

Access arrangement

JGN's NSW gas distribution network

1 July 2020 – 30 June 2025

Contents

1	Introduction	1
2	Services policy	2
3	Initial Reference Tariffs and Reference Tariff variation mechanism	4
4	Tariff Classes for Reference Services	13
5	Return on debt	14
6	Speculative capital expenditure and investment policy	15
7	Queuing	16
8	Extensions and expansions policy	17
9	Capacity trading	19
10	Changing Receipt and Delivery Points	20
11	Consolidated Access Arrangement	21
12	Operating expenditure efficiency carryover mechanism	23
13	Capital expenditure incentive mechanism	26
Schedule 1	Definitions and interpretation	33
Schedule 2	Initial Reference Tariff Schedule	41
Schedule 3	Reference Tariff adjustment factors	56
Schedule 4	Reference Service Agreement	61
Schedule 5	Interconnection Service	62
Schedule 6	Request for service procedures	64
Schedule 7	Operational Schedule	69
Schedule 8	Receipt Point Pressures	79
Schedule 9	CESS Contingent Payment Index	82
Schedule 10	Maps	86

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. Supporting information is provided in the Access Arrangement Information.

1.2 The Network

(a) As at the Effective Date:

- (i) the Network consists of approximately 25,000 kilometres of Gas distribution systems in NSW with over 1,400,000 customer connections to these systems; and
- (ii) Gas is delivered into the Network through the Receipt Points set out in Schedule 8.

(b) A description of the Network is contained in section 11 and maps of the Network are set out in Schedule 10. Further information about the Network can be found at <http://www.jemena.com.au>.

1.3 Review Submission Date

The review submission date is 30 June 2024.

1.4 Revision Commencement Date

The revision commencement date is 1 July 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) Schedule 1 sets out rules of interpretation for this Access Arrangement.

2 Services policy

2.1 Pipeline Services

- (a) The Service Provider provides the following Pipeline Services on the Network:
 - (i) the Reference Service; and
 - (ii) Non-Reference Services.
- (b) A Prospective User who seeks to obtain the Reference Service or a Non-Reference Service must comply with the procedures set out in Schedule 6. A User must also comply with those procedures if seeking a change to an existing Reference Service or a Non-Reference Service.
- (c) The Service Provider's ability to offer a Pipeline Service involving transportation of Gas to a Delivery Point (including the Reference Service) in response to a Request is subject to having sufficient capacity in the Network.
- (d) A Prospective User 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 comply with the provisions of the Operational Schedule.

2.2 Reference Service

- (a) The Service Provider will make the Reference Service available to Users and Prospective Users in accordance with this Access Arrangement.
- (b) The Reference Service is a service for:
 - (i) the transportation of Gas by the Service Provider through the Network to an 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 Point is eligible for the Reference Service if:
 - (i) it is a Delivery Point existing on the Network to which a service designated as a reference service under the 2015-20 Access Arrangement is provided on the Effective Date; or
 - (ii) it is a new Delivery Point, established on or after the Effective Date, that is served from the Network, where:
 - (A) the maximum allowable operating pressure is less than or equal to 500 kPa and the Service Provider reasonably expects that the Delivery 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 Point will consume 10 TJ per annum or greater.

2.3 Terms and conditions of Reference Service

The terms and conditions upon which the Service Provider will provide the Reference Service are set out in the Reference Service Agreement.

2.4 Non-Reference Services

The Service Provider offers the following Non-Reference Services:

- (a) an Interconnection Service, which is described in clause 2.5; and
- (b) a Negotiated Service, which is described in clause 2.6.

2.5 Interconnection Service

An Interconnection Service is a service provided by the Service Provider to establish:

- (a) a Delivery Point to enable delivery of Gas from the Network into a Downstream Network; or
- (b) a Receipt Point to enable delivery of Gas into the Network from an Upstream Facility,

on the terms and conditions agreed to by the Service Provider and Prospective User including those, to the extent applicable, contained in the Operational Schedule.

2.6 Negotiated Service

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

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 from the Effective Date, until varied in accordance with this 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 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

- (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) the CPI for the December Quarter immediately preceding the start of the relevant Financial Year; divided by
 - (ii) the CPI for the December Quarter immediately preceding the December Quarter referred to in paragraph (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 cost pass through 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) Insurance Cap Event;
 - (iv) Insurer Credit Risk Event;
 - (v) Regulatory Change Event; and
 - (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 Financial Year of the Access Arrangement Period, as a result of that event, exceeds one per cent of the smoothed Total Revenue for that Financial Year approved by the AER.
- (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 Financial Year of the Access Arrangement Period, as a result of that event, is or is reasonably estimated to exceed one per cent of the smoothed Total Revenue for that approved by the AER.
- (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 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 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 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 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 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 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:
 - (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.
- (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 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 calculates 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 (straight-line) at the asset class level. 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.

4.2 Tariff Class Assignment

- (a) The Service Provider will assign each Delivery Point with a Tariff Class in accordance with the Tariff Assignment Criteria. 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 in respect of a specific Delivery Point.
- (c) Where a Delivery Point is eligible for more than one Tariff Class in accordance with the Tariff Assignment Criteria, the User or Prospective User may nominate in its Request the Tariff Class which it wants the Delivery Point assigned. The Service Provider may refuse such a nomination 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 Assignment Criteria and assign each Delivery Point with a Tariff Class.

4.3 Tariff Class Re-assignment

- (a) The Service Provider may re-assign a Delivery Point to a different Tariff Class in accordance with the Tariff Assignment Criteria 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 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 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 Assignment Criteria. 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, provide the User with reasons for the decision).

5 Return on debt

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

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, calculated in accordance with the on-the-day return on debt calculation set out in the Rate of Return Instrument.

5.2 Averaging periods

The averaging periods specified in 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.

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

- (a) In the 'PTRM Input' sheet of the JGN Revenue Model, update the relevant cell to reflect the updated return on debt estimate (kd_t) each Financial Year of the Access Arrangement Period.
- (b) On the 'X factors' sheet of the JGN Revenue Model, update the relevant X factor each Financial Year of the Access Arrangement Period.
- (c) The AER will notify the Service Provider of the updated Return on Debt and X factor within 15 business days after the end of the Service Provider's averaging period.

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), the Service Provider will add that amount to its speculative capital expenditure account in accordance with the National Gas Rules.

7 Queuing

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.

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.

8.3 Method for determining if Access Arrangement is to apply to new network section

The method below shall be used to determine whether a new network section should be taken to form part of the Network.

- (a) Subject to clause 8.3(d), if the Service Provider proposes a new network section during the Access Arrangement Period, it must apply to the AER 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);
- (b) For the purposes of this clause 8.3, a **new network section** means an extension to the 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) 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) 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) above, may be made on such reasonable conditions as determined by the AER and will have the effect stated in the decision.
- (g) If the AER determines that the new network section is to form part of the Network, this Access Arrangement will apply to incremental services to be provided by the new network section.

8.4 Effect on Reference Tariffs

- (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.
- (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 Base).

9 Capacity trading

9.1 Transfer of contracted capacity for the Reference Service

Where the Reference Service Agreement provides a User with contracted capacity, the User may transfer all or any of its contracted capacity for 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 Service

Where a Service Agreement for a Non-Reference Service provides a User with contracted capacity, the User may transfer all or any of its contracted capacity for the Non-Reference Service to another User in accordance with the provisions of its 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.

