

November 2017

Access Arrangement

For our Victorian and Albury
natural gas distribution networks
1 January 2018 to 31 December 2022

Incorporating revisions required by AER final decision 30 November 2017



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1. Introduction

1.1. Purpose of this Document

On 23 March 2016, the Australian Energy Regulator (“**the AER**”) made a direction under Rule 53 of the National Gas Rules (**Rules** or **NGR**) by which the AER directed Australian Gas Networks Limited to consolidate the Access Arrangement for AGN’s Victorian Gas Distribution System and the Access Arrangement for AGN’s Albury Gas Distribution System.

This document is the consolidated Access Arrangement. This Access Arrangement relates to:

- a the Gas Distribution System in Victoria which is owned by Australian Gas Networks (Vic) Pty Ltd (formerly “Vic Gas Distribution Pty Ltd”)(ABN 73 085 899 001)(“**AGN Vic**”); and
- b the Gas Distribution System in New South Wales which is owned by Australian Gas Networks (Albury) Limited (formerly “The Albury Gas Company Limited”)(ABN 84 000 001 249)(“**AGN Albury**”),

which together constitute the Network.

The geographical spread of the Network is shown in Annexure A, with further detail provided in the Access Arrangement Information. A description of the Network can be inspected at www.australiangasnetworks.com.au.

This Access Arrangement as revised describes the terms and conditions on which access will be granted to the Network, and contains the required elements of an Access Arrangement as described in Rule 48 of the Rules. This Access Arrangement is accompanied by Access Arrangement Information.

1.2. Revisions Commencement Date

Revisions to the Access Arrangement will come into effect on the later of 1 January 2018 and the date on which the revisions to the Access Arrangement take effect in accordance with the Rules.

1.3. Definitions and Interpretation

In this Access Arrangement and the Access Arrangement Information, unless the context indicates otherwise:

- a where a word or phrase begins with a capital letter:
 - 1 it has the meaning given to it in the glossary that is set out in Section 11 of this Access Arrangement;
 - 2 if it is not defined in the glossary, it has the meaning given to it in the Rules; and
 - 3 a reference to a “Rule” is a reference to the relevant section of the Rules.
- b where a word or phrase is defined, its other grammatical forms have a corresponding meaning; and
- c headings are for convenience only and do not affect interpretation.

Where this Access Arrangement refers to a report or another source of data (and, in particular, where a report or data source is referenced in a formula in this Access Arrangement or in an Annexure to this Access Arrangement) and:

- a that report or other data source is discontinued or not available for any other reason; or
- b it is no longer appropriate to refer to or use that report or data source for some other reason (in particular, if there is a material alteration in the manner in which, or the basis on which, that report or data source is prepared, compiled, calculated or determined),

then AGN may propose to the AER that, for the purposes of any calculation or other purposes, reference is made for to a different report or data source which can be substituted for the original report or data base (or that an adjustment or correction factor is applied to the original report or data source to preserve consistency or overcome the alteration or other change) and, if the AER approves, that proposal will be implemented in the manner proposed by AGN and approved by the AER.

1.4. Contact Details

The contact person for further details in relation to this Access Arrangement is:

Mr Craig de Laine
General Manager, Regulation
AGN Limited
Level 6, 400 King William Street
Adelaide SA 5000
Ph: (08) 8227 1500

2. Services

2.1. General

The Network Services which AGN Vic or AGN Albury (as the case may be, “AGN”) will make available to Network Users and Prospective Network Users in accordance with the Rules comprise:

- a Haulage Reference Services, which are described in Section 2.2;
- b Ancillary Reference Services, which are described in Section 2.3; and
- c Negotiated Services, which are described in Section 2.4.

To the extent practicable and reasonable, a Network User or Prospective Network User may obtain a Network Service which includes only those elements that the Network User or Prospective Network User wishes to be included in the Network Service.

To the extent practicable and reasonable, AGN will provide a separate Tariff for an element of a Network Service if requested to do so by a Network User or Prospective Network User.

AGN has no associate contracts (as defined in the National Gas Law (**NGL**)).

2.2. Haulage Reference Services

2.2.1. Volume Haulage Service

The Volume Haulage Service comprises the delivery of Gas through an existing Volume Delivery Point in accordance with, and subject to, the terms and conditions referred to in Section 6.

A Delivery Point (**DP**) is a Volume DP for a given period if it is not a Demand DP.

The Volume Haulage Service includes the provision of a Metering Installation.

The Volume Haulage Service has two associated tariffs – one for Residential DPs (known as “Tariff R Residential”) and one for non-Residential DPs (known as “Tariff C non-Residential”).

A DP is a Residential DP for a given period if the Gas delivered through that DP during that period was used primarily for residential purposes to a single dwelling. Gas will have been used primarily for residential purposes if 50% or more of that Gas was used for residential purposes.

A DP is a non-Residential DP if it is not a Residential DP or a Demand DP.

AGN will determine from time to time whether Gas delivered through a DP during any period was used primarily for residential purposes or primarily for other purposes. AGN’s determination will bind the Network User, unless proven incorrect.

2.2.2. Demand Haulage Service

The Demand Haulage Service comprises the delivery of Gas through an existing Demand DP, in accordance with, and subject to, the terms and conditions referred to in Section 6.

A DP is a Demand DP if the Quantity of Gas delivered at that DP has either:

- a exceeded 10 TJ in the preceding 12 month period (or, if less than 12 months of data is available, 10 TJ reduced in proportion to the period for which data is available as a proportion of 365 days); or
- b exceeded 10 GJ in any hour during the preceding 12 months.

In this section, a reference to the Quantity of Gas delivered is a reference to the Quantity of Gas delivered (or estimated to have been delivered) at that DP, whether to or for the account of the Network User or another person or persons.

The tariff in relation to Demand DPs (Tariff D) is based on Maximum Hourly Quantity (**MHQ**). The MHQ for a Demand DP is the MHQ as agreed between the Network User and AGN from time to time or, in default of agreement, as determined by AGN acting reasonably.

2.2.3. Classification of DPs

AGN will classify a DP as a Residential DP, non-Residential DP or a Demand DP. In determining the classification of a DP, AGN will take into account:

- a the expected demand and connection characteristics for the DP; and
- b Reference Tariffs assigned to DPs with the same or materially similar demand and connection characteristics.

A classified DP will retain its classification for the purposes of this Access Arrangement (and for the purposes of each Agreement) until such time as it becomes apparent to AGN that another classification is appropriate and AGN re-classifies the DP. The Reference Tariff applicable in respect of the DP will be determined from time to time on the basis of the classification of that DP. If either the Network User or the Shared Customer requests the reclassification of a DP, AGN must within 10 business days consider whether the DP should be re-classified, taking into account (a) and (b) above. Where a DP is re-classified, AGN must determine the applicable Reference Tariff.

2.2.4. Associated Services

As a part of each Haulage Reference Service, AGN will also provide meter reading data every two months for Volume DPs and on a monthly basis for Demand DPs in accordance with, and subject to, the terms and conditions referred to in Section 6.

The Haulage Reference Services do not include any of the Network Services described as Ancillary Reference Services (see Section 2.3) or Negotiated Services (see Section 2.4).

2.2.5. Unaccounted for Gas (UAFG)

Unaccounted for Gas (**UAFG**) (the difference between the quantity of Gas received into the Network and delivered out of the Network, over a specified period of time) is supplied by Network Users. Where the level of UAFG is less than, or greater than, the benchmark set under the Victorian Gas Distribution System Code, AGN and Network Users make payments to one another of reconciliation amounts, as directed by Australian Energy Market Operator (AEMO), pursuant to the Retail Market Procedures.

2.3. Ancillary Reference Services

The Ancillary Reference Services comprise the following Network Services for Volume DPs:

- a Meter and Gas Installation Test – on-site testing to check the measurement accuracy of a Metering Installation and the soundness of the gas installation downstream of the Metering Installation.
- b Disconnection – Disconnection by the carrying out of work using locks or plugs at a Metering Installation in order to prevent the withdrawal of Gas at the DP.
- c Reconnection – this Reference Service comprises action to restore the ability to withdraw Gas at a DP, following an earlier Disconnection (that is, the removal of any locks or plugs used to isolate supply, performance of a safety check and, where necessary, the lighting of appliances).
- d Meter Removal – removal of a meter at a Metering Installation in order to prevent the withdrawal of Gas at the DP.
- e Meter Reinstallation – reinstallation of a meter at a Metering Installation, performance of a safety check and the lighting of appliances where necessary.
- f Special Meter Read – meter reading for a DP that is in addition to the scheduled meter reading that forms part of the Haulage Reference Service. (Special Meter Reads will be charged in accordance with location as either metropolitan or non-metropolitan).

To the extent permitted by law, the Ancillary Reference Services will be provided on Business Days between the hours of 8.00am and 4.00pm, in accordance with, and subject to, the terms and conditions referred to in Section 6.

2.4. Negotiated Services

Any Network User or Prospective Network User may request AGN to provide a Negotiated Service. A Negotiated Service is a Network Service that is different from the Reference Services.

The terms and conditions on which AGN will provide Negotiated Services will be the same as the terms and conditions referred to in Section 6, where AGN determines that those terms and conditions are appropriate and applicable to the requested Negotiated Service.

2.5. Network Service Standards

AGN will provide each Network Service, including each Reference Service, in accordance with, and subject to, the requirements of any Distribution Licence or applicable law.

3. Reference Tariffs

3.1. Haulage Reference Tariffs

The Tariff Schedule set out in Annexure B to this Access Arrangement shows the initial Reference Tariffs that will apply to the Haulage Reference Services.

The initial Reference Tariffs will apply from 1 January 2018, until those Reference Tariffs are varied in accordance with Section 4 of this Access Arrangement.

The Charges payable in respect of a DP vary according to the Tariff Zone in which that DP is located.

The Reference Tariffs for Reference Services will be set out in Tariff Schedules that AGN will publish from time to time on its website at www.australiangasnetworks.com.au.

3.2. Ancillary Reference Service

The Ancillary Reference Tariffs for 2018 are set out in the Tariff Schedule in Annexure B. These tariffs will increase by the percentage change in Consumer Price Index (CPI) on 1 January 2019 and thereafter by the percentage change in CPI for each remaining year of the Fifth Access Arrangement Period.

4. Reference Tariff Policy – General

4.1. Determination of Reference Tariffs

Reference Tariffs have been determined based on a revenue requirement that uses a ‘building block’ or ‘cost of service’ approach. This approach provides for total revenue to be calculated on the basis of a rate of return on the Capital Base plus depreciation plus non-capital costs associated with operating the Network plus the cost of corporate income tax plus/minus any amounts earned through incentive arrangements.

A CPI-X approach to determining Haulage Reference Tariffs has been adopted, using a ‘tariff basket’ approach to price control. To ensure price stability, Reference Tariffs for the Access Arrangement Period have been set on the basis of a smoothed revenue, so that the Reference Tariffs move in a uniform and consistent manner.

Reference Tariffs are designed to meet the objectives of the Rules. A key objective of the Rules is to recover the efficient costs of providing the Reference Services, with emphasis on the safety and integrity of the Network, while providing certainty to Users and signaling appropriate development of the market through extension of the Network.

The Reference Tariffs are designed to be cost reflective to the extent possible, so that Reference Tariffs recover the efficient cost of providing the relevant Reference Service. The revenues associated with the Reference Tariffs also reflect efficient pricing principles, in that the revenue for each Reference Tariff has been set between incremental and stand-alone costs.

4.2. Assignment of Haulage Reference Tariffs

Where AGN is charging a particular Haulage Reference Tariff in respect of a particular DP, then that particular Haulage Reference Tariff is to be regarded as being “assigned” to that DP.

Haulage Reference Tariffs will be assigned to DPs in accordance with the criteria set out in Sections 2.2.1 - 2.2.3 of this Access Arrangement.

Where a DP is assigned to Tariff D:

- a The Network User for that DP must pay for a Metering Installation which complies with the appropriate metering standard specified in relevant rules or regulatory instruments, and which is capable of recording MHQ;
- b The Network User for that DP must pay any applicable Non Reference Service Charge (Tariff D Connection Charge) for the provision of connection assets and mains extensions undertaken for that DP; and
- c AGN can require the DP to continue to be assigned to Tariff D for a period of up to one year from the time of the assignment to Tariff D.

4.3. Reference Tariff Variation Mechanism

Rule 97 allows Reference Tariffs to vary within an Access Arrangement Period through a Reference Tariff Variation mechanism. For the purposes of this Access Arrangement, Reference Tariffs will be varied through two mechanisms, namely:

- a the Reference Tariff Control Formulae, described in Section 4.4; and
- b a Cost Pass Through Event Adjustment, which is described in Section 4.5.

Variations to Reference Tariffs are subject to the Regulator's approval (or deemed approval) in accordance with the Rules and this Section 4.

AGN will publish a revised Tariff Schedule on its website at www.australiangasnetworks.com.au whenever variations to Reference Tariffs have been approved.

4.4. Reference Tariff Control Formulae

4.4.1. Haulage Reference Tariffs

Subject to the approval of the Regulator, AGN can vary the Reference Tariffs for Haulage Reference Services from time to time provided that the variations comply with the four Reference Tariff Control Formulae set out in Annexure D to this Access Arrangement.

The first Reference Tariff Control Formula is designed to ensure that the average revenue (in \$/GJ) that AGN receives from a Haulage Reference Service after 1 January 2018 does not increase, as a result of any proposed variation to Reference Tariffs, at a rate that is greater than the change in CPI – X (where X is the factor described in Annexure D).

The second Reference Tariff Control Formula is designed to ensure the AER approved Cost Pass Through Event adjustment amounts are recovered from or returned to customers.

