DRAFT DECISION
Australian Gas Networks
Victoria and Albury gas access arrangement
2018 to 2022

Attachment 10 – Reference tariff setting

July 2017

AUSTRALIAN
ENERGY
REGULATOR

Note

This attachment forms part of the AER's draft decision on the access arrangement for AGN's Victoria and Albury gas distribution networks for 2018-22. It should be read with all other parts of the draft decision.

The draft decision includes the following documents:

Overview

Attachment 1 - Services covered by the access arrangement

Attachment 2 - Capital base

Attachment 3 - Rate of return

Attachment 4 - Value of imputation credits

Attachment 5 - Regulatory depreciation

Attachment 6 - Capital expenditure

Attachment 7 - Operating expenditure

Attachment 8 - Corporate income tax

Attachment 9 - Efficiency carryover mechanism

Attachment 10 - Reference tariff setting

Attachment 11 - Reference tariff variation mechanism

Attachment 12 - Non-tariff components

Attachment 13 - Demand

Attachment 14 - Other incentive schemes

Contents

Shortened forms

Shortened form	Extended form
AER	Australian Energy Regulator
ATO	Australian Tax Office
capex	capital expenditure
CAPM	capital asset pricing model
CESS	Capital Expenditure Sharing Scheme
CPI	consumer price index
DRP	debt risk premium
ECM	(Opex) Efficiency Carryover Mechanism
ERP	equity risk premium
Expenditure Guideline	Expenditure Forecast Assessment Guideline
gamma	Value of Imputation Credits
MRP	market risk premium
NGL	National Gas Law
NGO	national gas objective
NGR	National Gas Rules
NPV	net present value
opex	operating expenditure
PTRM	post-tax revenue model
RBA	Reserve Bank of Australia
RFM	roll forward model
RIN	regulatory information notice
RPP	revenue and pricing principles
SLCAPM	Sharpe-Lintner capital asset pricing model
STTM	Short Term Trading Market
TAB	Tax asset base
UAFG	Unaccounted for gas
WACC	weighted average cost of capital
WPI	Wage Price Index

10 Reference tariff setting

This attachment outlines our assessment of AGN's proposed reference tariffs against the requirements of the National Gas Rules (NGR). Our assessment focuses on the structure of reference tariffs and takes into account the revenue and pricing principles.[1]

10.1 Draft decision

We approve AGN's proposed reference tariff structure for the 2018-22 access arrangement period. We are satisfied the proposed reference tariff structure complies with the requirements of the NGR.[2] Nevertheless, the quantum of the proposed reference tariffs must be amended to reflect the revised revenue allowance set out in this draft decision.

10.2 AGN's proposal

AGN's proposed reference tariffs for the 2018-22 access arrangement period are consistent with those in the current access arrangement. AGN's proposed haulage reference tariffs are outlined in Table 10-1 and its proposed ancillary reference services are outlined in Table 10-2.

Table 10-1 AGN's tariff classes and tariff charge components

Customer category	Tariff class	Charging components
Residential	Tariff R central Tariff R north Tariff R Murray Valley Tariff R Bairnsdale Tariff R Albury	One fixed charge Three volume throughput block charges Ancillary reference charges
Commercial	Tariff C central Tariff C north Tariff C Murray Valley Tariff C Bairnsdale Tariff C Albury	One fixed charge Three volume throughput block charges Ancillary reference charges
Industrial	Tariff D central and north Tariff D Murray Valley Tariff D Bairnsdale Tariff D Albury	Three stepped variable demand charges Ancillary reference charges

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[1]   NGL, ss. 24(2)–(7).

[2]   NGR, rr. 93, 94.

Table 10-2 AGN's ancillary reference services

Ancillary reference service
Disconnection
Reconnection
Meter gas and installation test
Meter removal
Meter reinstallation
Special meter read - metropolitan
Special meter read - non-metropolitan

10.3 Assessment approach

In an access arrangement, a service provider is required to specify the reference tariff and proposed approach to setting the reference tariff for each reference service.[3] This is done by:

- explaining how revenue and costs are allocated, including the relationship between costs and tariffs[4]

- defining the tariff classes[5]

- comparing the revenue to be raised by each reference tariff with the costs of providing each individual reference service[6]

- explaining and describing any pricing principles employed.[7]

We are required to assess AGN's proposed reference tariffs.[8] Where we do not accept them, we must determine the initial (i.e. 2018) reference tariffs to apply for each reference service.

In our assessment of the proposed reference tariffs, we reviewed AGN's:

- access arrangement information[9]

- access arrangement proposal.[10]

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[3]   NGR, rr. 48(1)(d)(i), 72(1)(j).

[4]   NGR, rr. 72(1)(j)(i), 93(1)–(2).

[5]   NGR, r. 94(1)–(2).

[6]   NGR, r. 94(3).

[7]   NGR, r. 72(1)(j)(ii).

[8]   NGR, r. 97(4).

[9]   AGN - *Final Plan - Access Arrangement Information for our Victorian and Albury natural gas distribution networks 2018-2022 - 20161222*, pp. 55-57.