10 Changing Receipt and Delivery Points

10.1 Change of Receipt Point or Delivery Point for 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 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-Reference Service

Where a Service Agreement for a Non-Reference Service specifies a Receipt Point or a Delivery Point, the User may, with the Service Provider's consent, change the User's Receipt Point or Delivery Point for the provision of the Non-Reference Service in accordance with the provisions of its Service Agreement 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 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).

11.2 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, subject to the following conditions:
 - (i) the consolidation remains in force until revoked by the AER; and
 - (ii) the Service Provider must separately prepare, maintain and keep information about the Capital Base of the:
 - (A) Northern Trunk;
 - (B) Southern Trunk; 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.

11.3 Fixed principle

The principle in clause 11.2 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. 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 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 2020-21 will be calculated as:

$$(F_{2020-21} - A_{2020-21}) - [(F_{2019-20} - A_{2019-20}) - (F_{2017-18} - A_{2017-18})] - \text{non} \\ \text{- recurrent efficiency gain}_{2017-18}$$

where:

- $F_{2020-21}$ is the forecast operating expenditure for Financial Year 2020-21;
- $A_{2020-21}$ is the actual operating expenditure for Financial Year 2020-21;
- $F_{2019-20}$ is the forecast operating expenditure for Financial Year 2019-20;
- $A_{2019-20}$ is the actual operating expenditure for Financial Year 2019-20;
- $F_{2017-18}$ is the forecast operating expenditure for Financial Year 2017-18; and
- $A_{2017-18}$ is the actual operating expenditure for Financial Year 2017-18.

$\text{non - recurrent efficiency gain}_{2017-18}$ is the adjustment made to $A_{2017-18}$ 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 2021-22 to 2023-24 (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 2024-25 will be calculated as:

$$(F_{2024-25} - A_{2024-25}^*) - (F_{2023-24} - A_{2023-24})$$

where actual operating expenditure in the Financial Year 2024-25 is to be estimated using the following equation:

$$A_{2024-25}^* = F_{2024-25} - (F_b - A_b) + \text{non-recurrent efficiency gain}_b$$

and where:

$A_{2024-25}^*$ is the estimate of operating expenditure for Financial Year 2024-25;

$F_{2024-25}$ is the forecast operating expenditure for Financial Year 2024-25;

F_b is the forecast operating expenditure for the base year used to forecast operating expenditure in the access arrangement period commencing 1 July 2025;

A_b is the actual operating expenditure for the base year used to forecast operating expenditure in the access arrangement period commencing 1 July 2025; and

non-recurrent efficiency gain_b is the adjustment made to A_b used to forecast operating expenditure in the access arrangement period commencing 1 July 2025 to account for operating expenditure associated with one-off factors.

- (f) For the avoidance of doubt:

- (i) the incremental efficiency gain (or loss) for Financial Year 2025-26 will be carried over for 5 years and be calculated with reference to the actual operating expenditure for Financial Year 2024-25 and not $A_{2024-25}^*$; and

- (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 to forecast operating expenditure for the access arrangement period commencing 1 July 2025.
- (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 that are accounted for in the calculation of the licence fee factor amount in clause 2.1 of Schedule 3 of this Access Arrangement;
 - (iii) debt raising costs;
 - (iv) Carbon Costs;
 - (v) the cost of any Relevant Tax;
 - (vi) any cost category that 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 2025); and
 - (vii) any other cost that the Service Provider and the AER agree to exclude from the operation of the efficiency carryover mechanism.
- (i) For 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 Year 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	2020-21	2021-22	2022-23	2023-24	2024-25
Forecast operating expenditure for incentive mechanism purposes (\$million, real 2020)	170.9	181.2	186.6	186.7	190.7

12.2 Fixed principle

The 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 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 compounded into its Net Present Value (**NPV**) as at the end of the Access Arrangement Period using the nominal WACC for each year of the Access Arrangement Period updated annually within the JGN Revenue Model and calculated in accordance with the AER's Final Decision and the Rate of Return Instrument. 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(I)(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. connections capex under Chapter 12A of the National Gas Rules);
 - (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 AER's Final Decision.
 - (vii) For the purposes of illustrating the operation of the CESS, refer to Attachment 11.2 of the Service Provider's 2020-25 revised access arrangement proposal submitted to the AER.

(c) The total efficiency gain is calculated as a summation of the annual efficiency gains converted to 2024-25 NPV. The calculation for each year's annual end of year efficiency gain is calculated in accordance with clause 13.1(d). The calculation of future NPV for each year is calculated in accordance with clause 13.1(e).

(d) The annual end of year efficiency gain (**AEG**) for each year in Year n value in the Access Arrangement Period is calculated as follows:

$$AEG_n = (F_n^C - A_n^C)$$

where:

$$F_n^C = (1 + Real\ WACC_n)^{0.5} \times F_n$$

$$A_n^C = (1 + WACC_n)^{0.5} \times A_n$$

and 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);

$WACC_n$ is the nominal WACC for year n updated annually within the JGN Revenue Model and calculated in accordance with the AER's Final Decision and the Rate of Return Instrument;

$Real\ Wacc_n$ is the real WACC for year n calculated in the JGN Revenue Model using $WACC_n$ and the forecast inflation set out in the AER's Final Decision;

F_n^C is the capital expenditure allowance for Financial Year n in year-end Year n value;

A_n^C is actual capital expenditure for Financial Year n in year-end Year n value;

F_n is the capital expenditure allowance for Financial Year n in mid-year Year n value using actual inflation where known and where not known, using the forecast inflation set out in the AER's Final Decision; and

A_n is the actual expenditure for Financial Year n in mid-year Year n value in nominal dollars (i.e. dollars as incurred).

(e) The annual efficiency gain in clause 13.1(d) will be converted to NPV as at the end of the Access Arrangement Period. This will be through the use of the nominal WACC for each year of the Access Arrangement Period updated annually within

the JGN Revenue Model and calculated in accordance with the AER's Final Decision and the Rate of Return Instrument.

For example:

Year 1 efficiency gain ($n=1$ and being the 2020–21 Financial Year) will be compounded to the end of the Access Arrangement Period using the following formula:

$$NPV_{2025}(AEG_1) = (1 + WACC_2) \times (1 + WACC_3) \times (1 + WACC_4) \times (1 + WACC_5) \times AEG_1$$

Year 2 efficiency gain ($n=2$ and being the 2021–22 Financial Year) will be compounded to the end of the Access Arrangement Period using the following formula:

$$NPV_{2025}(AEG_2) = (1 + WACC_3) \times (1 + WACC_4) \times (1 + WACC_5) \times AEG_2$$

- (f) 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:
$$\text{Service Provider's share} = \text{Total efficiency gain} \times 30\%$$
- (g) 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 the real WACC in the year.
 - (iii) The financing benefit from preceding years will be compounded, namely, the financing benefit for each year will be compounded to its NPV using nominal WACC 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.
- (h) The end of year net financing benefit for each year is calculated in accordance with clause 13.1(i). The calculation of the future NPV for each year is calculated in accordance with clause 13.1(j).

- (i) The annual financing benefit (**FB**) in year n is a summation of the financing benefits calculated using the following equation:

$$FB_n = Real\ WACC_n \times \sum_{k=2}^n AEG_{k-1}$$

where:

AEG_{k-1} is a summation of the financing benefits in year $n-1$ real dollars

For example:

The Year 2 FB ($n=2$) will be calculated as follows:

$$(FB_2) = Real\ WACC_2 \times AEG_1$$

The Year 3 FB ($n=3$) will be calculated as follows:

$$(FB_3) = Real\ WACC_3 \times (AEG_1 \times (1 + Actual\ CPI_2) + AEG_2)$$

The Year 4 FB ($n=4$) will be calculated as follows:

$$(FB_4) = Real\ WACC_4 \times ((AEG_1 \times (1 + Actual\ CPI_2) \times (1 + Actual\ CPI_3) + AEG_2 \times (1 + Actual\ CPI_3) + AEG_3)$$

- (j) The annual FB in year n calculated in accordance with clause 13.1(i) will then be compounded into its NPV as at the end of the Access Arrangement Period. This will be through the use of the nominal WACC for each year of the Access Arrangement Period updated annually within the JGN Revenue Model and calculated in accordance with the AER's Final Decision and the Rate of Return Instrument.

