because a gate was locked, the meter was obstructed or removed, no one was home, access was refused, or access was unsafe).

(g) Convert each of the averages from the measures in paragraphs (a), (b), (c), (d), (e) and (f) above into index scores using the following formula:

$$Index_n = 200 - \left(\frac{Actual_n}{Target_n}\right) \times 100$$

where:

$Index_n$ is the index score for each measure $n = 1,2,3,4,5,6$ corresponding to the measures in paragraphs (a), (b), (c), (d), (e) and (f) above respectively;

$Actual_n$ is the arithmetic average of the actual performance for each measure $n = 1,2,3,4,5,6$ calculated as per paragraphs (a), (b), (c), (d), (e) and (f) above;

$Target_n$ is the arithmetic average of the actual performance for each measure $n = 1,2,3,4,5,6$ as follows:

Unplanned SAIFI	$n = 1$	$Target_1 = 3.33$
Unplanned SAIDI	$n = 2$	$Target_2 = 40.95$
Mains and services leaks	$n = 3$	$Target_3 = 0.16$
Meter leaks	$n = 4$	$Target_4 = 8.15$
Poor quality events	$n = 5$	$Target_5 = 0.92$
Meter read estimation rate	$n = 6$	$Target_6 = 5.93\%$

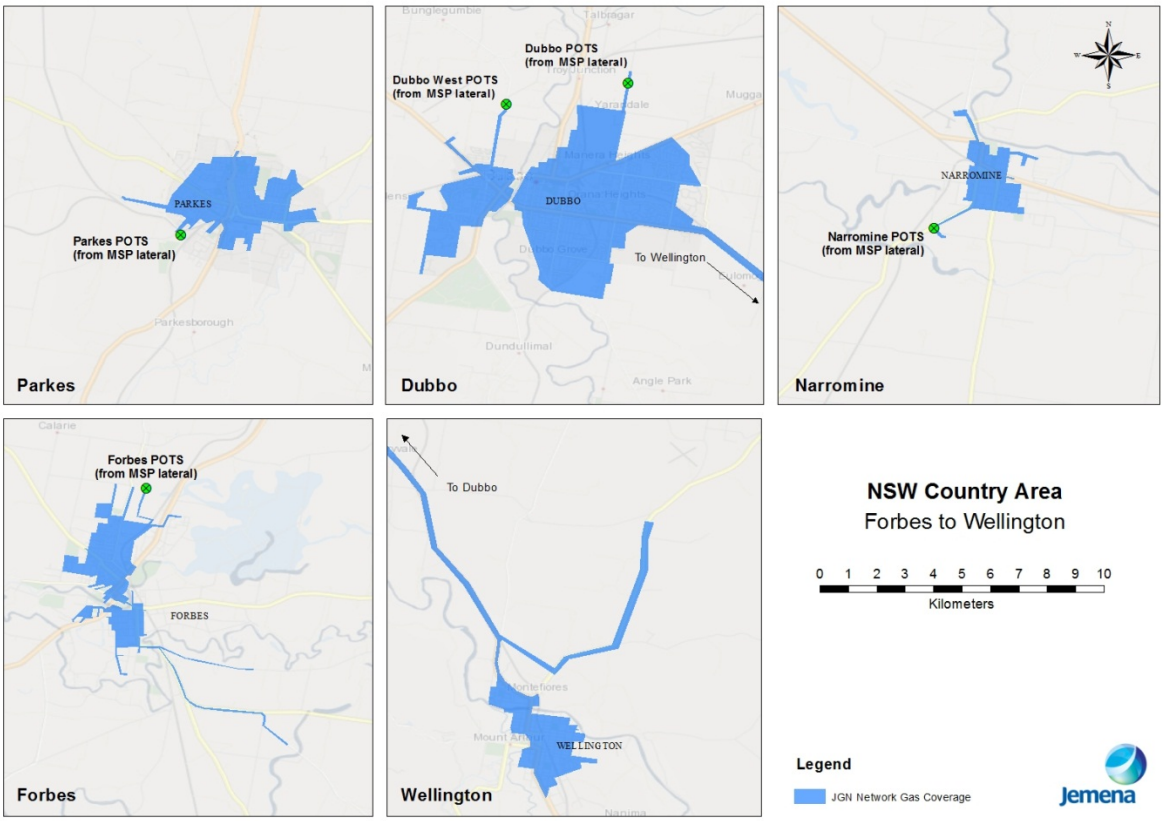
(h) Calculate the weighted average of the index scores calculation in paragraph (g) above for each of the measures $n = 1,2,3,4,5,6$ according to the following weights:

