



DRAFT DECISION

AusNet Services

Gas access arrangement

2018 to 2022

Overview

July 2017

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Invitation for submissions

This is our draft decision on AusNet's access arrangement for the period 1 January 2018 to 31 December 2022. AusNet will submit a revised proposal in response to this draft decision by 14 August 2017. Interested parties are invited to make submissions on both our draft decision and AusNet's revised proposal by 15 September 2017.

We will consider and respond to all submissions received by that date in our final decision.

Submissions on our draft decision should be sent to: VicGAAR2018-22@aer.gov.au.

Alternatively, submissions can be sent to:

Mr Chris Pattas
General Manager
Australian Energy Regulator
GPO Box 520
Melbourne VIC 3001

Submissions should be in Microsoft Word or another text readable document format.

We prefer that all submissions be publicly available to facilitate an informed and transparent consultative process. Submissions will be treated as public documents unless otherwise requested. Parties wishing to submit confidential information should:

- (1) clearly identify the information that is the subject of the confidentiality claim
- (2) provide a non-confidential version of the submission in a form suitable for publication.

All non-confidential submissions will be placed on our website. For further information regarding our use and disclosure of information provided to us, see the *ACCC/AER Information Policy* (June 2014), which is available on our website.¹

¹ <https://www.aer.gov.au/publications/corporate-documents/accc-and-aer-information-policy-collection-and-disclosure-of-information>

Note

This overview forms part of the AER's draft decision on the access arrangement for AusNet for 2018-22. It should be read with all other parts of the draft decision.

The draft decision includes the following documents:

Overview

Attachment 1 - Services covered by the access arrangement

Attachment 2 - Capital base

Attachment 3 - Rate of return

Attachment 4 - Value of imputation credits

Attachment 5 - Regulatory depreciation

Attachment 6 - Capital expenditure

Attachment 7 - Operating expenditure

Attachment 8 - Corporate income tax

Attachment 9 - Efficiency carryover mechanism

Attachment 10 - Reference tariff setting

Attachment 11 - Reference tariff variation mechanism

Attachment 12 - Non-tariff components

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Attachment 14 - Other incentive schemes

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Shortened forms

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

1 Introduction

The Australian Energy Regulator (AER) regulates energy markets and networks under national energy market legislation and rules. Our network regulatory functions relate to energy networks in all Australian states and territories, except Western Australia. They include setting the amount of revenue that monopoly network businesses can recover from customers for using networks (electricity poles and wires and gas pipelines) that transport energy.

The National Gas Law and Rules (NGL and NGR) provide the regulatory framework governing gas networks. Our work under this framework is guided by the National Gas Objective (NGO):²

...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, quality, safety, reliability and security of supply of natural gas.

AusNet Gas Services (AusNet) owns and operates a gas distribution pipeline servicing customers in Victoria. Gas pipelines that are subject to full regulation—like AusNet's—are regulated by the AER under an approved access arrangement.³ An access arrangement specifies certain pipeline services (reference services), and the price and non-price terms and conditions on which those reference services will be offered over the next five years (2018–2022). This forms the foundation for negotiations between pipeline operators and users.

To approve an access arrangement, we make regulatory decisions on the revenue that AusNet can recover from users of its reference services. For this draft decision, our assessment is based on the proposal AusNet submitted on 16 December 2016. AusNet's proposal sets out its view of its expected costs, demand and required revenues for the period 1 January 2018 to 31 December 2022.

This Overview, together with its attachments, constitutes our draft decision on AusNet's proposal. This draft decision is one of the key steps in reaching our final decision. AusNet will have the opportunity to submit a revised proposal in response to this draft decision. Stakeholders will then have the opportunity to make submissions to us on both our draft decision and AusNet's revised proposal. Subject to stakeholder interest, we will also consider holding a public forum following submission of AusNet's revised proposal.

² NGL, s. 23.

³ The NGL provides for different types of regulation to apply to gas pipelines, based on competition and significance criteria. A 'full regulation' pipeline must periodically submit an access arrangement to the AER, setting out pricing for a reference service sought by a significant part of the market (see section 3 of this Overview). 'Light regulation' pipelines are not subject to upfront price regulation. The light regulation model is more a negotiate-arbitrate approach, placing greater emphasis on commercial negotiation and information disclosure. The AER plays a role only if dispute resolution mechanisms are triggered.

Following receipt of the revised proposal and submissions, we will then make our final decision taking into account the revised proposal, submissions and any other relevant information. Table 1-1 lists key dates and consultation deadlines for the remainder of this review.

Table 1-1 Key dates and consultation timelines

Task	Date
Access arrangement revision proposal submitted to the AER	21 December 2016
Public forum	1 February 2017
Submissions on access arrangement proposal closed	3 March 2017
AER draft decision published	6 July 2017
Revised proposal due	14 August 2017
Submissions on draft decision and revised proposal close	15 September 2017
AER final decision published*	29 November 2017

* This date is indicative only.

1.1 Structure of this overview

This Overview provides a summary of our draft decision and its individual components:

- Section 2 provides a high level summary of our draft decision
- Section 3 sets out our draft decision on the reference services covered by this access arrangement, and the mechanism for setting and varying reference tariffs
- Section 4 sets out our draft decision on the total revenue requirement
- Section 5 provides a break-down of our revenue decision into its key components
- Section 6 sets out our draft decision on new incentive schemes to apply from 2018
- Section 7 sets out our draft decision on the non-tariff components of AusNet's access arrangement proposal
- Section 8 explains our views on the regulatory framework and the NGO
- Section 9 outlines the consultation process we undertook in reaching our draft decision
- Appendix A lists the stakeholder submissions received on AusNet's proposal.

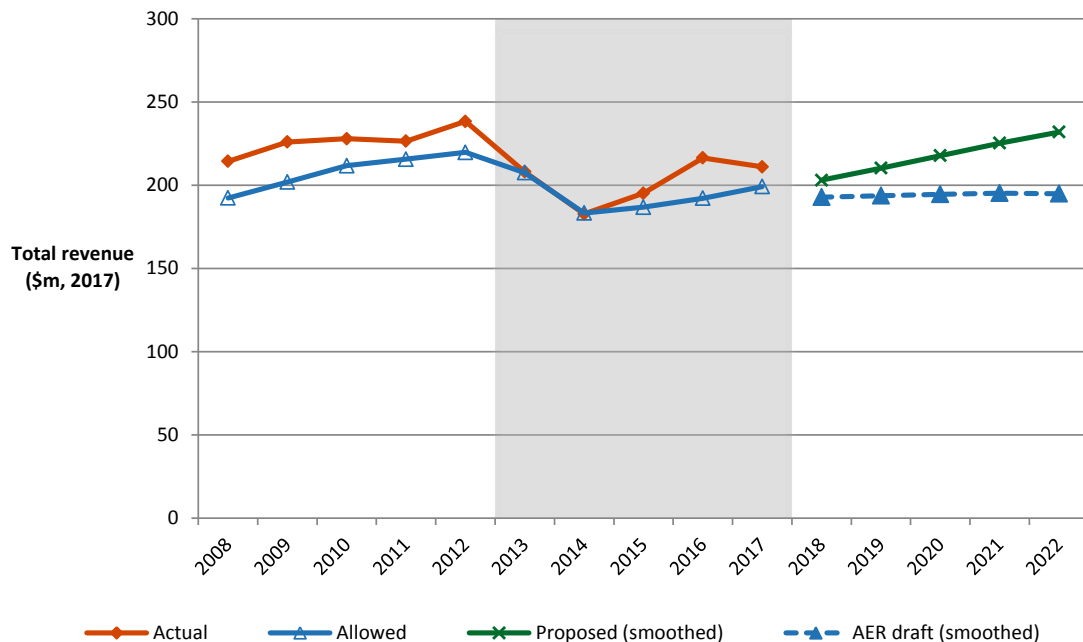
In our attachments to this Overview, we set out detailed analysis of the constituent components that make up our draft decision.

2 Draft decision

Our draft decision is that AusNet can recover \$1044.8 million (\$ nominal, smoothed) from consumers over the 2018–22 access arrangement period. This is an 8.7 per cent reduction from AusNet's proposed revenue requirement of \$1144.5 million (\$ nominal, smoothed). Our draft decision would allow AusNet to recover 9.7 per cent more revenue than its 2013–17 allowance of \$952.4 million (\$ nominal).⁴

Figure 2-1 compares our draft decision on AusNet's revenue for 2018–22 to its proposed revenue, and to the revenue allowed and recovered during the current (2013–17) and previous (2008–12) access arrangement periods. The effect of this draft decision will be to hold AusNet's revenues relatively constant in real dollar terms.