[10]   AGN - *Access Arrangement for our Victorian and Albury natural gas distribution networks 1 January 2018 to 31 December 2022 - 20161222*, Part B.

We also had regard to submissions received in the course of our consultation on the proposed access arrangement.[11]

Identifying the reference service

The NGR require service providers to specify a reference tariff for each reference service.[12] When undertaking our review, we first consider what is (or are) the reference service(s) for the purpose of the NGR. Our decision on what constitutes the reference service is set out in Attachment 1 to this draft decision.

Assessing the tariff setting method for the reference service

The reference tariffs for an access arrangement must be designed to meet the requirements of the NGR. Our discretion on tariff design is limited.[13] Consequently, we consider how the service provider intends to charge for reference services by:

1. Assessing how AGN intends to allocate costs and revenue between reference services and other services. It must demonstrate that total revenue is allocated between reference and other services in the ratio in which costs are allocated between these services. Costs must also be allocated to the reference service and other services to which the cost is directly attributable.[14]

2. Assessing how AGN groups its customers into tariff classes. For reference services, AGN is required to group customers together on an economically efficient basis and to avoid unnecessary transaction costs.[15] We consider if the nature of the reference service (e.g. volume and demand tariff classes) is consistent with the need to group customers together on an economically efficient basis and avoid unnecessary transaction costs.

3. Assessing:

    a. how the expected average revenue of a tariff class compares with the stand alone and avoidable costs of providing that reference service to that tariff class

    b. whether the tariff takes into account transaction costs associated with developing and applying the tariff

    c. whether the tariffs take into account the long run marginal costs of providing each reference service

    d. whether customers belonging to the relevant tariff class are able or likely to respond to price signals.[16]

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[11]   NGR, r. 59.
[12]   NGR, r. 48(1)(d)(i).
[13]   NGR, r. 94(6).
[14]   NGR, r. 93(2).
[15]   NGR, r. 94(2).
[16]   NGR, r. 94(3)–(4).

Prudent discounts

AGN has not proposed any prudent discounts during the 2018-22 access arrangement period.

10.3.1 Interrelationships

AGN's tariffs have an interrelationship with the services it provides to recover its revenue, the AER's total revenue requirement for AGN and the application of annual tariff variation mechanisms.

AGN's haulage reference tariffs are adjusted annually by applying a weighted average price cap formula. Its haulage reference tariffs are derived from the total revenue requirement after demand for each tariff class is considered. This mean the tariffs we determine (including the means of varying the tariffs from year to year) are the binding constraint across the 2018-22 access arrangement period, rather than the total revenue requirement set out in our decision.

After the first year of the access arrangement period, AGN's ancillary reference service prices are set by applying the ancillary reference service tariff variation formula.

Our draft decision on:

- AGN's total revenue requirement is set out in the Overview attachment

- the services AGN will offer to customers over the 2018–22 access arrangement period is set out in attachment 1—Services covered by the access arrangement

- the annual tariff variation mechanisms are set out in attachment 11—Reference tariff variation mechanism.

10.4 Reasons for draft decision

We accept AGN's proposed reference tariff structure because we are satisfied that it complies with the NGR requirements.[17]

The tariff structure is consistent with that applied in the current access arrangement and its continuation has been supported by some stakeholders.[18] However, we consider the quantum of the proposed initial reference tariffs must be amended to reflect the draft decision forecast demand and revised revenue allowance.

The remainder of this section sets out the reasons for our draft decision under the following headings:

- ability to introduce new prices during the access arrangement period

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[17]   NGR, r. 94(6).

[18]   Origin Energy - *Victorian gas access arrangement review 2018-22 - Response to gas distribution businesses' proposals* - 10 March 2017.

- allocation of revenue and costs to reference tariffs

- establishment of tariff classes

- tariff classes and revenue limits.

10.4.1   Ability to introduce, vary or remove tariffs

We accept AGN's proposal to introduce new tariffs and prices during the access arrangement period.

AGN proposed the ability to introduce new tariffs and prices during the access arrangement period should this be required.[19] AGN noted this would enable it to respond to the changing needs of both their customers and energy markets in general. For example, AGN noted that it was considering a new price for customers who live in high-rise apartments, where a single commercial meter in each apartment typically measures the usage of all residents regardless of the number of residents. AGN will need to advise us of any proposed new tariffs in their annual tariff variation reports.

However, we would not accept intra-year tariff variations as they create annual price movement uncertainty for customers, which is undesirable. Further, intra-year tariff variations are not in the long-term interests of customers as they can lead to price volatility. We consider that once tariffs are set, it is best they are not adjusted until the following financial year commences. We consider tariff stability is in the long-term interest of customers and should be the priority over the 2018-22 access arrangement period.