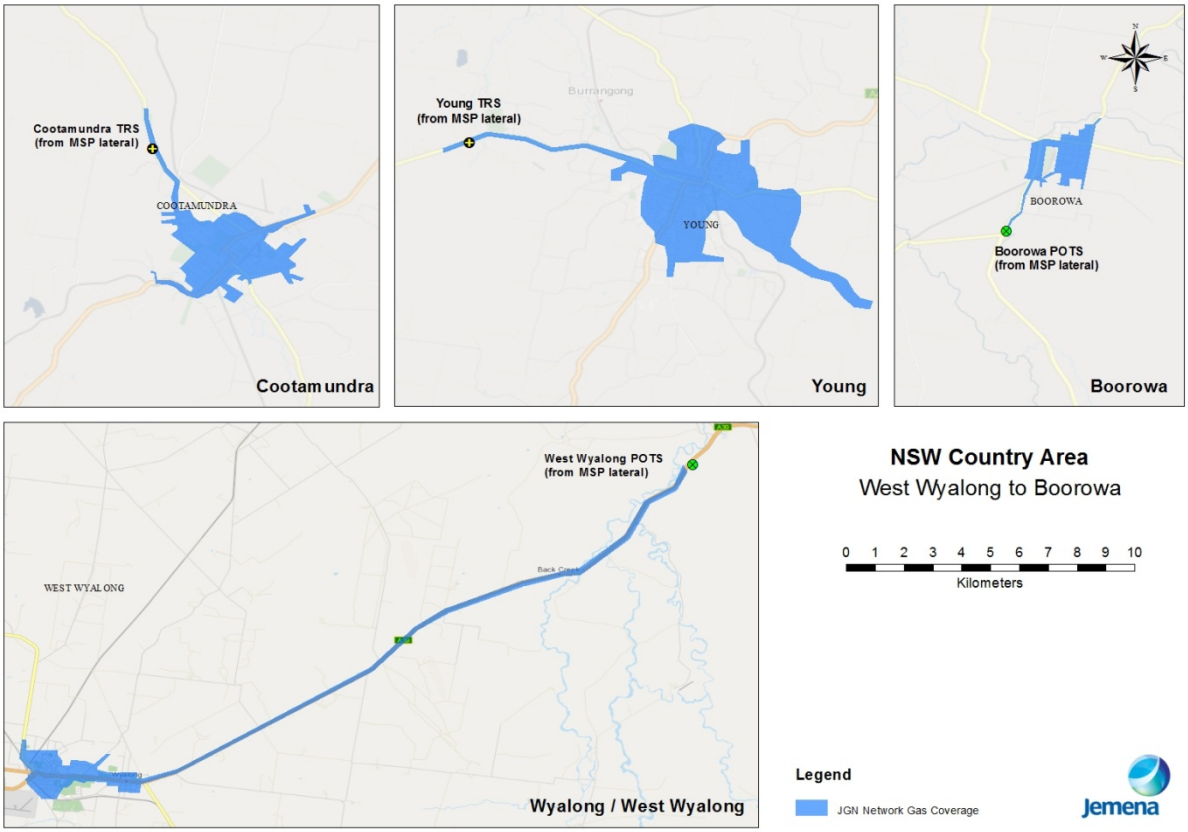
Unplanned SAIFI	$n = 1$	10%

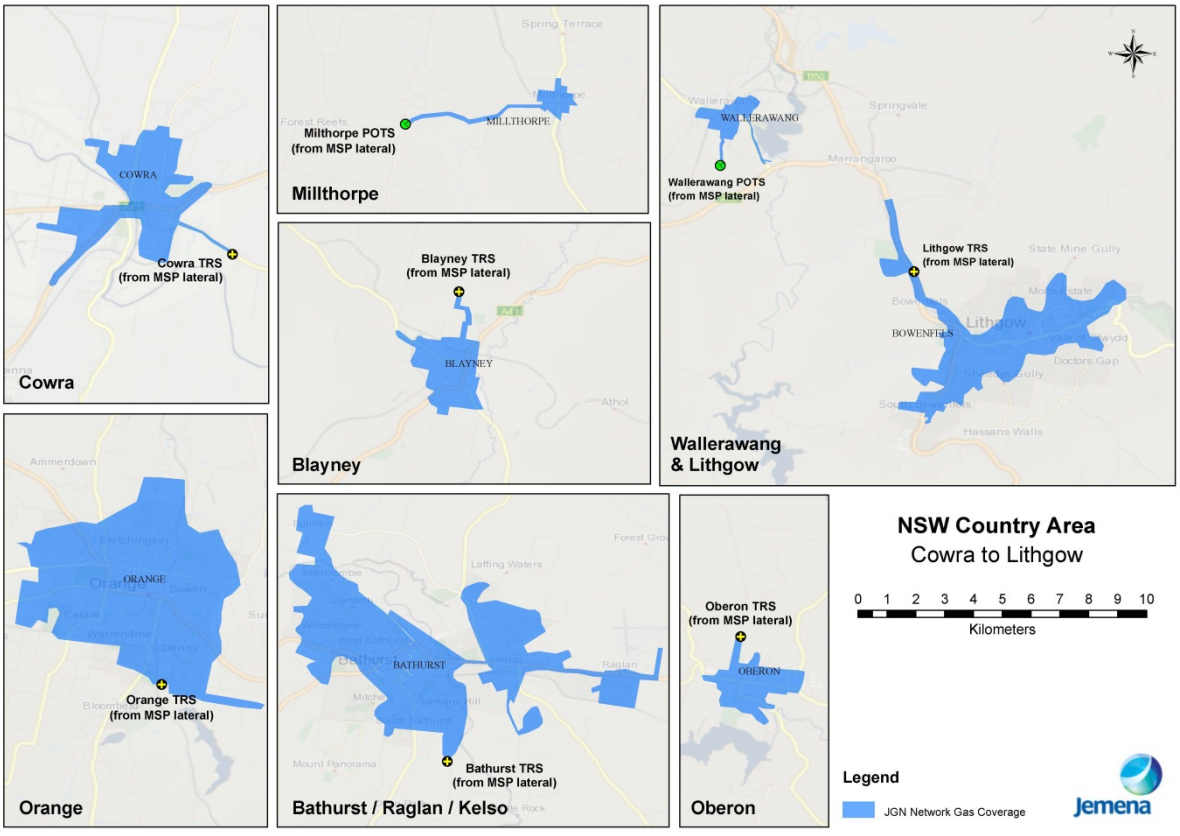
Unplanned SAIDI	$n = 2$	10%
Mains and services leaks	$n = 3$	30%
Meter leaks	$n = 4$	10%
Poor quality events	$n = 5$	30%
Meter read estimation rate	$n = 6$	10%