Figure 2-1 AusNet's past total revenue, proposed total revenue and AER draft decision total revenue (\$million, 2017)



Source: AER analysis.

2.1 What is driving proposed revenue?

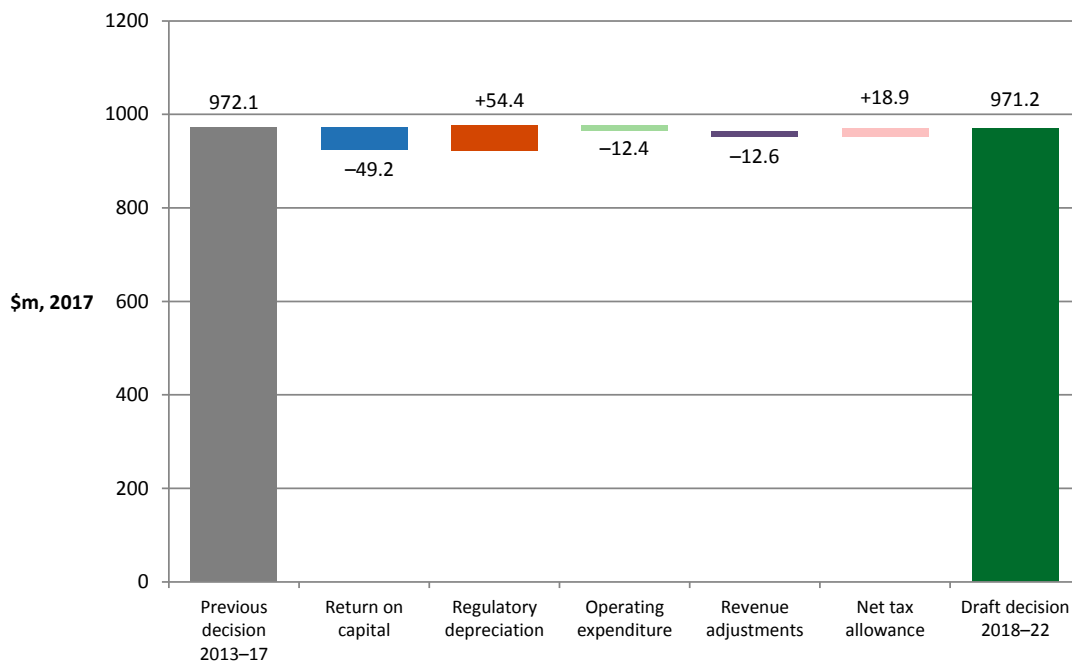
The impact of inflation makes it difficult to compare revenue across different time periods on a like-for-like basis. We therefore use real values based on a common year, which have been adjusted for the impact of inflation, to compare revenue from one

⁴ This difference includes the impact on inflation between periods. In real 2017 dollar terms the revenue approved in this draft decision is 0.2 per cent higher revenue than its 2013–17 allowance.

access arrangement period to the next. In real dollar terms, our draft decision approves revenue for the 2018–22 access arrangement period that is \$1.8 million (\$ 2017)—or 0.2 per cent—higher than that approved in our decision for 2013–17.⁵

Figure 2-2 compares our draft decision for the 2018–22 access arrangement period to AusNet's allowed revenue for the current period, broken down by the various building block components that make up the forecast revenue allowance.

Figure 2-2 AER's draft decision for the 2018–22 access arrangement period and AusNet's 2013–17 allowed annual building block costs (\$million, 2017)



Source: AER analysis.

These figures highlight that the change in return on capital is a key factor in the minimal change in revenue from period to period. The lower return on capital is driven by a reduction in the rate of return from 7.07 per cent in the current period to 5.94 for 2018–22.

The lower return on capital and efficiencies in AusNet's operating expenditure (opex) that have been passed through to customers in the form of a lower opex forecast offset an increase in the regulatory depreciation allowance. The change to the regulatory depreciation allowance reflects growth in AusNet's capital base, which in real terms

⁵ The comparison of average annual revenues between the 2018–22 and 2013–17 access arrangement periods is based on smoothed revenues. In nominal dollar terms, our final decision average annual revenues for the 2018–22 access arrangement period is about \$92.4 million (or 9.7 per cent) higher than the average annual revenues approved for the 2013–17 access arrangement period.

grew by 12.7 per cent over the current period and is projected to grow by 5.9 per cent from 2018 to 2022. Our approval of AusNet's change in approach to calculating the depreciation of assets has also contributed to this increase.

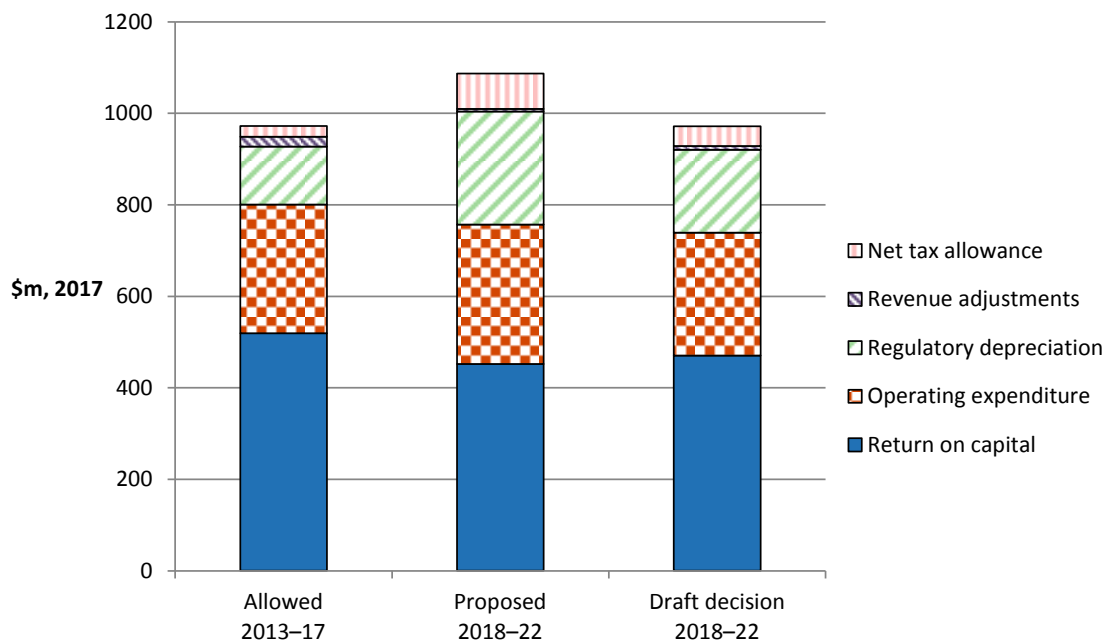
2.2 Key differences between our draft decision and AusNet's proposal

AusNet proposed total forecast revenue of \$1144.5 million (\$ nominal, smoothed), or \$1088.2 million (\$ 2017, smoothed) for the 2018–22 access arrangement period.

Our draft decision of \$1044.8 million (\$ nominal) allows 8.7 per cent less revenue than AusNet sought to recover through the access arrangement proposal it submitted in December 2016.

Figure 2-3 compares the building block revenue approved in this draft decision to that proposed by AusNet for the 2018–22 access arrangement period, and to the approved amount for the 2013–17 period.

Figure 2-3 AER's draft decision on components of total revenue (\$million, 2017)



Source: AER analysis.

The key differences between our draft decision and AusNet's proposal are that:

- our draft decision applies a value of imputation credits (gamma) of 0.4, compared to AusNet's proposed 0.25, and therefore a lower corporate income tax allowance.
- we have reduced AusNet's proposed opex forecast by 11.9 per cent (\$2017), in large part because we have not accepted its proposal to increase opex to allow for expenditure on marketing. We consider marketing is a 'business-as-usual' expense

for AusNet to prioritise within its existing base opex forecast, if it is prudent and efficient to do so in the current operating environment.

- we have reduced AusNet's forecast capex by 5.7 per cent (\$2017), as a result of our adjustments to its proposed expenditure on mains and meter replacement. Our decision not to accept AusNet's proposed marketing step change has also had consequential impacts on its demand forecasts, and therefore its forecast capex for new connections.
- our draft decisions on forecast inflation and capex have reduced the allowance for regulatory depreciation by 26.5 per cent (\$2017).

Offsetting this are slight increases in:

- the nominal rate of return, from 5.6 in AusNet's proposal to 5.9 in this draft decision. The rate of return will be updated again in our final decision to reflect more recent data.
- a 2.5 per cent (nominal) increase to AusNet's projected closing capital base, primarily driven by a higher expected inflation rate. This more than offsets our draft decision reduction to forecast capex.

AusNet will have the opportunity to address these differences in its revised proposal.