The third Reference Tariff Control Formula is designed to ensure that the average revenue (in \$/GJ or \$/GJ of MHQ) that AGN receives from any single type of Haulage Reference Service, after any proposed variation to Reference Tariffs, does not increase by more than the percentage change in CPI plus 2%.

The fourth Reference Tariff Control Formula implements the annual update to the return on debt building block required as a result of the adoption of a trailing average approach to determining the cost of debt.

The Reference Tariff Control Formulae set out in Annexure D compare the revenue from the pre-existing Reference Tariffs with revenue from the Reference Tariffs as varied, based on the Quantities of Gas (or other units of measurement, such as GJ or MDQ) that applied in the year two years prior to the year in which the Reference Tariffs are to be varied.

Variations to the Reference Tariffs may be effected:

- a through changes in the components, elements or variables comprised within any Reference Tariff (such as a change in the base charge or fixed charge within the Reference Tariff or a change in the steps, or the level of the steps, within the Reference Tariff);
- b through the introduction of a new Reference Tariff for any Haulage Reference Service;
- c through the withdrawal of any Reference Tariff; or
- d through any combination of these changes.

4.4.2. Ancillary Reference Services

Subject to the approval of the Regulator, AGN will have the right to vary the Reference Tariffs for Ancillary Reference Services, initially on 1 January 2018, and thereafter annually during the Fifth Access Arrangement Period, on the basis of the following Reference Tariff Control Formula:

$$ART_t = ART_{t-1} \times (1 + \Delta CPI_t)$$

where:

t is the year for which tariffs are being set

ART_t is the Ancillary Reference Tariff that will apply to an Ancillary Reference Service in year t ;

ART_{t-1} is the Ancillary Reference Tariff applicable to an Ancillary Reference Service in year $t-1$; and

ΔCPI_t is the annual percentage change in the ABS CPI All Groups, Weighted Average of Eight Capital Cities from the June quarter in year $t-2$ to the June quarter in year $t-1$, calculated using the following method:

The ABS CPI All Groups, Weighted Average of Eight Capital Cities for the June quarter in year $t-1$

divided by

The ABS CPI All Groups, Weighted Average of Eight Capital Cities for the June quarter in year $t-2$

minus one.

Where the Reference Tariff for an Ancillary Reference Service (as varied) is less than \$20, the Reference Tariff (as varied) will be rounded to the nearest 10 cents (with five cents rounded upwards). Where the Reference Tariff for an Ancillary Reference Service (as varied) is \$20 or more, the Reference Tariff (as varied) will be rounded to the nearest dollar (with 50 cents rounded upwards).

4.5. Cost Pass Through Event Adjustment

Subject to the approval of the Regulator under the National Gas Rules, Reference Tariffs may be varied after one or more Cost Pass Through Event/s occurs, in which each individual event materially increases or materially decreases the cost of providing the Reference Service. Any such variation will take effect from the next 1 January.

In making its decision on whether to approve the proposed Cost Pass Through Event variation, the AER must take into account the following:

- a the costs to be passed through are for the delivery of Network Services;
- b the costs are incremental to costs already allowed for in Reference Tariffs;
- c the total costs to be passed through are building block components of total revenue;
- d the costs to be passed through meet the relevant National Gas Rules criteria for determining the building block for total revenue in determining reference services;
- e the efficiency of AGN's decisions and actions in relation to the risk of the Relevant Pass Through Event, including whether AGN has failed to take any action that could reasonably be taken to reduce the magnitude of the costs incurred as a result of the Relevant Cost Pass Through Event and whether AGN has taken or omitted to take any action where such action or omission has increased the magnitude of the costs; and
- f any other factors the AER considers relevant and consistent with the National Gas Rules and the National Gas Law.

Cost Pass Through Events are:

- a a Regulatory Change Event;
- b a Service Standard Event;
- c a Tax Change Event;
- d a Terrorism Event;
- e a Retailer Insolvency Event;
- f an Insurer Credit Risk Event;
- g an Insurance Cap Event; and
- h a Natural Disaster Event.

where

'Regulatory Change Event' means:

A change in a regulatory obligation or requirement that:

- a falls within no other category of Cost Pass Through Event; and
- b occurs during the course of an access arrangement period; and
- c substantially affects the manner in which AGN provides Reference Services; and
- d materially increases or materially decreases the cost of providing those services.

'Service Standard Event' means:

A legislative or administrative act or decision that:

- a has the effect of:
 - i substantially varying, during the course of an access arrangement period, the manner in which AGN is required to provide a Reference Service; or
 - ii imposing, removing or varying, during the course of an access arrangement period, minimum service standards applicable to Reference Services; or
 - iii altering, during the course of an access arrangement period, the nature or scope of the Reference Services, provided by AGN; and
- b materially increases or materially decreases the cost to AGN of providing Reference Services.

'Tax Change Event' means:

A tax change event occurs if any of the following occurs during the course of an access arrangement period for AGN:

- a change in a Relevant Tax, in the application or official interpretation of a Relevant Tax, in the rate of a Relevant Tax, or in the way a Relevant Tax is calculated;
- b the removal of a Relevant Tax;
- c the imposition of a Relevant Tax; and

in consequence, the cost to AGN of providing Reference Services are increased or decreased.

'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:

- a 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
- b increases the cost to AGN of providing the Reference Service.

Note for the avoidance of doubt, in making a determination on a Terrorism Event, the AER will have regard to, amongst other things:

- i whether AGN has insurance against the event;
- ii the level of insurance that an efficient and prudent service provider would obtain in respect of the event; and
- iii whether a declaration has been made by a relevant government authority that an act of terrorism has occurred.

'Retailer Insolvency Event' means:

Until such time as the National Energy Retail Law set out in the Schedule to the National Energy Retail Law (South Australia) Act 2011 of South Australia is applied as a law of Victoria, retailer insolvency event has the meaning set out in the National Gas Rules as in force from time to time, except that:

- a where used in the definition of 'retailer insolvency event' in the National Gas Rules, the term 'retailer' means the holder of a licence to sell gas under the Gas Industry Act 2001 (Vic); and
- b other terms used in the definition of retailer insolvency event in the Rules as a consequence of amendments made to that definition from time to time, which would otherwise take their meaning by reference to provisions of the National Gas Law, National Gas Rules or National Energy Retail Law not in force in Victoria, take their ordinary meaning and natural meaning, or their technical meaning (as the case may be).

Note: This retailer insolvency event will cease to apply as a Cost Pass Through Event on commencement of the National Energy Retail Law in Victoria.

'Insurer Credit Risk Event' means:

An event where:

- a an insurer of AGN becomes insolvent; and
- b as a result, in respect of an existing, or potential, claim for a risk that was insured by the insolvent insurer, AGN:
 - 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, the AER will have regard to, amongst other things:

- a AGN'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
- b in the event that a claim would have been made after the insurance provider became insolvent, whether AGN had reasonable opportunity to insure the risk with a different insurer.

'Insurance Cap Event' means:

An event where:

- a AGN makes a claim or claims and receives the benefit of a payment or payments under a relevant insurance policy;
- b AGN incurs costs beyond the relevant policy limit; and
- c the costs beyond the relevant policy limit increase the cost to AGN 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 AGN will be deemed to have made a claim on a relevant insurance policy if the claim is made by a related party of AGN in relation to any aspect of the Network of AGN's business.

Note for the avoidance of doubt, in making a determination on an Insurance Cap Event, the AER will have regard to, amongst other things:

- i the insurance policy for the event;
- ii the level of insurance that an efficient and prudent service provider would obtain in respect of the event; and
- iii any assessment by the AER of AGN's insurance in approving the access arrangement for the gas distribution network for the relevant period.

'Natural Disaster Event' means:

Any natural disaster including but not limited to fire, flood or earthquake that occurs during the Access Arrangement Period that increases the cost 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 AGN.

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

- i whether AGN 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.

Materiality threshold is defined as:

For the purpose of any defined event, an event is considered to materially increase or decrease costs where that event has an impact of one per cent of the smoothed forecast revenue specified in the AER's final decision on this Access Arrangement, in the year of the Access Arrangement period that the costs are incurred.

4.6. Procedure for Variation in Reference Tariffs

4.6.1. Routine Variations

AGN will notify the Regulator in respect of any Reference Tariff variations, at least 50 business days before the date of implementation and include:

- a the proposed variations to the Reference Tariffs; and
- b an explanation and details of how the proposed variations have been calculated.

If AGN proposes variations to the Reference Tariffs (other than as a result of a Cost Pass Through Event) and those variations have not been approved by the next 1 January then the Reference Tariffs will be varied as proposed by AGN until such time as variations to Reference Tariffs are approved by the Regulator.

If it appears that any past tariff variation contains a material error or deficiency because of a clerical mistake, accidental slip or omission, miscalculation or misdescription, the AER may change subsequent tariffs to account for these past issues.

Within 30 Business Days of receiving AGN's variation notice, the Regulator will inform AGN in writing of whether or not it has verified the proposed Haulage Reference Tariff and/or Haulage Reference Tariff Components in the AGN's variation notice as compliant with the Annual Tariff Variation Mechanism.

The 30 Business Day period may be extended for the time taken by the AER to obtain information from AGN, obtain expert advice or consult about the notification. However, the Regulator must assess a variation application within 90 Business Days, including any extension of the decision making time.

4.6.2. Cost Pass Through Event Variations

AGN will notify the AER of Cost Pass Through Events within 90 Business Days of the Cost Pass Through Event occurring (or scheduled to occur), whether the Cost Pass Through Event would lead to an increase or decrease in Reference Tariffs.

When the costs of the Cost Pass Through Event incurred are known (or able to be estimated to a reasonable extent), then those costs shall be notified to the Regulator. When making such notification to the Regulator, AGN will provide the Regulator with a statement, signed by an authorised officer of AGN, verifying that the cost of the relevant Cost Pass Through Event is net of any payments made by an insurer or third party which partially or wholly offsets the financial impact of that event (including self-insurance).

The Regulator must notify AGN of its decision to approve or reject the proposed variations within 90 Business Days of receiving the notification. This period will be extended for the time taken by the Regulator to obtain information from AGN, obtain expert advice or consult about the notification.

The Regulator will endeavor to make its decision on whether AGN should vary Reference Tariffs due to the occurrence of a Cost Pass Through Event within 90 Business Days of receiving a notification from AGN. The overall time period for approving a Cost Pass Through Event is 120 business days.

4.7. Fixed Principles

Rule 99 provides for an Access Arrangement to include "fixed principles" that may extend over two or more Access Arrangement Periods. Rule 99(3) states that "A fixed principle approved before the commencement of these rules, or approved by the AER under these rules, is binding on the AER and the service provider for the period for which the principle is fixed".

When revisions to the Victorian Access Arrangement and the Albury Access Arrangement were approved in December 2002, the following fixed principles were approved and apply accordingly.

Fixed Principle A

- 1 The Capital Base at the commencement of an Access Arrangement Period will be the Capital Base at the commencement of the previous Access Arrangement Period, adjusted to take account of:
 - a changes to CPI since 1 January 2003;
 - b depreciation;
 - c New Facilities Investment meeting the requirements of Section 8 of the Access Code;

- d the sale value of assets that are disposed of in the ordinary course of business since 1 January 2002, other than a disposal of:
 - i all or part of the Distribution System;
 - ii assets pursuant to which the assets of the Service Provider are sold and leased back to the Service Provider;
- e the Capital Base will not be reduced as a result of assets forming part of the Capital Base becoming redundant;
- f the difference between forecast and actual capital expenditure in the year prior to the commencement of the previous Access Arrangement Period;
- g the difference between forecast and actual disposals in the year prior to the commencement of the previous Access Arrangement Period.

This Fixed Principle will apply for a period of 30 years from the commencement of the Second Access Arrangement Period.

The above fixed principle therefore applies from 1 January 2003 to 31 December 2032.

Fixed Principle B

- 2 In the event that the Regulator applies a post-tax return to the Capital Base in the Second Access Arrangement Period, then the same post-tax approach will be applied to the Capital Base in the Third Access Arrangement Period and subsequent Access Arrangement Periods. This Fixed Principle will apply for a period of 30 years.

The above fixed principle therefore applies from 1 January 2003 to 31 December 2032.

The following fixed principles will apply from the Fifth Access Arrangement Period to give effect to the multi-period elements of the incentive mechanisms.

The above fixed principle therefore applies from 1 January 2018 to 31 December 2028.

4.8. Notice to Users

AGN will notify Network Users in writing as soon as practicable if it proposes any variations to any Reference Tariffs (whether as a result of a Cost Pass Through Event or otherwise).

4.9. New Tariff Schedule

Whenever any Reference Tariff is varied in accordance with this Section 4, AGN will publish a Tariff Schedule on its website at www.australiangasnetworks.com.au, showing the Reference Tariffs (as varied) for the Reference Services.

4.10. AER's Decision is Conclusive

The AER's decision to allow a proposed variation in Reference Tariffs will be binding and conclusive on Network Users as to the Reference Tariffs that apply to Reference Services. Network Users will not have the right to challenge or otherwise dispute the Reference Tariffs as allowed from time to time by the AER or the basis on which those Reference Tariffs were calculated or determined.

4.11. Default Tariffs for the Sixth Access Arrangement Period

If revisions pertaining to the Sixth Access Arrangement Period have not come into effect by 1 January 2023, then:

- a the Reference Tariffs for the Haulage Reference Services for the period between 1 January 2023 and the date the revisions come into effect will be adjusted on 1 January each year by AGN, commencing on 1 January 2023, in a manner that is designed to change the average price per GJ (or per GJ of MDQ) for each Reference Tariff by the annual percentage change in the prior September quarter CPI; and
- b the Reference Tariffs for the Ancillary Reference Services for the period between 1 January 2023 and the date the revisions come into effect will be adjusted on 1 January each year by AGN, commencing on 1 January 2023, by the annual percentage change in the prior September quarter CPI.