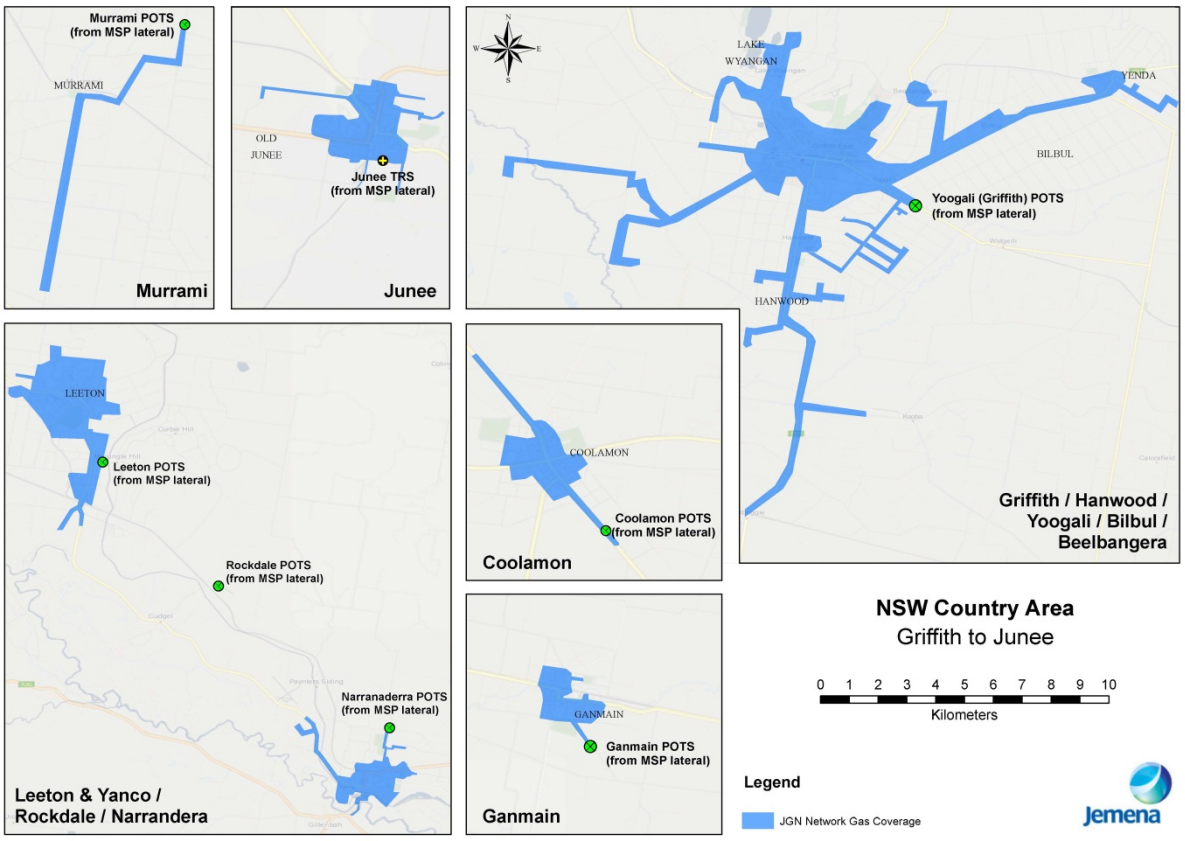
(i) The resulting average calculated in paragraph (h) is the Contingent Payment Index.