2.3 Impact of our draft decision on gas bills

The annual gas bill for customers in Victoria reflects the combined cost of all the gas supply chain components. Changes in gas bills over time reflect movements in one or more of the components in the bill. The main components are:

- the cost of purchasing gas (the wholesale energy cost)
- the cost of the pipelines used to transport the gas (the transmission and distribution networks), and other infrastructure such as metering cost;
- the retailer's costs and profit margin.

Our draft decision on AusNet affects the component of the bill related to distribution pipelines. For customers on AusNet's network, distribution charges account for approximately 24 per cent of an average residential customer's annual gas bill and approximately 16 per cent of an average small business customer's annual gas bill.⁶

We estimate the expected bill impact by varying the distribution charges in accordance with our draft decision, while holding other components of the bill constant. Our estimates are in nominal terms (taking into account expected future inflation to determine what the nominal price levels will be in future periods) because it will be nominal amounts that consumers will be paying. Based on this approach, we expect

⁶ Proportions based on average annual distribution charges calculated within the PTRM and average standing residential offers at June 2017 on Switch On comparison tool using average annual consumption from the PTRM for each of AusNet's tariff zones (postcodes 3011, 3249, 3227 and 3260).

that our draft decision will result in the distribution component of the average annual residential gas bill for AusNet customers declining over the 2018–22 access arrangement period. The distribution component of the average annual residential gas bill in 2018 is expected to be about \$23 below the current, 2017 level. By the end of the 2018–22 access arrangement period, the distribution component of the average annual bill will still be about \$5 below current levels. Similarly, the distribution component of the average annual small business gas bill in 2018 is expected to be around \$37 lower than in 2017, and about \$8 below the current 2017 level by 2022.

Table 2-1 shows our estimated impact of this draft decision over the 2018–22 access arrangement period compared with AusNet's proposal on the average annual gas bills for residential and small business customers on AusNet's distribution network. These estimates are indicative only, and individual customers' actual bills will also depend on their usage patterns and the structure of their chosen retail tariff offering.

Table 2-1 AER's estimated impact of our draft decision and AusNet's proposal on the average annual gas bills for the 2018–22 access arrangement period (\$ nominal)

	2017	2018	2019	2020	2021	2022
AER draft decision						
Residential annual gas bill	1258 ^a	1235	1239	1244	1248	1253
Annual change ^c		-23 (-1.8%)	4 (0.3%)	5 (0.3%)	4 (0.4%)	5 (0.4%)
Small business annual gas bill	3009 ^b	2972	2979	2986	2993	3001
Annual change ^c		-37 (-1.2%)	7 (0.2%)	7 (0.2%)	7 (0.2%)	8 (0.2%)
AusNet proposal						
Residential annual gas bill	1258 ^a	1247	1258	1269	1281	1293
Annual change ^c		-11 (-0.8%)	11 (0.9%)	11 (0.9%)	12 (0.9%)	12 (0.9%)
Small business annual gas bill	3009 ^b	2992	3010	3028	3048	3068
Annual change ^c		-17 (-0.6%)	18 (0.6%)	18 (0.6%)	20 (0.6%)	20 (0.7%)

Source: AER analysis, Switch On comparison tool, www.compare.switchon.vic.gov.au.

- (a) Based on average standing residential offers at June 2017 on Switch On comparison tool using average annual consumption calculated in the PTRM for each of AusNet's tariff zones (postcodes 3011, 3249, 3227 and 3260).
- (b) Based on average standing small business offers at June 2017 on Switch On comparison tool using average annual consumption calculated in the PTRM for each of AusNet's tariff zones (postcodes 3011, 3249, 3227 and 3260).
- (c) Annual change amounts and percentages are indicative. They are derived by varying the distribution component of 2017 bill amounts by the nominal weighted average expected change in tariffs. Actual bill impacts will vary depending on consumption and tariff class.

We do not expect gas distribution charges flowing from this draft decision will be a contributor to overall gas bill changes.

While our approach isolates the effect of our decision on gas prices, it does not imply that other components will remain unchanged across the access arrangement period. Wholesale gas costs make-up a smaller percentage of the retail gas prices paid by energy consumers. AEMO's modelling forecasts retail prices to rise on average by 2.1 per cent per annum (in real dollar terms) for residential customers, driven mainly by

wholesale prices.⁷ Modelling by the Australian Energy Market Operator (AEMO) projects that the delivered wholesale cost of gas in Australia will increase by 48 per cent by 2036.⁸

⁷ AEMO, *National Gas Forecasting Report for Eastern and Southern Australia, December 2016*, p. 26.

⁸ AEMO, *National Gas Forecasting Report for Eastern and Southern Australia, December 2016*, p. 7

3 Reference services and tariffs

3.1 Services covered by the access arrangement

An access arrangement sets out at least one service likely to be sought by a significant part of the market (reference services). For each reference service, including services ancillary to the reference services, the access arrangement specifies the reference tariff and the other terms and conditions on which these services will be provided.⁹

AusNet is to provide access to its reference services, but may negotiate alternative terms and conditions at alternative prices with users. AusNet may also offer other non-reference services (negotiated services) which are not subject to regulation under the access arrangement. We may be called upon to determine the tariff and other conditions of access to services if an access dispute arises.¹⁰

Our draft decision approves AusNet's proposal to offer the same set of reference services and ancillary reference services in 2018–22 as it has in the current, 2013–17 period:

- haulage reference services:
 - allowing injection of gas at transfer points
 - conveyance of gas from transfer points to distribution supply points
 - allowing withdrawal of gas at distribution supply points
- ancillary reference services:
 - On-site meter and gas installation test
 - Disconnection service
 - Reconnection service
 - Special meter reading service.

3.2 Reference tariff setting and the reference tariff variation mechanism

Our draft decision on AusNet's proposed access arrangement includes decisions on the structure of its reference tariffs and the mechanism by which those tariffs will be determined from year to year (the annual reference tariff variation mechanism).

We accept AusNet's proposal to maintain a weighted average price cap (WAPC) tariff variation mechanism for its haulage reference services. This means that prices will not be impacted by within-period changes in demand, and AGN will continue to have

⁹ NGR, r. 48.

¹⁰ NGL, Chapter 6.

incentives to maintain (or grow) gas consumption and thereby achieve scale efficiencies and reduce unit costs. We also accept AusNet's proposal to remove the carbon tax mechanism that applied in the current period (which is no longer required). While we generally approve the form of the mechanism, our draft decision sets out two amendments to AusNet's proposed control formulae:

- we have not approved AusNet's proposal to continue with a licence fee adjustment factor in the weighted average price cap formula. Our draft decision has included AusNet's annual costs relating to licence fees in the approved operating expenditure (opex) forecast. Provision to make annual revenue adjustments for these costs is therefore not required, as they are already provided for in the AER's draft decision total revenue requirement.
- we have added a mechanism to calculate the pass through adjustment factor. The inclusion of an adjustment factor to accommodate approved cost pass through amounts enables a simple and transparent method for cost recovery and pass through of these costs to customers. This amendment aligns treatment of approved cost pass through amounts between AusNet and the other Victorian gas distributors (AGN and Multinet).

Our draft decision also updates the cost pass through events that will apply to AusNet in the 2018–22 access arrangement period. Again, this aligns the treatment of common risks between AusNet and the other Victorian gas distributors, and between AusNet's gas and electricity distribution networks.

3.3 Forecast demand

Under a WAPC, demand is an important input into the derivation of AusNet's reference tariffs. In simple terms, tariffs are determined by dividing cost (as reflected in forecast revenue) by total demand (GJ/day), so that an increase in forecast demand has the effect of reducing the tariff price and vice versa. Forecast demand also affects the forecasts of operating and capital expenditure (new connections) that form part of our decision on the total revenue requirement.

Our draft decision accepts AusNet's proposed forecasts of small commercial and industrial demand. However, as a consequence of our draft decision not to accept AusNet's proposed step change in opex for marketing, we have not accepted its residential demand forecasts.

The forecasts in this draft decision result in:

- a slight growth in total residential gas demand of around 0.34 per cent per year over the 2018-22 access arrangement period.¹¹ This compares to 2.4 per cent per year in the current period.¹² This reduced state of growth is due to reduced growth

¹¹ AER Analysis of the AusNet's usage model. See AusNet Services, Response to Information Request #15, 19 April 2017

¹² Note that figures in the current period include estimated values for 2017.

in consumption per connection of 0.16 per cent per year being offset by net customer growth of 2.1 per cent per year.¹³

- a growth in total small commercial demand of 1.05 per cent over the 2018-22 access arrangement period.¹⁴ This compares to 1.9 per cent per year in the current period. This reduced growth is driven by a slight growth of 1 per cent per year in consumption per connection and an increase in commercial net connections by 0.9 per cent per year.¹⁵
- a decrease in industrial demand (AusNet's Tariffs D and M) of 0.49 per cent over the 2018-22 access arrangement period. This compares to a decrease of approximately 1 per cent per year in the current period.

