Access arrangement final decision

APA GasNet Australia (Operations) Pty Ltd

2013–17

Part 1

March 2013

AUSTRALIAN ENERGY REGULATOR

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Shortened forms

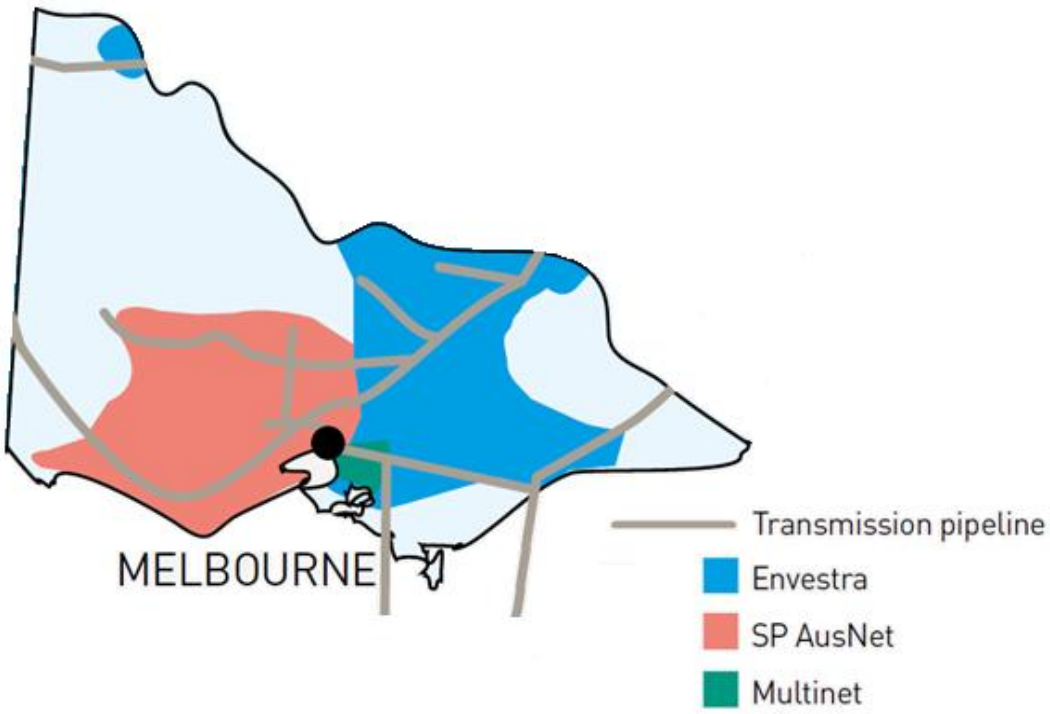
Shortened form	Full title
2008-12 access arrangement	Access arrangement for APA GasNet effective from 1 January 2008 to 31 December 2012
2013-17 access arrangement	Access arrangement for APA GasNet effective from 1 January 2013 to 31 December 2017
2018-22 access arrangement	Access arrangement for APA GasNet effective from 1 January 2018 to 31 December 2022
ACCC	Australian Competition and Consumer Commission
access arrangement information	APA GasNet Australia (Operations) Pty Ltd, Access arrangement information, 31 March 2012
revised access arrangement information	APA GasNet, Revised access arrangement information, 9 November 2012
access arrangement submission	APA GasNet Australia (Operations) Pty Ltd, Access arrangement submission, 31 March 2012
revised access arrangement proposal	APA GasNet, Revised access arrangement proposal, 9 November 2012
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
AMDQ CC	authorised maximum daily quantity credit certificates
APA GasNet	APA GasNet Australia (Operations) Pty Ltd (ACN 083 009 278)
AWOTE	average weekly ordinary time earnings
capex	capital expenditure
CAPM	capital asset pricing model
Code	National Third Party Access Code for Natural Gas Pipeline Systems
CPI	consumer price index
DRP	debt risk premium
ESC	Essential Services Commission (Victoria)
GFC	global financial crisis
GPG	gas powered generation
MRP	market risk premium
NGL	National Gas Law
NGO	National Gas Objective
NGR	National Gas Rules
opex	operating expenditure
ORC	optimised replacement cost

PTRM	post tax revenue model
RAB	regulatory asset base
RFM	roll forward model
RPP	revenue pricing principles
SEAGas	South East Australia Gas
VTS	Victorian transmission system
WACC	weighted average cost of capital
WORM	western outer ring main

1 About the review

The AER is responsible for the economic regulation of covered natural gas distribution and transmission pipelines in all states and territories except Western Australia. The AER is currently conducting a review of the revised access arrangements of the three Victorian gas distribution networks and the Victorian gas transmission network (APA GasNet). A map of the Victorian gas distribution and transmission networks is at Figure 1.1.

Figure 1.1 Map of the Victorian gas distribution and transmission networks



The National Gas Law (NGL) and National Gas Rules (NGR) provide the overarching regulatory framework for the gas distribution and transmission sectors.

The Victorian gas transmission network is subject to 'full regulation', which requires a service provider[1] to submit an initial access arrangement to the AER for approval, and to revise it periodically (typically every five years). The access arrangement sets out the terms and conditions on which third parties can access the transmission pipeline.[2]

The provisions of an access arrangement must be consistent with the National Gas Objective (NGO) as detailed in the NGL. The NGO is to promote efficient investment in, and efficient operation and use of, natural gas services for the long term interests of consumers of natural gas with respect to price,

[1] Under s.8 of the NGL a service provider is a person who owns, controls or operates a gas pipeline.

[2] In Victoria, the Australian Energy Market Operator manages the Victorian Transmission System, and users are not required to enter into commercial contracts with their transmission network service provider/s. Instead, a user's daily gas flow is determined by its injection bids into the wholesale gas market. The injection bids enter into a market clearing engine, which dispatches the lowest priced injection bids to meet demand. The access arrangement approved by the AER sets the reference tariff that users pay for gas haulage services based on the actual gas flows following this dispatch process.

quality, safety, reliability and security of supply of natural gas. The AER is also guided by the revenue and pricing principles (RPP) in s. 24 of the NGL.[3]

As the owner and operator of a gas transmission network, APA GasNet is required to submit an access arrangement to the AER for approval. An access arrangement must describe all pipeline services APA GasNet proposes to offer. APA GasNet must also specify the pipeline services likely to be sought by a significant part of the market. These are referred to as references services. APA GasNet is required to specify the tariff and the terms and conditions on which those reference services will be provided.[4]

The reference services in this access arrangement are the gas haulage services provided by APA GasNet on its network, and the authorised maximum daily quantity credit certificates (AMDQ CC) service. The gas haulage services provide for the injection, withdrawal and conveyance of gas on APA GasNet's gas transmission network. AMDQ CC provide preferential rights to users who purchase these certificates for specified amounts of pipeline capacity when the transmission system becomes constrained. The AER's final decision on the services covered by the access arrangement is set out in Attachment 2 of the final decision.

1.1 AER final decision

The AER does not approve APA GasNet's revised access arrangement proposal.[5]

The AER's decision on APA GasNet's 2013–17 access arrangement proposal is made in accordance with the relevant sections of the NGL and NGR.

The AER's approval of an access arrangement proposal implies approval of every element of the proposal. It follows that, if the AER withholds its approval to any element of an access arrangement proposal, the proposal cannot be approved.[6]

As required by the NGL and NGR, in forming its decision the AER has:

- considered APA GasNet's revised access arrangement proposal and supporting information
- considered information provided by APA GasNet in response to information requests from the AER
- considered submissions from interested parties
- considered views expressed at stakeholder events
- undertaken its own analysis to verify the information provided by APA GasNet
- considered expert advice or analysis commissioned in relation to certain aspects of APA GasNet's access arrangement proposal.

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3 Under s. 28(2) of the NGL, the AER must take into account the revenue and pricing principles when exercising a discretion in approving or making those parts of an access arrangement relating to a reference tariff and may take into account the principles when performing or exercising any other AER economic regulatory function or power.

4 NGR, r. 101(a); r. 48(1)(c) and (d). A pipeline service means a service provided by means of a pipeline and includes a haulage service and a service ancillary to the provision of a haulage service: s. 2 of the NGL.

5 NGR, r. 62.

6 NGR, r. 41.

For more on the steps undertaken by the AER in coming to this final decision, as well as an overview of the regulatory framework, see attachment 1.

The remainder of this document contains the AER's reasons for its final decision.

In this final decision, the AER proposes revisions to the access arrangement for APA GasNet's transmission pipeline having regard to the NGL, NGR, APA GasNet's proposal and the AER's reasons for not approving that proposal.[7] The AER will make a decision giving effect to its own proposal within two months of this final decision.[8]

1.2 Structure of the final decision

This document is the AER's final decision on APA GasNet's access arrangement for the 2013–17 period.

The final decision paper is set out as follows:

- Part 1: AER final decision – the final decision on APA GasNet's revised access arrangement proposal and a summary of reasons
- Part 2: attachments – detailed analysis of the various components of the final decision (excluding analysis based on confidential information)
- Part 3: appendices – detailed discussion of technical issues and issues common to multiple parts of this decision.

1.3 Tariffs for reference services

Tariffs for reference services are set at a level that allows a service provider the opportunity to earn sufficient revenue to cover the efficient cost of providing these services.[9] This is consistent with the NGO in that it promotes efficient investment in, and efficient operation and use of, natural gas services for the long term interests of consumers of natural gas.

The AER assesses APA GasNet's proposed tariffs by reference to the total revenue requirement and the likely usage of reference services over the access arrangement period. This information is used to calculate tariffs that will allow APA GasNet the opportunity to earn its total revenue requirement.

The AER uses the building block approach to determine the efficient level of costs to provide the reference services and therefore the amount of revenue required by APA GasNet. This approach is set out in r. 76 of the NGR and includes the following capital and non-capital costs of providing reference services:

- a return on the projected capital base incorporating:
  - the capital base—the AER's analysis of APA GasNet's proposed capital base is discussed in chapter 3 and attachment 3
  - capital expenditure—chapter 4 and attachment 4

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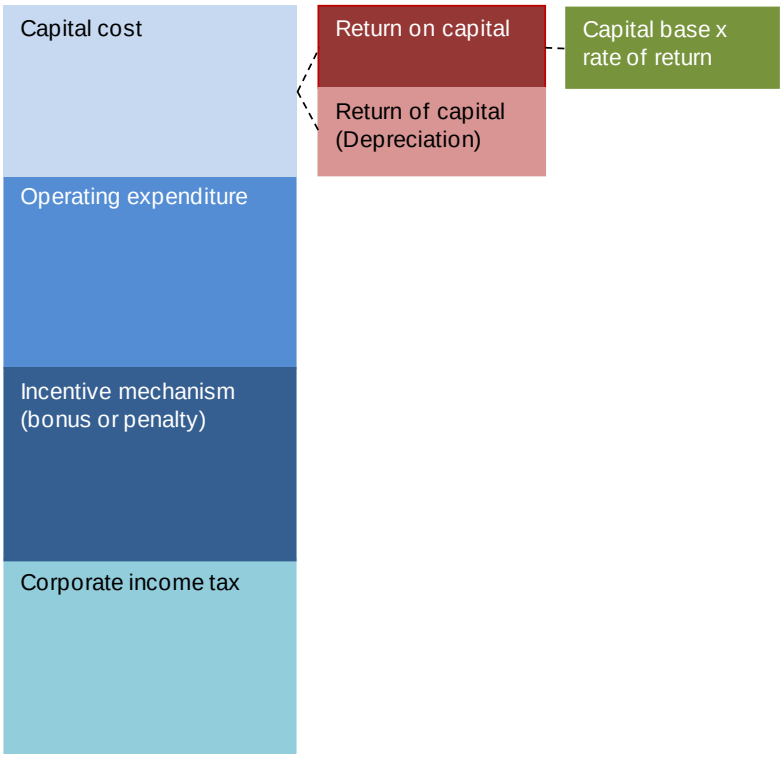
7 NGR, r. 64(1) and (2).
8 NGR, r. 64(4)
9 This approach is detailed within the Revenue and Pricing principles, NGL s. 24

- a rate of return—chapter 5 and attachment 5

- an allowance for depreciation of the projected capital base—chapter 6 and attachment 6
- operating expenditure—chapter 7 and attachment 7
- increments and decrements resulting from an incentive mechanism[10]—chapter 8 and attachment 8
- corporate income tax[11]—chapter 9 and attachment 9.