4.12. Treatment of Capital Expenditure in 2017

In rolling forward the Capital Base, the estimated capital expenditure for 2017 is as set out in the Roll Forward Model as approved in the AER's final decision. Prior to commencement of the Sixth Access Arrangement Period, the actual capital expenditure for 2017 will be known.

Any difference between the estimated capital expenditure and actual capital expenditure for 2017 is to be taken into account when the roll-forward occurs at the next review, prior to the commencement of the Sixth Access Arrangement Period, in accordance with Rule 77(2)(a).

4.13. Depreciation for establishing the Capital Base as at 1 January 2023

The depreciation schedule (straight-line) for establishing the opening Capital Base as at 1 January 2023 will be based on forecast capital expenditure at the asset class level approved for the 2018–22 Access Arrangement Period.

5. Reference Tariff Policy – Incentive Mechanisms

5.1. Incentive Mechanism

An efficiency carryover mechanism will apply to operating expenditure.

The incentive mechanism will operate in the following way:

- i the mechanism carries forward AGN's incremental efficiency gains (or losses) for five years from the year those gains (or losses) occur;
 - ii annual carryover amounts accrue in each 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 year; and
 - iii the annual carryover amounts are added to AGN's total revenue in each 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 January 2023 until it has been retained by the Service Provider for a period of five years.
- a The incremental efficiency gain (loss) for 2018 will be estimated using calculated using:

$$I_{2018} = (F_{2018} - A_{2018}) - [(F_{2017} - A_{2017}) - (F_{2016} - A_{2016})]$$

where

I_{2018} is the incremental efficiency gain (loss) for 2018.

F_{2018} is the approved forecast operating expenditure for 2018.

A_{2018} is the actual operating expenditure for 2018.

F_{2017} is the approved forecast operating expenditure for 2017.

A_{2017} is the actual operating expenditure for 2017.

F_{2016} is the approved forecast operating expenditure for 2016.

A_{2016} is the actual operating expenditure for 2016.

- b The incremental efficiency gain (or loss) for 2019 to 2022 (inclusive) will be calculated using:

$$I_i = (F_i - A_i) - (F_{i-1} - A_{i-1})$$

where

I_i is the incremental efficiency gain in year i of the Access Arrangement Period.

F_i is the approved forecast operating expenditure in year i of the Access Arrangement Period.

A_i is the actual operating expenditure in year i of the Access Arrangement Period.

F_{i-1} is the approved forecast operating expenditure in year $i - 1$ of the Access Arrangement Period.

A_{i-1} is the actual operating expenditure in year $i - 1$ of the Access Arrangement Period.

- c Actual operating expenditure in the final year 2022 of the Access Arrangement Period is to be estimated using:

$$A^*_{2022} = F_{2022} - (F_b - A_b) + \textit{non-recurrent efficiency gains}_b$$

where

A^*_{2022} is the estimate of operating expenditure for 2022.

F_{2022} is the forecast operating expenditure for 2022.

F_b is the approved forecast operating expenditure for the base year used to forecast operating expenditure in the Access Arrangement Period following this Access Arrangement.

A_b is the actual operating expenditure for the base year used to forecast operating expenditure in the Access Arrangement Period following this Access Arrangement.

non-recurrent efficiency gains_b is the adjustment made to base year operating expenditure used to forecast operating expenditure for the Access Arrangement Period expected to commence 1 January 2023 to account for operating expenditure associated with one-off factors.

- d To ensure efficiency gains or losses made in 2022 are retained for five years, operating expenditure for the access arrangement period commencing 1 January 2023 should be forecast in a manner consistent with the estimate for operating expenditure in 2022, A^*_{2022} , in paragraph (c) above. This provides the Service Provider the same reward had the expenditure level in 2022 been known.
- e The incremental efficiency gains (or losses) are carried over from year to 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.
- f 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 year of the subsequent Access Arrangement Period.
- g The following costs will be excluded from the operation of the efficiency carryover mechanism:
- i movements in provisions
 - ii 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 January 2023). These costs may include, debt raising costs and unaccounted for gas expenses
 - iii any other activity that AGN and the Regulator agree to exclude from the operation of the efficiency carryover mechanism.
- h The approved forecast operating expenditure amount for each year of the Applicable Access Arrangement Period will be adjusted to include any Determined Pass Through

Amounts or other AER approved expenditure arising from Cost Pass Through Events which apply in respect of that year.

- i For the avoidance of doubt, the forecast expenditure amounts that are used as the basis for measuring efficiencies are equal to the approved forecast operating expenditure for that year as shown in the table below, which exclude the costs listed in clause 5.1(h)(i)–(iii).

Approved forecast operating expenditure for the efficiency carryover mechanism (\$ million, 2017)

	2016	2017	2018	2019	2020	2021	2022
Approved forecast operating expenditure	65.6	66.7	67.2	67.9	68.7	69.5	70.4

Note: Excludes debt raising costs.

5.2. Capital Expenditure Sharing Scheme

The Capital Expenditure Sharing Scheme (**CESS**) will operate in the following way:

- i The annual efficiency gain or loss under the scheme will be calculated by subtracting AGN's actual capital expenditure from the approved capital expenditure allowance (both net of contributions) in each year of this Access Arrangement. For the final year (and in some instances the penultimate year) an estimate of actual capital expenditure will be used.
- ii 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 scope of activities in accordance with the approach outlined below or an approved Cost Pass Through Event.

- a The efficiency gain for year one is calculated as:

$$\text{Year 1 efficiency gain} = \text{capital expenditure allowance for year 1} - \text{actual capital expenditure in year 1}$$

- b The efficiency gain for each year will be discounted into its Net Present Value (NPV) at the end of the Access Arrangement Period. In doing so it is assumed that capital expenditure occurred in the middle of the year. To calculate the total efficiency gain the annual efficiency gains in NPV terms are added.

$$\text{Total efficiency gain} = \text{NPV year 1 efficiency gain} + \text{NPV year 2 efficiency gain} + \text{NPV year 3 efficiency gain} + \text{NPV year 4 efficiency gain} + \text{NPV year 5 efficiency gain}$$

- c The above calculations are represented by the following equation:

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

where:

n is the Access Arrangement year

$WACC$ is the average of the nominal weighted average cost of capital that are applied during each year of the Access Arrangement Period

p is the length of the Access Arrangement Period

F_n is the capital expenditure allowance for year n

A_n is the actual capital expenditure for year n .

- d A sharing factor 30 per cent will apply to the total efficiency gain/loss. This means that AGN will bear 30 per cent of any loss and will retain 30 per cent of any gain. The remaining 70 per cent will go to gas pipeline users.

AGN sharing factor = 30%

AGN share = total efficiency gain x 30%

- e The CESS takes into account benefits or costs that have already accrued to AGN during the Access Arrangement Period in order to ensure that the power of the incentive is the same in each year. This is the financing benefit of any underspend and the financing cost of any overspend.
- f Capital expenditure is assumed to be incurred in the middle of each year and would be adjusted to end of year terms. In the case of an underspend, AGN will recover a financing benefit (in the year following an underspend) equal to the underspend, in the preceding year, multiplied by the WACC.
- g The financing benefit from preceding years will be compounded, namely the financing benefit will be discounted to its NPV at the end of the Access Arrangement Period. In doing so it is assumed that financing benefits accrue at the end of each year. To calculate the total financing benefit, the annual financing benefit in NPV terms are summed. This is calculated using the following equation:

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

- h The CESS reward or penalty payable to AGN is calculated by subtracting the net financing benefit from AGN's share of the cumulative efficiency gain:

$$\text{CESS reward} = (\text{NSP share} - \text{net financing benefit}) \times \text{CPF}$$

where:

CPF is the Contingent Payment Factor calculated as:

If AGN's share > net financing benefit, and

- if the asset performance index (API) > 100, = 1
- if $80 < \text{API} < 100$, $\text{CPF} = (\text{API} - 80) / (100 - 80)$, and
- if $\text{API} < 80$, $\text{CPF} = 0$, or

If AGN's share is \leq net financing benefit, $\text{CPF} = 1$.

API is the Asset Performance Index calculated in accordance with Annexure G.

- i The CESS reward or penalty will be applied as an additional building block adjustment to AGN's revenue over the upcoming Access Arrangement.
- j Actual capital expenditure for the final year of the Access Arrangement will not be available when the rewards or penalties for the CESS are calculated for the upcoming Access Arrangement. Instead, an estimate of capital expenditure will be used to calculate the efficiency gains or losses for the final regulatory year.
- k At the next Access Arrangement decision actual capital expenditure data will be available for that year. Where AGN'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. The adjustment for the final year of the Access Arrangement Period will be:

$$\text{Final year adjustment} = (A_p^* - A_p) \times \left[\frac{\text{NSP sharing factor} - 1}{(1 + \text{WACC})^{-0.5}} \right] + 1$$

where:

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

- i CESS payments will be adjusted where AGN defers capital expenditure in the 2018–22 Access Arrangement Period and:
 - i the amount of the deferred capital expenditure in the 2018–22 Access Arrangement Period is material, and
 - ii the amount of the estimated underspend in capital expenditure in the 2018–22 Access Arrangement Period is material, and
 - iii total approved forecast capital expenditure in the next 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 2018–22 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 next Access Arrangement Period attributable to capital expenditure deferred in the 2018–22 Access Arrangement Period.

- m Actual capital expenditure will be adjusted to remove any expenditure that is not rolled in to AGN's regulatory asset base used to determine revenue over the 2018-22 Access Arrangement Period.
- n 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 where finalised actual capital expenditure figures are not available before finalising the regulatory determination.

6. Terms and Conditions

6.1. Reference Services

Reference Services will be provided to Network Users under this Access Arrangement on and subject to the terms of an Agreement that will comprise:

- a the Specific Terms and Conditions, in the form set out in Annexure E; and
- b the terms and conditions set out in Annexure F (**the General Terms and Conditions**).

In any case where the Network User requires access to the part of the Network which is located within the State of Victoria, the Service Provider will be AGN Vic and the Agreement will be made between the Network User and AGN Vic.

In any case where the Network User requires access to the part of the Network which is located within the State of New South Wales, the Service Provider will be AGN Albury and the Agreement will be made between the Network User and AGN Albury.

Each Agreement will include the Specific Terms and Conditions. The Specific Terms and Conditions is a standard form document that contains details which will vary from Network User to Network User and from Agreement to Agreement. The blank spaces in the standard form are to be completed and the document signed by AGN and the Network User to evidence the Agreement between them.

As is apparent from the form of the Specific Terms and Conditions set out in Annexure E, the details to be completed are as follows:

- a details of each Network User Receipt Point at which Gas is to be delivered to AGN by or for the account of that Network User pursuant to the Agreement;
- b details of each Network User DP at which Gas is to be delivered by AGN to or for the account of that Network User pursuant to the Agreement;
- c the period for which the Agreement is to remain in force (assuming it is not terminated earlier in accordance with the General Terms and Conditions);
- d the date on which AGN is to commence providing Reference Services pursuant to the Agreement;
- e where required, details of the maximum Quantity of Gas AGN is obliged to deliver through each Network User DP that is a Demand DP during any Network Day and during any period of 60 minutes; and
- f an address and facsimile number for the purposes of the service of notices on the Network User pursuant to the Agreement.

As regards paragraphs (a) and (b), it is possible that a Network User will wish to deliver Gas to AGN through multiple/different Receipt Points that vary over the Term of the Agreement or requires AGN to deliver Gas through multiple/different DPs that will vary over the Term of the Agreement. In this case, the Specific Terms and Conditions will describe how those Receipt Points and DPs will be determined and identified from time to time over the Term of that Agreement. In the case of Network Users who wish to be able to deliver Gas through multiple/different DPs that vary over the time, AGN expects that the Network User DPs will be defined as those DPs in respect of which the Network User is the financially responsible organisation (FRO) under the relevant Retail Market Procedures.

As regards paragraph (e), the Maximum Daily Quantity (MDQ) for a Network User DP will be determined by negotiation between AGN and the Network User. If no MDQ has been or is agreed for a Network User DP, then the MDQ will be determined by AGN acting reasonably, having regard to historical data about the Quantities of Gas delivered through the relevant Network User DP and any other factors AGN considers relevant.

6.2. Negotiated Services

A Negotiated Service is a Network Service that is different from the Reference Services. If a Network User or a Prospective Network User requires a Network Service on terms and conditions that differ in any way to the General Terms and Conditions, then the Network User or Prospective Network User requires a Negotiated Service.

The terms and conditions on which AGN will provide a Negotiated Service (including the Tariff for that Negotiated Service) will be determined through negotiation between AGN and the User who requires that Negotiated Service, or in default of agreement, through dispute resolution in accordance with Chapter 6 of the National Gas Law.

The terms and conditions on which AGN will provide a Negotiated Service will be the same as the General Terms and Conditions to the extent that the General Terms and Conditions are appropriate and applicable to the Negotiated Service requested by the Network User or Prospective Network User.

Once the terms and conditions of a Negotiated Service have been agreed or determined through dispute resolution in accordance with Chapter 6 of the National Gas Law, AGN and the User will sign a document to evidence those terms and conditions.