10.4.2   Allocation of revenue and costs to reference tariffs

We are satisfied AGN's approach to allocating revenue and costs between reference services and non-reference services complies with the NGR[20] because:

- AGN's proposed costs relating to its reference services do not include costs incurred and recovered by providing non-reference services

- AGN has not allocated the non-reference service revenue to a reference service, as the underlying costs of the former have not been included in its building block revenue

- AGN's proposal included information outlining its stand alone, avoidable and long run marginal costs.[21]

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[19]   AGN - *Final Plan - Access Arrangement Information for our Victorian and Albury natural gas distribution networks 2018-2022* - 20161222, pp.174.

[20]   NGR, rr. 93(1), (2).

[21]   AGN - *Final Plan - Access Arrangement Information for our Victorian and Albury natural gas distribution networks 2018-2022* - 20161222, pp. 55-57.

10.4.3 Establishment of tariff classes

AGN groups its customers by tariff class (residential, commercial and industrial) and location on the distribution network (central, north, Murray Valley and Bairnsdale). These tariff classes are consistent with those in the current access arrangement.[22] We consider that these characteristics are likely to drive costs within AGN's gas distribution network and are therefore appropriate. As a result, we are satisfied that the proposed tariff classes are consistent with the requirements of the NGR.[23]

10.4.4 Tariff classes and revenue limits

We have assessed AGN's tariff classes and revenue limits against the following NGR[24] considerations:

- the expected average revenue of a tariff class compared with the stand alone cost and avoidable cost of providing the reference service to that tariff class

- whether the tariffs take into account the long run marginal costs of the reference services

- whether the tariff takes into account transaction costs associated with developing and applying the tariff

- whether customers belonging to the relevant tariff class are able or likely to respond to price signals.

Stand alone and avoidable costs

We are satisfied AGN's proposed reference tariffs are consistent with the NGR[25] because the expected revenue to be recovered lies on or between:

- an upper bound representing the stand alone cost of providing the reference service to customers who belong to that tariff class

- a lower bound representing the avoidable cost of not providing the reference service to these customers.[26]

We had regard to quantitative material AGN submitted to us, which indicated the above criteria were met.[27] The methodology used to calculate stand alone and avoidable costs is consistent with the methodology in AGN's current access arrangement in Victoria and Albury (and also in South Australia). AGN demonstrated that for each tariff, the expected revenue fell on or between the stand alone and avoidable costs.

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[22] Note: there has been a slight name change, e.g. non-residential tariffs have been renamed to commercial tariffs.

[23] NGR, rr. 94(1), (2).

[24] NGR, r. 94.

[25] NGR, r. 94(3).

[26] AGN - *Attachment 14.2 - Network Pricing, Formulae and Efficiency* - December 2016 - Public, pp. 2-3.

[27] AGN - *Attachment 14.2 - Network Pricing, Formulae and Efficiency* - December 2016 - Public, pp. 2-3.

We note our discretion on stand alone and avoidable cost calculation is limited under the NGR.[28]

Long run marginal costs

AGN used the Average Incremental Cost approach to calculate the long run marginal cost (LRMC) by tariff class.[29] However, AGN stated that it was unable to calculate reasonable LRMC at different levels (tariff class, region, whole-of-network) in Victoria and Albury, because the values calculated were either too large or negative.[30]

In future access arrangements, AGN may avoid these negative LRMC values by using a slightly different concept for the numerator, such as avoidable cost due to a demand decrement. This process may be useful in cases where there is falling demand. We suggested this approach to several electricity distributors during the tariff structure statement process in response to their concerns about estimating LRMC when demand is declining.[31]

Nevertheless, we are satisfied AGN had regard to LRMC when designing its tariffs. Its tariffs effectively signal the impact network users have on the costs of providing network services. This was achieved using geographic price signals, declining block structures and capacity based charges.[32]

We note our discretion on LRMC is limited under the NGR.[33] However, we consider AGN's approach is generally consistent with the approach of other gas distribution networks and this approach has historical precedent in past access arrangements.

Transaction costs

We are satisfied AGN's proposed reference tariffs have taken into account transaction costs associated with the tariffs and the need to avoid these costs where possible.[34] We consider that continuing the current access arrangement tariff classes and structures will minimise any additional transaction costs across access arrangement periods.

Response to price signals

We are satisfied AGN's proposed reference tariffs have been designed with regard to whether customers are able or likely to respond to price signals.[35] We consider the

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[28] NGR, r. 94(6).

[29] AGN, *Attachment 14.2 - Network pricing, formulae and efficiency,* December 2016, pp. 4.

[30] AGN, *Attachment 14.2 - Network pricing, formulae and efficiency*, December 2016, pp. 4.

[31] AER - *Final decision - NSW distribution businesses - Tariff Structure Statement 2017-19* - February 2017 , pp. 92.

[32] AGN, *Attachment 14.2 - Network pricing, formulae and efficiency*, December 2016, pp. 4.

[33] NGR, r. 94(6).

[34] NGR, rr. 94(2), 94(4).

[35] NGR, r. 94(4)(b)(ii).

existing tariff structures are well known to AGN's customers, which allows them to respond to the prices within each block (or band) by adjusting their consumption.