The building block approach is also shown in Figure 1.2.

Figure 1.2 Building block approach



These building block costs are used to determine APA GasNet's total revenue requirement for the five year access arrangement period.[12]

The AER must also consider the likely usage of the reference service to determine the appropriate tariff (or suite of tariffs). To do this, the AER forecasts the demand for reference services over the access arrangement period.[13] Tariffs are then set at a level that will allow APA GasNet the opportunity to collect its total revenue requirement.

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10 This may relate to operating expenditure and/or capital expenditure depending on the incentive mechanism.
11 This will be included as a building block revenue component in the estimate of corporate income tax payable under the post-tax framework or in the return on the capital under the pre-tax framework. The AER employs the post-tax framework.
12 A summary of the AER's decision on APA GasNet's required revenue is provided in the next chapter (chapter 2).
13 The AER's decision on demand is discussed in chapter 10 and attachment 10.

The discussion above describes the general approach to tariff setting. Specific detail on tariff setting and how tariffs can be varied is provided within the access arrangement. The AER's decision on these aspects of the access arrangement is provided at:

- chapter 11 and attachment 11 discuss how tariffs for reference services will be set
- chapter 12 and attachment 12 discuss the mechanism for varying tariffs annually and arrangements for varying tariffs in certain pre-specified conditions.

1.4 Non-tariff components

Non-tariff components refer to the terms and conditions that are not directly related to the nature and level of tariffs paid by users, but which are important to the relationship between the service provider and users. They include capacity trading requirements, queuing requirements, extension and expansion requirements, and other terms and conditions on which the reference services will be provided.[14]

In considering APA GasNet's revised proposal, the AER assesses whether the proposed terms and conditions are consistent with the NGO and the broader regulatory framework. Although parties can agree to terms that are different to those set out in APA GasNet's access arrangement proposal, the AER's approved terms and conditions can act as a starting point for negotiations.[15]

The AER's consideration of the access arrangement's non–tariff components is set out in attachment 13.

[14] NGR, r. 48(1).

[15] Under s. 322 of the NGL, subject to the queuing requirements of an access arrangement, a service provider may enter into an agreement with a user or prospective user about access to a pipeline service provided by means of a scheme pipeline that is different to an applicable access arrangement that applies to that pipeline service.

2 Total revenue

The total revenue requirement is a forecast of the efficient cost of providing gas transmission services over the access arrangement period.

The total revenue set out in this decision has been determined by assessing each building block cost of APA GasNet's access arrangement proposal. The AER has assessed whether these building block costs are consistent with the costs that would be incurred by an efficient provider of gas transmission services.

2.1 Final decision

The AER does not accept APA GasNet's (revised) proposed total revenue of $622.4 million ($nominal).[16,17] The AER has calculated a total revenue allowance of $484.2 million ($nominal) over the access arrangement period.[18]

This revenue requirement is 22.2 per cent lower than APA GasNet's proposed revenue over the 2013–17 access arrangement period. The AER accepts that some aspects of APA GasNet's revised proposal are consistent with the requirements of the NGR. However, the AER has not approved all elements. The key elements of the AER's final decision that reduce APA GasNet's proposed revenue include:[19]

- depreciation—the AER has calculated depreciation of $56.3 million ($nominal) compared to APA GasNet's proposal of $136.3 million ($nominal) (a reduction of approximately 58.7 per cent). This will reduce overall revenue by approximately 12.9 per cent
- rate of return—the AER has calculated a rate of return of 7.22 per cent as compared to APA GasNet's proposal of 8.09 per cent. The reduction in total unsmoothed revenue attributable to the AER's final decision on the rate of return is $40.2 million ($nominal) or 7.5 per cent. The reduction in total unsmoothed revenue attributable to the AER's decision with respect to the rate of return is shown in Table 2.1.

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16 The figures in this paragraph represent revenue smoothed across the access arrangement period.

17 The AER's smoothed revenues are derived from the AER's smoothed tariffs. Smoothed tariffs multiplied by forecast demand equals the smoothed revenue. The smoothed revenues are equal in net present value terms to APA GasNet's unsmoothed building block revenue requirements.

18 The revenue allowances are determined by smoothing the total building block revenue requirement of $487.1 million ($nominal).

19 The AER has adjusted the depreciation approach first to measure the revenue impact of that change. The other revenue impacts are then measured against total revenues of $537.4 million. These revenues would have emerged under APA GasNet's revised proposal if the standard depreciation approach had been applied. The $537.4 million figure corrects for some modelling errors by APA GasNet and explains why it is not exactly $622.4 million minus $80 million. The errors are discussed in the depreciation attachment and appendix.

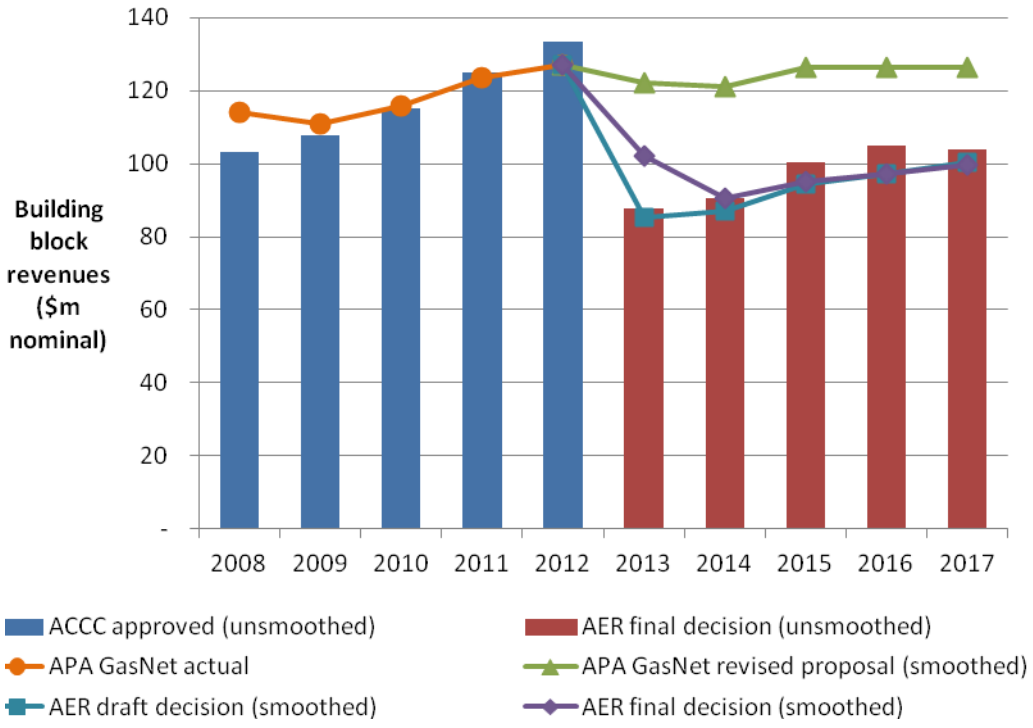
Table 2.1 Changes to APA GasNet's total revised proposal unsmoothed revenue, when AER's final decision WACC parameter on MRP is adopted

	APA GasNet revised proposal (per cent)	AER's final decision (per cent)	Revenue change ($million, nominal)	Revenue change (per cent)
MRP	8.72	6.00	–40.2	–7.5
WACC[a]	8.09	7.22	–40.2	–7.5

Source: AER analysis.
(a) The AER's draft decision WACC was based on risk free rate and debt risk premium parameters using the agreed averaging period. APA GasNet's revised proposal WACC adopted the AER's draft decision parameters on the WACC, except for the market risk premium.

Figure 2.1 compares APA GasNet's revised proposal with the AER's final decision for revenues over the 2013–17 access arrangement period and the revenue approved by the ACCC over the 2008–12 access arrangement period. As shown, APA GasNet's proposed smoothed revenues for the 2013–17 are 6.6 per cent higher than the ACCC allowed revenues for the 2008–12.

Figure 2.1 AER's final decision compared to APA GasNet's revised proposal revenue requirement and approved revenue for 2008–12 ($million, nominal)



Source: AER analysis.

The AER's final decision on APA GasNet's total revenue is arrived at by summing the building block costs. These costs are shown in Table 2.2 and are each discussed in greater detail in this final decision and the attachments to this decision.

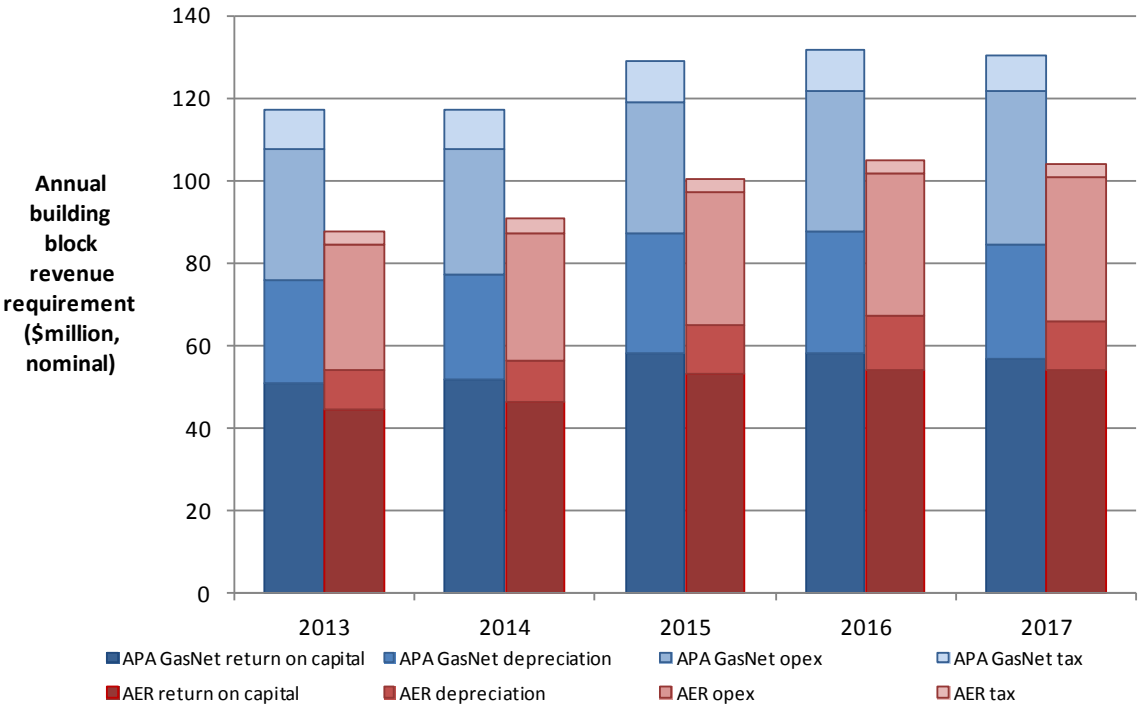
Table 2.2 AER's final decision on APA GasNet's revised proposal revenue requirements for its reference services ($million, nominal)

	2013	2014	2015	2016	2017	Total
Return on capital	44.6	46.2	52.9	53.9	54.0	251.6
Regulatory depreciation	9.3	10.2	11.9	13.2	11.8	56.3
Operating expenditure	30.6	30.7	32.4	34.3	35.1	163.1
Benefit sharing allowance	–	–	–	–	–	–
Net corporate income tax allowance	3.3	3.6	3.3	3.4	2.8	16.3
Annual building block requirement (unsmoothed)	87.7	90.6	100.5	104.8	103.7	487.4
Annual expected revenue (smoothed)	102.1	90.1	95.1	97.2	99.7	484.2
X factor	21.5%[a]	14.0%	3.0%	0.0%	0.0%	n/a

Source: AER analysis.
(a) This is the P_0 for revenue for the first year of the 2013–17 access arrangement period.
n/a Not applicable.

The effect of the components of the AER's final decision on APA GasNet's (revised) proposed total (unsmoothed) revenue requirement is displayed in Figure 2.2. This shows that the AER's final decision will reduce APA GasNet's revised proposals for the return on capital, opex, depreciation and tax building blocks.