The document will comprise the Specific Terms and Conditions, the General Terms and Conditions (to the extent that they apply to the Negotiated Service) and a schedule setting out the terms and conditions applicable to that Negotiated Service (as agreed or determined through dispute resolution). The schedule is known as the Special Terms and Conditions and will show how the terms and conditions applicable to the Negotiated Service differ from the General Terms and Conditions.

6.3. Pre-Conditions to Network Services

A Prospective Network User that requires a Network Service must satisfy a number of pre-conditions before AGN is required to provide that Network Service. These pre-conditions are as follows:

- a the Network User must satisfy AGN that the Network User meets the requirements of AGN's Network User Policy;
- b the Network User must satisfy AGN that the Network User is registered under the Rules as a registered participant in the relevant registrable capacities;
- c the Network User must satisfy AGN that the Network User has adequate arrangements in place to ensure that the Network User will comply with its obligations to AGN in relation to the Network Service; and
- d the Network User must execute a written agreement setting out or incorporating the terms and conditions on which AGN is to provide the Network User with the Network Service.

6.4. Network User Policy

AGN will not be required to provide Network Services to a Network User, or Prospective Network User, who does not meet the requirements of AGN's Network User Policy. The Network User Policy requires that:

- a a Network User must be resident in Australia or have a permanent establishment in Australia;
- b (if the Network User is incorporated or constituted under any law other than the Corporations Act 2001) the Network User must have provided AGN with a legal opinion in form and substance satisfactory to AGN that confirms:
 - i the due incorporation and good standing of the Network User;
 - ii the legal capacity of the Network User to enter into and perform the Agreement between the Network User and AGN; and
 - iii the due execution of that Agreement and the enforceability of that Agreement against the Network User,
- c the Network User must be capable of being sued in its own name in courts established under the laws of Victoria, New South Wales and other States;
- d the Network User must not enjoy any immunity from legal proceedings or legal process (including, but without limitation, any immunity from execution);
- e if the Network User is a retailer and NECF applies to the Network, the Network User must comply with the credit support rules set out in Division 4 of Part 21 of the National Gas Rules. If the Network User is not a retailer or the credit support rules not apply to the Network, the Network User must have an acceptable credit rating, or provide AGN with security acceptable to AGN, on terms and conditions acceptable to AGN;
- f the Network User must have the necessary financial capability to discharge its present and future obligations in relation to Network Services; and
- g the Network User must not be an externally administered body corporate or insolvent under administration (as defined in the Corporations Act 2001) or under a similar form of administration under any laws applicable to the User in any jurisdiction.

For the purposes of paragraph (e), where the Network User is not a retailer or the credit support rules do not apply to the Network, AGN will from time to time determine what constitutes an acceptable credit rating. Until otherwise determined by AGN, an acceptable credit rating is a rating of BBB or higher for long-term unsecured counterparty obligations of the entity, as rated by Standard & Poors (Australia) Pty Ltd.

Whenever AGN decides to alter the acceptable credit rating, it will notify all affected Network Users of the acceptable credit rating or ratings as altered.

For the purposes of paragraph (e), acceptable security will be:

- a a bank guarantee, given by an Australian bank acceptable to AGN, for an amount of not less than AGN's reasonable estimate of three months average Charges (calculated by reference to a 12 month period); or
- b a guarantee of the Network User's obligations given by an entity, acceptable to AGN, that has an acceptable credit rating (as defined above).

7. Capacity Trading

7.1. Capacity Trading

Rule 48(1)(f) of the Rules requires an Access Arrangement to set out capacity trading requirements. Rule 105 of the National Gas Rules states that the capacity trading requirements must provide for the transfer of capacity:

- a in accordance with the rules or procedures governing a gas market in which the service provider is registered as a participant; or
- b in accordance with Rule 105, if the service provider is not registered as a participant in a gas market or the relevant rules or procedures do not deal with capacity trading.

AGN is registered as a participant in both the Victorian Wholesale Gas Market and the Victorian Retail Gas Market.

Unlike a transmission pipeline, the Network is a gas distribution network in a competitive gas market and, consequently, Network Users do not have reserved capacity within the Network. The capacity of the Network is determined by the capacity of the Receipt Points to accept gas into the Network and the capacity of the Delivery Points to deliver gas out of the Network.

The Receipt Points on the Network are system withdrawal points for the purposes of the Declared Wholesale Gas Market Rules which are set out in Part 19 of the National Gas Rules. Bids for the withdrawal of gas at the system withdrawal points are allocated in accordance with the Declared Wholesale Gas Market Rules. Where two or more withdrawal bids are equally beneficial, withdrawal bids associated with AMDQ credit certificates or authorised MDQ are scheduled before other withdrawal bids. AMDQ credit certificates and authorised MDQ represent capacity at the system withdrawal points. AMDQ credit certificates and authorised MDQ, can be transferred in accordance with the Declared Wholesale Gas Market Rules.

The Delivery Points on the Network are distribution supply points for the purposes of the Victorian Retail Market Procedures. AGN delivers gas through the distribution supply points to or for the account of the person which is registered as the financially responsible organisation (FRO) for that distribution supply point. The capacity available at a Delivery Points can be transferred between Network Users in accordance with the Victorian Retail Market Procedures.

Rule 105 of the Rules provides for the transfer of contracted capacity. As the Network is a gas distribution network, Network Users are not allocated contracted capacity within the Network.

7.2. Queuing

The Network is a distribution pipeline and, consequently, under Rule 103(1)(b) of the National Gas Rules, this Access Arrangement does not need to include queuing requirements unless the Regulator has notified AGN that this Access Arrangement must contain queuing requirements. The Regulator has not notified AGN to that effect.

7.3. Changes to Receipt and Delivery Points

Rule 48(h) of the National Gas Rules requires an Access Arrangement to state the terms and conditions for changing receipt and delivery points.

Under Rule 106 of the National Gas Rules, an Access Arrangement must provide for the change of a receipt or delivery point in accordance with the following principles:

- a A Network User may, with the service provider's consent, change the Network User's receipt or delivery point;
- b The service provider must not withhold its consent unless it has reasonable grounds, based on technical or commercial considerations, for doing so.

An Access Arrangement may specify in advance conditions under which consent will or will not be given and conditions to be complied with if consent is given.

As the only Receipt Points on the Network are custody transfer points between the Network and other networks, it is unlikely that the Service Provider would consent to a request to change a Receipt Point.

As AGN is a Distributor under the Victorian Retail Market Procedures, the terms and conditions for changes to Delivery Points are the terms and conditions set out in the Victorian Retail Market Procedures. Chapter 4 of the Victorian Retail Market Procedures provides for the transfer of Delivery Points.

The Network User may change the Network User DPs in accordance with the Victorian Retail Market Procedures. AGN will not withhold its consent to a change in a Network User DP unless it has reasonable grounds for doing so, based on technical or commercial considerations.

8. Network Extensions and Expansions

8.1. High Pressure Extensions

- a If AGN proposes a high pressure pipeline extension of the covered pipeline, subject to Section 8.1c, AGN must apply to the Regulator in writing to decide whether this Access Arrangement will apply to incremental services to be provided by the proposed extension. The application must include the information required by Section 8.1b.
- b A notification given by AGN under this Section 8.1 must:
 - i be in writing;
 - ii state whether AGN intends for this Access Arrangement to apply to the incremental services to be provided by means of the proposed extension;
 - iii describe the proposed extension and describe why the proposed extension is being undertaken; and
 - iv be given to the AER before the proposed extension comes into service.
- c AGN is not required to notify the AER under this Section 8.1 to the extent that the cost of the proposed extension has already been included and approved by the Regulator in the calculation of Reference Tariffs, in which case, this Access Arrangement applies to incremental services to be provided by means of the proposed extension.
- d After considering AGN's application, and undertaking such consultation as the Regulator considers appropriate, the Regulator will inform AGN of its decision on AGN's proposed coverage approach for the new network section.
- e The Regulator's decision referred to above may be made on such reasonable conditions as determined by the Regulator and will have the effect stated in the decision.

8.2. Other Extensions and Expansions

- a Any extensions to the Network which are not high pressure pipeline extensions within the meaning of this clause will be covered by this Access Arrangement. Any expansions to the Network will be covered by this Access Arrangement.
- b For the purposes of this clause, high pressure means 1050kPa.

8.3. Effect on Reference Tariffs

- a This Section 8.3 describes how Incremental Users will be charged for an Incremental Reference Services to which this Access Arrangement applies pursuant to Section 8.2.
- b Where capital expenditure constituted by an extension or expansion is conforming capital expenditure, Incremental Users will be charged at the prevailing Reference Tariffs and, as permitted by Rule 77(2) of the National Gas Rules, AGN will include the capital expenditure in the opening Capital Base for the next Access Arrangement Period. AGN may, at its discretion, seek the Regulator's determination prior to the next Access Arrangement Period that capital expenditure is conforming capital expenditure.

- c Where capital expenditure constituted by an extension or expansion is non-conforming capital expenditure:
 - i it may be (subject to the Rules):
 - 1 recovered from Incremental Users by way of capital contribution, in which case the Incremental Users would be charged according to the prevailing Reference Tariffs (as to that part of the capital expenditure constituted by an extension or expansion that is conforming capital expenditure, if any) plus the capital contribution;
 - 2 recovered from Incremental Users by way of a surcharge approved by the Regulator under Rule 83 of the Rules, in which case the Incremental Users would be charged according to the prevailing Reference Tariffs (as to that part of the capital expenditure constituted by an extension or expansion that is conforming capital expenditure, if any) plus the surcharge;
 - 3 included in a Speculative Capital Expenditure Account under Section 9 to the extent that it is not recovered through a capital contribution or a surcharge, in which case Incremental Users would be charged according to the prevailing Reference Tariffs as to that part of the capital expenditure constituted by an extension or expansion that is conforming capital expenditure, if any; or
 - 4 recovered by a combination of these approaches, in which case Incremental Users would be charged according to the prevailing Reference Tariffs (as to that part of the capital expenditure constituted by an extension or expansion that is conforming capital expenditure, if any) plus, as applicable, a capital contribution and an approved surcharge; and
 - ii AGN will notify the relevant Incremental Users of its choice between these approaches prior to the extension or expansion entering into service.
- d Where AGN recovers non-conforming capital expenditure by way of capital contribution, AGN will include the whole of the capital expenditure in the opening Capital Base for the next Access Arrangement Period and will also include the capital contribution (as a negative amount, so that AGN will not benefit by way of increased revenue).
- e Where AGN recovers non-conforming capital expenditure by way of a surcharge, AGN will include that part of capital expenditure that is conforming capital expenditure in the opening Capital Base for the next Access Arrangement Period and, as required by Rule 83(3), will not include the non-conforming capital expenditure that is, or is to be, recovered by way of the surcharge.
- f Where a Network Service other than an Incremental Reference Service, is provided pursuant to an extension or expansion, AGN will negotiate the Charge in good faith with the relevant Network Users (subject to the relevant provisions of the National Gas Rules).

8.4 Un-reticulated Townships

AGN's policy for extensions to un-reticulated townships where the extension was not included in the calculation of the Reference Tariffs or the subject of a competitive tender is as follows:

- a Any proposal to reticulate a township, or request to AGN to consider reticulation of a township, will undergo an initial feasibility assessment.

- b If the feasibility assessment indicates that the extension may be economic, AGN will conduct further investigation that may include proposals for the regulatory treatment of the extension project.
- c AGN may approach the Regulator with details of the proposed extension with a view to agreeing on the regulatory treatment of the extension project.
- d Where the agreed regulatory treatment is that the extension is, if it proceeds, to be covered by this Access Arrangement:
 - i AGN will be permitted to recover the Net Financing Costs incurred during the Access Arrangement Period in which the extension is commenced in Reference Tariffs to take effect in subsequent Access Arrangement Periods;
 - ii The Capital Base for the Access Arrangement Period commencing immediately after the commencement of the extension will be increased by the capital expenditure that is conforming capital expenditure;
 - iii The capital expenditure will not reduce the carry-over of cost-related efficiencies from the Access Arrangement Period in which the extension is commenced to any subsequent Access Arrangement Period;provided the extension:
 - iv passes the Economic Feasibility Test; and
 - v would otherwise be uneconomic for AGN if commenced prior to being included in the calculation of Reference Tariffs in future Access Arrangement Periods.
- e Once agreement has been reached concerning the regulatory arrangement, AGN will undertake a detailed feasibility assessment. Should the outcome of this assessment establish or confirm that the extension is economic (including the consideration of any capital contributions or surcharges) under the agreed regulatory arrangement, then the extension will progress. Otherwise, further discussions will be held with the Regulator. If, in light of the detailed economic assessment and available regulatory arrangements, the extension is not economic, the extension will not proceed.
- f Where the extension is deemed uneconomic, AGN may review the extension should material changes occur.
- g AGN's funding of extensions to un-reticulated townships is, in accordance with Rule 104(3) of the NGR, conditional upon (among other things) AGN having sufficient funds available on commercial terms acceptable to AGN.
- h The agreed regulatory treatment may include a requirement that Incremental Users pay a capital contribution in addition to prevailing Reference Tariffs, or a surcharge in addition to prevailing Reference Tariffs, or a new Reference Tariff.
- i Where the agreed regulatory treatment includes application of a new Reference Tariff, the agreed regulatory treatment shall also include a mechanism to integrate the new Reference Tariff into the Reference Tariff Control Formulae.

9. Speculative Capital Expenditure

If during the Access Arrangement Period, AGN makes capital expenditure (in whole or in part) that is non-conforming capital expenditure under the Rules, AGN may:

- a recover the amount of the expenditure in full or in part by means of a capital contribution by a Network User or Network Users; and/or
- b 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 Rules.