For example:

The Year 2 FB ($n=2$) will be compounded to the end of the Access Arrangement Period using the following formula:

$$NPV_{2025}(FB_2) = (FB_2) \times (1 + WACC_3) \times (1 + WACC_4) \times (1 + WACC_5)$$

The Year 3 FB ($n=3$) will be compounded to the end of the Access Arrangement Period using the following formula:

$$NPV_{2025}(FB_3) = (FB_3) \times (1 + WACC_4) \times (1 + WACC_5)$$

- (k) 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.
- (l) 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 of the Access Arrangement Period.
 - (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

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

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(k)(ii) above;
- $WACC_p$ is the nominal WACC updated annually within the JGN Revenue Model for the final year of the Access Arrangement Period;
- $WACC_{NextAA}$ is the average nominal WACC 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(f)(i) above.

- (iv) For the avoidance of doubt, the adjustment referred to in clause 13.1(l)(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)	99.2	104.6	85.8	80.4	79.2

- (m) 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; and
- (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 clause 13.1 is a fixed principle (as provided for in Rule 99 of the National Gas Rules) only to the extent to enable rewards or penalties arising from the application of the CESS in this Access Arrangement Period (being the access arrangement period commencing 1 July 2020) to be realised in a subsequent access arrangement period as contemplated by clauses 13.1(k)(iii) and (l). 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:

2015-20 Access Arrangement means the Access Arrangement that applied to the Network immediately prior to the Effective Date;

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

Access Arrangement Information means the information relating to this Access Arrangement pursuant to Rule 42 of the National Gas Rules;

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

AER means the Australian Energy Regulator;

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 Pipeline owned by the Service Provider which has Receipt Points and services the areas described in Schedule 8;

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

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

Contingent Payment Index is described in Schedule 9;

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

Covered Pipeline 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 has the same meaning as set out in the Reference Service Agreement;

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 2020; and
- (b) the date that the AER's approval of this Access Arrangement takes effect under the National Gas Rules;

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

Energy 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);

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

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

Initial Tariff Classes means the Tariff Classes applying from the Effective Date until amended in accordance with 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:

- (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
- (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), 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 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:
 - (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
 - (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:

- (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
- (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 Service means the 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 as approved in the AER's Final Decision;

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 deliver 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);

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

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

Natural Disaster Event means any fire, flood, earthquake or other natural disaster that occurs during the 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;

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;

NCC means National Competition Council;

Negotiated Service means the service described in clause 2.6;

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 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 Pipeline owned by the Service Provider, which has the Receipt Points and services the areas described in Schedule 8;

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);

Prospective User means:

- (a) a person who seeks 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 to be provided with a Pipeline Service by means of the Network other than a Pipeline Service already provided to them under:
 - (i) a 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 on 17 December 2018;

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 service described in clause 2.2;

Reference Service Agreement means the contract between the Service Provider and a 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 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 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;

Replacement Gas has the meaning set out in the Reference Service Agreement;

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 Agreement means a contract between the Service Provider and a 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) substantially varying, during the course of an Access Arrangement Period, the manner in which the Service Provider is required to provide the Reference Service;
- (b) imposing, removing or varying, during the course of an Access Arrangement Period, minimum service standards applicable to the Reference Service; or
- (c) 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 Assignment Criteria means the tariff assignment criteria set out in part 2 of the Reference Tariff Schedule;

Tariff Class means Customers who constitute a tariff class under the Reference Tariff Schedule;

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:

- (a) whether the Service Provider has insurance against the event,
- (b) the level of insurance that an efficient and prudent service provider would obtain in respect of the event, and
- (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 determined for the Reference Service in accordance with rule 76 of the National Gas Rules;

UAG Costs means the cost incurred by the Service Provider to procure Replacement Gas to make up for unaccounted for gas (**UAG**) in the Network during a Financial Year, including costs for transportation and other direct costs reasonably incurred by the Service Provider in connection with that UAG;

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 Service Agreement with the Service Provider under which the Service Provider provides or 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 vanilla weighted average cost of capital as set out in the AER's Final Decision and updated annually within the JGN Revenue Model;

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;

- (b) a reference to a part or paragraph, is to a part or paragraph in a Schedule to this Access Arrangement;
- (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;
- (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;
- (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;
- (f) clause or condition headings are inserted for convenience only and do not affect the interpretation of the Access Arrangement;
- (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;
- (h) a reference to a party includes a reference to its successors in title and permitted assigns;
- (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;
- (j) when referring to a particular Day, the date of the Day shall be the date on which that Day begins; and
- (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.
- (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;
- (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;
- (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
- (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 2020-21 dollars and are exclusive of GST.
- (c) The Initial Reference Tariffs applicable to a Delivery Point depends upon the Initial Tariff Class assigned by the Service Provider to the Delivery Point.
- (d) In addition to setting out the Initial Tariff Classes and the Initial Reference Tariffs, this Initial Reference Tariff Schedule sets out the tariff components and assignment criteria used in determining the availability of different Reference Tariffs for a Delivery Point.
- (e) The Initial Reference Tariffs will take effect from the Effective Date and will apply until amended in accordance with 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

2.1 Elements for 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) 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] refers to the customer group (V for Volume or D for Demand). Customer groups are described in 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 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 paragraph 2.4 below.

2.2 Customer groups

- (a) The customer group that applies to a Delivery Point is determined on the basis of the characteristics of the Energy requirements of the Customer and any End Consumer at that Delivery Point.
- (b) The assignment criteria for determining the customer group are as follows:
 - (i) **Demand Tariff:** A Delivery Point can be assigned to the 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;
 - (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 Consumers¹ occupying the same or nearby premises²; 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 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 where 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 Consumers occupying the same or nearby premises,² and the

¹ As a guide, the Service Provider will consider a group of End Consumer to be substantially non-residential where less than 50% (by number of End Consumers) of the group use Energy principally for personal, domestic or household purposes.

² In these circumstances, only the Delivery Point of the Customer would be recognised in the Service Provider's systems. Subsequent on-supply to End Consumers by that Customer would not be individually represented in the Service Provider's systems.

Delivery Point is reasonably expected to withdraw less than 10 TJ of Gas per annum; or

- (D) a group of End Consumers (business and/or residential) occupying a single, multi-occupancy premises where Gas is withdrawn by a single Customer at a 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 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	<p>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.</p> <p>Delivery Points in this tariff category must continue to satisfy (to the Service Provider's reasonable satisfaction) the following criteria:</p> <ul style="list-style-type: none"> 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; 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.

Abbreviation	Category	Criteria
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	<p>Assignment to this tariff category is made upon User request.</p> <p>This tariff category is used for Delivery Points which meet the criteria for a Demand Tariff and which also satisfy the following additional criteria:</p> <ul style="list-style-type: none"> a) the average daily consumption in any 12 month period multiplied by 1.33 is greater than 10 times the contractual MHQ³ 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	<p>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.</p> <p>Delivery Points in this tariff category must continue to meet the criteria for a Major End Customer Throughput Tariff and satisfy (to the Service Provider's reasonable satisfaction) the following additional criteria:</p> <ul style="list-style-type: none"> 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 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.