Figure 2.2 AER's final decision and APA GasNet's revised proposal revenue requirement (unsmoothed) by building block ($million, nominal)



Source: AER analysis.

2.2 Impact on reference tariffs

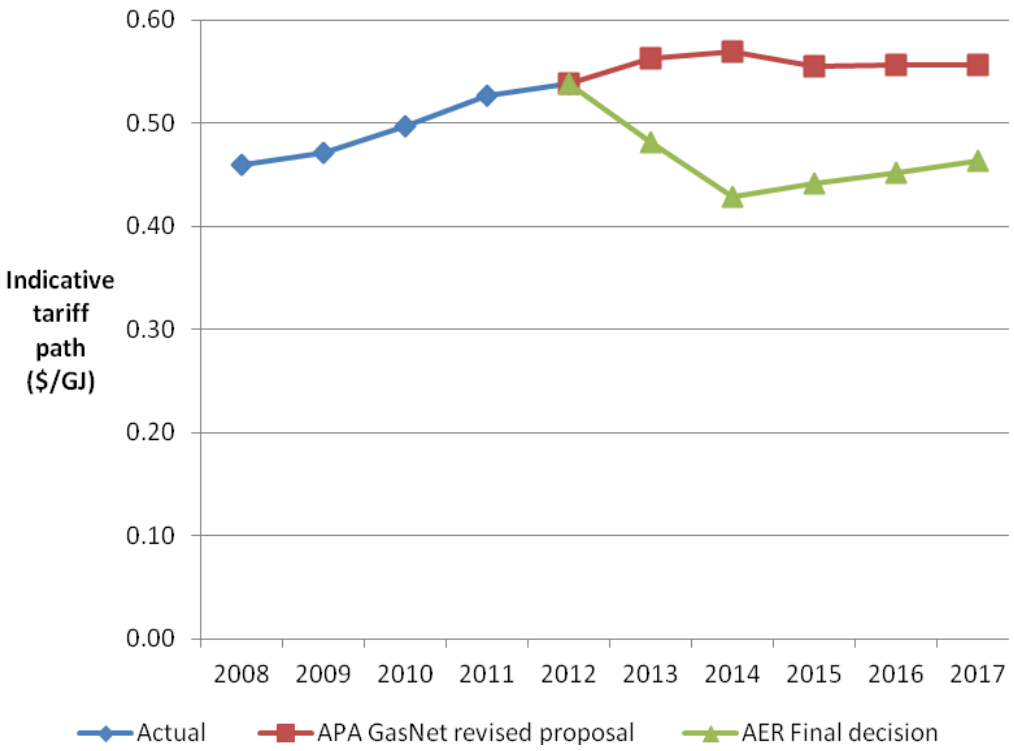
The AER's final decision will reduce APA GasNet's forecast reference tariffs by 19.0 per cent[20] on average over the 2013–17 access arrangement period (in nominal dollar terms).

The AER's final decision will result in average reference service transmission charges ($/GJ of demand) for the 2013–17 access arrangement period that are 9.0 per cent lower than average reference service charges per GJ for the 2008–12 access arrangement period.

This includes a reduction in average transmission charges ($/GJ) from 2012 to 2013 of approximately 10.6 per cent.

These lower reference tariffs are largely driven by the AER's final decision on a lower rate of return, lower regulatory depreciation allowance, and consequently lower forecast tax payments. The indicative tariff path arising from the AER's final decision compared with that in APA GasNet's revised proposal is shown in Figure 2.3.

Figure 2.3 Indicative reference tariff paths for APA GasNet's reference services from 2013 to 2017 ($/GJ, nominal)



Source: AER analysis.

[20] This is an indicative value, calculated using the AER's estimate of average tariffs. These average tariffs are based on the AER's final decision on APA GasNet's forecast revenue recovery over the 2013–17 access arrangement period and the AER's final decision on aggregate withdrawal demand. This calculation excludes refill demand and refill revenues as demand for this service is highly variable and may cause bias to the estimated average tariffs. The actual price path for individual tariffs may vary from the AER's estimated average tariffs.

3 Capital base

The capital base accounts for the value of APA GasNet's regulated assets, including gas transmission pipelines, IT systems, plant and equipment, motor vehicles and buildings. It is the value on which APA GasNet can earn a rate of return and depreciation allowance.[21]

As part of this final decision, the AER is required to assess APA GasNet's proposed opening values for its capital base for each year of the 2008–12 and 2013–17 access arrangement periods. To carry out this assessment, the AER:

- determines the value of the opening capital base as at 1 January 2008 (the first year of the 2008–12 access arrangement period)
- rolls forward[22] the capital base from 1 January 2008 to determine the opening capital base at 1 January 2013
- rolls forward the projected capital base for each year of the 2013–17 access arrangement period (using forecast depreciation, forecast capex, disposals and inflation approved by the AER in this final decision) to determine the closing capital base as at 31 December 2017.

The full final decision and the AER's detailed reasons and analysis on the capital base can be found in attachment 3.

3.1 Final decision

The AER does not approve APA GasNet's proposed opening capital base of $630.8 million as at 1 January 2013. The AER has calculated an opening capital base of $617.6 million as at 1 January 2013. The AER's capital base roll forward for the 2008–12 access arrangement period is set out in

[21] The AER's decision on these aspects of the access arrangement are at chapters 5 and 6.

[22] The opening capital base value for a regulatory year is rolled forward by indexing it for inflation, adding any conforming capex, and subtracting depreciation and other possible factors (for example, disposals or customer contributions). Following this process, the AER arrives at a closing value of the capital base at the end of the relevant year.

Table 3.1.

Table 3.1 AER's final decision on APA GasNet's capital base roll forward for the 2008–12 access arrangement period ($million, nominal)

	2008	2009	2010	2011	2012
Opening capital base	559.6	591.1	583.2	575.9	613.0
Net capex	37.8	10.2	10.6	53.6	58.0
Less: straight-line depreciation	27.0	30.7	33.4	34.3	35.5
Indexation	20.6	12.5	15.5	17.9	15.3
Closing capital base	591.1	583.2	575.9	613.0	650.8
Less: difference between 2007 forecast and actual capex	–	–	–	–	20.0
Less: return on difference for 2007 capex	–	–	–	–	13.2
Opening capital base at 1 January 2013	–	–	–	–	617.6

Source: AER analysis.
Note: Totals may not add due to rounding.

Based on the AER's approved opening capital base for APA GasNet (as at 1 January 2013) and the final decisions on forecast capex and forecast depreciation, the AER has determined a projected closing capital base as at 31 December 2017 of $746.7 million ($nominal). Table 3.2 sets out the AER's projected capital base roll forward for APA GasNet during the 2013–17 access arrangement period.

Table 3.2 AER's final decision on APA GasNet's projected capital base roll forward during the 2013–17 access arrangement period ($million, nominal)

	2013	2014	2015	2016	2017
Opening capital base	617.6	640.3	733.1	747.2	748.7
Net capex	32.0	102.9	26.0	14.7	9.8
Less: straight-line depreciation[a]	24.7	26.2	30.2	31.9	30.5
Indexation	15.4	16.0	18.3	18.7	18.7
Closing capital base	640.3	733.1	747.2	748.7	746.7

Note: Totals may not add due to rounding.

3.2 Summary of analysis and reasons

3.2.1 Opening capital base as at 1 January 2008

The AER approves APA GasNet's proposed opening capital base as at 1 January 2008. In its revised proposal, APA GasNet adopted the AER's draft decision on this opening capital base.

3.2.2 Opening capital base as at 1 January 2013

The AER does not approve APA GasNet's proposed opening capital base as at 1 January 2013.

APA GasNet's proposal did not adjust its capital base to account for a higher return on capital. This arose because the estimated capex included in the capital base was higher than actual capex in 2007.

Actual capex for 2007 was not available at the time of the last access arrangement review. At that time, the ACCC included an estimate of capex for 2007 in the capital base. The ACCC then used the capital base (which included the capex estimate for 2007) and the approved rate of return to set APA GasNet's return on capital allowance. As a result of actual capex for 2007 being lower than the estimate of 2007 capex, APA GasNet's return on capital allowance was higher than it would have been if APA GasNet's estimate had been accurate.

The AER has adjusted the capital base to remove this capex difference and the associated return on capital. The AER's detailed analysis on this issue is set out in appendix C. As a result of this adjustment, the AER determines APA GasNet's opening capital base as at 1 January 2013 to be $617.6 million.

3.2.3 Projected closing capital base as at 31 December 2017

The AER does not approve APA GasNet's proposed projected capital base as at 31 December 2017. The AER's forecast of APA GasNet's projected capital base as at 31 December 2017 is $746.7 million ($nominal).

The AER's decision on the closing capital base has been made to reflect the decrease in the opening capital base as at 1 January 2013. It also reflects adjustments to other components of APA GasNet's proposal that have had a consequential effect on the closing capital base. These are discussed in other attachments and include:

- a change in the projected capital base to reflect the AER's rejection of APA GasNet's depreciation approach (see attachments 3 and 6)
- a reduction in forecast capex allowances (see attachment 4)
- a reduction in forecast depreciation allowances (see attachment 6)
- an updated forecast inflation of 2.5 per cent per annum for the 2013–17 access arrangement period.[23]

The capital base at the commencement of the 2018–22 access arrangement period will be subject to adjustments under the NGR.[24] These adjustments include:

- the difference between actual and estimated capex for 2012 (the final year of the 2008–12 access arrangement period)

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[23] As discussed in attachment 6, APA GasNet's proposed change in depreciation approach means no inflation indexation was applied to the capital base in its revised proposal. The AER has not accepted the proposed change in depreciation approach. Consequently, this final decision indexes the capital base for inflation.

[24] NGR, r. 77(2).

- actual inflation and approved forecast depreciation over the 2013–17 access arrangement period. The AER accepts APA GasNet's proposal to use forecast depreciation to roll forward the capital base at the next access arrangement review.

4 Capital expenditure

Forecast capital expenditure (capex) is an estimate of the cost of new assets that are likely to be required by a network business during an access arrangement period for the efficient operation of the network. Forecast capex is used in conjunction with the opening capital base and rate of return as an input in the return on capital building block.

Capex is broken down into several categories:

- augmentation capex—assets that expand the capacity of the network or provide connections to new customers
- refurbishment and upgrade capex—used to replace or upgrade aging, obsolete or inefficient assets
- non-network capex—includes IT, plant and equipment, motor vehicles and buildings.

Factors that will influence the required level of capex include the age and condition of existing assets, changes in the number of customers connected to the network, changes in the demand profile of customers, and general 'stay in business' requirements.

The AER assesses the capex forecasts of regulated gas network businesses to determine whether they comply with the applicable NGL and NGR requirements.[25] In particular, the forecast capex must:

- be arrived at on a reasonable basis and represent the best forecast or estimate possible in the circumstances[26]
- be expenditure that would be incurred by a prudent service provider acting efficiently, in accordance with good industry practice, to achieve the lowest sustainable cost of providing pipeline services[27]
- be justifiable on a ground stated in r. 79(2) of the NGR.

As well as assessing forecast capex, the AER reviews actual capex undertaken during the previous access arrangement period (using actual data for the first four years and a forecast of the fifth). This is used to set the opening capital base as at 31 January 2013 (see chapter 3).

The full final decision and the AER's detailed reasons and analysis on the capital expenditure can be found in attachment 4.

4.1 Final decision

The AER does not approve APA GasNet's proposed capex forecast of $174.2 million ($2012) for the 2013–17 access arrangement period. The AER considers that forecast capex of $171.5 million ($2012) is consistent with the NGR.

For the 2008–12 access arrangement period, the AER approves APA GasNet's total capex of $165.7 million ($2012).

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25 NGR, r. 79(1).
26 NGR, r. 74(2).
27 NGR, r. 79(1).

Figure 4.1 and Table 4.1 compare APA GasNet's proposed capex allowance to that determined by the AER in its final decision.