To the extent that the amount of the non-conforming capital expenditure is not to be recovered pursuant to Section 9, AGN will add that amount to its speculative capital expenditure account in accordance with the Rules.

10. Review of the Access Arrangement

10.1. Revisions Submission Date

AGN will submit revisions to this Access Arrangement to the Regulator on or before 1 December 2021.

10.2. Revisions Commencement Date

The revisions to this Access Arrangement referred to in Section 10.1 will commence on 1 January 2023.

11. Glossary

In this Access Arrangement and the Access Arrangement Information, unless the contrary intention appears:

'Access Arrangement Information' (the Final Plan) has the meaning given to it in the National Gas Law and refers to the Access Arrangement Information for the Network, amended to reflect the AER's Final Decision.

'AEMO' means Australian Energy Market Operator Limited (ABN 94 072 010 327).

'AER' or **'Regulator'** means the Australian Energy Regulator.

'AER's Final Decision' means the final decision of the AER under Rule 62 of the National Gas Rules.

'AGN' means AGN Vic in the case of the Network to the extent that the Network is located within the State of Victoria and AGN Albury in the case of the Network to the extent that the Network is located within the State of New South Wales.

'AGN Albury' means Australian Gas Networks (Albury) Limited (ABN 84 000 001 249).

'AGN Vic' means Australian Gas Networks (Vic) Pty Ltd (ABN 73 085 899 001).

'Agreement' means the contract between AGN and a Network User for the provision of Network Services.

'Allowable NIS Expenditure' has the meaning given in Section 5.3.

'Ancillary Reference Charge' means the charge payable by the Network User under the Agreement for an Ancillary Reference Service as calculated in accordance with the Agreement and the Tariff Schedule from time to time.

'Ancillary Reference Service' means a Network Service described in Section 2.3 of this Access Arrangement.

'Ancillary Reference Tariffs' means the tariffs applicable to the Ancillary Reference Services.

'Annual MHQ' means the greatest Quantity of Gas (in GJ) withdrawn at a DP in any hour in a Calendar Year.

'Asset Performance Index' or **'API'** is the index of asset performance calculated in accordance with Annexure G for the purpose of determining Contingent Payment Factor adjustments to the Capital Expenditure Sharing Scheme.

'Billing Period' means a calendar month or such other period as AGN and the Network User may agree.

'Business Day' means a day other than a Saturday, Sunday or public holiday in Victoria or New South Wales.

'Calendar Year' means a period of 12 months commencing on 1 January and ending on 31 December.

'Charges' means the charges payable by the Network User under the Agreement and, in relation to a User DP, means the charges payable by the Network User in relation to that DP as determined in accordance with the Agreement.

'Claim' means any claim under or pursuant to an indemnity in the Agreement (or any other contract) or as a result of any breach of the Agreement (or any other contract) or in tort as a result of any negligence or any breach of any duty or as a result of any breach of any statutory duty or obligation or any other duty or obligation.

'Commercial DP' see **'non-Residential DP'**.

'Cost Pass Through Event' has the meaning given in Section 4.5.

'Contracted Capacity' has the same meaning as it has for the purposes of Rule 105 of the National Gas Rules.

'Contingent Payment Factor' or **'CPF'** or means the value of CESS reward scaling, if any, that arises from the outcome of AGN's performance on the Asset Performance Index.

'CPI' means the Consumer Price Index (All Groups Weighted Average for the Eight Capital Cities) as published by the Australian Bureau of Statistics or its successor or, if that Consumer Price Index is not published for any reason, whatever alternative index AGN determines (with the Regulator's approval) from time to time is reasonably equivalent to that Consumer Price Index.

'Cubic Metre', in relation to Gas, means the amount of that Gas which, at Standard Conditions, would occupy a volume of one cubic metre.

'Customer Connection Contract' means a "customer connection contract" (as defined in the National Energy Retail Law) between AGN and a Shared Customer in respect of premises at which there is a Network User DP. A reference to a customer connection contract includes a reference to a customer connection contract taken to be entered into by AGN and a Shared Customer by operation of law.

'Customer Connection Services' means "customer connection services" (as defined in the National Energy Retail Law) for premises of a Shared Customer which are the subject of a Customer Connection Contract.

'Default Interest Rate' means a rate of interest which is two per cent per annum higher than the Interest Rate.

'Delivery Point' or **'DP'** means a point on the Network at which Gas is, or is to be, delivered out of the Network.

'Demand DP' or **'Industrial DP'** has the meaning given to it in Section 2.2.2 of this Access Arrangement.

'Demand Haulage Service' means the Network Service that is described in Section 2.2.2 of this Access Arrangement.

'Disconnection' has the meaning given to it in Section 2.3 of this Access Arrangement.

'Distribution Area' means the area that is serviced by the Network.

'Distribution Licence' means a licence or authority granted to AGN under law, which authorises the operation of the Network or any part of it.

'Distribution Services', in an Agreement, means Haulage Reference Services, Ancillary Reference Services, Customer Connection Services and any other services (including any Network Services) provided by AGN to the Network User under or in relation to that Agreement.

'Distribution Service Charges' means the charges payable by the Network User under the Agreement and any other charges that are "distribution service charges" within the meaning of the National Gas Rules.

'Economic Feasibility Test' means the test to determine whether capital expenditure is conforming capital expenditure as constituted by Rule 79(1)(a) and 79(2)(a) or 79(2)(b) of the National Gas Rules.

'Fifth Access Arrangement Period' means the period from 1 January 2018 to 31 December 2022.

'Final Plan' see **'Access Arrangement Information'**.

'Financially Responsible Organisation' or **'FRO'** means, in relation to a supply point, the person identified in the metering register as the Market Participant responsible, at the relevant time, for settling the account relating to that supply point.

'Gas' has the meaning given to 'natural gas' in the National Gas Law.

'Gas leaks' has the number of publicly reported gas leaks in mains, mains or meters that require corrective works per year.

'Gas Retailer' means a person who is the holder of a licence under the Gas Supply Act 2001 (Vic) authorising the sale of gas by retail or a person who is the holder of a supplier's authorisation under the Gas Supply Act 1996 (NSW) or a retailer authorisation issued under the National Energy Retail Law in respect of the sale of gas.

'General Terms and Conditions' or **'Terms and Conditions'** has the meaning given to it in Section 6.1.

'GJ' means a gigajoule, which is 1000 megajoules.

'Gross Heating Value' means the energy produced by the complete combustion of one Cubic Metre of Gas with air, at Standard Conditions, the product of combustion cooled to a temperature of 15 degrees Celsius and the water vapour formed by the combustion condensed to a liquid state.

'GST Act' means the A New Tax System (Goods and Services Tax) Act 1999.

'GSL Payment' means a payment that AGN is required to make under a GSL scheme (as defined in the National Energy Retail Law (South Australia) Act 2011 (SA)).

'Haulage Reference Service' means the Demand Haulage Service or the Volume Haulage Service.

'Haulage Reference Tariffs' means the tariffs applicable to the Haulage Reference Services.

'Haulage Service Charge' means the charge payable by a Network User under the Agreement for a Haulage Reference Service as calculated in accordance with the Agreement and the Tariff Schedule from time to time.

'Incremental Reference Service' means a Reference Service that could not have been provided at a Delivery Point without an extension or expansion.

'Incremental User' means a User that could not have been serviced at a Delivery Point without an extension or expansion.

'Industrial DP' see **'Demand DP'**.

'Insolvency Event' means the happening of any of the following events in relation to a party to the Agreement:

- a an order is made that it be wound up or that a 'controller' (as defined in the Corporations Act 2001) be appointed to it or any of its assets;
- b a resolution that it be wound up is passed;
- c a liquidator, provisional liquidator, Controller or any similar official is appointed to, or takes possession or control of, all or any of its assets or undertakings;
- d an administrator is appointed to it or a resolution that an administrator be appointed to it is passed;
- e it enters into, or resolves to enter into, an arrangement, compromise or composition with any of, or any class of, its creditors or shareholders, or an assignment for the benefit of any of, or any class of, its creditors, in relation to a potential Insolvency Event in subparagraphs (a) to (d), or (f) to (g) occurring;
- f any action is taken by the Australian Securities and Investment Commission to cancel its registration or to dissolve it;
- g it is insolvent within the meaning of Section 95A of the Corporations Act, as disclosed in its accounts or otherwise, states that it is unable to pay its debts or it is presumed to be insolvent under any applicable law; or
- h it stops or suspends:
 - the payment of all or a class of its debts; or
 - the conduct of all or a substantial part of its business; or
- i any other event happens under any law (including the laws of another jurisdiction) that has the same effect, or a substantially similar effect, as any of the events specified in the preceding paragraphs.

'Interest Rate' means the Commonwealth Bank of Australia corporate overdraft reference rate, as varied from time to time.

'Maximum Daily Quantity' or **'MDQ'**, in relation to a User DP, means the maximum Quantity of Gas which AGN agrees to deliver through that DP during any Network Day, as specified in, or determined in accordance with, the Specific Terms and Conditions and the General Terms and Conditions, or another agreement between the Network User and AGN or, if not agreed, as determined in accordance with Section 6.1 of this Access Arrangement.

'Maximum Hourly Quantity' or **'MHQ'**, in relation to a User DP, means the maximum Quantity of Gas (in GJ) which AGN is obliged to transport and deliver to a particular Delivery Point in any hour, as determined in accordance with Section 2.2.2 of this Access Arrangement.

'Meter and Gas Installation Test' has the meaning given to it in Section 2.3 of this Access Arrangement.

'Meter Reinstallation' has the meaning given to it in Section 2.3 of this Access Arrangement.

'Meter Removal' has the meaning given to it in Section 2.3 of this Access Arrangement.

'Metering Installation', in relation to a User DP, means the meter and associated equipment and installations (which may include correctors, regulators, filters, data loggers and telemetry relating to a DP) owned or operated by AGN at that User DP and, in relation to a User Receipt Point, means the metering installation owned or operated by AGN at that User Receipt Point or, if AGN does not own or operate metering installation at that User Receipt Point, the metering installation provided by or on behalf of the User at that Receipt Point.

'Negotiated Service' means a Network Service of the type described in Section 2.4 of this Access Arrangement.

'NERL' means the National Energy Retail Law.

'NERR' means the National Energy Retail Rules.

'Net Financing Cost', in relation to an extension or expansion, means the surplus of the estimated conforming capital expenditure in relation to, and the operating expenditure (complying with Section 91 of the Rules) in respect of, the extension or expansion within the Access Arrangement Period in which the extension or expansion commenced over the present value of the estimated incremental revenue that would be derived directly from the extension or expansion within that period.

'Network' means the distribution mains that are the subject of this Access Arrangement from time to time, together with inlets, regulators, Metering Installations, pipes and all ancillary equipment. In an Agreement where the Service Provider is Australian Gas Networks (Vic) Pty Ltd (ABN 73 085 899 001), it means the part of the Network which is located within the State of Victoria and, in an Agreement where the Service Provider is Australian Gas Networks (Albury) Limited (ABN 84 000 001 249), it means the part of the Network which is located within the State of New South Wales.

'Network Day' means a period of 24 consecutive hours that commences at 6:00am Eastern Standard Time.

'Network Service' means a Service provided by means of the Network.

'Network User' (in an Agreement) means the User that is a party to that Agreement.

'Network User Policy' means the policy described in Section 6.4 of this Access Arrangement.

'non-Residential DP' or **'Commercial DP'** has the meaning given to it in Section 2.2.1 of this Access Arrangement.

'Post-tax revenue model' or **'PTRM'** means a set of Microsoft Excel spreadsheets (combined into one file, often referred to as a singular spreadsheet) that perform iterative calculations to derive the X factors for each regulatory year of the AA period from a given set of inputs (in accordance with National Gas Rule and National Gas Law).

'Planned Interruption' means an interruption of the supply of Gas to the Network for:

- a the planned maintenance, repair or augmentation of the Network, including planned or routine maintenance of metering equipment; or
- b the installation of a new connection or a connection alteration.

'Prospective Network User' means a person who seeks or who is reasonably likely to seek to enter into a contract for a Network Service and includes a Network User who seeks or may seek to enter into a contract for an additional Network Service.

'Quantity of Gas' means the quantity of Gas determined in accordance with the Agreement.

'Receipt Point' means a point on the Network at which Gas is, or is to be, received into the Network.

'Reconnection', has the meaning given to it in Section 2.3 of this Access Arrangement.

'Reference Service' means a Haulage Reference Service or an Ancillary Reference Service.

'Reference Tariff' means the tariff that relates to a Haulage Reference Service or an Ancillary Reference Service.

'Reference Tariff Control Formula' means a formula set out in Annexure D to this Access Arrangement.

'Regulator' see 'AER'.

'Related Haulage Agreement' (in an Agreement between AGN and a Network User) means any other agreement between AGN and that Network User under which AGN delivers, or is to deliver, Gas to or for the account of that Network User.

'Relevant Tax' means any royalty, duty, excise, tax, impost, levy, fee or charge (including, but 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 income tax and capital gains tax;
- b stamp duty, financial institutions duty and bank accounts debits tax;
- c penalties, charges, fees and interest on late payments, or deficiencies in payments, relating to any tax; or
- d any tax that replaces or is the equivalent of or similar to any of the taxes referred to in paragraphs (a) or (b) (including any State equivalent tax)).

'Residential DP' has the meaning given to it in Section 2.2.1 of this Access Arrangement.

'Retail Market Procedures' means the retail market procedures which have been made or are made from time to time under Section 91M of the National Gas Law and which apply to, or in relation to, the Network.

'Rules' means the National Gas Rules under the National Gas Law.