³ If the contractual MHQ has changed in a period then the lowest contractual MHQ is used.

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

Abbreviation	Category	Criteria
VI	Individual	This category applies where either: <ul style="list-style-type: none"> • all Gas withdrawn at the Delivery Point is measured by the Service Provider by individually metering the Energy consumption of the Customer (including the consumption of hot water supplied through a centralised residential gas hot water system); or • the Delivery Point meets the Volume Tariff customer group assignment criteria in paragraph 2.2(b)(ii)(C) above.
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 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-fired electricity generation plant or system that supplies electricity and cogenerated thermal energy directly to a group of substantially residential End Consumers ⁴ occupying the same or nearby premises, and the Delivery Point is reasonably expected to withdraw more than 25 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 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.

⁴ As a guide, the Service Provider will consider a group of 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. ⁵
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 ⁶ , 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	

⁵ 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.

⁶ Excludes Appin - see location classification 1.

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

- (a) A User must pay the Service Provider all charges applicable to the 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	Reference Service -- Reference Tariff Components
Volume Individual	VI-Coastal VI- Country	Volume Throughput Rate (paragraph 4.1(h)) Fixed Charge (paragraph 4.1(i)) Ancillary Charges (paragraph 4.1(j))
Volume Boundary	VB-Coastal VB-Country	Volume Throughput Rate (paragraph 4.1(h)) Fixed Charge (paragraph 4.1(i)) Ancillary Charges (paragraph 4.1(j))
Volume Residential Distributed Generation Technology	VRT-03 VRT-04 VRT-06 VRT-10	Demand Capacity Rate (paragraph 4.1(a)) Provision of Basic Metering Equipment Charge (paragraph 4.1(g)) Ancillary Charges (paragraph 4.1(j))

(e) Demand Tariffs

Customer Type/Category	Tariff Class	Reference Service -- Reference Tariff Components
Demand Capacity	DC-1 To DC-11	Demand Capacity Rate (paragraph 4.1(a)) Provision of Basic Metering Equipment Charge (paragraph 4.1(g)) Ancillary Charges (paragraph 4.1(j))
	DC Country	Demand Capacity Rate comprised of: <ul style="list-style-type: none"> Capacity Distance Rate (paragraph 4.1(b)), and Pressure Reduction Rate (paragraph 4.1(c)) Provision of Basic Metering Equipment Charge (paragraph 4.1(g)) Ancillary Charges (paragraph 4.1(j))
Demand Throughput	DT	Demand Throughput Rate (paragraph 4.1(f)) Provision of Basic Metering Equipment Charge (paragraph 4.1(g)) Ancillary Charges (paragraph 4.1(j))
Demand Capacity - 1st Response	DCFR-1 DCFR-6	Discounted Demand Capacity Rate (paragraph 4.1(d)) Provision of Basic Metering Equipment Charge (paragraph 4.1(g)) Ancillary Charges (paragraph 4.1(j))
Demand Major End Customer Throughput	DMT-01 To DMT-05	Fixed Charge (paragraph 4.1(i)) Demand Throughput Rate (paragraph 4.1(f)) Provision of Basic Metering Equipment Charge (paragraph 4.1(g)) Ancillary Charges (paragraph 4.1(j))
Demand Major End Customer Throughput - 1 st response	DMTFR-3	Discounted Fixed Charge (paragraph 4.1(e)) Discounted Demand Throughput Rate (paragraph 4.1(e)) Provision of Basic Metering Equipment Charge (paragraph 4.1(g)) Ancillary Charges (paragraph 4.1(j))

4 Initial Reference Tariffs

4.1 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 2021 Prices are real 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	359.681	336.792	161.267	116.969	98.493	90.058
	VRT-04	593.456	555.691	255.446	180.703	150.053	136.359
	VRT-06	123.748	115.874	58.768	50.579	50.563	50.376
	VRT-10	193.099	180.810	87.029	68.428	60.074	59.667
Demand	DC-1	244.283	228.738	107.884	82.335	72.618	72.569
	DC-2	271.367	254.098	118.928	89.687	76.024	65.228
	DC-3	359.681	336.792	161.267	116.969	98.493	90.058
	DC-4	593.456	555.691	255.446	180.703	150.053	136.359
	DC-5	1,596.610	696.751	367.386	255.860	201.092	154.924
	DC-6	123.748	115.874	58.768	50.579	50.563	50.376
	DC-7	397.328	372.044	173.779	126.266	110.279	94.161
	DC-8	748.495	700.863	367.386	255.860	201.092	154.924
	DC-9	58.033	54.339	42.182	42.043	41.639	41.104
	DC-10	193.099	180.810	87.029	68.428	60.074	59.667
	DC-11	748.495	700.863	367.386	255.860	201.092	154.924
	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 4.1(b)), and Pressure Reduction Rate (paragraph 4.1(c)) below. These charges will be 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 2021 Prices are real 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	52.548	49.205	21.416	14.277	11.357	8.627

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 Prices are real 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	18.651	17.464	7.599	5.068	4.030	3.061

(d) Demand Capacity Rates for Discounted DCFR Tariff

Customer Type	Tariff Class	Demand Capacity Unit Rate – dollars per GJ of Chargeable Demand per annum (\$/GJ.CD.pa) Period ending 30 June 2021
Demand	DCFR-1 DCFR-6	Demand Capacity Rates set out in paragraph 4.1(a) for the relevant DC 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	Demand Throughput Unit Rates – (\$/GJ) Period ending 30 June 2021
Demand	DMTFR-3	Fixed Charge set out in paragraph 4.1(i)) for the DMT-3 tariff less 50%.	Demand Throughput Rates set out in paragraph 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 2021 Minimum chargeable quantity of 833 GJ/month Prices are real 2020-21 GST exclusive dollars		
		First 1667 GJ per month	Next 2500 GJ per month	Rest
Demand	DT	3.806	3.083	2.736

Customer Type	Tariff Class	Demand Throughput Rate (\$/GJ) Period ending 30 June 2021 Prices are real 2020-21 GST exclusive dollars		
		First 41,667 GJ per month	Next 41,667 GJ per month	Rest
Demand	DMT-1	0	0.181	0.165
	DMT-2	0	0.181	0.166
	DMT-3	0	0.314	0.269
	DMT-4	0	0.697	0.651
	DMT-5	0	0.857	0.836

(g) Provision of Basic Metering Equipment Charge

Customer Type	Tariff Class	Standing Charge : \$/pa per Delivery Station Charges based on Delivery Point MHQ Period ending 30 June 2021 Prices are real 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	6,617	8,210	14,010	18,199	23,309
		Double Run	11,169	14,354	25,954	34,332	44,554
Volume	VRT 03, 04, 06, 10	Single Run	6,617	8,210	14,010	18,199	23,309
		Double Run	11,169	14,354	25,954	34,332	44,554

(h) Volume Throughput Rate

Customer Type	Tariff Class	Volume Throughput Rate (\$/GJ) Period ending 30 June 2021 Prices are real 2020-21 GST exclusive dollars					
		First 0.63 GJ	Next 0.62 GJ	Next 1.50 GJ	Next 80.75 GJ	Next 333.5 GJ	All additional
Volume Individual	Block size (GJ per month)	First 1.89 GJ	Next 1.86 GJ	Next 4.50 GJ	Next 242.25 GJ	Next 1000.5 GJ	
	Block size (GJ per qtr)						
	VI-Coastal	18.347	5.560	5.288	5.227	4.950	2.717
	VI-Country	17.949	5.395	5.103	5.041	4.748	2.513