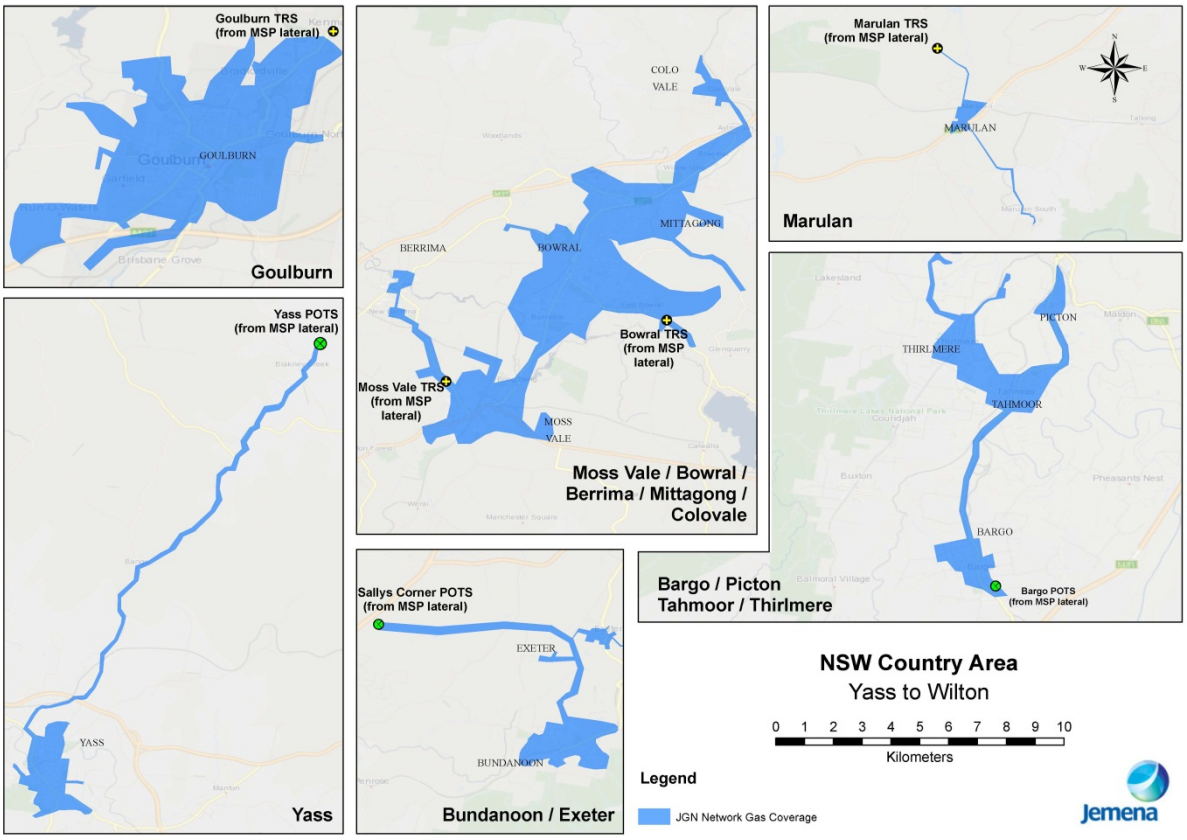
Schedule 10 Maps



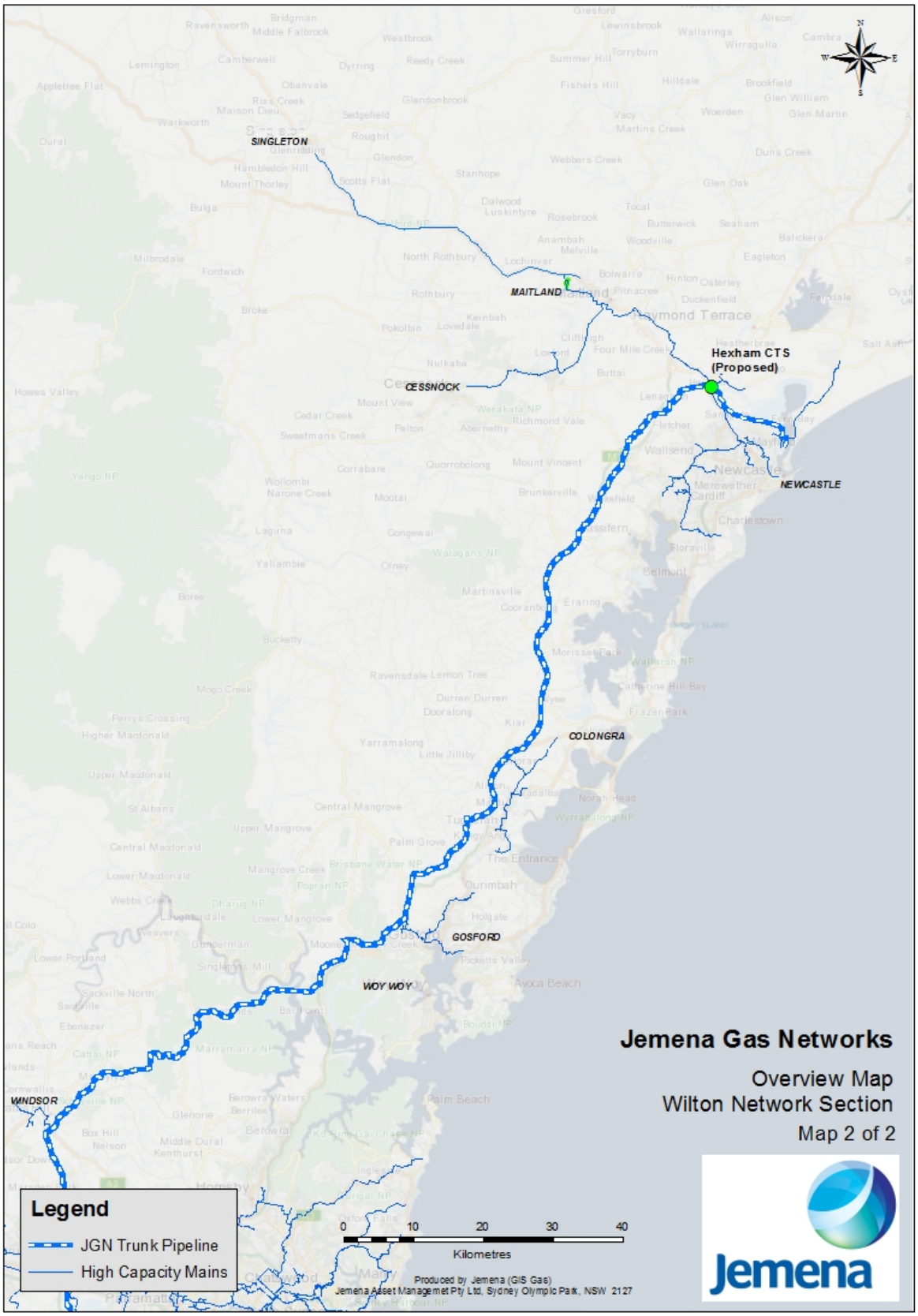

Cootamundra TRS
(from MSP lateral)
COOTAMUNDRA
Cootamundra
Young TRS
(from MSP lateral)
Burrangong
YOUNG
Young
BOOROWA
Boorowa POTS
(from MSP lateral)
Boorowa
West Wyalong POTS
(from MSP lateral)
WEST WYALONG
Wyalong / West Wyalong
NSW Country Area
West Wyalong to Boorowa
0 1 2 3 4 5 6 7 8 9 10
Kilometers
Legend
JGN Network Gas Coverage
Jemena