'Service Provider' means Australian Gas Networks (Vic) Pty Ltd (ABN 73 085 899 001) in the case of the Network to the extent that the Network is located within the State of Victoria and Australian Gas Networks (Albury) Limited (ABN 84 000 001 249) in the case of the Network to the extent that the Network is located within the State of New South Wales.

'Shared Customer' means any person from time to time who has, or has had, a contract or other arrangement with a Network User to purchase Gas delivered through a User DP and any person from time to time who is or has been liable to pay for that Gas under the NERL. In this definition, a reference to a contract or other arrangement with a Network User includes a reference to a deemed contract or arrangement that came into operation, or comes into operation, under the NERL.

'Sixth Access Arrangement Period' means the period from 1 January 2023 to 31 December 2027.

'Special Meter Read' has the meaning given to it in Section 2.3 of this Access Arrangement.

'Specific Terms and Conditions' means the specific terms and conditions as described in Section 6.1 (and, in relation to an Agreement between AGN and a Network User, means the Specific Terms and Conditions which form part of that Agreement).

'Standard Conditions' means a temperature of 15 degrees Celsius and an absolute pressure of 101.325 kilopascals.

'Start Date', in relation to an Agreement, means the date on which AGN commences, or is to commence, providing Network Services to a Network User pursuant to that Agreement as specified in, or determined in accordance with, the Specific Terms and Conditions.

'Sub-Network' means any part of the Network that is physically discrete from the remainder of the Network (in the sense that, having regard to the physical configuration of the Network and the flow of Gas within the Network, it is physically impossible to transport Gas delivered at a User Receipt Point on that part of the Network to DPs on the remainder of the Network).

'Tariff Schedule' means the tariff schedule contained in Annexure B to this Access Arrangement or, if AGN has published a revised tariff schedule, the tariff schedule in effect from time to time.

'Tariff D' has the meaning given to it in Section 2.2.2.

'Tariff C non-Residential' has the meaning given to it in Section 2.2.1.

'Tariff R Residential' has the meaning given to it in Section 2.2.1.

'Tariff Zone' means the areas of the Network as defined by postcode areas set out in the Tariff Postcode Schedule at <https://www.australiangasnetworks.com.au/our-business/regulatory-information/tariffs-and-plans>

'Term', in relation to an Agreement, means the period on and from the Start Date of that Agreement up to, and including, the date on which the Agreement terminates in accordance with its terms.

'Terms and Conditions' see **'General Terms and Conditions'**.

'TJ' means a terajoule, which is 1000 gigajoules.

'Unaccounted for Gas' or **'UAFG'** means the difference between the quantity of gas received into a network and the quantity of Gas delivered out of a network, over a specified period of time.

'Unplanned Interruption' means an interruption of the supply of gas to the network to carry out unanticipated or unplanned maintenance or repairs in any case where there is an actual or apprehended threat to the safety, reliability or security of the supply of gas through the network, and includes:

- a an interruption in circumstances where, in the opinion of AGN, a customer's installation or the Network poses an immediate threat of injury or material damage to any person, any property or the Network; or
- b an interruption in circumstances where:
 - i there are health or safety reasons warranting an interruption; or
 - ii an emergency warranting an interruption; or
 - iii AGN is required to interrupt supply at the direction of a relevant authority; or
- c an interruption to shed demand for Gas because the total demand for Gas at the relevant time exceeds the total supply available; or
- d an interruption to restore supply to a Customer.

'Unplanned SAIDI' or **'Unplanned System Average Interruption Duration Index'** means the average duration (in minutes) of unplanned service disruption on average across all customers per customer per year.

'Upstream Operator' means the operator of a transmission pipeline, a distribution network or another facility through which Gas is delivered to any Receipt Point.

'User' means a person who has a current contract for a Network Service or where there has been an arbitration, has an entitlement to a Network Service.

'User DP', in relation to an Agreement, means each DP identified as a User DP in or by reference to the Specific Terms and Conditions which form part of that Agreement.

'User Receipt Point', in relation to an Agreement, means each Receipt Point identified as a User Receipt Point in or by reference to the Specific Terms and Conditions which form part of that Agreement.

'Volume DP' has the meaning given to it in Section 2.2.1 of this Access Arrangement.

'Volume Haulage Service' has the meaning given to it in Section 2.2.1 of this Access Arrangement.

'Volume of Gas' means volume in Cubic Metres.

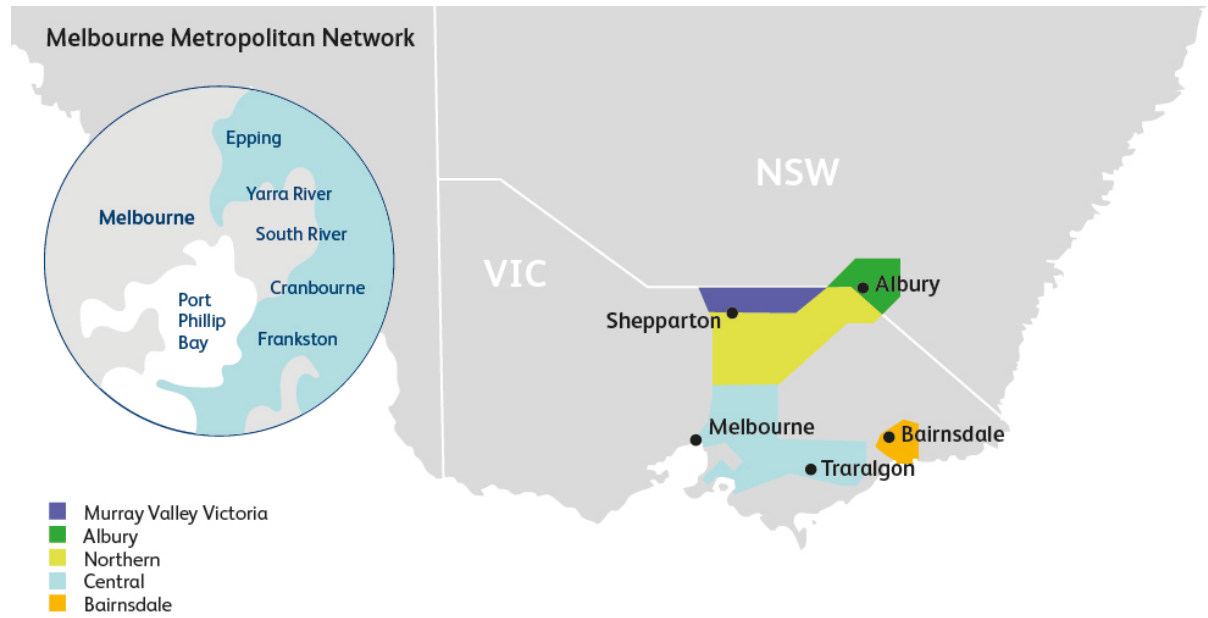
'WACC' means the average of the nominal weighted average cost of capital that are applied during each year of the Access Arrangement Period.

'Water in Mains' means the number of instances of water seeping into the network through degraded pipe assets per kilometer of network per year.

'Year' means any period of 12 consecutive months.

Annexure A

AGN's Victorian and Albury Gas Distribution Region



Annexure B

Tariff Schedule – 2018

Tariff (Volume Haulage Service)	Charges excl GST \$nominal
Tariff R – Residential (Central)	
Base Charge (\$ per day)	0.1862
Charge for the first 0.0274 gigajoules of gas delivered (\$ per gigajoule)	10.7244
Charge for the next 0.0219 gigajoules of gas delivered (\$ per gigajoule)	6.5936
Charge for additional gas delivered (\$ per gigajoule)	3.6197
Tariff R – Residential (Northern)	
Base Charge (\$ per day)	0.1862
Charge for the first 0.0274 gigajoules of gas delivered (\$ per gigajoule)	9.4358
Charge for the next 0.0219 gigajoules of gas delivered (\$ per gigajoule)	5.9064
Charge for additional gas delivered (\$ per gigajoule)	3.2428
Tariff R – Residential (Murray Valley)	
Base Charge (\$ per day)	0.2370
Charge for the first 0.0274 gigajoules of gas delivered (\$ per gigajoule)	8.2150
Charge for the next 0.0219 gigajoules of gas delivered (\$ per gigajoule)	5.3143
Charge for additional gas delivered (\$ per gigajoule)	3.3243
Tariff R – Residential (Bairnsdale)	
Base Charge (\$ per day)	0.3064
Charge for the first 0.0274 gigajoules of gas delivered (\$ per gigajoule)	17.5094
Charge for the next 0.0219 gigajoules of gas delivered (\$ per gigajoule)	10.8900
Charge for additional gas delivered (\$ per gigajoule)	5.9785
Tariff R – Residential (Albury)	
Base Charge (\$ per day)	0.2423
Charge for the first 0.0274 gigajoules of gas delivered (\$ per gigajoule)	7.7661
Charge for the next 0.0219 gigajoules of gas delivered (\$ per gigajoule)	4.9638
Charge for additional gas delivered (\$ per gigajoule)	2.7258

Tariff (Volume Haulage Service)	Charges excl GST \$nominal
Tariff C – Non-Residential (Central)	
Base Charge (\$ per day)	0.1862
Charge for the first 0.05 gigajoules of gas delivered (\$ per gigajoule)	7.7278
Charge for the next 0.50 gigajoules of gas delivered (\$ per gigajoule)	3.7980
Charge for the next 0.82 gigajoules of gas delivered (\$ per gigajoule)	2.8383
Charge for additional gas delivered (\$ per gigajoule)	1.1510
Tariff C – Non-Residential (Northern)	
Base Charge (\$ per day)	0.1862
Charge for the first 0.05 gigajoules of gas delivered (\$ per gigajoule)	6.9318
Charge for the next 0.50 gigajoules of gas delivered (\$ per gigajoule)	3.4325
Charge for the next 0.82 gigajoules of gas delivered (\$ per gigajoule)	2.5650
Charge for additional gas delivered (\$ per gigajoule)	1.0401
Tariff C – Non-Residential (Murray Valley)	
Base Charge (\$ per day)	0.2370
Charge for the first 0.05 gigajoules of gas delivered (\$ per gigajoule)	6.1979
Charge for the next 0.50 gigajoules of gas delivered (\$ per gigajoule)	3.8119
Charge for the next 0.82 gigajoules of gas delivered (\$ per gigajoule)	2.8504
Charge for additional gas delivered (\$ per gigajoule)	1.2955
Tariff C – Non-Residential (Bairnsdale)	
Base Charge (\$ per day)	0.3064
Charge for the first 0.05 gigajoules of gas delivered (\$ per gigajoule)	12.7075
Charge for the next 0.50 gigajoules of gas delivered (\$ per gigajoule)	6.4511
Charge for the next 0.82 gigajoules of gas delivered (\$ per gigajoule)	4.8193
Charge for additional gas delivered (\$ per gigajoule)	1.9543
Tariff C – Non-Residential (Albury)	
Base Charge (\$ per day)	0.2423
Charge for the first 0.05 gigajoules of gas delivered (\$ per gigajoule)	5.8184
Charge for the next 0.50 gigajoules of gas delivered (\$ per gigajoule)	2.9916
Charge for the next 0.82 gigajoules of gas delivered (\$ per gigajoule)	2.1286
Charge for additional gas delivered (\$ per gigajoule)	0.8629

Tariff D (Demand Haulage Service – Charges excl GST \$nominal)

Zone	Central and Northern	Murray Valley	Bairnsdale	Albury
10 GJ or less (\$/GJ)	1,381.8195	1,610.6766	2,285.7148	1,188.3653
Next 40 GJ (\$/GJ)	844.7560	993.8891	1,416.0098	738.0840
Additional GJ (\$/GJ)	154.2698	169.2768	258.2480	178.3495

Ancillary Reference Services (excl GST \$nominal)

Ancillary Reference Services	Charges excl. GST \$nominal
Meter and Gas Installation Test	214.00
Disconnection	71.00
Reconnection	82.00
Meter Removal	100.00
Meter Reinstallation	100.00
Special Meter Read - Metropolitan	9.00
Special Meter Read - Non Metropolitan	12.30

This Tariff Schedule is to be read in conjunction with Annexure C to this Access Arrangement (which Annexure is incorporated into, and forms part of, this Tariff Schedule).

Annexure C

Calculation of Charges for Delivery Points

The Distribution Services Charges comprise the charges payable by the Network User under the Agreement between the Network User and AGN and any other charges that are “distribution services charges” within the meaning of the National Gas Rules.

The charges payable by the Network User under the Agreement comprise Haulage Service Charges and Ancillary Reference Charges. The Haulage Services Charges comprise charges for Volume DPs and charges for Demand DPs.

This Annexure describes how the Distribution Services Charges are calculated.

Haulage Services Charges for Volume DPs

- 1 The Haulage Services Charge for a single Volume DP comprises:
 - a the base charge (\$/day) shown in the Tariff Schedule as applicable to that Volume DP (“**the relevant base charge**”), depending on whether that Volume DP is a Residential DP or a Non-Residential DP (whichever is applicable);
 - b a variable component (expressed in \$/GJ) calculated using the tariff that is shown in the Tariff Schedule, under the heading “Tariff – Volume Haulage Services”, as applicable to that Volume DP, depending on whether that Volume DP is a Residential DP (Tariff R) or a Non-Residential DP (Tariff C)(whichever is applicable)(“**the relevant tariff**”).

The base charge constitutes the fixed component of the Haulage Service Charge.