¹³ This compares to actual growth of 1.13 per cent for residential consumption per connection and a 2.16 per cent per year growth in customer numbers in the current access arrangement period.

¹⁴ AER Analysis of the AusNet's usage model. See AusNet Services, Response to Information Request #15, 19 April 2017

¹⁵ This compares to actual growth of 1.3 per cent for commercial consumption per connection and a 1.4 per cent per year growth in net commercial customer numbers in the current access arrangement period.

4 Total revenue requirement

The total revenue requirement is a forecast of the efficient cost of providing gas distribution services over the access arrangement period. We determine annual revenue—and the total revenue requirement—in nominal terms because it will be in nominal amounts that consumers will be paying. To do this, we take into account expected future inflation to determine what the nominal price levels will be in future periods. Our draft decision uses 10 year inflation expectations on average to convert revenues to nominal values.

Tariffs are derived from the total revenue requirement *after* consideration of demand for each tariff category. Our draft decision is that AusNet will continue to operate under a weighted average price cap. This means the tariffs we determine (including the means of varying the tariffs from year to year) are the binding constraint across the 2018–22 access arrangement period, rather than the total revenue requirement set in our decision.¹⁶ Tariffs are adjusted each year using the 'X factors'. X factors are percentage changes in real weighted average tariffs from year to year. The process of determining X factors is discussed in section 4.3.

4.1 The building block approach

We have employed the building block approach to determine AusNet's total revenue requirement—that is, we based the total revenue requirement on our estimate of the efficient costs that AusNet is likely to incur in providing its reference services. The building block costs, as shown in Figure 4-1, include:¹⁷

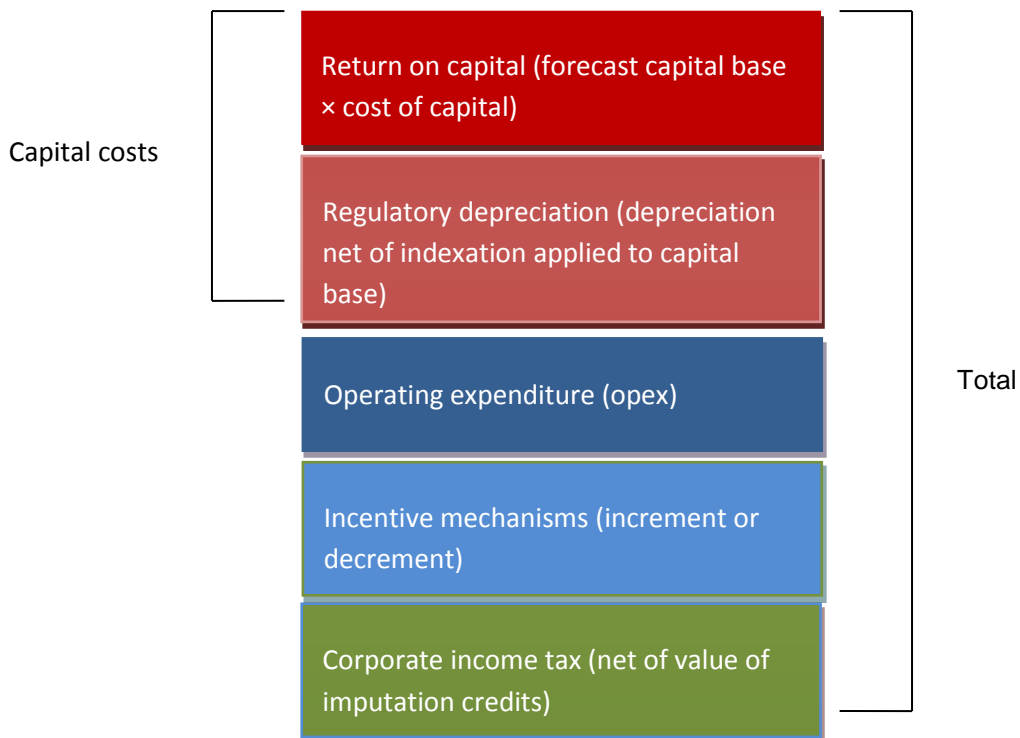
- return on the projected capital base (return on capital)
- depreciation of the projected capital base (return of capital)
- the estimated cost of corporate income tax
- revenue increments or decrements resulting from incentive schemes such as the efficiency carryover mechanism
- forecast opex.

Our assessment of capex directly affects the size of the capital base, and therefore the revenue generated from the return on capital and depreciation building blocks.

¹⁶ Where actual demand across the 2017–22 access arrangement period varies from the demand forecast in the access arrangement, AusNet's actual revenue will vary from the revenue allowance determined in our decision. In general, if actual demand is above forecast demand, AusNet's actual revenue will be above forecast revenue, and vice versa.

¹⁷ NGR, r. 76.

Figure 4-1 The building block approach to determining total revenue



4.2 Draft decision on total revenue

As we explain in section 5 below, our draft decision sets out a number of revisions to the building block inputs making up AusNet's proposed total revenue requirement (smoothed) of \$1144.5 million (\$ nominal). Based on our assessment of the building block costs,¹⁸ we determine a lower smoothed total revenue requirement of \$1044.8 million (\$ nominal).¹⁹

It follows that our draft decision requires amendments to the 2018 tariffs set out in AusNet's proposal, which was for a reduction in real tariffs of five per cent. We also require consequential amendments to AusNet's proposed 2018–22 tariff path, which was for an increase in real tariffs of 2.06 per cent per year from 2019 onwards. As a result of our lower total revenue requirement and lower demand forecast, our draft decision is for a larger real decrease in weighted average tariffs of 9.7 per cent in 2018, followed by further real decreases of 0.9 per cent in each of the remaining years of the access arrangement period. Section 4.3 discusses our approach to revenue smoothing and tariffs further below.

¹⁸ NGR, r. 76.

¹⁹ This is calculated by smoothing the unsmoothed building block revenue for the 2018–22 access arrangement period as set in this draft decision.

Table 4-1 sets out our draft decision on AusNet's total revenue requirement, by building block, for each year of the 2018–22 access arrangement period, the total revenue after equalisation (smoothing) and the X factors for use in the tariff variation mechanism.

Table 4-1 AER's draft decision on AusNet's smoothed total revenue and X factors for the 2018–22 access arrangement period (\$million, nominal)

Building block	2018	2019	2020	2021	2022	Total
Return on capital	93.6	97.1	101.3	105.2	108.7	505.9
Regulatory depreciation	43.9	33.0	35.8	39.3	43.1	195.0
Operating expenditure	53.1	55.3	57.8	60.3	62.8	289.2
Revenue adjustments	3.4	1.7	3.3	0.0	0.7	9.1
Corporate income tax	10.0	6.6	6.9	11.3	11.3	46.1
Building block revenue – unsmoothed (including ARS)	203.9	193.8	205.0	216.1	226.5	1045.3
Less: Ancillary reference services	2.8	2.9	3.0	3.1	3.2	15.0
Building block revenue - unsmoothed (excluding ARS)	201.1	191.0	202.0	213.0	223.3	1030.4
Building block revenue – smoothed (excluding ARS)	194.7	200.4	206.1	211.9	216.7	1029.8
X factor^a	9.68%	0.90%	0.90%	0.90%	0.90%	n/a
Inflation forecast	2.45%	2.45%	2.45%	2.45%	2.45%	n/a
Nominal price change	–7.5%	1.5%	1.5%	1.5%	1.5%	n/a
Building block revenue - smoothed (including ARS)	197.5	203.3	209.1	215.0	219.9	1044.8