Figure 4.1 Comparison of APA GasNet's proposed total capex and AER final decision

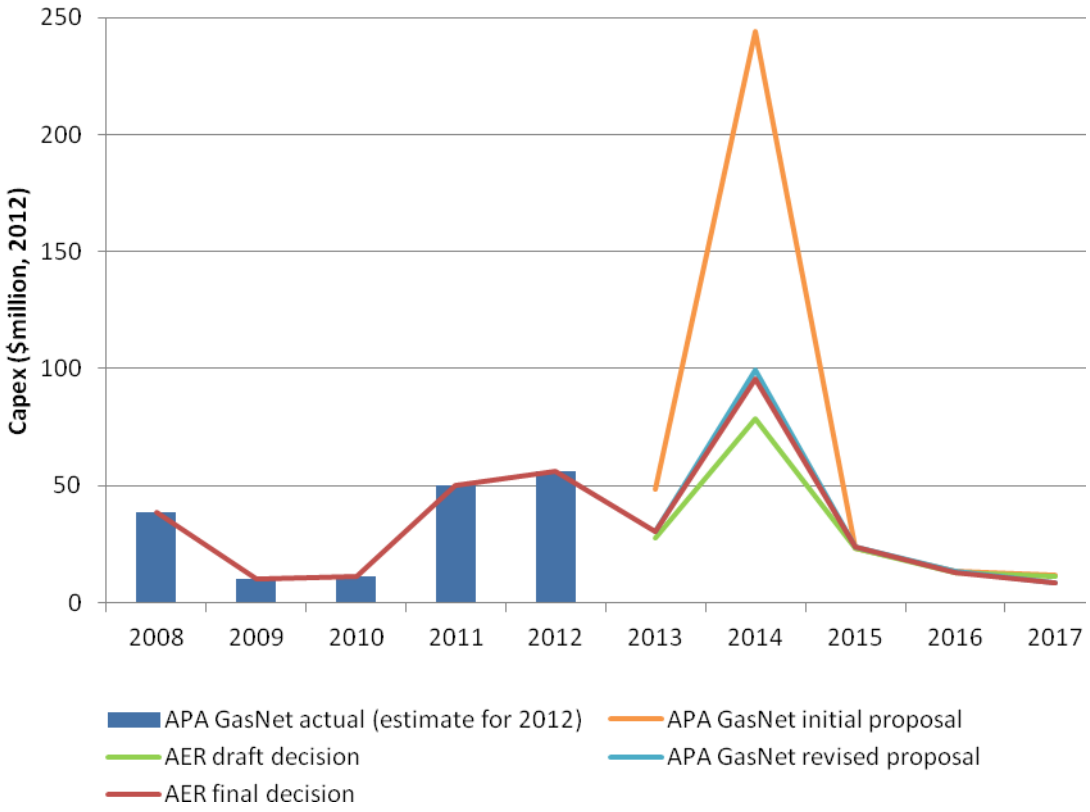

Table 4.1 Comparison of APA GasNet proposed and AER approved capex including labour cost escalation adjustment over the 2013-17 access arrangement period ($million, 2012)

	APA GasNet revised proposal	AER approved capex excluding AER labour cost escalation adjustments	AER approved capex including AER labour cost escalation adjustments	Variance between APA GasNet proposed and AER approved capex including labour cost escalation adjustment (%)
Augmentation	99.0	98.9	98.7	0.3%
Refurbishment and upgrade	59.0	56.9	56.6	4.1%
Non-system	16.2	16.2	16.2	0.4%
Total capital expenditure	174.2	172.1	171.5	1.6%

4.2 Summary of analysis and reasons

As part of its assessment, the AER considered APA GasNet's proposed forecast capex for the 2013–17 access arrangement period, as well as its actual capex undertaken during the 2008–12 period.

4.2.1 2013–17 capital expenditure

The AER considers that forecast capex of $171.5 million ($2012) for the 2013–17 access arrangement period is consistent with the NGR. This represents a reduction of $2.7 million ($2012) to APA GasNet's proposed forecast capex. The main categories of capex proposed by APA GasNet are augmentation, refurbishment and upgrade, and non-system capex. These are each discussed below.

Augmentation capital expenditure

In its revised proposal, APA GasNet proposed augmentation capex of $83.2 ($2012) million for its Gas to Culcairn project. The AER considers that the proposed capex for this project is conforming capex in accordance with r. 79 of the NGR.

The proposed Gas to Culcairn project can be broken down into two constituent elements—the augmentation of the South West Pipeline, and the augmentation of the Wollert to Barnawartha pipeline.

In its draft decision, the AER did not accept the proposed capex for the Gas to Culcairn project on the basis that the forecast incremental gas volumes driving the project were not arrived at on a reasonable basis, and did not represent the best forecast possible in the circumstances.[28] The AER required the scope of the Gas to Culcairn project to be reduced to a level that is prudent and consistent with achieving the lowest sustainable cost of providing services.

In its revised proposal APA GasNet adopted the AER's draft decision on the incremental gas volumes, and reduced the scope of the Gas to Culcairn project. The AER considers that the revised forecasts have been arrived at on a reasonable basis and represent the best forecast possible in the circumstances.

Refurbishment and upgrade capital expenditure

APA GasNet's proposed refurbishment and upgrade capex included expenditure for the Rockbank pressure reduction station, and additional capex for the Brooklyn compressor station.

Rockbank pressure reduction station

The AER does not accept the proposed refurbishment and upgrade capex of $2.1 million ($2012) for the Rockbank pressure reduction station, as it does not consider that it is conforming capex for the purposes of r. 79 of the NGR. The AER considers that the project is not required to maintain the safety and integrity of services during the 2013–17 access arrangement period. In response to a query from the AER, APA GasNet advised that capex for the Rockbank pressure reduction station had been included in its revised proposal in error.[29]

On this basis, the AER considers that the project should be removed from the capex forecast for the 2013–17 access arrangement period.

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[28] AER, *Draft decision: APA GasNet access arrangement proposal for 1 January 2013 - 31 December 2017*, September 2012, Part 2, pp. 42-44.

[29] APA GasNet, *Response to AER information request*, 28 November 2012.

Brooklyn compressor station upgrade

The AER approves the proposed refurbishment and upgrade capex for the Brooklyn compressor station, as it considers it is conforming capex for the purposes of r. 79 of the NGR. The AER considers that the project is required to maintain the integrity and safety of services, and is consistent with achieving the lowest sustainable cost of providing services. The AER approves $5.5 million ($2012) for this project.

Non-system capital expenditure

APA GasNet adopted the AER's draft decision on non-system capex. As discussed in the draft decision,[30] the AER is satisfied that APA GasNet's proposed non-system capex is conforming capex for the purposes of r. 79 of the NGR.

Labour cost escalators

The AER does not approve APA GasNet's proposed labour cost escalators. Applying the proposed escalators will not result in forecast opex and capex that is arrived at on a reasonable basis.[31] Nor do they provide the best possible forecasts of opex and capex in the circumstances.[32]

The AER considers Deloitte Access Economics' (DAE) forecast of the labour price index (LPI) represents the best possible forecast of labour cost escalation in the circumstances.[33]

4.2.2 2008–12 capital expenditure

The AER approves APA GasNet's proposed total capex of $165.7 million ($2012) for the 2008–12 access arrangement period, as it considers it is conforming capex for the purposes of r. 79 of the NGR. This represents an increase of $5.3 million from the total capex approved by the AER in its draft decision. This increase relates to revisions to proposed capex to reflect actual incurred expenditure and updated forecasts since APA GasNet submitted its initial proposal to the AER in March 2012.

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30 AER, *Draft decision, APA GasNet access arrangement proposal for 1 January 2013 - 31 December 2017*, September 2012, Part 2, pp. 52–54.
31 NGR, r. 74(2)(a).
32 NGR, r. 74(2)(b).
33 NGR, r. 74(2).

5 Rate of return

Providing a return on capital allows a business to service the interest on its loans and to give a return on equity to investors. The return on capital building block is calculated by multiplying the rate of return with the value of the capital base (see chapter 3 for a discussion of the capital base). The rate of return is considered in this chapter.

The return on capital is to be commensurate with prevailing conditions in the market for funds and the risks involved in providing reference services.[34]

Consistent with APA GasNet's revised proposal and previous AER decisions, the rate of return adopted by the AER is the nominal vanilla WACC formulation.

The AER's detailed reasons for its decision on the rate of return are provided in attachment 5, with additional reasons on some matters set out in appendix B.

5.1 Final decision

The AER does not approve APA GasNet's proposed rate of return of 8.09 per cent (nominal vanilla).[35] The AER considers 7.22 per cent is a preferable alternative that is commensurate with prevailing conditions in the market for funds and the risks involved in providing reference services. The AER's rate of return for APA GasNet combines a cost of equity of 8.02 per cent and a cost of debt of 6.68 per cent.

Consistent with the draft decision, the AER agrees with a number of aspects of APA GasNet's proposed rate of return in its revised access arrangement proposal. Specifically, the AER agrees with:

- adopting a weighted average of the cost of equity and the cost of debt (known as the weighted average cost of capital (WACC)) to determine the rate of return
- adopting a 60 per cent gearing ratio
- adopting the capital asset pricing model (CAPM) to calculate the cost of equity
- adopting the yield on 10 year Commonwealth Government Securities (CGS) as the proxy for the risk free rate
- adopting a 0.8 equity beta
- specifying the cost of debt as the debt risk premium (DRP) over the risk free rate
- determining the DRP by defining the benchmark bond as a 10 year corporate bond with a BBB+ credit rating and measuring the benchmark bond rate using the extrapolated Bloomberg BBB rated 7 year fair value curve (FVC)
- the method of extrapolating the Bloomberg BBB 7 rated FVC to a 10 year maturity (consistent with the definition of the benchmark bond) using 'paired bond' analysis

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34 NGR, r. 87(1).

35 APA GasNet, *Revised Access Arrangement Proposal*, 9 November 2012, p. 35. In contrast to the Gas Distribution businesses, APA GasNet's averaging period concluded before its revised proposal was submitted so it was not necessary for the AER to update the WACC estimate.

- adopting a recent and short term averaging period for determining the risk free rate (and DRP) components for the cost of equity and the cost of debt (specifically, the 10 business day period from 13 September 2012 to 26 September 2012).
- determining forecast inflation based on the Reserve Bank of Australia's (RBA's) short term forecasts and the mid-point of the RBA's inflation targeting band.

The AER does not agree with APA GasNet's proposal to adopt a 8.72 per cent MRP.[36] Rather, the AER adopts a 6 per cent MRP.

The individual WACC parameters and consequent overall rate of return are set out in Table 5.1.

Table 5.1 AER's final decision on APA GasNet's rate of return (nominal)

Parameter	AER draft decision[(a)]	APA GasNet revised proposal[(a)]	AER final decision
Nominal risk free rate (cost of equity)	3.22%	3.22%	3.22%
Nominal risk free rate (cost of debt)	3.22%	3.22%	3.22%
Equity beta	0.80	0.80	0.80
Market risk premium	6.00%	8.72%	6.00%
Debt risk premium	3.46%	3.46%	3.46%
Gearing ratio	60.00%	60.00%	60.00%
Inflation forecast	2.50%	2.50%	2.50%
Nominal post-tax cost of equity	8.02%	10.20%	8.02%
Nominal pre-tax cost of debt	6.68%	6.68%	6.68%
Nominal vanilla WACC	7.22%	8.09%	7.22%

Source: APA GasNet, *Revised Access Arrangement Proposal*, 9 November 2012, and AER analysis.
(a) The AER draft decision and APA GasNet revised access arrangement proposal parameters have been updated to reflect the final averaging period, based on the respective methodologies. The parameters published in the draft decision and revised access arrangement proposal were calculated based on indicative averaging periods, and hence differ from those in the above table for some parameters.