Customer Type	Tariff Class	Volume Throughput Rate (\$/GJ) Period ending 30 June 2021 Prices are real 2020-21 GST exclusive dollars				All additional
		First 20.83 GJ	Next 20.83 GJ	Next 41.66 GJ		
Volume Boundary	Block size (GJ per month)	First 62.49 GJ	Next 62.49 GJ	Next 124.90 GJ		
	Block size (GJ per qtr)					
	VB-Coastal	13.308	4.769	4.396		4.257
	VB-Country	13.019	4.628	4.243		4.108

(i) Fixed Charge

Customer Type	Tariff Class	Standing Charge – dollars per annum Period ending 30 June 2021 Prices are real 2020-21 GST exclusive dollars	
Volume Individual	VI-Coastal & VI-Country		43,913
Volume Boundary	VB-Coastal & VB-Country		1,132,574
Demand	DMT-1		184,670,000
	DMT-2		203,951,000
	DMT-3		248,306,000
	DMT-4		459,905,000
	DMT-5		862,322,000

(j) Ancillary Charges

Ancillary Charges applicable to all Tariff Classes Period Ending 30 June 2021 Prices are real 2020-2021 GST exclusive dollars		
Activity	Description	Charge
Hourly charge – non-standard User-initiated requests and queries	<p>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:</p> <ul style="list-style-type: none"> 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. <p>Not applicable to the processing of connections and alterations which fall under Part 12A of the National Gas Rules.</p>	\$153 per hour
Disconnection (and reconnection ²) – Volume Customer Delivery Points	<p>Disconnection of supply to a Delivery Point (by wadding or locking the meter) and where the User also requests that the meter is not to be moved or removed.</p> <p>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.</p> <p>A request for disconnection is also a request to remove the Delivery Point from the Volume Customer List under the User's Service Agreement.</p> <p>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.</p> <p>Note: Disconnection for Demand Customer Delivery Points will be individually priced.</p>	<p>\$182 per meter disconnection</p> <p>Note: \$66 per meter for a wasted visit for disconnection or reconnection¹</p>
Abolishment ²	<p>Permanent decommissioning of a Delivery Point, typically including the removal of the meter. A request for abolishment is also a request to remove the Delivery Point from the Customer List under the User's Service Agreement.</p> <p>The specific method of abolishment will be at the discretion of the Service Provider to ensure the site is able to be left in a safe state.</p> <p>Subsequent reconnection of the Delivery Point requires a new connection and a new Request to be made.</p>	<p>\$1038 per meter with a capacity of less than or equal to 25m³/hr</p> <p>Note: meters with a capacity of greater than 25m³/hr to be individually priced</p>
Special meter reads ²	<p>For meter reading for a Delivery Point in addition to the scheduled ordinary meter reading comprised in the 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 applicable market procedures.</p>	<p>\$11.30 per meter read</p> <p>Note: \$11.30 charge applies per wasted visit¹</p>
Expedited reconnection	<p>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</p>	<p>\$160 per meter for successful reconnection.</p> <p>Note this is in addition to the</p>

Ancillary Charges applicable to all Tariff Classes Period Ending 30 June 2021 Prices are real 2020-2021 GST exclusive dollars		
	of notice provided by the User (at a minimum, the request must be received prior to 2.00 PM)	charge for disconnection. Note: \$160 charge applies per wasted visit ¹

Notes to table:

(1) Wasted visit occurs where the Service Provider attends a Delivery Point in response to a User request for a disconnection or reconnection, expedited reconnection or special meter read and where the Service Provider is unable to gain safe or unhindered access to complete the requested activity. A wasted visit charge will be applied in circumstances such as:

- restricted physical access e.g. a locked gate, key required, locked and no answer, security building, obstructed meter, shop closed; or
- unsafe site e.g. presence of a savage dog, site is under construction, or customer refusal to perform the work.

A wasted visit charge will not be applied where:

- the Service Provider is unable to locate the Delivery Point or meter;
- in the case of attendance at the site to perform a disconnection, the meter has already been disconnected or removed by the Service Provider; or
- the Service Provider attends outside of a scheduled appointment time, and as a result is unable to complete the requested activity.

(2) For the reconnection, abolishment and special meter read 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 11.59 AM and a “PM” appointment is at any time between 12.00 midday and 4.00 PM on a Business Day. Note: Appointments are not available for special meter reads for meters equipped with meter data loggers or radio frequency communications.

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. For a reconnection or special meter read, the User must provide a minimum of 2 business days’ notice (for example, notice must be given by close of business Monday for the activity to be performed on Thursday). For an abolishment, longer notice periods are required due to the nature of the work to be undertaken by the Service Provider. For all activities, the User’s request must include customer name and telephone contact details.

A User may cancel a scheduled appointment by providing at least, one business day’s prior notice to the Service Provider. If less notice is provided by the User, the Service Provider may apply the applicable wasted visit charge if the Service Provider attended the Delivery Point to perform the activity.

(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.
-

5 Initial Chargeable Demand

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 a demand capacity rate charge component (including Delivery Points assigned to the VRT tariff category), the Chargeable Demand 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
 - (ii) the amount calculated in accordance with paragraph (b) below
- (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 on any one Day between 1 July 2019 and 30 June 2020;
 - (ii) ten times the MHQ of that Delivery Point on 30 June 2020; and
 - (iii) the MDQ of that Delivery Point on 30 June 2020.
- (c) A reduction in Chargeable 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.

Schedule 3 Reference Tariff adjustment factors

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 2020-21; or
- (b) the value of A'_t determined in the Financial Year $t-1$ for all other years;

and

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

where:

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

When $t-2$ is Financial Year 2019-20, L_{t-2} is:

$$L_{2018-19} * (1 + \text{realWACC}_{2019-20}) * (1 + \text{CPI}_{2019-20}) + L_{2019-20}$$

where:

$L_{2018-19}$: is the licence fee factor amount for Financial Year 2018-19;

$L_{2019-20}$: is the licence fee factor amount for Financial Year 2019-20;

$\text{realWACC}_{2019-20}$: is the real WACC determined for Financial Year 2019-20; and

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

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

When $t-2$ is Financial Year 2019-20, U_{t-2} :

$$U_{2018-19} * (1 + \text{realWACC}_{2019-20}) * (1 + \text{CPI}_{2019-20}) + U_{2019-20}$$

where:

- $U_{2018-19}$: is the UAG factor amount for Financial Year 2018-19;
- $U_{2019-20}$: is the UAG factor amount for Financial Year 2019-20;
- $realWACC_{2019-20}$: is the real WACC determined for Financial Year 2019-20; and
- $CPI_{2019-20}$: is the value of CPI_t determined for the Financial Year 2019-20.