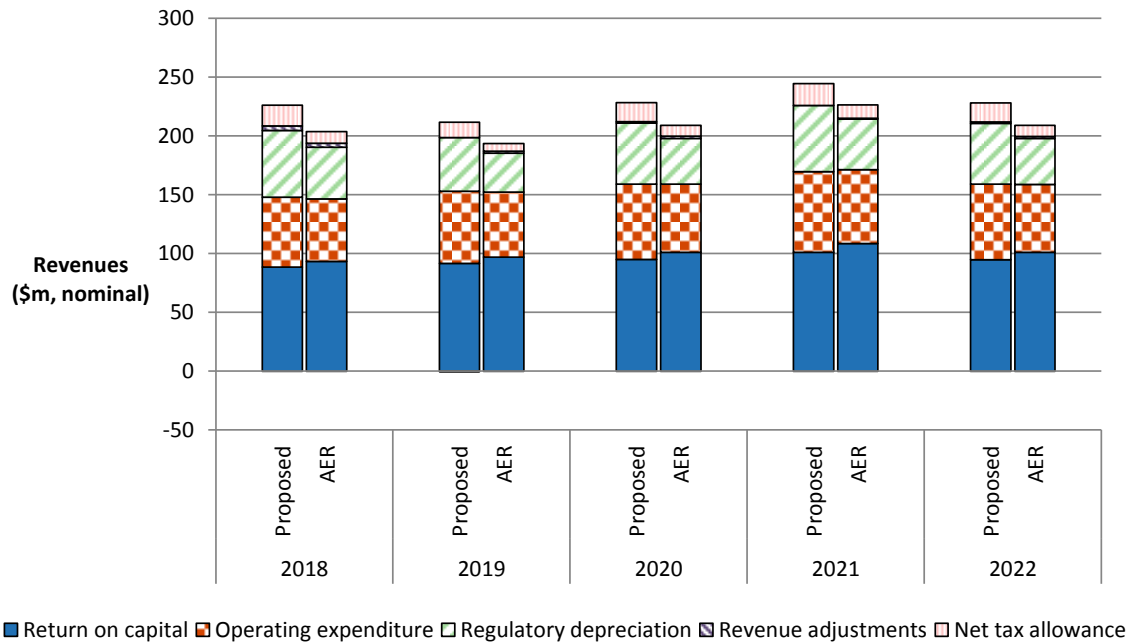
Source: AER analysis.

n/a: not applicable.

(a) Under the CPI–X form of control, a positive X factor is a decrease in price (and therefore in revenue). The X factor for 2018 is indicative only. The draft decision establishes 2018 tariffs directly, rather than referencing a change from 2017 tariffs.

Figure 4-2 shows the effect of our draft decision adjustments to AusNet's proposed building blocks for the 2018–22 access arrangement period. It shows the reductions to AusNet's proposed return on capital, opex, depreciation and tax building blocks.

Figure 4-2 AER’s draft decision and AusNet's proposed building block revenue (unsmoothed) (\$million, nominal)



Source: AER analysis.

4.3 Revenue smoothing and tariffs

After our assessment of AusNet’s total building block revenue (unsmoothed revenue), we need to determine the smoothed revenue profile across the 2018–22 access arrangement period.²⁰

AusNet operates under a weighted average price cap. This means that under its tariff variation mechanism we determine the weighted average tariff change each year. This weighted average tariff change is labelled the 'X factor'. The X factors that we determine must ensure that the sum of the smoothed revenues across the period equals the unsmoothed building block revenue in net present value (NPV) terms.

The X factors represent the weighted average real change in tariffs. As part of the annual reference tariff variation process, we combine the X factors we have determined in our decision with actual inflation to create reference tariffs for the coming year. This means that the prices paid by consumers, and therefore the revenues received by the networks, change with actual inflation, but (ignoring other non-inflation factors) are constant in real terms.

Table 4-2 presents our draft decision X factors, and compares them to AusNet’s proposal.

²⁰ This process of smoothing revenues is described in the NGR as 'revenue equalisation'. NGR, r. 92.

Table 4-2 Weighted average tariff change across the access arrangement period (X factors) — comparison of AusNet's proposal and AER's draft decision (per cent)

	2018	2019	2020	2021	2022
AER draft decision					
X factor ^a	9.68%	0.90%	0.90%	0.90%	0.90%
Nominal price change	-7.5%	1.5%	1.5%	1.5%	1.5%
AusNet proposal					
X factor ^a	5.00%	-2.06%	-2.06%	-2.06%	-2.06%
Nominal price change	-2.7%	4.6%	4.6%	4.6%	4.6%

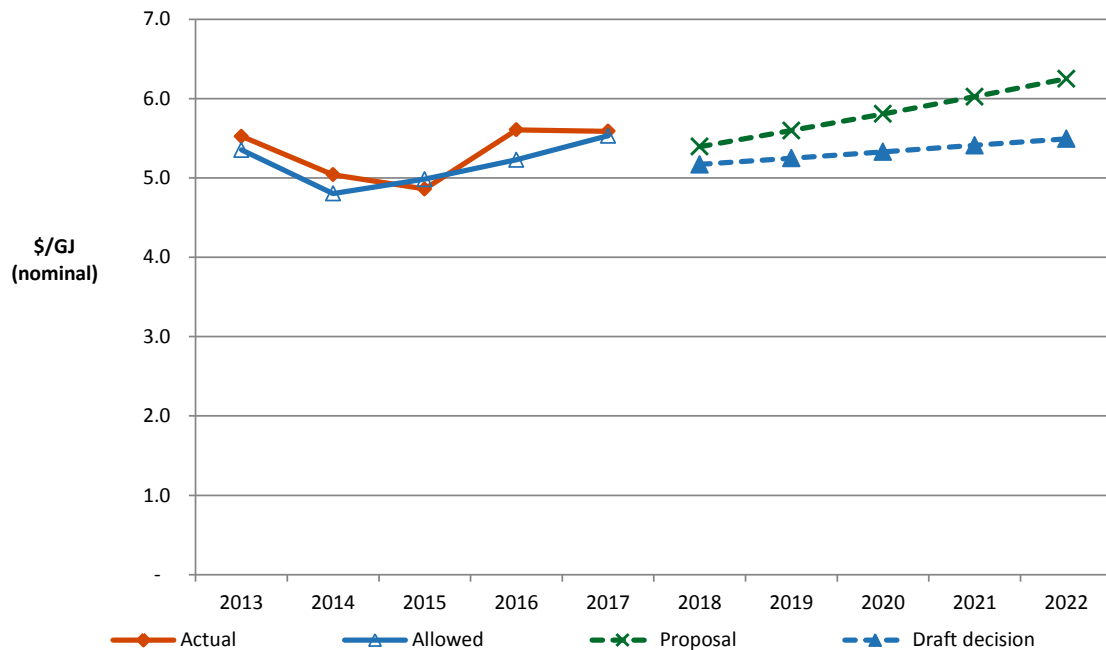
Source:

- (a) Under the CPI-X form of control, a positive X factor is a decrease in price (and therefore in revenue). For example, an X factor of 9.68 per cent in 2018 means a real price decrease of 9.68 per cent that year. After consideration of inflation (assumed at 2.45 per cent) this becomes a nominal price decrease of 7.5 per cent.
- (b) For comparison purposes the nominal price changes are derived from the real price changes for AusNet adjusted by AER's draft decision forecast inflation of 2.45 per cent.

Figure 4-3 shows indicative tariff paths for AusNet's reference services from 2013 to 2022. It compares AusNet's proposed tariff path with that approved in the 2013–17 access arrangement, and with this draft decision.²¹ This provides a broad overall indication of the average movement across several access arrangement periods.

²¹ The tariff path for 2013–22 uses actual inflation outcomes for the 2013–17 period, and expected inflation for 2018–22.

Figure 4-3 Indicative reference tariff paths for AusNet's reference services from 2013 to 2022 (nominal index)



Source: AER analysis;

AusNet's proposed tariff path suggested an initial decrease of 3.4 per cent (in nominal terms) in 2018, followed by tariffs that increase at 3.7 per cent per year for the remaining years of the 2018–22 access arrangement period.²² Our draft decision provides for lower total smoothed revenue than AusNet's proposal, in line with our amendments to total unsmoothed revenue. As such, a decrease of 7.5 per cent to tariffs is required at the start of the 2018–22 access arrangement period to reflect the change in smoothed revenue from the 2013–17 access arrangement period. This is followed by increases of 1.5 per cent per year for the remaining years of the 2018–22 access arrangement period—less than expected inflation.

In choosing the smoothing profile for this draft decision we have balanced a number of competing objectives:

- Equalising (in NPV terms) unsmoothed and smoothed revenue
- Providing price signals that reflect the underlying efficient costs
- Minimising tariff variability from 2017 and within the 2018–22 access arrangement period
- Minimising the likelihood of variability in tariffs at the start of the 2023–27 access arrangement period.

²² AusNet's proposed nominal tariff path also reflects its proposed expected inflation of 1.65 per cent.

Each of these points is discussed in turn.

First, we are satisfied that our draft decision tariff path for AusNet's 2018–22 access arrangement period achieves revenue equalisation as required by rule 92(2) of the NGR.²³ As set out above, our draft decision reduces the unsmoothed revenue proposed by AusNet. Accordingly, we set the tariff path so that it adjusts the smoothed revenue downward to better reflect the unsmoothed building block costs.

Second, but closely related to the first point, our smoothing allows closer alignment of tariffs and costs. This aids in achieving of the NGO and the revenue and pricing principles by providing a price signal that facilitates efficient use of natural gas services.²⁴ Our draft decision tariff path shows a larger decrease in the first year of the 2018-22 access arrangement period, reflecting the lower unsmoothed building block costs.