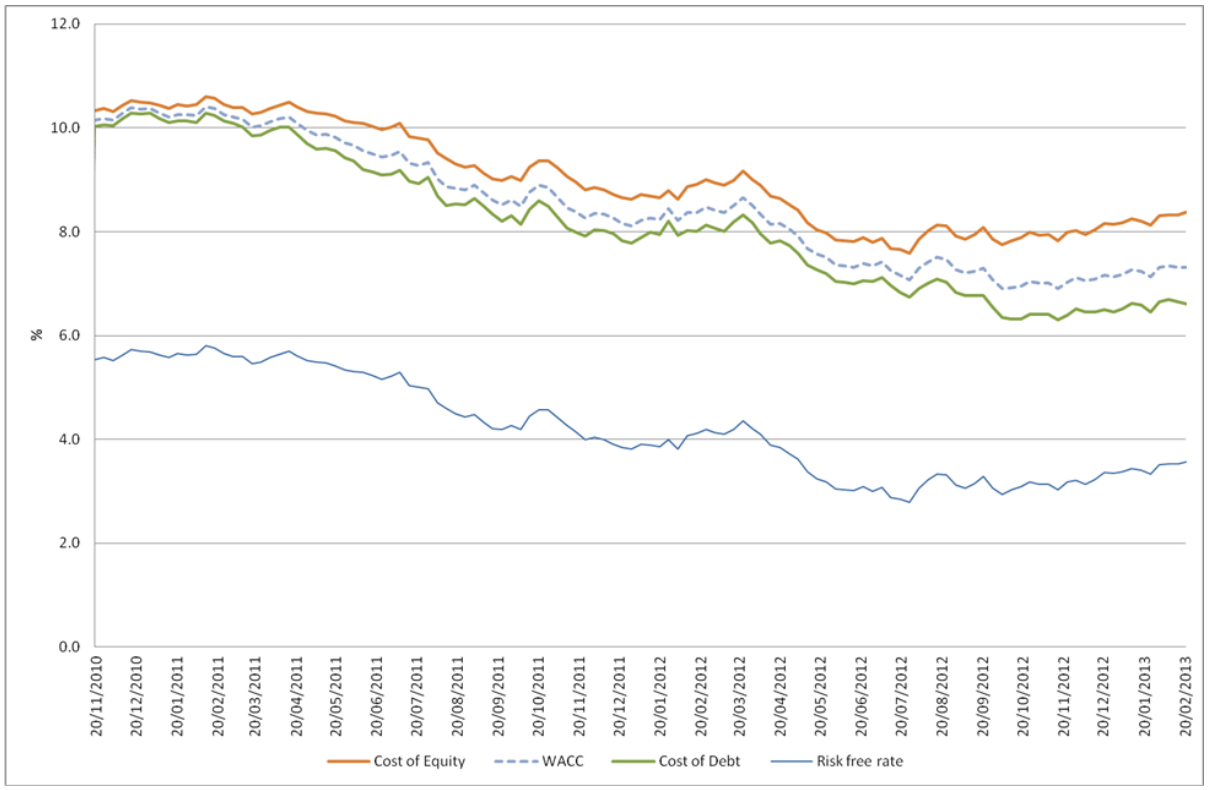
APA GasNet's rate of return in this decision is similar to the rates the AER determined in decisions over the past year.[37] It is lower than rates the AER determined in decisions before then. Nonetheless, the AER considers its decision on the rate of return is commensurate with prevailing conditions in the market for funds and the risk involved with providing reference services.

The cost of debt has fallen by approximately 1.5 per cent from its level in late 2011 and early 2012. As a result, the AER and APA GasNet agree that the lower cost of debt that currently prevails has reduced the overall rate of return from the levels that prevailed around a year ago (all things equal). The cost of debt in this decision accounts for 60 per cent of the overall rate of return. The AER and

36 APA GasNet, *Revised Access Arrangement Proposal*, 9 November 2012, p. 35.
37 AER, *Final decision: APT Petroleum Pipeline Pty Ltd, Access arrangement final decision, Roma to Brisbane Pipeline 2012–13 to 2016–17*, August 2012; AER, *Final distribution determination, Aurora Energy Pty Ltd 2012–13 to 2016–17*, April 2012.

APA GasNet agree on the approach to determining the cost of debt. Figure 5.1 illustrates the results from applying the AER's rate of return approach in this decision over time.

Figure 5.1 AER's rate of return approach over time (nominal, per cent)[38]



In this access arrangement review, the cost of equity is the key area of disagreement. APA GasNet's revised access arrangement proposal maintains its initial proposal position. APA GasNet's main submission was that the AER mixes a "spot" risk free rate with a "long term" average MRP and this currently produces a cost of equity that is too low.[39] As part of this submission, APA GasNet suggested the cost of equity is relatively stable over time, and related to this point, that the risk free rate and MRP are strongly negatively correlated.[40]

The AER acknowledges that APA GasNet was concerned with the impact of the lower risk free rate on its cost of equity and this was a driving factor in its proposing a higher MRP.[41]

As illustrated in Figure 5.1, the risk free rate has been continuously less than 4 per cent since early 2012.[42] Combined with a 0.8 equity beta and 6 per cent MRP, this has resulted in a cost of equity in AER decisions since this time that is lower than earlier decisions. The AER has made determinations for Aurora, the Roma-to-Brisbane (RBP) pipeline, and now the Victorian gas businesses, over this

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38 This chart illustrates the AER's current approach extrapolated backwards (assuming a 6 per cent MRP over that period). The starting date is chosen as this is when paired bond data was first available (the paired bond approach is applied in this decision when determining the debt risk premium - see attachment 5.3.5 below for further discussion).

39 This is an incorrect characterisation of the AER's approach. The AER estimates a 10 year forward looking risk free rate and a 10 year forward looking MRP. See below and appendix B for more detail.

40 APA GasNet, *Revised Access Arrangement Proposal*, 9 November 2012, pp. 63-64.

41 APA GasNet, *Revised Access Arrangement Proposal*, 9 November 2012, p. 36.

42 The 10 year CGS yield fell below 3 per cent for a brief period in June and July 2012.

time period[43]. In each decision, the cost of equity arising from the low risk free rate has been a contentious issue, and the AER has considered the matter carefully.

The material in the next few pages provides a high level overview of the process the AER has employed to assess the proposals and subsequent material submitted by the Victorian gas businesses on the cost of equity. A brief summary of the AER's key reasons for its decision then follows. A more detailed explanation of the AER's reasons is then set out later in this attachment. Further detailed consideration of some specific issues is then set out in a separate appendix.

5.1.1 AER process

In view of the substantial material APA GasNet submitted, the AER has carefully reconsidered the issues raised and has also reassessed its analysis and reasons for the draft and this decision. It has also obtained additional expert advice on the material submitted APA GasNet. The AER has also extended and expanded its analysis in areas questioned by APA GasNet. In particular, in the areas of:

- the relationship between the risk free rate and the MRP, and the related issue of the extent of stability in the cost of equity over time
- the relationship between the cost of debt and the cost of equity, and the extent to which changes in the cost of debt over time can be used to inform the estimation of the cost of equity.

The AER has sought a substantial amount of expert advice on the cost of equity over the past 12 months. The advice has come from:

- the Reserve Bank of Australia (RBA)
- the Commonwealth Treasury and Australian Office of Financial Management (AOFM)
- finance academics (Professor McKenzie and Associate Professor Partington from the University of Sydney; Associate Professor Lally from the Victoria University of Wellington), and
- an economic consultancy firm (Cambridge Economic Policy Associates (CEPA))

The AER has sought advice on a wide range of issues associated with the cost of equity. This has included seeking follow up advice from certain experts to consider comments raised by APA GasNet and its consultants. This process has included:

- In a submission as part of the Aurora determination process, CEG suggested CGS yields might not be an appropriate proxy for the risk free rate in current market circumstances.[44] The AER sought advice from the RBA, Commonwealth Treasury and AOFM. They each advised that the CGS market remains liquid and well functioning. The RBA also advised that CGS bonds remained the best proxy for the risk free rate in Australia.[45]
- In 2011, the AER commissioned a report on the MRP from Professor McKenzie and Associate Professor Partington that comprehensively reviewed each major class of evidence on the MRP.

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[43] Note over this period, the AER also made determinations for Powerlink and is in the process of making determinations for Murraylink and ElectraNet. However these transmission determinations are not comparable to other AER decisions over this time as the WACC approach and parameters were largely prescribed by the NER and the 2009 WACC review.

[44] CEG, *A report on the cost of equity in Aurora's revised proposal: Prepared for Citipower, Jemena, Powercor, SP AusNet, and United Energy*, February 2012, p. 12.

[45] See section 5.3.2 below for further discussion.

McKenzie and Partington recommended the AER adopt 6 per cent. A regulated business questioned the relevance of the report because it did not directly consider the MRP in the context of a historically low risk free rate.[46] The AER sought further advice from McKenzie and Partington. The experts concluded there are good reasons for the AER to adopt a 6 per cent MRP and they saw no reason to switch from using the current 10 year CGS yield as the proxy for the risk free rate.[47]

- In the draft decision, the AER set out its reasons for adopting a prevailing risk free rate and 6 per cent MRP and published consultants' reports it had commissioned and accepted in forming this position. This provided an opportunity for the Victorian gas businesses, including APA GasNet, to respond to this position. The businesses did respond to this position and provided substantial additional material. The AER subsequently sought further advice from experts to critically review their original advice in light of the new material submitted by the businesses.
- For this final decision, the AER sought advice from three separate experts on the reasonableness of adopting prevailing risk free rate and 6 per cent MRP.
    - In a third report, McKenzie and Partington concluded the AER's approach was reasonable. This report contains an extensive review of the theoretical and empirical evidence on the relationship between the risk free rate and MRP. McKenzie and Partington's conclusion is based on a more comprehensive analysis of the academic literature on this issue than that contained in the consultant reports submitted by the Victorian gas businesses.
    - Associate Professor Lally also concluded it is reasonable for the AER to adopt a prevailing risk free rate and 6 per cent MRP.
    - CEPA indentified some concerns with the AER's approach. However, current market evidence suggests the AER's current estimate is in line with market expectations. It concluded that, based on various criteria it identified, the AER should not change its estimation approach.

5.1.2 Overview of reasons

Compared with the cost of debt, the cost of equity is more challenging to estimate. This is because the cost of debt is observable while the cost of equity is not.[48] Accordingly, a model must be used to estimate the cost of equity. The NGR require that the AER use a well accepted financial model to estimate the cost of equity. The AER and APA GasNet agree that it is appropriate to use the Sharpe-Lintner capital asset pricing model (Sharpe CAPM) for this purpose.

This model requires the estimation of three parameters:

- The risk free rate—this compensates investors for the time value of money. This is compensation for an investor having committed funds to an investment for a period of time and therefore forgoing the opportunity to spend that money and consume goods now.

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46 Aurora, *AER's draft distribution determination—Return on capital*, Submission, 20 February 2012, p.2.

47 M. McKenzie, and G. Partington, *Report to Corrs Chambers Westgarth: Equity market risk premium*, December 2011, p. 37. (McKenzie and Partington, *Equity market risk premium*, December 2011)

48 See, for example, RBA, *Latter to the AER*, July 2012, p. 1. The cost of debt can be observed by looking at yields on market traded bonds that match the benchmark characteristics, or fair value curves published by financial data service providers that match the benchmark characteristics.

- The market risk premium (MRP)—this compensates an investor for the systematic risk of investing in the market portfolio or the "average firm" in the market. Systematic risk is risk that effects all firms in the market (such as macroeconomic conditions and interest rate risk) and cannot be eliminated or diversified away through investing in a wide pool of firms.
- The equity beta—this reflects the systematic risk exposure of a particular firm, relative to the average firm in the market.

While the equity beta is difficult to estimate with precision, the AER and APA GasNet agree that 0.8 is a reasonable estimate for this parameter in this determination.

In determining the two remaining parameters within the Sharpe-Linter CAPM, the AER estimates:

- a 10 year forward looking risk free rate based on prevailing conditions in the market for funds, and
- a 10 year forward looking MRP based on prevailing conditions in the market for funds.

Conceptually, the adoption of a 10 year forward looking risk free rate and a 10 year forward looking MRP, based on prevailing conditions in the market for funds at the commencement of the access arrangement period:

- is consistent with the present value principle—this principle states that the present value of a regulated business's revenue stream should match the present value of its expenditure stream (plus or minus any efficiency rewards or penalties). As Lally explains, this is a fundamental principle of economic regulation. Satisfying this principle both promotes efficient investment and avoids the excess profits that regulation seeks to prevent.[49]
- is consistent with the building block model
- is consistent with the Sharpe-Lintner CAPM
- is internally consistent, and
- promotes regulatory certainty and consistency.