- 2 Whenever AGN provides the Network User with a statement of charges in respect of a Billing Period (“**the relevant Billing Period**”), the statement of charges will include the Haulage Services Charges for every Volume DP:
 - a at which the meter was read (or was scheduled to be read) during the relevant Billing Period; and
 - b for which the Network User is or was registered as the FRO under the Retail Market Procedures when the meter was read (or scheduled to be read) during the relevant Billing Period.
- 3 For any given Volume DP, the fixed component to be included in the statement of charges in respect of that DP will be calculated by multiplying the relevant base charge (as shown in the Tariff Schedule) by the number of days in the period:
 - a from (but excluding) the date on which the meter was last read (or scheduled to have been read) in the previous Billing Period for which charges for that DP were included in the statement of charges (“**the relevant preceding Billing Period**”)(or, in the case of a new DP, where there is no prior meter reading, the date on which the meter was installed at that DP);
 - b to (and including) the date, during the relevant Billing Period, on which meter was read (or was scheduled to have been read).
- 4 For any given Volume DP, the variable component to be included in the statement of charges in respect of that DP will be calculated by applying the relevant tariff shown in the

Tariff Schedule to the Quantity of Gas delivered (or, where applicable, estimated to have been delivered) through that Volume DP in the period ("**the relevant period**") between:

- a the meter reading undertaken during the relevant Billing Period ("the most recent meter reading")(or, if no reading was taken, the date on which the meter was scheduled to be read during the relevant Billing Period ("**the most recent scheduled reading date**")); and
 - b the last reading of the meter at that DP during the relevant preceding Billing Period ("the preceding meter reading")(or, if no reading was taken during the relevant preceding Billing Period, the date on which the meter was scheduled to have been read during the relevant preceding Billing Period ("**the preceding scheduled reading date**") or, in the case of a new DP, where there is no prior meter reading, in the period since the date on which the meter was installed at that DP).
- 5 For the purposes of paragraph 4:
- a where the meter was read during the relevant Billing Period and during the relevant preceding Billing Period (so that there are two actual meter reads), the Quantity of Gas delivered will be determined by subtracting the Quantity of Gas shown by the meter read to have been delivered as at the preceding meter reading from the Quantity of Gas shown by the meter read to have been delivered as at the most recent meter reading;
 - b where the meter was not actually read during the relevant Billing Period but was read during the relevant preceding Billing Period, the Quantity of Gas delivered will be the Quantity of Gas estimated by AGN to have been delivered in the relevant period;
 - c where the meter was read during the relevant Billing Period but not during the relevant preceding Billing Period, the Quantity of Gas delivered will be determined by subtracting the Quantity of Gas estimated by AGN to have been delivered as at preceding scheduled reading date from the Quantity of Gas shown by the meter read to have been delivered as at the most recent meter reading; and
 - d in the case of a new DP, where there is no prior meter reading, the Quantity of Gas will be Quantity of Gas shown by the meter read to have been delivered as at the most recent meter reading or, if no reading was taken on the date on which the meter was scheduled to have been read during the relevant Billing Period, the Quantity of Gas estimated by AGN to have been delivered during the relevant period.
- 6 Whenever AGN has to determine or estimate a Quantity of Gas for the purposes of paragraph 5, that determination or estimate will be made:
- a in the manner required by law;
 - b (to the extent permitted by law) in the manner required by any relevant rules or agreements that bind AGN and the Network User; and
 - c (to the extent not otherwise required by paragraphs 5(a) and 5(b)) on a reasonable basis.

Haulage Service Charges for Demand DPs

- 1 The Haulage Services Charge for a single Demand DP comprises a variable component (expressed in \$/GJ) calculated in accordance with the formula given in paragraph 3 below.

- 2 Whenever AGN provides the Network User with a statement of charges in respect of a Billing Period (“the relevant Billing Period”), the statement of charges will include the Haulage Services Charges:
 - a for every Demand DP for which the Network User is registered as the FRO as at the end of that Billing Period; and
 - b also, for each other Demand DP for which the Network User was registered as the FRO as at the beginning of that Billing Period (unless another person is registered as the FRO for that Demand DP as at the end of that billing period).
- 3 For any given Demand DP, the variable component to be included in the statement of charges in respect of that DP will be calculated in accordance with the following formula:

$$MC = \frac{EAC - CBTD}{RBP}$$

where:

MC is the charge for that Demand DP in respect of the relevant Billing Period (in Calendar Year_t);

EAC is the Estimated Annual Charge, as calculated in accordance with paragraph 7 below, on the basis of EAD for that Demand DP in respect of the relevant Billing Period (where EAD has the meaning given in paragraph 4 or 5 below, whichever applies to the relevant Billing Period);

CBTD is the sum of the charges in respect of that Demand DP for all prior Billing Periods (if any) in Calendar Year_t; and

RBP is the number of Billing Periods remaining in Calendar Year_t (including the relevant Billing Period), as set out below:

Month	RBP
January	12
February	11
March	10
April	9
May	8
June	7
July	6
August	5
September	4
October	3

November	2
December	1

- 4 For the purposes of paragraph 3, if the relevant Billing Period is January or September (or any calendar month in between), **EAD** (in relation to any given Demand DP) means the highest one of the following, namely:
- the Annual MHQ for that Demand DP in the period from the beginning of Calendar Year_t; to the end of the relevant Billing Period, or if data for the annual MHQ is not available to the end of the relevant Billing Period, then the Annual MHQ to the end of the most recent Billing Period in that Calendar Year for which that data is available;
 - the Annual MHQ for that Demand DP for the previous Calendar Year_{t-1} (that is, the previous Calendar Year);
 - a Quantity agreed between AGN and the Network User in relation to that Demand DP; and
 - (unless a Quantity has been agreed pursuant to paragraph 4(c)), in the case of any Demand DP which was connected to the Network during Calendar Year_t, the highest Quantity of Gas (in GJ) which AGN reasonably expects will be withdrawn at that Demand DP in any period of 60 minutes during the Calendar Year_t. (if that amount is higher than the Quantity specified in paragraph 4(a)).
- 5 For the purposes of paragraph 3, if the relevant Billing Period is October, November or December, **EAD** (in relation to any given Demand DP) means the actual Annual MHQ for that Demand DP in the period from the beginning of Calendar Year_t to the end of the relevant Billing Period, or if data for the annual MHQ is not available to the end of the relevant Billing Period, then the Annual MHQ to the end of the most recent Billing Period in that Calendar Year for which that data is available.
- 6 In paragraphs 4 and 5, **Annual MHQ** (in relation to any given Demand DP) means the greatest Quantity of Gas (in GJ) that was withdrawn at that Demand DP in any period of 60 minutes during the relevant period.
- 7 Once EAD has been calculated in respect of a given Demand DP for a given Billing Period, then AGN will calculate the Estimated Annual Charge for that Demand DP (in respect of that Billing Period) by applying the tariff shown in the Tariff Schedule, under the heading "Tariff D – Demand Haulage Service".

Ancillary Services Charges

The Ancillary Reference Charges are calculated at the rate shown in the Tariff Schedule. The Ancillary Service Charges to be included in the statement of charges for a given Billing Period are the Ancillary Service Charges for each Ancillary Service where the service request was completed during that Billing Period in respect of any User DP.

Other Distribution Services Charges

Other Distribution Service Charges are calculated in accordance with the relevant Customer Connection Contract under which those Distribution Service Charges are imposed. The Distribution Service Charges to be included in the statement of charges for a given Billing Period are those Distribution Service Charges, which have accrued during the Billing Period, in respect of Shared Customers.

Annexure D

Reference Tariff Control Formulae

Any proposed variations to the Haulage Reference Tariffs pursuant to Section 4.6.1 of this Access Arrangement must comply with the formulae set out in this Annexure.

Victoria and Albury Box 1: Formula 1 - Tariff Control Formula

The following formula applies separately to each of Tariff R, C and D:

$$(1 + \Delta CPI_t)(1 - X_t)(1 + PT_t) \geq \frac{\sum_{i=1}^n \sum_{j=1}^m p_t^{ij} q_{t-2}^{ij}}{\sum_{i=1}^n \sum_{j=1}^m p_{t-1}^{ij} q_{t-2}^{ij}}$$

where:

ΔCPI_t is the annual percentage change in the ABS CPI All Groups, Weighted Average of Eight Capital Cities from the June quarter in year $t-2$ to the June quarter in year $t-1$, calculated using the following method:

The ABS CPI All Groups, Weighted Average of Eight Capital Cities for the June quarter in year $t-1$

divided by

The ABS CPI All Groups, Weighted Average of Eight Capital Cities for the June quarter in year $t-2$

minus one.

If the ABS does not, or ceases to, publish the index, then CPI will mean an index which the AER considers is the best available alternative index.

t is the year for which tariffs are being set;

X_t is the X factor for each calendar year of the 2018-2022 Access Arrangement Period as determined in the PTRM as approved in the AER's final decision, and annually revised for the return on debt update calculated for the relevant year during the Access Arrangement Period in accordance with that approved in the AER's final decision;

PT_t is the cost pass through factor for year t calculated as outlined in Box 2;

n is the number of different Reference Tariffs;

m is the different components, elements or variables ("components") comprised within a Reference Tariff;

p_t^{ij} is the proposed component J of Reference Tariff i in Calendar Year t ;

p_{t-1}^{ij} is the prevailing component J of Reference Tariff i in Calendar Year $t-1$; and

q_{t-2}^{ij} is the verified annual quantity of component of Reference Tariff i sold in Calendar Year $t-2$ (expressed in the units in which that component is expressed (e.g., GJ))

Victoria and Albury Box 2: Formula 2 – Pass through Factor Formula

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

where:

t is the year for which tariffs are being set;

PT'_t is:

- a) zero when financial year $t-1$ refers to year 2018;
- b) the value of PT'_t determined in the year $t-1$ for all other years in the Access Arrangement Period.

and

$$PT'_t = \frac{AP_t}{(1 + \Delta CPI_t)(1 - X_t) \sum_{i=1}^n \sum_{j=1}^m p_{t-1}^{ij} q_{t-2}^{ij}}$$

AP_t is:

- a) any determined pass through amount that the AER approves in whole or part in year t and/or
- b) any pass through amounts arising from pass through events (as that term is defined in the Access Arrangement applying to AGN in the immediately prior Access Arrangement Period) occurring in the immediately prior Access Arrangement Period that AGN proposed to pass through in whole or in part in 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.:

ΔCPI_t is the annual percentage change in the ABS CPI All Groups, Weighted Average of Eight Capital Cities from the June quarter in year $t-2$ to the June quarter in year $t-1$, calculated using the following method:

The ABS CPI All Groups, Weighted Average of Eight Capital Cities for the June quarter in year $t-1$

divided by

The ABS CPI All Groups, Weighted Average of Eight Capital Cities for the June quarter in year $t-2$

minus one;

If the ABS does not, or ceases to, publish the index, then CPI will mean an index which the AER considers is the best available alternative index.

X_t is the X factor for each calendar year of the 2018-2022 Access Arrangement Period as determined in the PTRM as approved in the AER's final decision, and annually revised for the return on debt update calculated for the relevant financial year during the Access Arrangement period in accordance with that approved in the AER's final decision;

p_{t-1}^{ij} is the prevailing component j of reference tariff i in year $t-1$; and

q_{t-2}^{ij} is the audited annual quantity of component j of reference tariff i sold in year $t-2$ (expressed in the units in which that component is expressed (e.g. GJ)).

Victoria and Albury Box 3: Formula 3 - Rebalancing Control Formula

The following formula applies separately to each Tariff Class:

$$(1 + \Delta CPI_t)(1 - X_t)(1 + PT_t)(1 + 0.02) \geq \frac{\sum_{i=1}^n \sum_{j=1}^m p_t^{ij} q_{t-2}^{ij}}{\sum_{i=1}^n \sum_{j=1}^m p_{t-1}^{ij} q_{t-2}^{ij}}$$

where:

ΔCPI_t is the annual percentage change in the ABS CPI All Groups, Weighted Average of Eight Capital Cities from the June quarter in year $t-2$ to the June quarter in year $t-1$, calculated using the following method:

The ABS CPI All Groups, Weighted Average of Eight Capital Cities for the June quarter in year $t-1$

divided by

The ABS CPI All Groups, Weighted Average of Eight Capital Cities for the June quarter in year $t-2$

minus one;

If the ABS does not, or ceases to, publish the index, then CPI will mean an index which the AER considers is the best available alternative index.

t is the year for which tariffs are being set;

X_t is the X factor for each calendar year of the 2018-2022 Access Arrangement period as determined in the PTRM as approved in the AER's final decision, and annually revised for the return on debt update calculated for the relevant financial year during the Access Arrangement period in accordance with that approved in the AER's final decision;

PT_t is the cost pass through factor for year t calculated as outlined in Box 2;

n is the number of different reference tariffs;

m is the different components, elements or variables ("components") comprised within a reference tariff ;

p_t^{ij} is the proposed component j of reference tariff i in year t ;

p_{t-1}^{ij} is the prevailing component j of reference tariff i in year $t-1$;

q_{t-2}^{ij} is the audited annual quantity of component j of reference tariff i that was sold in year $t-2$ (expressed in the units in which that component is expressed (e.g., GJ)).