Third, in setting the tariff path, we aim to minimise tariff volatility from 2017 to 2018 and within the 2018–22 access arrangement period. Our chosen tariff path reflects this objective, but also reflects the consideration we must give to other competing objectives. For instance, setting a flat tariff path from 2017 would better minimise volatility within the 2018-22 access arrangement period, but would not achieve revenue equalisation between tariffs and costs.

Fourth, in setting the tariff path, we also aim to minimise the likelihood of tariff volatility between this access arrangement period and the next. We do not know with certainty what AusNet's efficient costs will be in 2023 or across the 2023–27 access arrangement period more generally. The unsmoothed building block costs for 2022 (the last year of AusNet's 2018–22 access arrangement period) are the best available proxy. Hence, this objective requires minimising the divergence between the smoothed and unsmoothed revenues for the last year of the access arrangement period. If we assume no significant changes in forecast costs from 2022 to 2023, this final year divergence gives us an estimate of the size of the tariff change at the start of the 2023–27 access arrangement period.

For this draft decision, this final year divergence is 2.95 per cent. The divergence is within our usual target range of 3 per cent. However, the profile of unsmoothed building block revenues and forecast demand constrain our ability to smooth the revenues without causing significant tariff volatility. Working with these constraints, our draft decision is to give primary weight to smoothing tariffs within the 2018–22 access arrangement period, while minimising the final year divergence of smoothed revenue and unsmoothed revenues to the extent possible. We note that if there are significant changes in costs at the start of the 2023–27 access arrangement period, this might increase or decrease the required tariff change at that time.

²³ The revenue equalisation occurs in NPV terms, discounting the yearly cash flows at the rate of return to reflect the time value of money.

²⁴ NGL, rr. 23, 24.

We are satisfied that our draft decision tariff path reflects our balanced consideration of these competing objectives. We will review this smoothing profile for the final decision if necessary.

5 Key elements of our draft decision on revenue

The components of our draft decision include the building blocks we use to determine the revenue that AusNet may recover from its users.

The following sections summarise our revenue decision by building block. The attachments to this draft decision provide a more detailed explanation of our analysis and findings.

5.1 Capital base

The capital base roll forward accounts for the value of AusNet's regulated assets over the access arrangement period. The opening capital base value for a regulatory year within the access arrangement period 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).²⁵ Following this process, we arrive at a closing value of the capital base at the end of each year of the access arrangement period. The opening value of the capital base is used to determine the return of capital (regulatory depreciation) and return on capital building block allowances.

Our draft decision approves AusNet's proposed opening capital base of \$1575.7 million (\$ nominal) as at 1 January 2018.²⁶ Table 5-1 summarises our draft decision on the roll forward of AusNet's capital base during the 2013–17 access arrangement period.

²⁵ The term 'rolled forward' means the process of carrying over the value of the capital base from one regulatory year to the next.

²⁶ This calculation includes estimated capex for 2016 and 2017. We will update this with actual capex for 2016 and an updated estimate of 2017 capex in our final decision.

Table 5-1 AER’s draft decision on AusNet’s capital base roll forward for the 2013–17 access arrangement period (\$million, nominal)

	2013	2014	2015	2016	2017
Opening capital base	1275.3	1339.2	1407.4	1471.0	1510.6
Net capex	86.8	94.1	92.6	83.7	99.6
Indexation of capital base	25.6	28.9	32.5	22.1	19.6
Less: straight-line depreciation	48.5	54.8	61.4	66.2	70.5
Closing capital base	1339.2	1407.4	1471.0	1510.6	1559.3
Difference between estimated and actual capex in 2012					12.1
Return on difference for 2012 capex					4.4
Opening capital base as at 1 January 2018					1575.7

Source: AER analysis.

However, we do not approve AusNet’s proposed roll forward of its projected capital base over the 2018–22 access arrangement period, or its proposed closing capital base of \$1837.5 million (\$ nominal) at 31 December 2022. This is because we have not approved AusNet’s proposed inputs to the projected capital base roll forward, specifically expected inflation, depreciation, and forecast capex. Based on our approved amounts for these inputs, we determine a projected closing capital base of \$1883.0 million (\$ nominal) as at 31 December 2022. This is \$45.5 million more than that proposed by AusNet, an increase of 2.5 per cent. The main driver of this increase is our draft decision on the expected inflation rate. The higher expected inflation rate increases the indexation of the capital base component for the 2018–22 access arrangement period by \$69.5 million.²⁷ This more than offsets our draft decision reduction to forecast capex. The net impact is a higher capital base at 31 December 2022 than that proposed by AusNet.

Table 5-2 sets out the projected roll forward of the capital base during the 2018–22 access arrangement period.

²⁷ The inflation on the opening capital base is removed from the regulatory depreciation allowance. See section 5.4 and attachment 5 for further details.

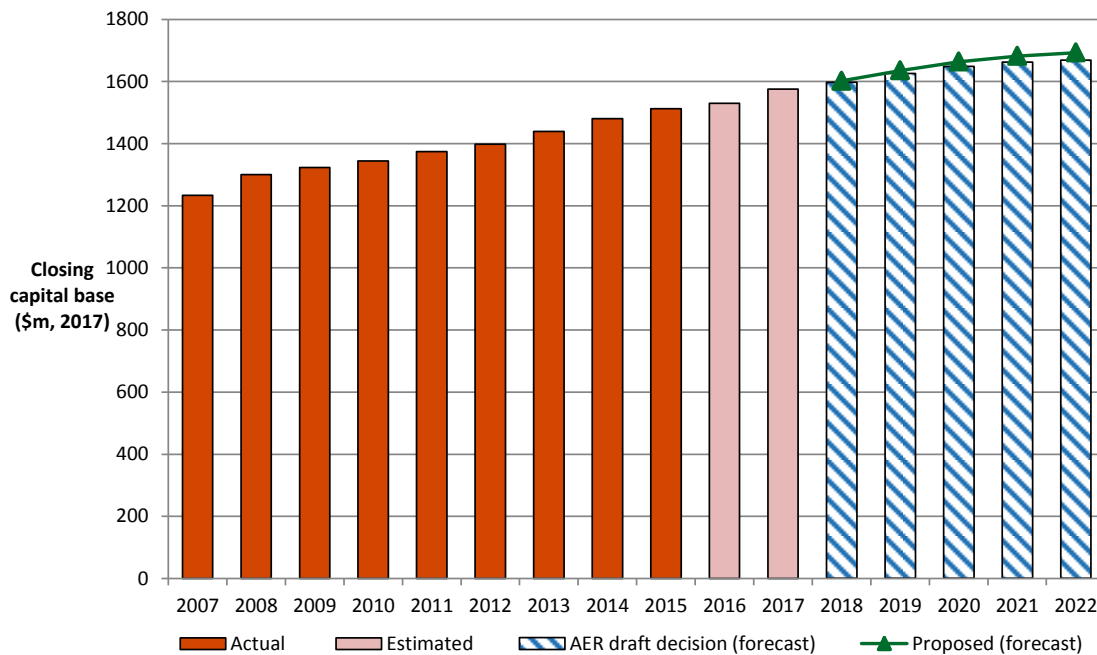
Table 5-2 AER’s draft decision on AusNet's projected capital base roll forward for the 2018–22 access arrangement period (\$million, nominal)

	2018	2019	2020	2021	2022
Opening capital base	1575.7	1636.0	1706.2	1772.4	1830.5
Net capex	104.1	103.2	102.0	97.4	95.5
Indexation of capital base	38.6	40.1	41.8	43.4	44.8
Less: straight-line depreciation	82.5	73.1	77.6	82.7	87.9
Closing capital base	1636.0	1706.2	1772.4	1830.5	1883.0

Source: AER analysis.

Figure 5-1 compares our draft decision on AusNet's forecast capital base to AusNet's proposal and actual capital base in real dollar terms.

Figure 5-1 AusNet's actual, proposed forecast, and AER draft decision forecast capital base (\$ million, 2017)



Source: AER analysis.

5.2 Rate of return (return on capital)

The allowed rate of return provides a service provider a return on capital to service the interest on its loans and give a return on equity to investors. The return on capital building block is calculated as a product of the rate of return and the value of the RAB.

We are satisfied that the allowed rate of return of 5.94 per cent (nominal vanilla) we determined contributes to the achievement of the NGO, and achieves the allowed rate

of return objective (ARORO) set out in the NGR.²⁸ That is, we are satisfied that this allowed rate of return is commensurate with the efficient financing costs of a benchmark efficient entity with a similar degree of risk as that which applies to AusNet in providing reference services.²⁹ We are not satisfied that AusNet's proposed (indicative) 5.63 per cent rate of return for 2018 will achieve the ARORO.³⁰

Table 5-3 sets out our rate of return and AusNet's proposed rate of return.