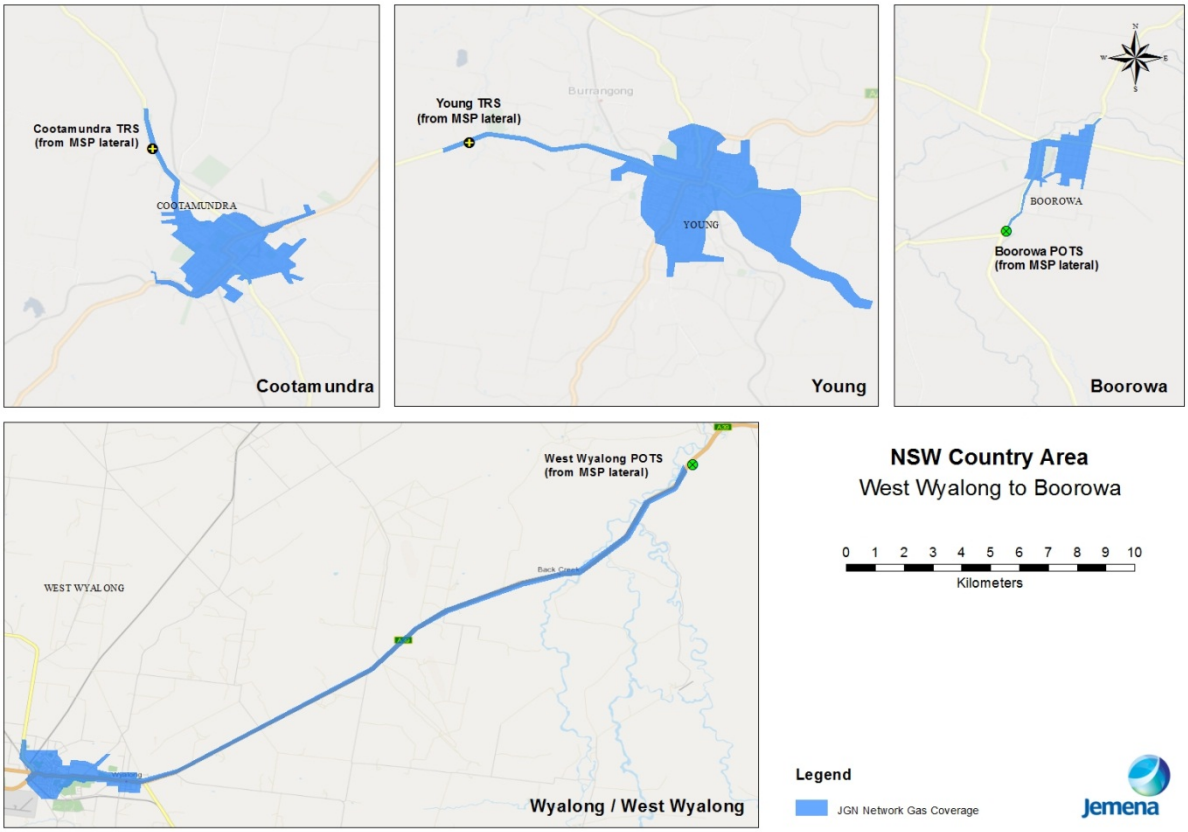

COWRA
Cowra TRS
(from MSP lateral)
Cowra
Spring Terrace
MILLTHORPE
Milthorpe POTS
(from MSP lateral)
Millthorpe
Blayney TRS
(from MSP lateral)
BLAYNEY
Blayney
WALLERAWANG
Wallerawang POTS
(from MSP lateral)
Springvale
Marrangaroo
Lithgow TRS
(from MSP lateral)
BOWENFELS
Lithgow
Wallerawang
& Lithgow
Ammerdown
ORANGE
Orange TRS
(from MSP lateral)
Orange
BATHURST
Laffing Waters
Bathurst TRS
(from MSP lateral)
Bathurst / Raglan / Kelso
Oberon TRS
(from MSP lateral)
OBERON
Oberon
NSW Country Area
Cowra to Lithgow
0 1 2 3 4 5 6 7 8 9 10
Kilometers
Legend
JGN Network Gas Coverage
Jemena