Practically, in estimating a 10 year forward looking risk free rate, the AER adopts the prevailing yield on 10 year CGS averaged over a period which is short and as close as practicably possible to the commencement of the access arrangement period.[50] The AER adopts this method because:

- An observable market proxy for the risk free rate is available.
- The yield on CGS is the best proxy for the risk free rate in Australia, as supported by RBA advice.
- The RBA, Commonwealth Treasury and AOFM advised that the CGS market is liquid and functioning well.[51]

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[49] M. Lally, *The risk free rate and the present value principle*, 22 August 2012, p. 8, (Lally, *Risk free rate and present value*, August 2012)

[50] The exact dates of the averaging period are proposed by the regulated business and are accepted by this AER so long as the proposed period: (1) is short (10-40 business days); (2) is as close as practicably possible to the commencement of the access arrangement period; (3) is nominated in advance.

[51] Reserve Bank of Australia, *Letter to the ACCC: The Commonwealth Government Securities Market*, 16 July 2012, (RBA, *Letter regarding the CGS market*, July 2012); Australian Treasury and Australian Office of Financial Management, *Letter to the ACCC: The Commonwealth Government Securities Market*, 18 July 2012, p. 2 (Treasury and AOFM, *Letter regarding the CGS Market*, July 2012).

- CGS yields are an observable market determined parameter.
- The prevailing rate at any point in time is the benchmark that returns on risky investments must better
- Prevailing 10 year CGS yields reflect expectations of the risk free rate over the appropriate forward looking investment horizon (which is 10 years).
- Selecting an averaging period in advance ensures the method is unbiased.
- There is no clear evidence that CGS yields are abnormally low. McKenzie and Partington suggest that the current rates may be consistent with a longer term trend.

In estimating a 10 year forward looking MRP, the AER adopts 6 per cent. After carefully assessing the information submitted by the Victorian gas businesses, the AER remains of the view that the available evidence supports a MRP of 6.0 per cent as commensurate with prevailing conditions in the market for funds. This is because:

- historical excess returns—these estimates provide a range of 4.9–6.1 per cent if calculated using an arithmetic mean and a range of 3.0–4.7 per cent if calculated using a geometric mean.
- academic research on excess return predictability—over the past decade, there is an increased scepticism about the ability for particular variables to predict returns. New empirical evidence has cast doubt on previous empirical evidence that suggested particular variables were good predictors of returns. Some studies indicate there is no better forecast of excess returns than the historical average.
- survey evidence—surveys of market practitioners consistently support 6 per cent as the most commonly adopted value for the MRP. These surveys also indicate that the average MRP adopted by market practitioners was approximately 6 per cent.
- forward looking MRP measures—these give mixed results, and are each subject to various limitations. On the one hand, dividend growth model (DGM) estimates suggest the MRP is in the range of 5.9–8.4 per cent. These estimates were provided by Associate Professor Lally who used CEG's DGM method, after adjusting for certain deficiencies in CEG's method. On the other hand, implied volatility based MRP estimates suggest the MRP is currently below its historical average level.
- recent Tribunal decisions—the Tribunal held the view that it was open for regulators to adopt a 6 per cent MRP in all of the recent decisions where regulated businesses sought Tribunal review.
- consultant advice—Associate Professor Lally, Professor McKenzie and Associate Professor Partington all advised the AER that a 6 per cent MRP is reasonable in the prevailing market conditions in their most recent reports and CEPA found the valuation reports do support an MRP that is equal to 6 per cent.
- recent decisions among Australian regulators—the AER notes both the ERA and the QCA consistently adopted an MRP estimate of 6 per cent under the same CAPM framework. The AER also notes while the IPART consistently adopted an MRP range of 5.5–6.5 per cent, it has made an upward adjustment to the overall WACC in its recent decisions due to the current low risk free rate.

The AER is aware that there are some academic papers that present a plausible argument for an inverse relationship between the risk free rate and MRP. Accordingly, the AER has given careful

consideration to this issue in estimating the MRP. The advice from McKenzie and Partington provides a comprehensive review of the academic literature on the theoretical and empirical evidence on the relationship between these two parameters. Among other findings, McKenzie and Partington note:

> Ang and Bekaert (2007) find a negative relationship between short term risk free rates and the equity risk premium. The general message of Ang and Bekaert's work, however, is that "… predictability is mainly a short-horizon, not a long-horizon phenomenon" (p.696). Their implication is that predictive regressions might help forecast market returns at say a one year horizon, but are little use at say a ten year horizon.[52]

This is relevant to the present matter as the AER is estimating a 10 year forward looking MRP, not a short term MRP.

Overall, McKenzie and Partington find that there is evidence to support both a positive and negative relationship between the risk free rate and MRP. They conclude:

> An examination of the relevant evidence leads us to conclude that the relation between the MRP and the level of interest rates is an open question and that the relation, if any, is not sufficiently well established to form the basis for a regulatory adjustment to the MRP.[53]

The AER also considers reasonableness checks on the overall rate of return. These reasonableness checks suggest that the overall rate of return broadly accords with market expectations. For example, recent regulated assets have generally been sold at a premium to the RAB. In addition, recent RAB trading multiplies are consistently greater than one (averaging around 1.2). This evidence provides the AER with a degree of confidence that its approach to determining the rate of return is reasonable.

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52 M. McKenzie, and G. Partington, *Review of the AER's overall approach to the risk free rate and market risk premium,* February 2013,, p.26 (McKenzie and Partington, *Review of the AER's overall approach*, February 2013).

53 McKenzie and Partington, *Review of the AER's overall approach*, February 2013, p. 6.

6 Regulatory depreciation

When determining the total revenue for APA GasNet, the AER must assess the depreciation for the projected capital base, referred to as the return of capital.[54] Regulatory depreciation represents the allowance that APA GasNet can collect for depreciation of its capital base. It is one of the building blocks used to determine total revenue.

The AER uses regulatory depreciation as a component for forecasting the nominal value of APA GasNet's assets over the 2013–17 access arrangement period. The regulatory depreciation allowance is calculated as the net total of the straight-line depreciation (negative) and the annual inflation indexation (positive) on the projected capital base.

APA GasNet is required to provide a forecast of depreciation for the 2013–17 access arrangement period. APA GasNet must set out a depreciation method and demonstrate how it applied the method. The resulting depreciation schedule sets out the basis on which the capital base is to be depreciated for the purpose of determining a reference tariff.

The AER assesses whether the proposed depreciation schedule complies with the depreciation criteria set out within the NGR.[55]

The full final decision and the AER's detailed reasons and analysis on regulatory depreciation are in attachment 6 and appendix D.

6.1 Final decision

The AER does not approve APA GasNet's proposed regulatory depreciation allowance of $136.3 million ($nominal) for the 2013–17 access arrangement period.

The AER's final decision on APA GasNet's total regulatory depreciation allowance over the 2013–17 access arrangement period is $56.3 million ($nominal) as shown in Table 6.1. This represents a reduction of $80 million ($nominal) or 59 per cent of APA GasNet's proposed total regulatory depreciation allowance.

Table 6.1 AER's final decision on APA GasNet's depreciation allowance ($million, nominal)

	2013	2014	2015	2016	2017	Total
Straight-line depreciation	24.7	26.2	30.2	31.9	30.5	143.5
Less: indexation on opening capital base	15.4	16.0	18.3	18.7	18.7	87.2
Regulatory depreciation	9.3	10.2	11.9	13.2	11.8	56.3

Source: AER analysis.

6.2 Summary of analysis and reasons

The AER does not accept APA GasNet's proposed change in forecast depreciation approach. This is the main difference between the AER's final decision on regulatory depreciation and APA GasNet's revised proposal and is discussed below.

54 NGR, r. 76(b).
55 NGR, r. 89(1).

The AER accepts APA GasNet's proposed standard economic lives with one exception.[56] The AER also accepts APA GasNet's proposed method for determining remaining economic lives, but requires these to be revised due to changes to the opening capital base.

The AER has made adjustments to other building blocks that have had a consequential effect on the forecast regulatory depreciation allowance. These are discussed in other attachments and include:

- roll forward of the opening capital base (chapter 3)
- forecast capex (chapter 4).

6.2.1 APA GasNet's proposed change in forecast depreciation approach

Regulatory depreciation typically has two components:

1. a straight-line depreciation allowance—calculated by dividing the asset value by its standard economic life (for new assets) or remaining economic life (for existing assets)
2. an offsetting inflation adjustment for indexation of the assets values—this adjustment is necessary where a nominal rate of return, rather than real rate of return, is used and the asset values are indexed.[57]

This is the standard approach that the AER has approved for all other gas transmission and distribution access arrangement decisions to date.[58] APA GasNet's depreciation approach for the 2008–12 access arrangement period leads to identical outcomes as the standard approach.

For this access arrangement review, APA GasNet proposed to remove indexation of its capital base and therefore the inflation adjustment for calculating the depreciation allowance.

APA GasNet's proposal increases total revenue allowance in the 2013–17 access arrangement period by around $87 million compared to the standard approach.[59] Revenues would also be higher in the 2018–22 and 2023–28 access arrangement periods. Other things being equal, the proposed approach would increase tariffs in the short to medium term and reduce them in the longer term. In short, the proposed approach brings forward cash flows relative to the standard approach. The impact of the change of approach on prices for a single asset example is illustrated in Figure 6.1.

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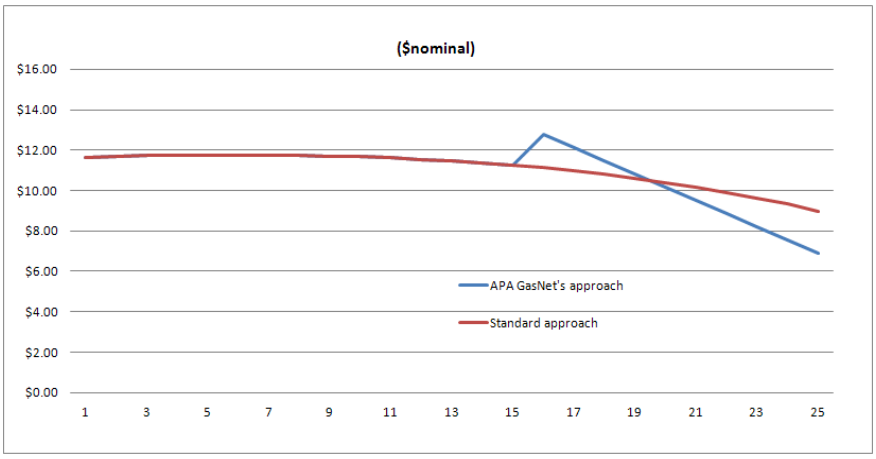
56 The AER did not accept APA GasNet's proposal for an equity cost raising allowance. This is discussed in attachment 4.
57 This approach was illustrated in the AER's draft decision, section 5.4.1.
58 It is also the approach required for electricity transmission under the National Electricity Rules.
59 This was illustrated in figure 5.1 for a single asset in the draft decision. AER, *Draft decision, Attachments*, p.116.

Figure 6.1 Impact of change of approach to profile of revenue for a single asset



Source: AER analysis.

The AER does not accept APA GasNet's proposed change of depreciation approach over the 2013–17 access arrangement period. The AER considers that APA GasNet's proposal does not meet the requirements of the NGR. In particular, it does not meet the NGR requirement for tariffs to vary, over time, in a way that promotes efficient growth in the market for reference services.

Specifically, the AER considers that the proposed approach leads to tariffs varying, over time, in a way that promotes inefficient growth in the market for reference services.[60] The AER also considers that the change of approach is not needed to support APA GasNet's reasonable cash flow needs.

Efficient growth in the market

The AER considers that efficient growth in the market for reference services requires changes in tariffs to reflect variations in costs in the short to medium term.

APA GasNet submitted its proposal to bring forward cash flows results in efficient growth in the market because of capacity issues and it allows prices to be smoothed over the longer term. The AER considers the standard depreciation approach promotes efficient growth in the market.

Network capacity constraints

APA GasNet submitted its network capacity is constrained at peak times and that price increases are an efficient response to the situation. It claimed that adopting the standard approach to depreciation, in the face of other cost decreases, would lead to lower charges. This could encourage demand at a time when there is already network congestion in peak periods. APA GasNet submitted that its approach would maintain (or increase) current charges, which sends an appropriate signal for asset utilisation.