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

When $t-2$ is the Financial Year 2019-20, $C_{2019-20}=0$;

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 2019-20, T_{t-2} is:

$$T_{2018-19} * (1 + realWACC_{2019-20}) * (1 + CPI_{2019-20}) + T_{2019-20}$$

where:

- $T_{2018-19}$ is the Relevant Tax factor amount for Financial Year 2018-19;
- $T_{2019-20}$ is the Relevant Tax factor amount for Financial Year 2019-20;
- $realWACC_{2019-20}$ is the real WACC 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:

$realWACC_t$ is the real WACC as set out in the AER's Final Decision and updated annually within the JGN Revenue 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 costs incurred in that Financial Year by the Service Provider as a result of IPART's natural gas authorisation fee for the Service Provider's gas reticulation licences, the charges levied by local government areas in New South Wales as permitted by Section 611 of the *Local Government Act 1993*, the annual licence fees for individual pipelines charged by the Department of Planning and Environment and any AEMO fees which are related to the ownership or operation of the Network,

minus

- (b) the forecast costs incurred in that financial year by the Service Provider as a result of IPART's natural gas authorisation fee for the Service Provider's gas reticulation licences, the charges levied by local government areas in New South Wales as permitted by Section 611 of the *Local Government Act 1993*, the annual licence fees for individual pipelines charged by the Department of Planning and Environment and any AEMO fees which are related to the ownership or operation of the Network.

2.2 UAG factor amount

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

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

the product of:

- (i) aggregate 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 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 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 for volume market residual receipts:

minus

- (b) the forecast allowance of the total UAG costs included in the AER's relevant final decision for 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 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 2019-20;

- (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 2020 – 30 June 2025. The Reference Service Agreement, 1 July 2020 – 30 June 2025 forms part of this Access Arrangement.

Schedule 5 Interconnection Service

The Service Provider will provide the Interconnection Service on the following terms and conditions.⁷

1.1 Requirements

- (a) In addition to the general requirements set out in Schedule 6, when seeking the Interconnection Service, the Prospective User must:
 - (i) 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;
 - (ii) demonstrate that it has or will have in place all relevant authorisations, approvals and licences required to operate the Downstream Network or Upstream Facility; and
 - (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.
- (a) For the avoidance of doubt, an Interconnection Service is separate from and additional to a service requested by a Prospective User or any other person for the transportation of Gas through the Network (including the Reference Service) from the Receipt Point or to the Delivery Point.

1.2 Charges

- (a) The following charges will be payable by the Prospective User, as will be agreed by the Service Provider:
 - (i) charge for engineering and associated investigations;
 - (ii) charge for construction and provision of interconnection facilities; and

⁷ The term "Daily", "Day", "Hourly" and "Quantity" used in this Schedule have the meaning set out in the Reference Service Agreement.

- (ii) 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.
- (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 service procedures

1 Request for Reference Service

1.1 Application

The following requirements apply to a User or Prospective User seeking:

- (a) access to the Reference Service;
- (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

- (a) The User or 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 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 6m³/Hour, as a minimum, the details prescribed by this Schedule 6. Where the MHQ is expected to be less than 6m³/Hour the Request must include such details as requested by the Service Provider from time to time.
- (c) The Service Provider must 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 6m³/Hour, as a minimum, the details prescribed by this Schedule 6. Where the MHQ is expected to be less than 6m³/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.

4 Request for service form

Parts 4.1, 4.2, 4.3, 4.4, and 4.5 must be completed for all Requests.

Parts 4.6 and 4.7 must be completed for increased capacity at an existing site.

Parts 4.6, 4.7, 4.8, and 4.9 must be completed for new Delivery Points.

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

4.2 Receipt Point Information

Receipt Point
Location
Entity supplying inlet
gas

4.3 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.

4.4 Transportation Information

Service Requested	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

.....

4.5 Delivery Station Pressure

Delivery Station Pressure (kPa) —

Metering pressure (1.38, 2.75, 7.0, 35, 100, if other please specify)

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?

.....

4.7 Fuel Conversion Information

(if applicable)

Current Fuel Type

Current Annual Consumption (GJ/yr)

.....
.....

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

4.9 Delivery Station location sketch

Please provide a sketch showing the proposed location of the meter set and the following:

1. length of 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 Schedule

This Schedule 7 is structured as follows:

1. Load Shedding
 2. Requirements for new Receipt Points being established under an Interconnection Service
 3. Requirements for new and existing Receipt Stations
 4. Requirements for new Delivery Points being established under an Interconnection Service
-

1 Load Shedding

1.1 Load Shedding Principles

- (a) 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 implement Load Shedding.
- (b) Load Shedding includes the process of the Service Provider contacting Users and/or Customers 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 are required to participate in and comply with Load Shedding and the provision of 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 to reduce Gas withdrawals to meet the Load Shedding requirements for each site. The Service Provider may also contact Customers to confirm or reinforce site contact procedures and to generate and monitor required levels and timeliness of Customer 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 or End Consumer, 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 the operator of facilities beyond the Delivery Point for shedding loads served by those facilities.

Load Shedding Priority	Load Type
3	All Load at sites where 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: <ul style="list-style-type: none"> 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 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 any User, 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 Customers 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 at Demand Customer Delivery Points and Delivery Points at which 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 identifies that site or 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 Customer. This does not affect the Users' obligation to provide accurate and current information in any way.

2 Requirements for new Receipt Points being established under an Interconnection Service

2.1 Minimum requirements for new Receipt Points and Equipment Upstream

The Receipt Point, and the pipe or system of pipes upstream of the 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) the new Receipt Point must have an associated Receipt Station (as described in section 3 of this Schedule 7);
- (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 Prospective User;
- (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;
- (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 User;
- (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) 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 User.

2.2 Cathodic Protection of Facilities

The Prospective User 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 facilities, the Prospective User 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 above
- (b) the testing of Gas in accordance with the Service Provider's requirements; and
- (c) 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 Quantity 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.⁸

- (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:
 - (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.

⁸ Refer to the Reference Service Agreement for definitions of "Primary Measurements", "Secondary Measurements", "Standard Conditions" and "Quantity of Gas".

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

(ii) 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 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 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	10 200	1750	Cowra
	Blayney	10 200	1750	Blayney
	Orange	10 200	1750	Orange
	Millthorpe	10 200	1750	Millthorpe
	Bathurst	10 200	1750	Bathurst, Kelso, Raglan
	Oberon	10 200	1750	Oberon
	Lithgow	10 200	1750	Lithgow
	Wallerawang	10 200	1750	Wallerawang
MSPS - Young to Wagga	Young	10 200	1750	Young
	Cootamundra	10 200	1750	Cootamundra
MSPS - Burnt Creek to Griffith	Junee	10 200	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

Upstream 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
	Yoogali (Griffith)	6895*	1750	Griffith
MSPS - Young to Wilton	Boorowa	6895	1750	Boorowa
	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	1750	Dubbo, Wellington
	Dubbo West ^{cw}	10 200	1750	Dubbo West
	Forbes ^{cw}	10 200	1750	Forbes
	Parkes ^{cw}	10 200	1750	Parkes
	Narromine ^{cw}	10 200	1750	Narromine

* Upgrades to the Service Provider's facilities are required to accommodate 10 200 kPa.
“cw” Network Section forms part of the Central West Distribution System.

2 Coastal Network Sections of the NSW Distribution System and the Northern Trunk and the Southern Trunk

Upstream 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. Operating Pressure at Receipt Point (kPa)	Areas of Network downstream of Receipt Point
<i>Wilton-Newcastle Network Section</i>				
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 ^{^^}	3800+	
Camden Coal Seam Methane	Rosalind Park CTS	4500 ^{^^}	3800+	
Newcastle Gas Storage Facility (NGSF)	Hexham CTS	5,000 ^{**}	2,200+	
Newcastle Gas Storage Facility (NGSF)	Tomago CTS	1050	525+	
<i>Wilton-Wollongong Network Section</i>				
Eastern Gas Pipeline (EGP)	Port Kembla CTS	3,500	2,600+	Wollongong Shellharbour Kiama
Eastern Gas Pipeline (EGP)	Albion Park CTS	1050	525+	
Moomba Sydney Pipeline (MSP)	Wilton CTS (MSP)	4500 ^{^^}	3800+	

If marked “+” then the Minimum Operating Pressure is the minimum operating pressure of the downstream system. The Users are required to be able to deliver gas up to the Maximum Receipt Pressure to ensure gas can be receipted into the Network.