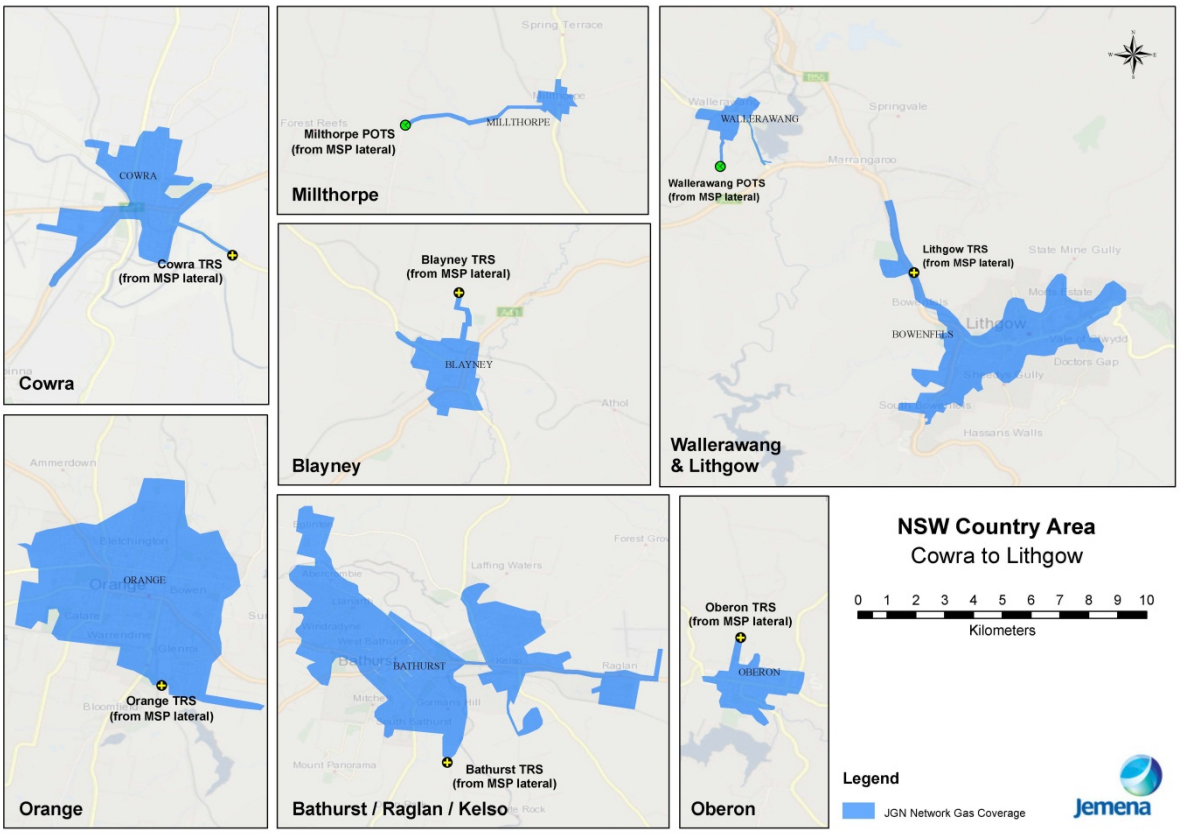

Murrami POTS
(from MSP lateral)
MURRAMI
Murrami
OLD
JUNEE
Junee TRS
(from MSP lateral)
Junee
LAKE
WYANGAN
YENDA
BILBUL
Yoogali (Griffith) POTS
(from MSP lateral)
HANWOOD
Griffith / Hanwood /
Yoogali / Bilbul /
Beelbangera
LEETON
Leeton POTS
(from MSP lateral)
Rockdale POTS
(from MSP lateral)
Narranaderra POTS
(from MSP lateral)
Leeton & Yanco /
Rockdale / Narrandera
COOLAMON
Coolamon POTS
(from MSP lateral)
Coolamon
GANMAIN
Ganmain POTS
(from MSP lateral)
Ganmain
NSW Country Area
Griffith to Junee
0 1 2 3 4 5 6 7 8 9 10
Kilometers
Legend
JGN Network Gas Coverage
Jemena


Goulburn TRS
(from MSP lateral)
GOULBURN
Goulburn
Yass POTS
(from MSP lateral)
YASS
Yass
COLO
VALE
MITTAGONG
BERRIMA
BOWRAL
Bowral TRS
(from MSP
lateral)
Moss Vale TRS
(from MSP
lateral)
MOSS
VALE
Moss Vale / Bowral /
Berrima / Mittagong /
Colovale
Sallys Corner POTS
(from MSP lateral)
EXETER
BUNDANOON
Bundanoon / Exeter
Marulan TRS
(from MSP lateral)
MARULAN
Marulan
PICTON
THIRLMERE
TAHMOOR
BARGO
Bargo POTS
(from MSP lateral)
Bargo / Picton
Tahmoor / Thirlmere
NSW Country Area
Yass to Wilton
0 1 2 3 4 5 6 7 8 9 10
Kilometers
Legend
JGN Network Gas Coverage
Jemena

Maps of high capacity mains (Wilton Network Section)


SINGLETON
MAITLAND
Hexham CTS
(Proposed)
CESSNOCK
NEWCASTLE
COLONGRA
GOSFORD
WOY WOY
WINDSOR
Jemena Gas Networks
Overview Map
Wilton Network Section
Map 2 of 2
Legend
JGN Trunk Pipeline
High Capacity Mains
0
10
20
30
40
Kilometres
Produced by Jemena (GIS Gas)
Jemena Asset Management Pty Ltd, Sydney Olympic Park, NSW 2127
Jemena


Cootamundra TRS
(from MSP lateral)
COOTAMUNDRA
Cootamundra
Young TRS
(from MSP lateral)
Burrangong
YOUNG
Young
BOOROWA
Boorowa POTS
(from MSP lateral)
Boorowa
West Wyalong POTS
(from MSP lateral)
WEST WYALONG
Wyalong / West Wyalong
NSW Country Area
West Wyalong to Boorowa
0 1 2 3 4 5 6 7 8 9 10
Kilometers
Legend
JGN Network Gas Coverage
Jemena