As a general principle, the AER accepts that higher prices can be an efficient rationing mechanism that apportions limited available capacity to consumers with a higher willingness to pay for the gas service. If demand exceeds capacity and prices remain the same, there is no guarantee that (scarce) capacity will be allocated to those consumers with the highest willingness to pay, which would result in a loss of consumer welfare.

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60 NGR, r. 89(1)(a).

However, raising prices across the whole network will be an inefficient rationing mechanism if constraints are localised. Further, there are other ways of managing congestion—such as different tariff structures and targeted capacity augmentation—that would be efficient.

APA GasNet's proposed change of depreciation approach would impact tariffs at all locations of its network and at all times of the day. This is because the change of approach would increase the depreciation on all assets and therefore increase overall revenues and all tariffs.

APA GasNet submitted evidence that shows capacity constraints that exist, or may emerge, are more localised and only at certain times. Although utilisation rates are high at peak periods for parts of APA GasNet's network at times, overall utilisation rates are very low. Accordingly, the AER considers a change of depreciation approach would be an inefficient and potentially ineffective response to peak demand. APA GasNet's proposed approach would have a negative impact on overall economic activity—including consumption and investment decisions—that outweighs the possible benefits of managing some capacity constraints.

APA GasNet could have proposed different tariff structures to manage localised capacity constraints, which the AER considers would be an efficient response. There are various tariffs that apply, not a single average tariff. APA GasNet has the ability to rebalance tariffs within a period.

Augmentation capex is also an effective means of alleviating capacity constraints. Capacity constraints emerge over time, which allows a service provider to predict where these are likely to occur. This gives a service provider the opportunity to avoid capacity issues by deploying new assets.

APA GasNet underspent its capex allowance for the 2008–12 access arrangement period by about $45 million or 22 per cent. For the 2013–17 access arrangement period, the AER has approved augmentation capex that it considers sufficient to prevent any inefficient constraints developing on the network out to 2017.

Demand forecasts are relatively flat in the short term. Over the medium term, the AER considers that there is little prospect for a substantial increase in demand that would lead to wide spread capacity constraints on the network.

Smoother prices over time

APA GasNet submitted that there are future costs that should be reflected in tariffs today so that tariffs will not grow as much in the future when costs rise. APA GasNet assumed real increases in future costs. These costs could reflect capex to alleviate any emerging capacity constraint or other costs that may increase in the future. APA GasNet also submitted that the rate of return in future access arrangement periods is likely to be higher than for the 2013–17 access arrangement period.

As noted above, APA GasNet's proposed depreciation approach would lead to higher tariffs for customers over the next three access arrangement periods, but tariffs would reduce in the longer term. The argument is that allowing higher prices today could reduce the potential for future price shocks to consumers—given reduced pressures on prices in the current access arrangement.

APA GasNet speculated on the impact of increased future costs. Although the AER has significant concerns with such speculations, it considered the various 'smoothing scenarios' submitted by APA GasNet. In summary, the AER found that regardless of the future direction of costs, APA GasNet's proposed approach leads to falling real tariffs over time. This profile is inconsistent with efficient signalling of cost changes. If constraints become more significant in the future and augmentation costs rise, APA GasNet's tariffs will be falling.

The AER considers speculations by APA GasNet on future costs are questionable. Only potential sources for real cost increases in the future are considered by APA GasNet. APA GasNet failed to mention any areas for potential real cost decreases or productivity improvement. The AER considers that regulatory scrutiny of future costs is important for efficient growth of the market for reference services.

The standard depreciation approach promotes efficient growth in the market

The AER considers that the standard depreciation approach will generally lead to tariffs varying, over time, in a way that promotes efficient growth in the market for reference services. In most circumstances an efficient outcome would be that sunk costs are recovered as evenly as possible over an asset's life and that revenues (and tariffs) are relatively flat. As the scale of operations change, the revenue (and tariff) path should shift up/down to reflect the new scale of operations. The standard depreciation approach achieves such an efficient outcome.

Cash flows

APA GasNet submitted that the reductions in other building block costs will mean that it will not recover reasonable cash flows without a change in depreciation approach. Further, APA GasNet submitted that reasonable cash flow needs implies a particular credit rating must be achieved.

From a regulatory perspective, APA GasNet's reasonable cash flow needs under the NGR should be assessed in the context of the NGL's revenue and pricing principles.[61] When assessed against these principles, the AER considers that the change of depreciation approach would result in additional revenues (cash flows) that exceed APA GasNet's reasonable cash flow needs.

Moreover, the revenue reductions in the final decision flow from the assessment of the efficient level of costs for each of the building block components. The AER considers that it is not efficient to use the depreciation approach to 'fill in' revenues due to changes in these efficient costs.

The AER considers that reasonable cash flow needs do not imply a specific credit rating. Although the AER allows a return on capital commensurate with a 'benchmark efficient business', it is not for the AER to guarantee that a service provider will achieve a particular credit rating once the total efficient costs of service provision are recognised.

The AER considers the standard approach to depreciation does not lead inherently to any cash flow concerns. It applies to all the gas and electricity service providers that the AER regulates. The debt and equity capital that the service providers must raise are directly proportional to the approved opex and capex allowances. The revenue allowances match the level of efficient costs, as assessed by the AER. It therefore follows that the standard approach to depreciation allows service providers to meet their reasonable cash flow needs.[62]

Finally, the AER is concerned that increased cash flows now could have longer term consequences if the change of approach was allowed. In future access arrangement periods, it is possible that capex will rise. At the same time APA GasNet's revenues under its proposed approach would be falling. APA GasNet could then be in a far worse cash flow position than afforded under the standard approach.

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61 Clause 24 of the NGL.
62 NGR, r. 89(1)(e).

7 Operating expenditure

Operating expenditure (opex) refers to the operating, maintenance and other non-capital costs incurred in the provision of reference services.[63] Opex incorporates labour costs associated with providing reference services. Opex is one of the building blocks used to determine APA GasNet's total revenue requirement.

The AER is required to assess APA GasNet's forecast opex to decide whether it is satisfied that its opex complies with applicable criteria prescribed by the NGL and NGR. In particular, opex must be such as would be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of delivering pipeline services.[64] In addition, opex forecasts must be arrived at on a reasonable basis and represent the best forecast or estimate possible in the circumstances.[65]

The AER typically applies a 'base, step and trend' approach to assess opex.

The AER uses actual costs from a 'base year' in the previous access arrangement period (typically the fourth year) as the starting point for forecasting opex in the next period. The regulatory regime provides incentives for service providers to deliver reference services at the lowest sustainable cost, (see chapter 8). Given these incentives, actual opex can be used to reveal the efficient level of opex required in providing reference services.

This means that rather than assess all aspects of opex the AER can instead focus on what changes need to be made to this base level of opex. In particular, once the base year is set, the AER assesses the following adjustments:

- step changes, to provide an additional opex allowance where a certain circumstance, requirement or project will require the business to undertake expenditure that is not incorporated in the base year
- annual cost trends, to account for forecast labour and material cost changes, output growth and productivity growth.

The full final decision and the AER's detailed reasons and analysis on operating expenditure can be found in attachment 7.

7.1 Final decision

The AER does not approve APA GasNet's forecast opex of $154.3 million ($2012). The AER considers that a forecast opex allowance of $147.4 million ($2012) is consistent with the NGR. Table 7.1 shows how APA GasNet's revised proposal compares with the AER's final decision on opex.

Table 7.1 Comparison of APA GasNet's initial and revised proposals, and AER draft and final decisions ($million, 2012)

	2013	2014	2015	2016	2017	Total
APA GasNet initial proposal	32.6	35.2	37.4	38.6	38.6	182.2

63 NGR, r. 69.
64 NGR, r. 91(1).
65 NGR, r. 74.

AER draft decision	27.0	27.3	28.1	29.1	29.1	140.6
APA GasNet revised proposal	29.3	29.9	30.9	32.0	32.1	154.3
AER final decision	28.2	28.7	29.5	30.5	30.5	147.4

Source: AER analysis.

7.2 Summary of analysis and reasons

APA GasNet proposed an opex forecast determined using a 'base, step and trend' approach, setting 2011 as the base year. It then proposed cost trends and step changes to provide for year on year adjustments to this base level of opex. Table 7.2 shows the factors driving opex and differences between APA GasNet's forecast opex outlined in its revised proposal and the AER's final decision.

As can be seen from Table 7.2, the main differences between APA GasNet's proposed opex and the AER's final decision on opex relate to differences in labour cost escalation and the AER not accepting some step changes.

Table 7.2 APA GasNet proposed and AER's final decision on opex ($million, 2012)

	APA GasNet proposal	AER final decision	Difference
Base year costs	140.32	139.68	–0.64
Labour cost escalation	8.25	4.19	–4.06
Network growth	4.15	4.15	–
Step changes	1.61	–0.66	–2.27
Total	**154.33**	**147.36**	**–6.97**

Source: AER analysis

7.2.1 Step changes

Step changes allow for additional funding where the service provider faces a new obligation or change in circumstance requiring it to undertake additional expenditure that was not accounted for in the base year level of opex. Examples of a change in circumstance that may result in a step change in forecast opex include the imposition of new safety regulations or other new legislative requirements, or the commencement of new capital projects that involve ongoing maintenance or operating activities.

Where the AER considers these step changes meet the requirements in the NGR[66] an incremental increase in base year opex is included in total forecast opex.

In general, the AER considers an increase in opex is not consistent with the above requirement where the additional expenditure is intended to comply with a regulatory requirement or industry standard that has not changed since the 2008–12 access arrangement period. In such cases, it is the AER's view that such expenditure would already be included in base year opex.

[66] NGR, rr. 74, 91.

In considering the above, the AER made some revisions to APA GasNet's proposed step changes. These adjustments led to APA GasNet's proposed forecast opex being reduced by $2.3 million ($2012).

1.1.1 Labour cost escalation

Real cost escalation is a method of accounting for expected changes in the costs of inputs such as labour and materials from those present in the base year. Due to market forces, these costs may not increase at the same rate as inflation, in which case the AER would adopt a more suitable forecast.

The AER does not approve APA GasNet's proposed forecast real labour cost escalators. APA GasNet did not take into account labour productivity, which is a material component of labour costs. The AER considers labour cost escalations to be made up of changes in labour price and labour productivity.

The AER considers that APA GasNet's Enterprise Agreement for the first two years of the access arrangement period followed by Deloitte Access Economics' (DAE) forecast of the labour price index for the remaining years of the access arrangement period represents the best possible forecast of labour cost escalations in the circumstances.[67] Although DAE's forecast LPI historically has been lower than actual LPI, the AER considers this forecast to be appropriate given the AER has not adjusted for labour productivity which, based on available data, is shown to be positive.

The revision to APA GasNet's proposed labour cost escalators has reduced total opex by $4.1 million ($2012).

7.2.2 Network growth

APA GasNet may be required to expand its network if there is an increase in demand for its reference services. It is reasonable that an efficient service provider, operating a growing network, will require more inputs, and thus greater opex, to deliver more output. In such circumstances, base year opex may need to be adjusted to account for network growth.

The AER accepts APA GasNet's estimate of additional opex incurred as a result of network growth. This additional opex is required to support the new capex programs approved by the AER (see chapter 4).

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[67] NGR, r. 74(2).

8 Incentive mechanisms

Incentive mechanisms operate to incentivise service providers to reduce costs and increase efficiency in the provision of pipeline services. They provide a financial reward (or penalty) for efficiency gains (or losses) achieved relative to opex or capex benchmarks for the access arrangement period. Any rewards (or penalties) for efficiency gains (or losses) are added to the service provider's total revenue allowance (as determined using the building block approach) and carried forward for five years after the year in which the efficiency gain (or loss) is made. This five year period corresponds to the length of the access arrangement period.

The AER is required under transitional arrangements to ensure increments or decrements resulting from the operation of the incentive mechanism in APA GasNet's current access arrangement are properly reflected in its total revenue allowance.[68] The AER must also consider whether the incentive mechanism proposed by APA GasNet for the 2013–17 access arrangement will encourage efficiency in the provision of services by the service provider, and is consistent with the revenue and pricing principles.[69]

The full final decision and the AER's detailed reasons and analysis on incentive mechanisms can be found in attachment 8.