^{^^} 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.

Schedule 9 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:

$$\text{Unplanned SAIFI}_t = \frac{\sum_{i=1}^{12} OUF_i^t}{(C^{t-1} + C^t)/2} \times 1000$$

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:

$$\text{Unplanned SAIDI}_t = \frac{\sum_{i=1}^{12} OUD_i^t}{(C^{t-1} + C^t)/2} \times 1000$$

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:

$$\text{Mains + Services Leaks}_t = \frac{\sum_{i=1}^{12} MAL_i^t + \sum_{i=1}^{12} SEL_i^t}{(L^{t-1} + L^t)/2}$$

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	$n = 2$	$Target_2 = 13.07$
Mains and services leaks	$n = 3$	$Target_3 = 0.16$
Meter leaks	$n = 4$	$Target_4 = 8.15$
Poor quality events	$n = 5$	$Target_5 = 0.92$

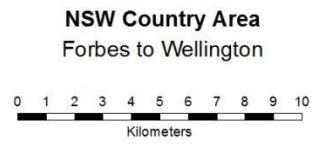
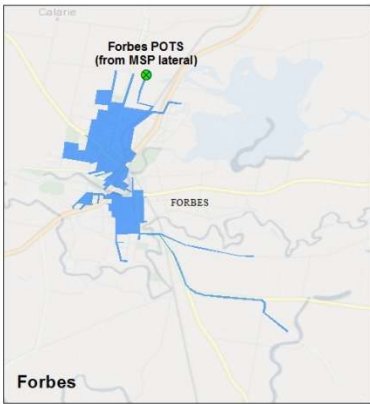
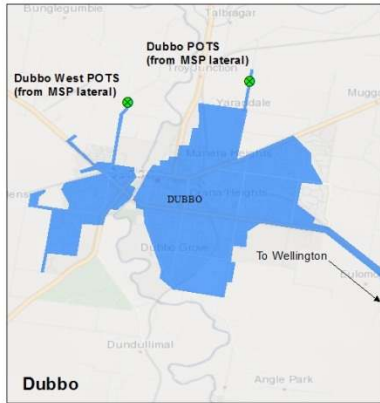
- (h) Meter read estimation rate $n = 6$ $Target_6 = 5.93\%$ Calculate the weighted average of the index scores calculation in paragraph (g) above for each of the measures $n = 1,2,3,4,5,6$ according to the following weights:

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%

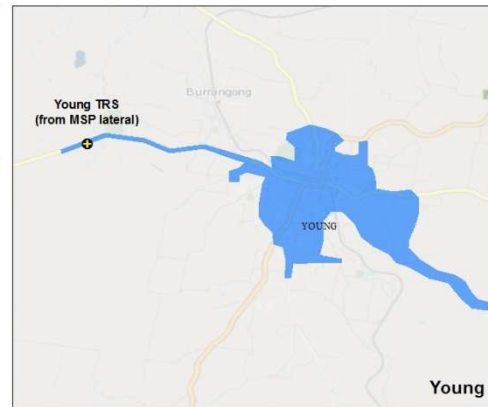
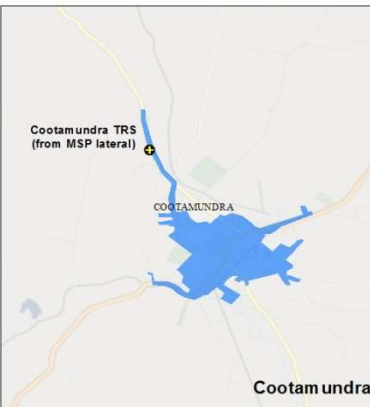
- (i) The resulting average calculated in paragraph (h) is the Contingent Payment Index.
- (j) The arithmetic average calculated in paragraph (b) will be adjusted to remove the impact of material events that are outside of the Service Provider's control such as natural disasters (e.g. the October 2013 Blue Mountains bushfires, or major flooding) or third party damage to the pipeline (e.g. those that lead to 10,000 or more hours off supply). For instance, if an annual observation is so affected, then it will be adjusted to remove the reasonably estimated impact of such an event (i.e. specified in hours).