COWRA
Cowra TRS
(from MSP lateral)
Cowra
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MILLTHORPE
Millthorpe
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Wallerawang POTS
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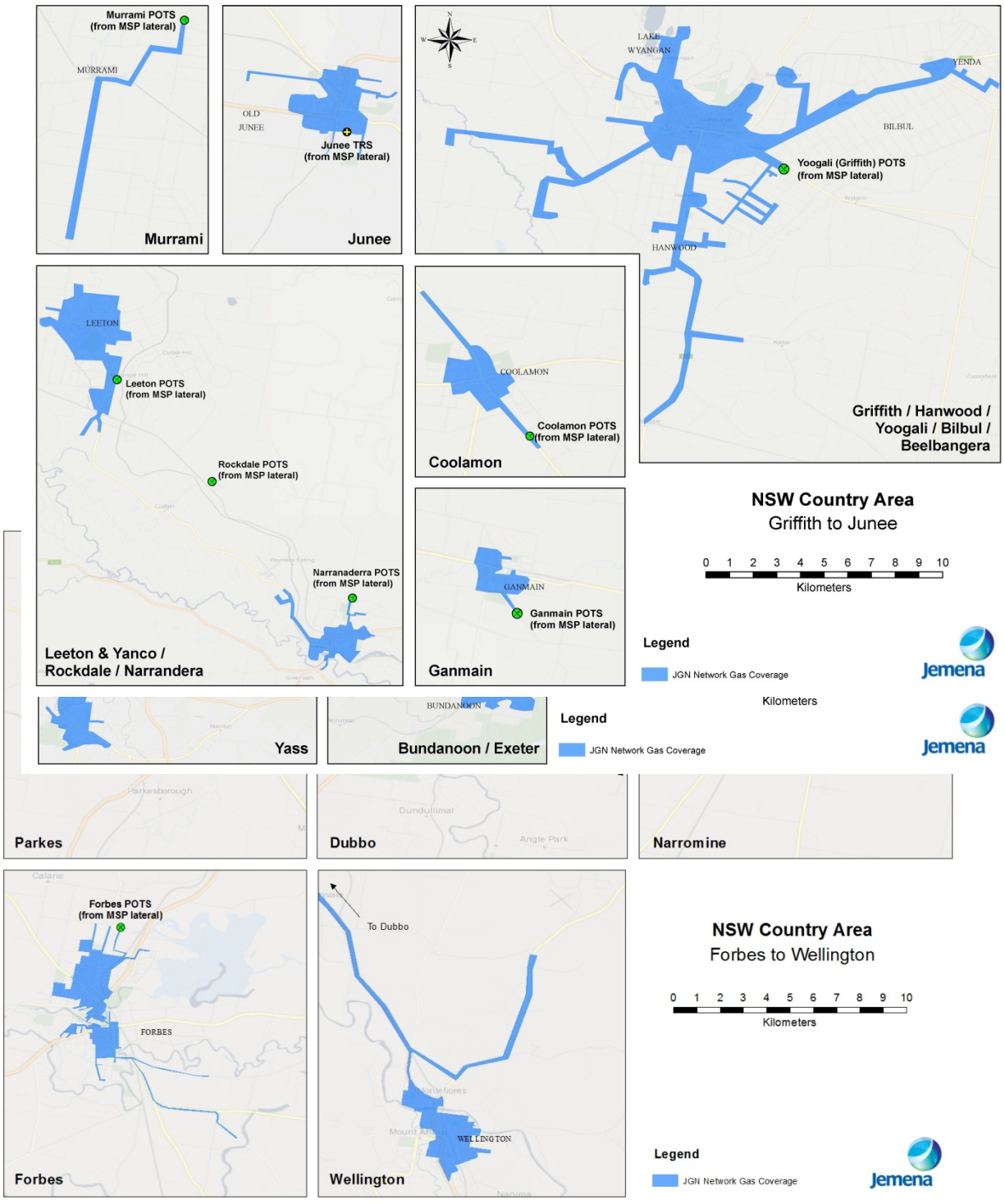
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Coolamon POTS
(from MSP lateral)
Coolamon
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Ganmain POTS
(from MSP lateral)
Ganmain
NSW Country Area
Griffith to Junee
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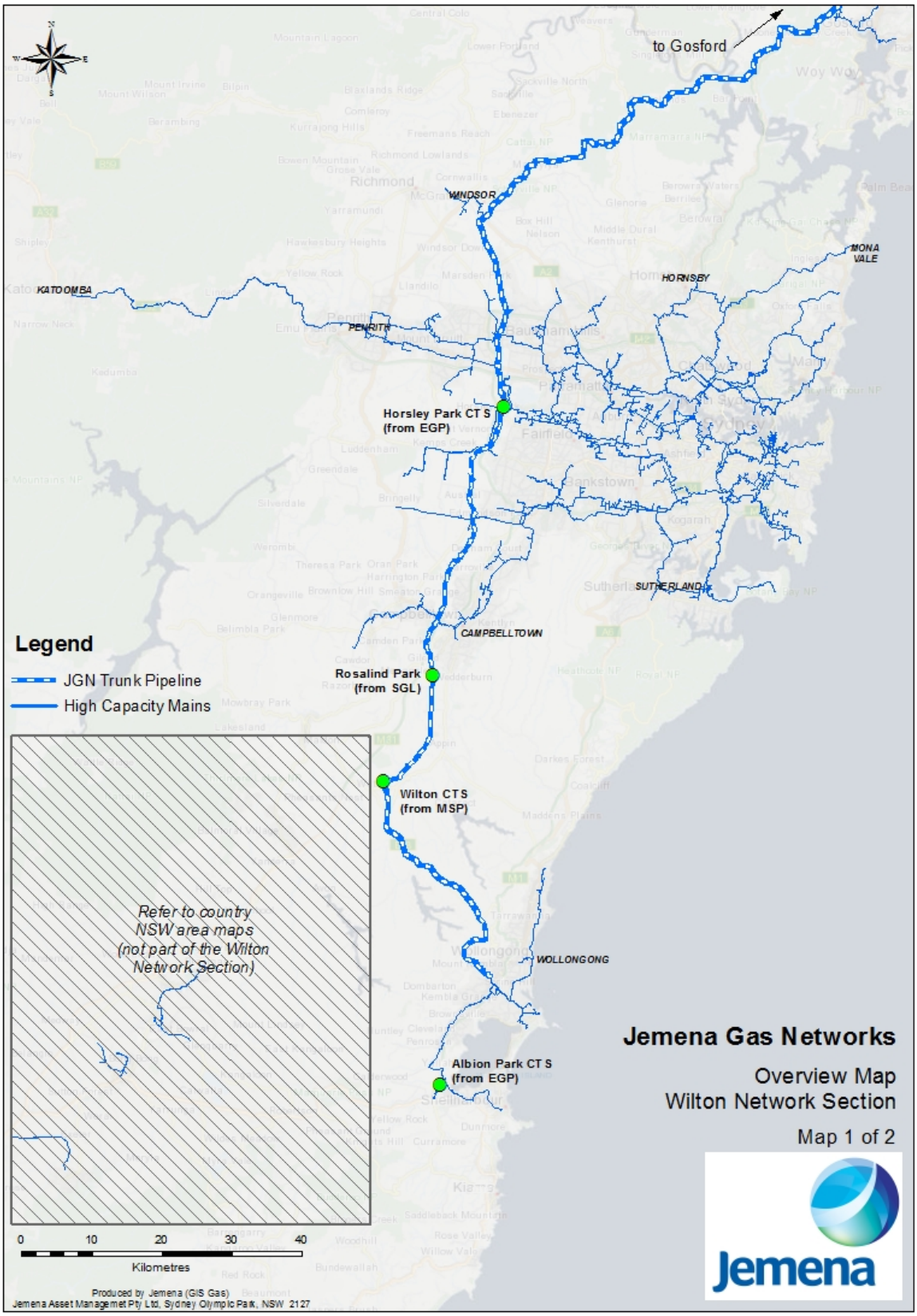