8.1 Final decision

The AER does not approve APA GasNet's proposed carryover of –$4.4 million ($2012) from the 2008–12 access arrangement period. The AER considers a carryover of zero should apply.

The AER does not approve APA GasNet's proposed incentive mechanism for the 2013–17 access arrangement period. The AER considers amendments are necessary to ensure the incentive mechanism will encourage efficiency in the provision of services by APA GasNet.

8.2 Summary of analysis and reasons

In its draft decision, as part of the transition from the National Third Party Access Code for Natural Gas Pipelines (the Gas Code) to the NGL and NGR, the AER applied a decrement or negative carryover accrued by APA GasNet in the 2008–12 access arrangement period. On further review, the AER in this final decision considers the Gas Code, under which APA GasNet's 2008–12 access arrangement was approved by the ACCC, allowed only for positive carryovers, not negative carryovers. As a result, the AER considers that a negative carryover from the 2008–12 access arrangement period should not apply and that the carryover amount should be zero.

The AER does not approve APA GasNet's proposed incentive mechanism for the 2013–17 access arrangement period. Specifically, the AER does not approve APA GasNet's proposed approach to the carryover of efficiency gains made in 2013, because it would also include efficiency gains made in 2012. Further, the AER does not approve APA GasNet's proposed fixed principle clause 8.2(h) as it considers the fixed principle is no longer required to ensure the incentive mechanism will encourage efficiency in the provision of services by APA GasNet.

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[68] NGR, Schedule 1, clause 5(1)(a).
[69] NGR, r. 98(1) and (3).

9 Corporate income tax

APA GasNet is required to pay tax on the income that it generates in operating its business. APA GasNet adopted the post-tax framework to derive its revenue requirement for the 2013–17 access arrangement period. Under the post-tax framework, a separate corporate income tax allowance is calculated as part of the building block assessment.

The AER uses the post-tax revenue model (PTRM) to produce an estimate of the taxable income that would be earned by an efficient company operating APA GasNet's business. All tax expenses are offset against the service provider's forecast revenue to estimate the taxable income. The statutory income tax rate of 30 per cent is then applied to the estimated taxable income to arrive at a notional amount of tax payable. The AER then applies a discount to this to account for the assumed utilisation of imputation credits. This net amount is the benchmark corporate income tax estimate included as a separate building block in determining APA GasNet's total revenue.[70]

The full final decision and the AER's detailed reasons and analysis on corporate income tax can be found in attachment 9.

9.1 Final decision and reasons

The AER does not approve APA GasNet's proposed corporate income tax allowance of $47.6 million ($nominal) for the 2013–17 access arrangement period. This is because the AER's final decision on other building block components, such as opex and capex (see chapters 4 and 7), have had a consequential effect on the forecast corporate income tax allowance.

The AER approves a corporate income tax allowance of $16.3 million ($nominal) as shown in Table 9.1. This represents a reduction of $31.3 million ($nominal) or 65.7 per cent of APA GasNet's revised proposed corporate income tax allowance. Based on the approach to modelling the cash flows in the PTRM, the AER has derived an effective tax rate of 28.2 per cent for this final decision.

The AER approves APA GasNet's proposed opening tax asset base of $237.0 million ($nominal) as at 1 January 2013.

The AER accepts APA GasNet's standard tax asset lives, except for the 'Equity raising cost' asset class. The AER considers that a standard tax asset life for amortising equity raising cost is not necessary. The AER also accepts APA GasNet's proposed remaining tax asset lives as at 1 January 2013.

Consistent with the draft decision, the AER accepts APA GasNet's proposed value for the utilisation of imputation credits (gamma) of 0.25.

[70] NGR, r. 76(c).

Table 9.1 AER's final decision on corporate income tax allowance for APA GasNet ($million, nominal)

	2013	2014	2015	2016	2017	Total
Tax payable	4.4	4.8	4.4	4.5	3.7	21.7
Less: value of imputation credits	1.1	1.2	1.1	1.1	0.9	5.4
Net corporate income tax allowance	3.3	3.6	3.3	3.4	2.8	16.3

Source: AER analysis.

10 Capacity utilisation forecasts

Capacity utilisation forecasts are an estimate of the capacity of APA GasNet's pipeline over the upcoming five year access arrangement period, and the anticipated utilisation rate of the pipeline. These require forecasts and assumptions to be made about the throughput of gas on the pipeline. Capacity utilisation forecasts allow the AER to assess the quantum of tariffs that will apply to the reference service, based on APA GasNet's total revenue allowance—as determined using the building block approach.

The NGR require an access arrangement to include a forecast of pipeline capacity and utilisation of pipeline capacity over the access arrangement period, and the basis on which the forecast has been derived.[71]

The full final decision and the AER's detailed reasons and analysis on capacity utilisation forecasts are provided in attachment 10.

10.1 Final decision

The AER does not accept APA GasNet's proposed capacity utilisation forecasts for the 2013–17 access arrangement period. Specifically, the AER does not accept APA GasNet's forecast for tariff V customers.

Although the AER accepts APA GasNet's proposed forecasting methodology, the demand forecast should take into account more current available information. This includes an updated and adjusted forecast for one distribution network service, which is an input into the forecasts for tariff V customers.

10.2 Summary of analysis and reasons

The AER considers that the forecasts provided for tariff V demand on the Victorian Transmission System (VTS) do not represent the best possible forecasts in the circumstances.[72]

In its revised proposal, APA GasNet sought to alter its approach to forecasting tariff V demand. Rather than using AEMO's aggregate-level forecasts, which was the approach taken in its initial proposal, APA GasNet proposed to use the sum total of forecasts made by the distribution businesses, and approved by the AER in its draft decisions.[73]

Although the AER accepts APA GasNet's revised approach to forecasting tariff V demand, it does not accept APA GasNet's proposed inputs to this forecast. Forecast demand of the three Victorian distribution businesses has changed since the AER's draft decision. The AER has updated the tariff V demand forecast to align with its final decision for the distribution businesses.

The AER does not accept APA GasNet's adjustments to the tariff V demand forecast to account for UAFG lost over the distribution networks. The AER considers that the UAFG forecasts need to be updated to correct inaccuracies and to account for new available information.

The AER accepts APA GasNet's forecasts for tariff D load on the VTS, which APA GasNet updated to take into account AEMO's latest forecasts. The AER also accepts APA GasNet's forecasts of GPG-related load, exports, and other demand forecasts, which remain unchanged since the draft decision.

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71 NGR, r. 72.
72 NGR, r. 74(2).
73 APA GasNet, *Revised proposal*, 9 November 2012, p. 126.

11 Tariff setting

As part of its access arrangement, APA GasNet is required to set out how it intends to charge for reference services. This must include an explanation of the basis for setting reference tariffs, including the different tariff classes, the method used to allocate costs between these classes, and a demonstration of the relationship between costs and tariffs.[74]

The AER will assess APA GasNet's proposed reference tariffs against the relevant sections of the NGR,[75] revenue and pricing principles, and NGO. If the AER does not approve APA GasNet's proposal, the AER must determine the initial reference tariffs[76].

The final decision and the AER's detailed reasons and analysis on tariff setting can be found in attachment 11.

11.1 Final decision

The AER does not approve the revised reference tariffs or the revised reference tariff setting methodology submitted by APA GasNet. The AER proposes a number of amendments to make these acceptable under the NGR, including changes to the tariff methodology, and changes based on the AER's final decision on APA GasNet's capacity utilisation forecast and total revenue allowance.

11.2 Summary of analysis and reasons

The AER required APA GasNet to make a number of amendments to its tariff setting proposal in its draft decision. APA GasNet adopted the majority of these revisions.

APA GasNet did not adopt three of the AER's required amendments relating to:

- the forecast revenue for VicHub exports
- allocation of costs to New South Wales exports
- whether Authorised maximum daily quantity credit certificates (AMDQ CC) are treated as a pipeline service.

The AER accepts that APA GasNet's revised proposal for the forecast of tariff revenues from gas exports at VicHub is arrived at on a reasonable basis and is the best forecast possible in the circumstances.[77] However, the AER has maintained its draft decision to not accept APA GasNet's allocation of costs to NSW exports.[78]

As noted in attachment 2 of the final decision, the AER has not accepted APA GasNet's revised proposal to classify AMDQ CC service as an unregulated service. The AER considers that the AMDQ CC service should be classified as a reference service.[79] For this reason, the AER proposes to include a reference tariff for AMDQ CC.[80]

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74 NGR, r. 72(1)(j), 95(1) and 95(3)(a).
75 NGR, rr. 93 and 94.
76 The initial reference tariffs are set out in attachment 13 of this final decision.
77 NGR, rr. 74(2)(a) and (b).
78 AER, *Access arrangement draft decision APA GasNet Australia (Operations) Pty Ltd 2013-17, Part 2*, 11 September 2012, p. 199.
79 NGR, r. 101
80 See chapter 1 for further information.

12 Tariff variation mechanism

The tariff variation mechanism defines how tariffs may be varied during the course of an access arrangement period. Specifically, the tariff variation mechanism:

- permits building block revenues to be recovered smoothly over the access arrangement period
- accounts for actual inflation
- accommodates other tariff adjustments that may be required, such as for an approved cost pass through event
- sets administrative procedures for the approval of any proposed changes to tariffs.

The AER is required to assess APA GasNet's proposed tariff variation mechanism against the requirements of the NGR.[81] The full final decision and the AER's detailed reasons and analysis on the tariff variation mechanism can be found in attachment 12.

12.1 Final decision

The AER does not approve APA GasNet's proposed tariff variation mechanism for the 2013–17 access arrangement period. The AER considers that some aspects of APA GasNet's proposed tariff variation mechanism are inconsistent with the NGR, or that there are alternatives to elements of the proposed tariff variation mechanism that are preferable having regard to the NGR.

12.2 Summary of analysis and reasons

In its revised proposal, APA GasNet adopted some of the revisions required by the AER in its draft decision. These included a revision to the definition of the Effective Degree Days variable, a revision to the approval process for annual tariff adjustments and a revision to the starting date of the initial 2013 reference tariffs.[82]

The AER does not accept a number of aspects of the tariff variation mechanism in APA GasNet's revised proposal. These include:

- The treatment of the authorised maximum daily quantity credit certificate (AMDQ CC) service—the AER considers that the AMDQ CC service should be classified as a pipeline service and a reference service and accordingly, that a reference tariff for AMDQ CC be included in Schedule A of the access arrangement. This is discussed in more detail in attachment 2.
- The definition of the actual withdrawal variable—the AER considers that this definition should be amended to avoid the potential for double counting of actual and contracted AMDQ CC volumes under the price control formula.
- The initial 2013 reference tariffs—the AER considers that these should be updated to reflect the approved forecast revenue and demand figures (as set out in chapter 2 and attachment 10 of this decision) and to account for the interval of delay between the third and fourth access arrangement periods.

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81 NGR, rr. 92, 97.
82 APA GasNet *Revised proposal*, November 2012, p. 135–148.

- The definition of the revision commencement date—the AER considers that revisions must commence on a date fixed in the access arrangement. The nominated commencement date of the 2018-2023 access arrangement period is 1 January 2018.
- The procedures for oversight and approval of a tariff variation—the AER considers that there should be a 50 business day requirement for APA GasNet to notify the AER of any reference tariff variations. The AER considers that this will facilitate earlier market notification of approved tariffs, providing greater certainty to retailers and consumers.
- The cost pass through mechanism, including definitions of certain nominated pass through events.

The cost pass through mechanism allows APA GasNet to apply to the AER during the course of an access arrangement period to pass through costs (or savings) to consumers for a number of specified events. These events are typically unexpected events that are outside the service provider's control. In assessing APA GasNet's revised cost pass through mechanism, a key consideration of the AER was to ensure consistency in the cost pass through regimes applying to all gas service providers.

The AER does not approve APA GasNet's revised cost pass through mechanism. Although the AER accepts APA GasNet's defined pass through events, it does not accept its revised procedure for cost pass through event variations. The AER has applied a number of changes to APA GasNet's pass through event procedure to ensure that it aligns with the AER's approach to assessing pass through applications for other gas service providers. These are detailed in attachment 12 of this final decision.