Schedule 10 Maps

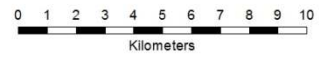


Legend

■ JGN Network Gas Coverage

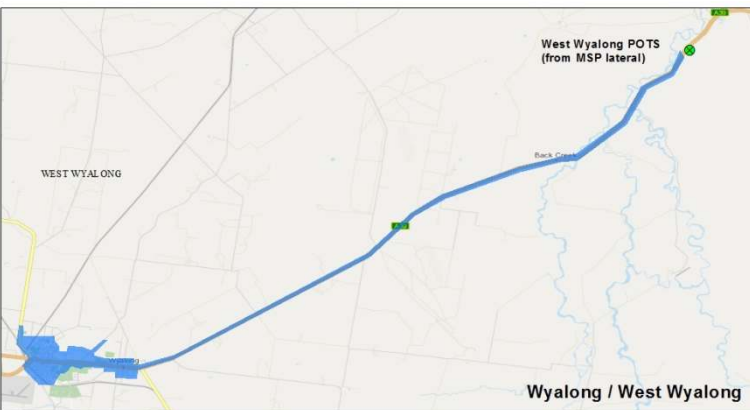


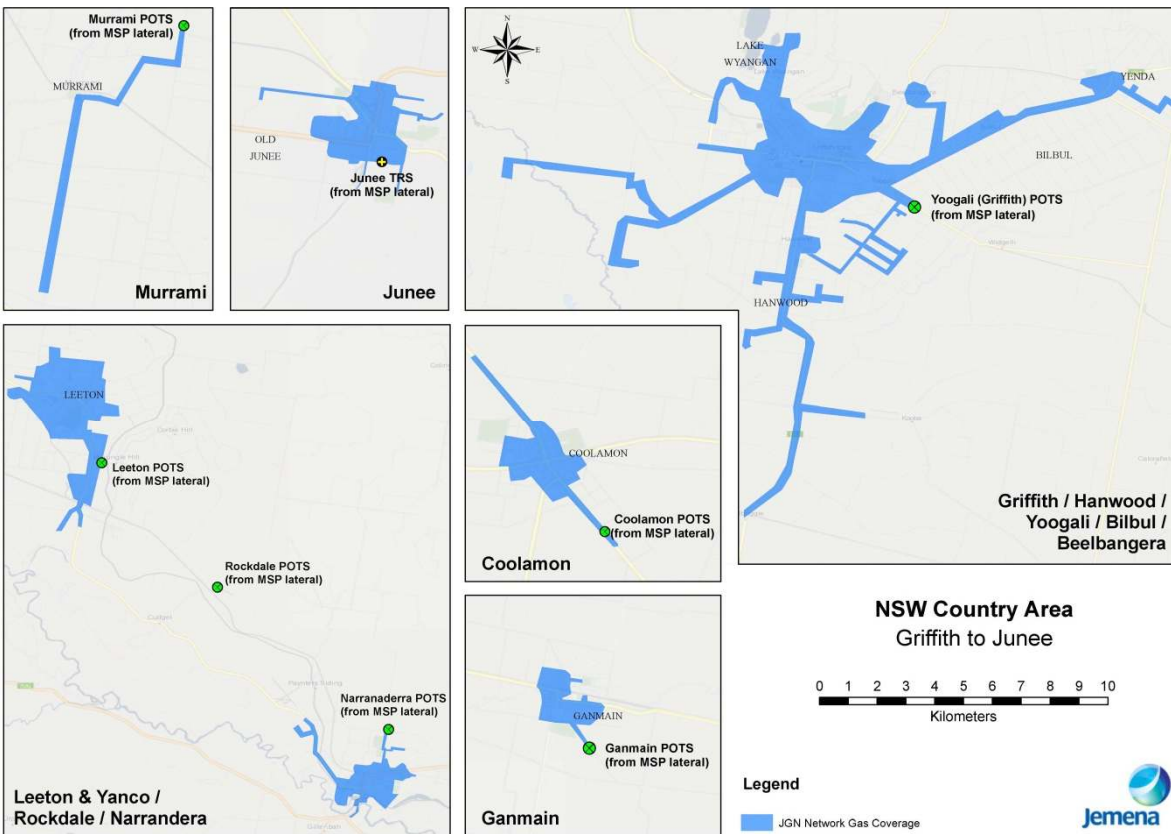
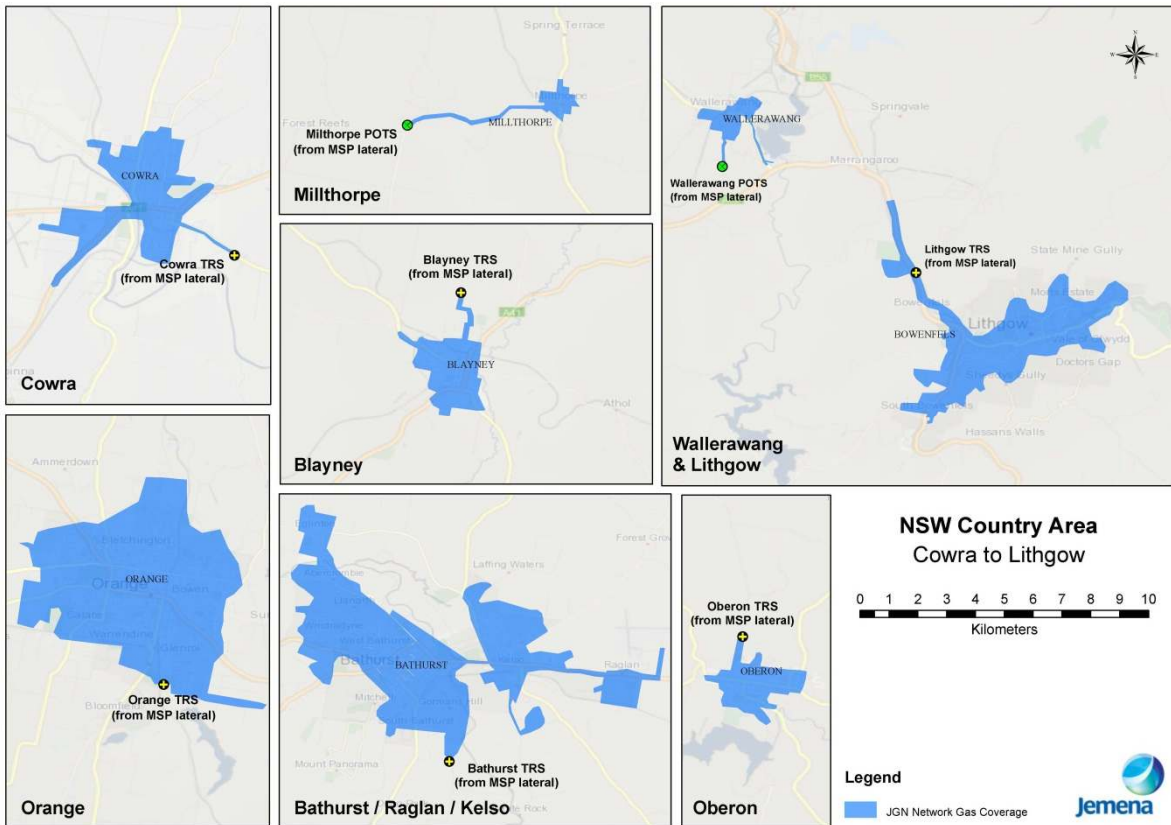
**NSW Country Area
West Wyalong to Boorowa**

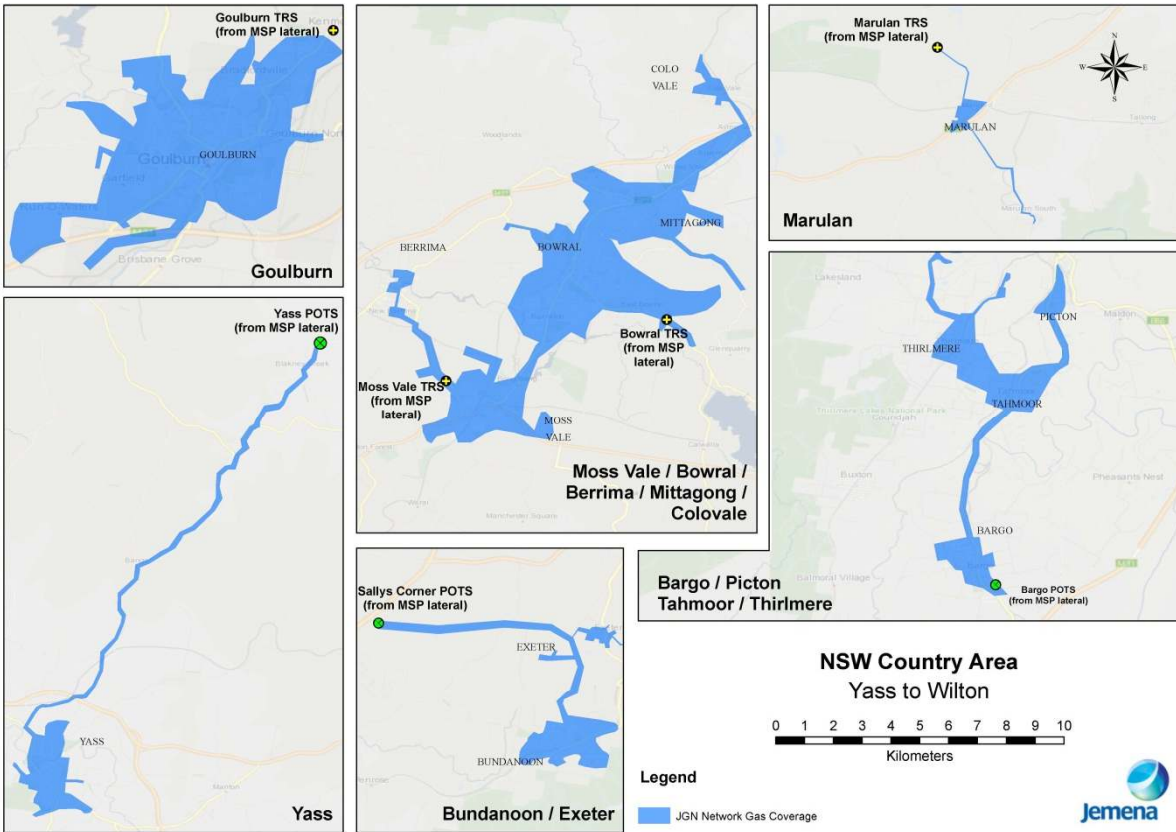


Legend

■ JGN Network Gas Coverage







Maps of high capacity mains (Wilton Network Section)