Table 5-3 Draft decision on AusNet's rate of return (% nominal)

	Previous allowed return (2013-17)	AusNet's proposal (2018-22)	AER draft decision (2018)	Allowed return over 2018 regulatory control period
Return on equity (nominal post-tax)	7.94	7.3	7.2	Constant (7.2%)
Return on debt (nominal pre-tax)	6.5	4.52	5.10	Updated annually
Gearing	60	60	60	Constant (60%)
Nominal vanilla WACC	7.07	5.63	5.94	Updated annually for return on debt
Forecast inflation	2.5	1.65	2.45	Constant (%)

Source: AER analysis; AusNet, *Gas Access Arrangement Review 2018–2022: Access Arrangement Information*, 16 December 2016. p. 202, 207, 235.

Our return on equity estimate for this draft decision is 7.2 per cent. We derived this estimate by applying the foundation model approach (as set out in the Guideline) used to determine the allowed return on equity in our most recent decisions.³¹ This is a six step process, where we have regard to a considerable amount of relevant information, including various equity models.

Our return on equity point estimate and the parameter inputs are set out in the table below.

²⁸ NGR, cl. 87(2).

²⁹ NGR r. 87(3).

³⁰ AusNet, *Gas Access Arrangement Review 2018–2022: Access Arrangement Information*, 16 December 2016. p. 202, 207, 235.

³¹ For example, see AER, *Final decision: AusNet Services determination 2015 -16 to 2019–20, Attachment 3—Rate of return*, May 2016.

Table 5-4 Draft decision on AusNet's return on equity (% nominal)

	AER previous decision (2013–17)	AusNet's proposal (2018–22)	AER draft decision (2017-18)
Nominal risk free rate (return on equity only)	3.14%	2.04% ^a	2.6% ^b
Equity risk premium	4.8%	5.25%	4.55%
Market risk premium	6%	7.50%	6.5%
Equity beta	0.8	0.7	0.7
Nominal post-tax return on equity	7.94%	7.3%	7.2%

Source: AER analysis; AusNet, *Gas Access Arrangement Review 2018–2022: Access Arrangement Information*, 16 December 2016. p. 202, 207, 235.

^a Based on AusNet's indicative averaging period adopted for its proposal of 5th September 2016 to 30 September 2016.

^b Calculated with a placeholder averaging period of 20 business days up to 28 April 2017.

AusNet proposed departing from the approach in the Guideline by for the market risk premium parameter. We are not satisfied that AusNet's proposal would result in an outcome that better achieves the ARORO.³² Further detail on our draft decision in regards to AusNet's allowed rate of return is set out in attachment 3.

Our return on debt estimate is based on a gradual transition from the 'on-the-day' approach we used in the past to the 'trailing average' approach we proposed in the Guideline. The trailing average approach reflects the return on debt that a network business would face if it raised debt annually in equal parcels. Our return on debt approach incorporates a transition to the new approach.

Our decision is also to update the return on debt annually. Therefore, our estimate in this decision is for the first year of the regulatory period. Due to this, we update our rate of return annually.

We commence the trailing average with an initial estimation of the return on debt that is then progressively updated over the regulatory period. In practice, this means that for new debt that is issued (10 per cent of the initial estimate each year) we apply an estimate of the observed return on debt immediately. For existing debt issued before the commencement of the trailing average approach, we will continue to apply the on-the-day approach for the portion that has not been updated. Consequently, at the end of 10 years the total debt portfolio will have been updated and incorporated into the trailing average.

Our return on debt estimate is developed on the basis that a benchmark efficient entity issues debt with a 10 year term and has a BBB+ credit rating. To estimate the yield on this debt, we use an independent third party data service provider. We have reviewed

³² NGR, cl. 87(18)

the recent draft proposals and decided to adopt a simple average of the data series provided by the Reserve Bank of Australia and Bloomberg.

Our estimation procedure allows the service provider to propose a period between 10 business days and 12 months in length before the start of each regulatory year, over which the observed rates are averaged to estimate the return on debt. This results in service providers proposing an averaging period consistent with its debt practices and therefore, our return on debt estimate is different for different service providers.

Our return on debt estimate for the first year of AusNet's access arrangement period in this draft decision is 5.10 per cent. This return on debt number will be updated annually during the regulatory period to partially reflect prevailing interest rates. Our approach and estimation procedures are consistent with the Guideline. We note that AusNet in its current draft proposal adopted our full transition to trailing average approach as set out in the Guideline and proposed a return on debt of 4.52 per cent. We also note the differences in the return on debt number reflect different averaging periods used for the estimation of the rates in the revenue proposal and the AER's draft decision.

Our estimate of expected inflation is estimated as the geometric average of 10 annual expected inflation rates. We use the RBA's forecasts of inflation for the first two annual rates and the mid-point of the RBA's inflation target band for the remaining eight annual rates.

AusNet Services proposed estimating expected inflation using the bond break-even approach and proposed an expected inflation rate of 1.93 per cent. We do not accept the AusNet Services' approach. We consider that long-term inflation expectations are relatively stable and anchored to the RBA's inflation target band and that the RBA forecasts and target band approach is more likely to reflect this than the bond break-even approach. Our consideration is based on the information before us in this determination process. We are currently conducting an industry-wide review of inflation. That review is yet to be finalised and so findings from the review cannot be included in this draft decision. Findings from the review may inform our final decision.

Further detail on our draft decision in regards to AusNet's allowed rate of return is set out in attachment 3.

5.3 Value of imputation credits (gamma)

Under the Australian imputation tax system, investors can receive an imputation credit for income tax paid at the company level.³³ These are received after company income tax is paid, but before personal income tax is paid. For eligible investors, this credit offsets their Australian income tax liabilities. If the amount of imputation credits received exceeds an investor's tax liability, that investor can receive a cash refund for the balance. Imputation credits are therefore valuable to investors and are a benefit to investors in addition to any cash dividend or capital gains they receive from owning shares.

³³ *Income Tax Assessment Act 1997*, parts 3–6.

However, the estimation of the return on equity does not take imputation credits into account. Therefore, an adjustment for the value of imputation credits is required. This adjustment could take the form of a decrease in the estimated return on equity itself. An alternative but equivalent form of adjustment, which is employed under the NER, is via the revenue granted to a service provider to cover its expected tax liability. Specifically, the NER requires that the estimated cost of corporate income tax be determined in accordance with a formula that reduces the estimated cost of corporate tax by the 'value of imputation credits' (represented by the Greek letter, γ , 'gamma'). This form of adjustment recognises that it is the payment of corporate tax which is the source of the imputation credit return to investors.

Our draft decision adopts a value of imputation credits of 0.4. We do not accept AusNet's proposed value of imputation credits (or gamma) of 0.25. We consider that a value for imputation credits of 0.4 will result in equity investors in the benchmark efficient entity receiving an ex ante total return (inclusive of the value of imputation credits) commensurate with the efficient equity financing costs of a benchmark efficient entity.

In coming to a value of imputation credits of 0.4:

- We adopt a conceptual approach consistent with the Officer framework, which we consider best promotes the objectives and requirements of the NER/NGR. This approach considers the value of imputation credits is a post-tax value before the impact of personal taxes and transaction costs.³⁴ As such, we view the value of imputation credits as the proportion of company tax returned to investors through the utilisation of imputation credits.³⁵
- We consider our conceptual approach allows for the value of imputation credits to be estimated on a consistent basis with the allowed rate of return and allowed revenues under the post-tax framework in the NER/NGR.³⁶
- We use the widely accepted approach of estimating the value of imputation credits as the product of two sub-parameters: the 'distribution rate' and the 'utilisation rate'. Our definition of, and estimation approach for, these sub-parameters is set out in Table 5-5.

³⁴ Post-tax refers to after company tax and before personal tax.

³⁵ This means one dollar of claimed imputation credits has a post (company) tax value of one dollar to investors before personal taxes and personal transaction costs.

³⁶ In finance, the consistency principle requires that the definition of the cash flows in the numerator of a net present value (NPV) calculation must match the definition of the discount rate (or rate of return / cost of capital) in the denominator of the calculation (see Peirson, Brown, Easton, Howard, Pinder, Business Finance, McGraw-Hill, Ed. 10, 2009, p. 427). By maintaining this consistency principle, we provide a benchmark efficient entity with an ex ante total return (inclusive of the value of imputation credits) commensurate with the efficient financing costs of a benchmark efficient entity.