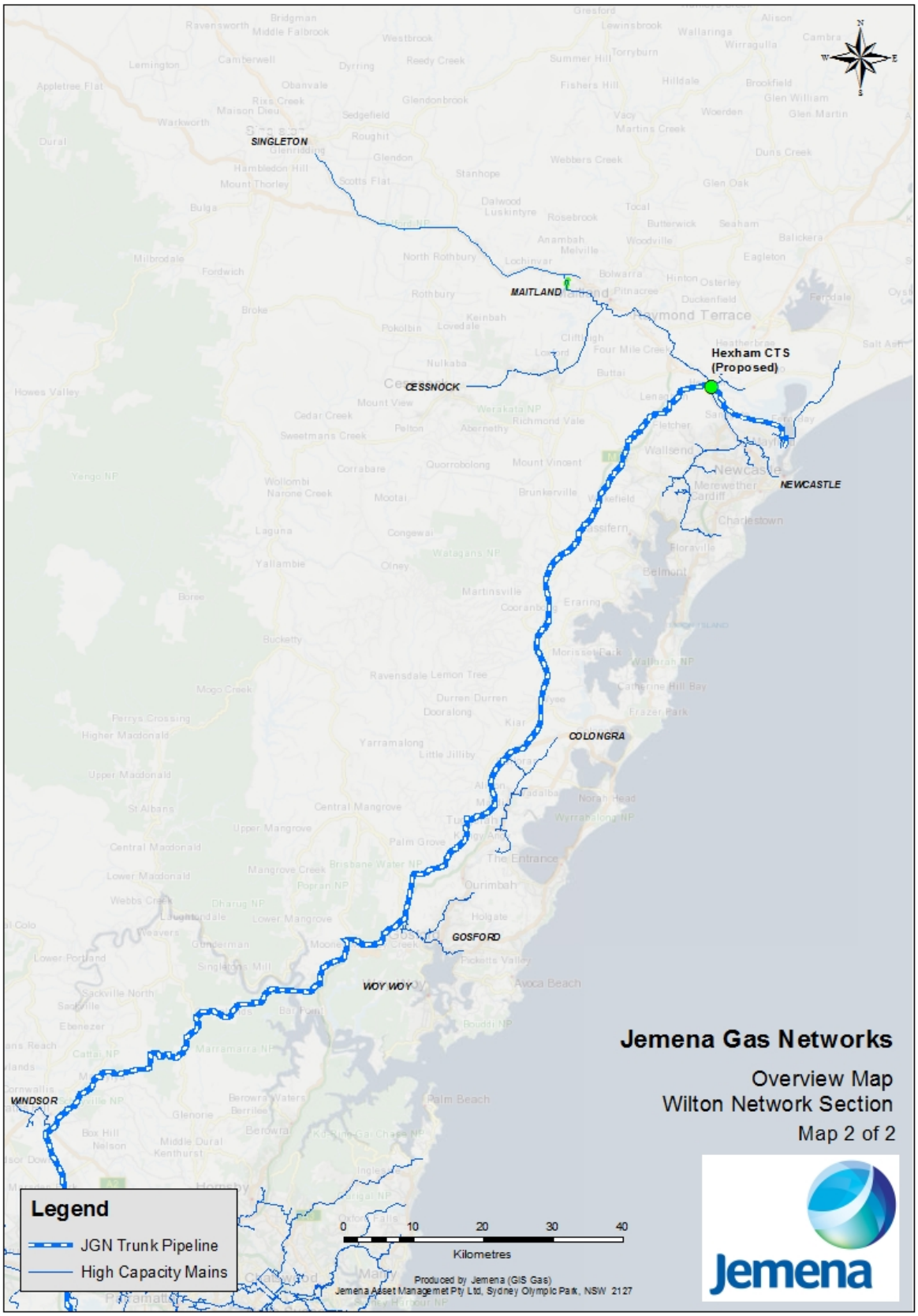
Kilometers
Legend
JGN Network Gas Coverage
Jemena
Yass
BUNDANOON
Bundanoon / Exeter
Legend
JGN Network Gas Coverage
Kilometers
Jemena
Parkesborough
Parkes
Dundullimal
Angle Park
Dubbo
Narromine
Forbes POTS
(from MSP lateral)
FORBES
Forbes
To Dubbo
WELLINGTON
Wellington
NSW Country Area
Forbes to Wellington
0 1 2 3 4 5 6 7 8 9 10
Kilometers
Legend
JGN Network Gas Coverage
Jemena

~~Maps of high capacity mains (Wilton Network Section)~~

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