Victoria and Albury Box 4: Formula 4 – Annual Update of Return on Debt Formula

The annual update of the return on debt component of the rate of return in each regulatory year, starting from 1 January 2018, of the Access Arrangement Period is to be calculated as follows:

For calendar year 2018:	$kd_{2018} = R_{2018}$
For calendar year 2019:	$kd_{2019} = (0.9 \times R_{2018}) + (0.1 \times R_{2019})$
For calendar year 2020:	$kd_{2020} = (0.8 \times R_{2018}) + (0.1 \times R_{2019}) + (0.1 \times R_{2020})$
For calendar year 2021:	$kd_{2021} = (0.7 \times R_{2018}) + (0.1 \times R_{2019}) + (0.1 \times R_{2020}) + (0.1 \times R_{2021})$
For calendar year 2022:	$kd_{2022} = (0.6 \times R_{2018}) + (0.1 \times R_{2019}) + (0.1 \times R_{2020}) + (0.1 \times R_{2021}) + (0.1 \times R_{2022})$

where:

kd_t is the annual return on debt for calendar year t of this Access Arrangement Period; and
 R_t is the annual return on debt observation for each calendar year t of this Access Arrangement Period (other than calendar year 2018) calculated in accordance with steps 1 to 17 below. For calendar year 2018, $R_{2018} = 4.42$ per cent.

Calculation of the annual return on debt observation

The return on debt observation for each financial year will be calculated by automatic application of the following formula. This requires three stages:

- calculation of the adjusted RBA estimate;
- calculation of the adjusted BVAL estimate;
- calculation of the final estimate—where the AER combines its implementations of the RBA estimate and the BVAL estimate;

These formula steps relate to the approach specified in the AER's Final Decision. In the event that data availability changes during the Access Arrangement Period, the formulas below will change to reflect the contingencies set out in the AER's Final Decision.

Calculation of the adjusted RBA estimate

To calculate the adjusted RBA estimate:

- Download RBA table F3—'Aggregate measures of Australian corporate bond yields' from the RBA website.
- From this file, download the 7 and 10 year 'Non-financial corporate BBB-rated bonds—Yield' entries for dates:
 - from the most recent published RBA date prior to the commencement of the nominated averaging period for debt
 - to the first published RBA date following the conclusion of the nominated averaging period for debt
 - all published dates between a. and b.
- Download, from RBA table F16—'Indicative Mid Rates of Australian Government Securities', daily yields on CGSs for dates within the Service Provider's averaging period.
- Linearly interpolate between the two nearest bonds straddling 7 years remaining term to maturity, and the two nearest CGS bonds straddling 10 years remaining term to maturity. This should be done using the following formula:

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

5) Linearly extrapolate the published RBA 10 year yield (from step 2) from its published effective term to an effective term of 10 years using the formula below:

$$\text{yield}_{10} = \text{yield}_{10 \text{ year published}} + \left[\frac{(\text{spread-to-swap}_{10 \text{ year published}} - \text{spread-to-swap}_{7 \text{ year published}})}{(\text{effective term}_{10 \text{ year published}} - \text{effective term}_{7 \text{ year published}})} \right] * (10 - \text{effective term}_{10 \text{ year published}})$$

6) Linearly extrapolate the published RBA 7 year yield (from step 2) from its published effective term to an effective term of 7 years using the formula below:

$$\text{yield}_7 = \text{yield}_{7 \text{ year published}} + \left[\frac{(\text{spread-to-swap}_{10 \text{ year published}} - \text{spread-to-swap}_{7 \text{ year published}})}{(\text{effective term}_{10 \text{ year published}} - \text{effective term}_{7 \text{ year published}})} \right] * (7 - \text{effective term}_{7 \text{ year published}})$$

7) Subtract from the extrapolated 10 year RBA yield on each publication date the interpolated CGS yield on that date. For the 10 year term, use the RBA series as adjusted in step 5. These are the adjusted RBA 10 year spreads.

8) Obtain daily RBA spread estimates by linear interpolation of the adjusted RBA spreads (from steps 5 and 6) for both 7 and 10 year terms between the published dates identified in step 2. Use the adjusted RBA spread estimates as calculated in step 6. This should be done using the following formula:

$$\text{spread}_{\text{interpolated}} = \text{spread}_{\text{first straddling publication date}} + \frac{(\text{date}_{\text{interpolation}} - \text{date}_{\text{first straddling publication date}}) * (\text{spread}_{\text{second straddling publication date}} - \text{spread}_{\text{first straddling publication date}})}{(\text{date}_{\text{second straddling publication date}} - \text{date}_{\text{first straddling publication date}})}$$

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

9) Add to these daily spreads (from step 8), daily interpolated estimates of the CGS (from step 4) for all business days in the service providers averaging period. Specifically:

- a) add the 7 year interpolated CGS estimates to the 7 year interpolated RBA spreads. These are the interpolated RBA daily 7-year yield estimates.
- b) add the 10 year interpolated CGS estimate to the 10 year interpolated RBA spread. These are the interpolated RBA daily 10-year yield estimates.

10) Convert the interpolated daily yield estimates (from step 9) to effective annual rates, using the formula:

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

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

Calculation of the adjusted BVAL estimate

To calculate the adjusted BVAL estimate:

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

13) For dates before 14 April 2015, add to the 7 year yield the difference between the 7 and 10 year daily RBA adjusted yields (as calculated in step 8) of the RBA process). This is the extrapolated daily estimate of the BVAL 10 year yield.

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

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

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

Final estimate

16) Take the simple average of the adjusted RBA estimate (from step 11 in the RBA data section) and the adjusted BVAL estimate (from step 15 in the BVAL data section). This is the annual estimate of the return on debt.

17) A business day means a day other than a Saturday, Sunday or a day recognised as a national public holiday or a public holiday in Victorian or New South Wales.

Annual return on debt observation where relevant data not available

For any calendar year of this Access Arrangement Period, with the exception of the calendar year 2018, for which an annual return on debt observation cannot be calculated in accordance the formula above, due to changes in data availability, adjust the approach in accordance with the contingencies set out in the AER's final decision for AGN.

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 calendar year of this Access Arrangement Period.

Notification and AER determination of the annual return on debt observation

In the 'PTRM input' sheet of AGN's final decision PTRM, update the relevant cell to reflect the updated return on debt estimate (kd_t). This is:

- a) Kd_{2018} : Cell G222
- b) Kd_{2019} : Cell H222
- c) Kd_{2020} : Cell I222
- d) Kd_{2021} : Cell J222
- e) Kd_{2022} : Cell K222

On the 'X factors' sheet of the final decision PTRM, update the relevant X factor as follows:

- a) Kd_{2018} : 'Set X2 (price cap)'
- b) Kd_{2019} : 'Set X3 (price cap)'
- c) Kd_{2020} : 'Set X4 (price cap)'
- d) Kd_{2021} : 'Set X5 (price cap)'

The AER will notify AGN of the updated Return on Debt and X factor within 15 business days after the end of AGN's averaging period.

Annexure E

Specific Terms and Conditions

<p>Network</p> <p>Victorian Gas Distribution System/Albury Gas Distribution System</p>
<p>Service Provider</p> <p>[Australian Gas Networks (Vic) Pty Ltd/Australian Gas Networks (Albury) Ltd] ("AGN")</p>
<p>Network User¹</p>
<p>User Receipt Points</p> <p>The Receipt Points identified in, or identified in accordance with, Schedule 1 to these Specific Terms and Conditions (as that Schedule may be amended from time to time by agreement in writing between the Network User and AGN).</p>
<p>User Delivery Points</p> <p>[Each Delivery Point in respect of which the Network User is the FRO or the Current User (as defined in the Retail Market Procedures) from time to time.]²</p>
<p>Start Date [insert start date]</p>
<p>Term</p> <p>[Commencing on the Start Date and ending on a date to be agreed between the Network User and AGN (or, if the Agreement is terminated earlier, the period from the Start Date until the date on which the Agreement is terminated).]³</p>
<p>MHQ</p> <p>For a User Delivery Point which is a Demand Delivery Point, the MHQ is:</p> <ul style="list-style-type: none"> a the MHQ shown in relation to that User Delivery Point in Attachment 1 to these Specific Terms and Conditions; or b if the MHQ is not shown in that Attachment, the MHQ as agreed between AGN and the Network User or, in default of agreement, as determined by AGN, in accordance with, or determined in the manner set out in, the Access Arrangement (as defined below).
<p>MDQ</p> <p>For a User Delivery Point which is a Demand Delivery Point, the MDQ is:</p> <ul style="list-style-type: none"> a the MDQ shown in relation to that User Delivery Point in Attachment 1 to these Specific Terms and Conditions; or b if the MDQ is not shown in that Attachment, the MDQ as agreed between AGN and the Network User or, in default of agreement, as determined by AGN, in accordance with, or determined in the manner set out in, the Access Arrangement (as defined below).

Notice Details (for the Network User)
 Address:
 Telephone:
 Facsimile:
 E-mail:

- ¹ Insert the name and ABN of the Network User.
- ² Amend as appropriate to define the Delivery Points to which Gas is to be delivered.
- ³ Amend as appropriate to describe the Term.

Provisions of Agreement

This document evidences that AGN and the Network User have entered into a haulage agreement (**the Agreement**) for the provision of Network Services on and subject to the terms of the Agreement, which comprises:

- a the Specific Terms and Conditions set out in this document; and
- b the terms and conditions applicable to the Access Arrangement (including, but without limitation, the pre-conditions set out in Sections 6.3 and 6.4 of the Access Arrangement) (**the General Terms and Conditions**).

Unless the context otherwise requires, terms used in the Agreement will have the same meanings as they have for the purpose of the Access Arrangement.

In these Specific Terms and Conditions, "**Access Arrangement**" means the Access Arrangement as in force from time to time under the National Gas Law in relation to the Albury gas distribution system owned by Australian Gas Networks (Albury) Ltd and the Victorian gas distribution system owned by Australian Gas Networks (Vic) Pty Ltd.

EXECUTED as an Agreement on day of 202_

Executed by

(ABN _____)

in accordance with Section 127 of the Corporations Act

.....

Director

.....

Director

.....

.....

Name

(BLOCK LETTERS)

Name

(BLOCK LETTERS)

Executed by

[Australian Gas Networks (Albury) Ltd

(ABN 84 000 001 249)/

Australian Gas Networks (Vic) Pty Ltd

(ABN 73 085 899 001)]

in accordance with Section 127 of the Corporations Act

.....

Director

.....

Director/Secretary

.....

Name

(BLOCK LETTERS)

.....

Name

(BLOCK LETTERS)

Annexure F

General Terms and Conditions

(see separate document)

Annexure G

Asset Performance Index

The Asset Performance Index is calculated for the 2018–2022 Access Arrangement Period as follows:

- 1 Calculate the arithmetic average of the annual unplanned SAIDI for all customers for each of the four Calendar Years from 1 January 2018 to 31 December 2021, measured for each year t as follows:

$$\text{Unplanned SAIDI}_t = \frac{\sum_{i=1}^{12} \text{OUD}_i^t}{C_j^t}$$

where:

$\sum_{i=1}^{12} \text{OUD}_i^t$ is the summation of the total number of unplanned minutes off supply for all customers on the Service Provider's network sourced from quarterly reports submitted to Energy Safe Victoria for the 12 months in Calendar Year t ;

C_j^t is total customers of the Service Provider sourced from December quarterly reports submitted to Energy Safe Victoria in Calendar Year t .

- 2 Calculate the arithmetic average of the annual unplanned SAIFI for all customers for each of the four Calendar Years from 1 January 2018 to 31 December 2021, measured for each year t as follows:

$$\text{Unplanned SAIFI}_t = \frac{\sum_{i=1}^{12} \text{OUF}_i^t}{C_j^t}$$

where:

$\sum_{i=1}^{12} \text{OUF}_i^t$ is the summation of the total number of unplanned outages for all customers on the Service Provider's network sourced from quarterly reports submitted to Energy Safe Victoria for the 12 months in Calendar Year t ;

C_j^t is total customers of the Service Provider sourced from December quarterly reports submitted to Energy Safe Victoria in Calendar Year t .

- 3 Calculate the arithmetic average of the annual publicly reported gas leaks for mains of the Service Provider for each of the four Calendar Years from 1 January 2018 to 31 December 2021, as reported to Energy Safe Victoria, adjusted to remove leaks identified as a result of leak surveys.
- 4 Calculate the arithmetic average of the annual publicly reported gas leaks for services of the Service Provider for each of the four Calendar Years from 1 January 2018 to 31 December 2021, as reported to Energy Safe Victoria.
- 5 Calculate the arithmetic average of the annual publicly reported gas leaks for meters of the Service Provider for each of the four Calendar Years from 1 January 2018 to 31 December 2021, as reported to Energy Safe Victoria.

- 6 Convert each of the averages from the measures in paragraphs (1), (2), (3), (4) and (5) above into index scores using the following formula:

$$Index_n = 200 - \left(\frac{Actual_n}{Target_n} \right) \cdot 100$$

where:

- $Index_n$ is the index score for each measure $n = 1,2,3,4,5$, corresponding to the measures in paragraphs (1), (2), (3), (4) and (5) above respectively;
- $Actual_n$ is the arithmetic average of the actual performance for each measure $n = 1,2,3,4,5$ calculated as per paragraphs (1), (2), (3), (4) and (5) above;
- $Target_n$ is the target performance for each measure $n = 1,2,3,4,5$ as follows:
- | | | |
|-----------------|---------|------------------------|
| Unplanned SAIDI | $n = 1$ | $Target_1 = 3,388.673$ |
| Unplanned SAIFI | $n = 2$ | $Target_2 = 27.832$ |
| Mains leaks | $n = 3$ | $Target_3 = 0.039$ |
| Service leaks | $n = 4$ | $Target_4 = 3.039$ |
| Meter leaks | $n = 5$ | $Target_5 = 18.959$ |

- 7 Calculate the weighted average of the index scores calculated in paragraph (6) above for each of the measures $n = 1,2,3,4,5$ according to the following weights:

Unplanned SAIDI = 25.0%

Unplanned SAIFI = 25.0%

Mains leaks = 29.9%

Service leaks = 14.9%

Meter leaks = 5.2%

The resulting average is the **Asset Performance Index**.