Table 5-5 Gamma sub-parameters: definition and estimation approach

Sub-parameter	Definition	Estimation approach
Distribution rate (or payout ratio)	The proportion of imputation credits generated that is distributed to investors.	Primary reliance placed on the widely accepted cumulative payout ratio approach. Some regard is also given to Lally's estimate for listed equity from financial reports of the 20 largest listed firms.
Utilisation rate (or theta)	The utilisation value to investors in the market per dollar of imputation credits distributed. ³⁷	A range of approaches, with due regard to the merit of each approach: equity ownership approach tax statistics implied market value studies.

Source: AER analysis.

Overall, the evidence suggests a range of estimates for the value of imputation credits might be reasonable. With regard to the merits of the evidence before us, we choose a value of imputation credits of 0.4 from within a range of 0.3 to 0.5.

In considering the evidence on the distribution and utilisation rates, we have broadly maintained the approach set out in the Rate of Return Guideline (the Guideline), but have re-examined the relevant evidence and estimates. This re-examination, and new evidence and advice considered since the Guideline, led us to depart from the 0.5 value of imputation credits we proposed in the Guideline.

Further detail on our draft decision in regards to the value of AusNet's imputation credits is set out in attachment 4.

5.4 Regulatory depreciation (return of capital)

When determining the total revenue for AusNet, we include an allowance for the depreciation of the projected capital base (otherwise referred to as 'return of capital').³⁸ Regulatory depreciation is used to model the nominal asset values over the 2018–22 access arrangement period and the depreciation allowance in the total revenue requirement.³⁹

Our draft decision on AusNet's regulatory depreciation allowance is \$195.0 million (\$ nominal) in total for the 2018–22 access arrangement period as set out in table 5-6.

³⁷ In this decision we use the terms theta, utilisation value and utilisation rate interchangeably to mean the same thing.

³⁸ NGR, r. 76(b).

³⁹ Regulatory depreciation allowance is the net total of the straight-line depreciation (negative) and the annual inflation indexation (positive) on the projected capital base.

Table 5-6 AER’s draft decision on AusNet’s regulatory depreciation allowance for the 2018–22 access arrangement period (\$million, nominal)

	2018	2019	2020	2021	2022	Total
Straight-line depreciation	82.5	73.1	77.6	82.7	87.9	403.8
Less: indexation on capital base	38.6	40.1	41.8	43.4	44.8	208.8
Regulatory depreciation	43.9	33.0	35.8	39.3	43.1	195.0

Source: AER analysis.

We approve AusNet’s proposal to use the real straight-line method to calculate the regulatory depreciation allowance, and its proposed standard asset lives. These standard asset lives are consistent with the approved standard asset lives for the 2013–17 access arrangement period. The exception to this is meters, but we accept AusNet’s update to its metering asset lives is reasonable and consistent with other gas service providers. The standard asset lives across all asset classes are broadly comparable with the standard asset lives approved in our recent determinations for other gas service providers.⁴⁰

We also accept AusNet’s proposal to move to a year by year tracking approach to determining depreciation.⁴¹ While not our preferred weighted average remaining life (WARL) approach,⁴² we accept that a year by year approach can meet the criteria of having the depreciation schedule reflect the asset’s economic life, where it tracks the asset’s technical life. In deciding to accept this element of AusNet’s proposal, we have assessed the new approach against the other criteria in the NGR, in particular, whether the approach leads to efficient development in the market for reference services. Under this criterion we also need to consider the impact of the change in the long run and any significant disruption in the short to medium term from a change in previous practice. The proposed change to year by year tracking does increase depreciation (and prices) over short to medium term, other things being equal. CCP11 has raised this potential impact as a concern.⁴³ However, our analysis suggests the impact in this

⁴⁰ For example, *AER: Access arrangement final decision APA GasNet Australia (Operations) Pty Ltd 2013–17 Part 2: Attachments*, March 2013, p. 149; *AER: Final decision Amadeus Gas Pipeline access arrangement attachment 5 — Regulatory depreciation*, May 2016, p. 9.

⁴¹ We note that the capex determined in this draft decision for 2016 and 2017 are estimates. As part of the final decision, we expect the estimate of capex for 2016 to be replaced by actuals and the estimate of capex for 2017 may be revised based on more up to date information by AusNet in its revised proposal. The capex values are used to calculate the weighted average remaining asset lives. Therefore, we may recalculate AusNet’s remaining asset lives using the method approved in this draft decision to reflect revisions to the 2016 and 2017 capex values for the final decision.

⁴² Year by year tracking is administratively more complex and costly, and can increase revenue fluctuations as depreciation depends more on when individual assets expire. A change of approach between access arrangement periods can also cause revenue (and price spikes) which may not be helpful to efficient development in the market for reference services.

⁴³ CCP11, *Submission on AGN, AusNet and Multinet proposals*, 3 March 2017, p.53.

case to be modest and therefore unlikely to have a significant impact on the efficient growth in the market for reference services.

While we have accepted these approaches, our draft decision reduces AusNet's proposed depreciation allowance by \$64.1 (\$nominal), or 24.7 per cent. This reduction flows from our draft decisions on forecast capex and expected inflation—which are inputs to the depreciation allowance.

5.5 Capital expenditure (capex)

Capital expenditure (capex) refers to the capital costs and expenditure incurred in the provision of pipeline services.⁴⁴ This investment mostly relates to assets with long lives, and these costs are recovered over several access arrangement periods. AusNet recovers the costs of these assets through the return on capital and depreciation building blocks that form part of its total revenue. In this way AusNet recovers the financing cost and depreciation associated with these assets over the expected life of these assets.

Our draft decision includes an assessment of AusNet's actual capex in the current period, which forms part of its opening capital base.⁴⁵ It also includes an assessment of AusNet's forecast capex for the 2018–22 access arrangement period, which forms part of its projected capital base.⁴⁶

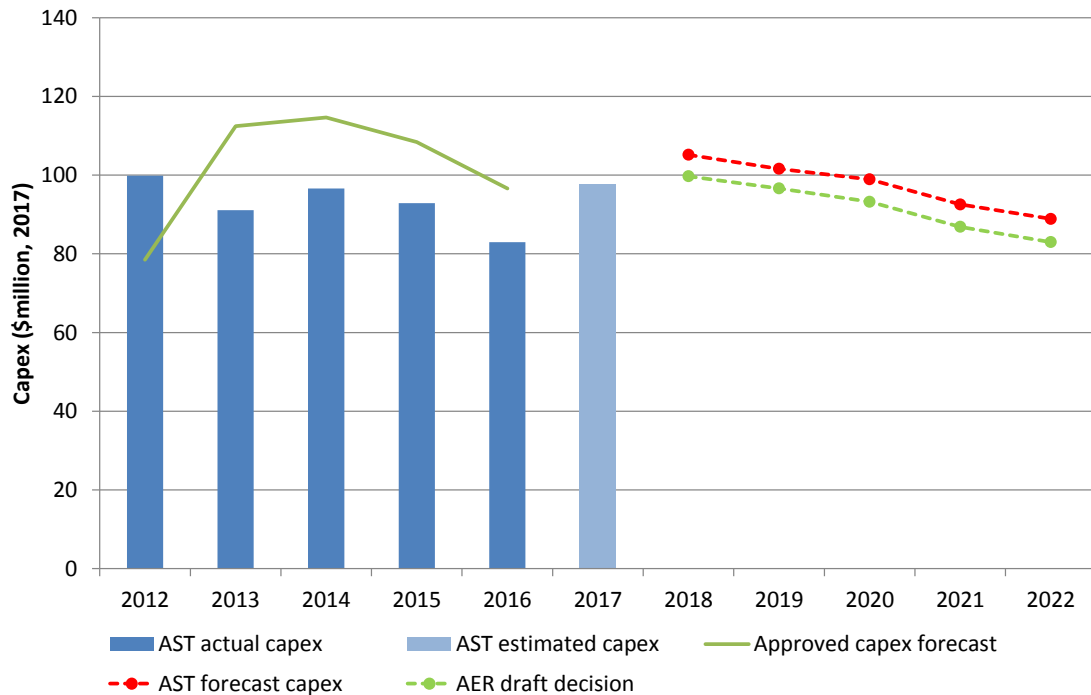
Figure 5-2 compares AusNet's past and proposed forecast capex, and the forecasts we have approved in our previous decision for 2013–17 and this draft decision for 2018–22.

⁴⁴ NGR, r. 69.

⁴⁵ NGR, r. 77.

⁴⁶ NGR, r. 78(b)

Figure 5-2 AER draft decision compared to AusNet's past and proposed capex (\$million, 2017)



Source: AER analysis.

5.5.1 Conforming capex for the current period

AusNet expects its actual capex in the current (2013–17) access arrangement period to be 14.3 per cent less than that contemplated in our final decision on the 2013–17 access arrangement.⁴⁷

As part of this draft decision, we have reviewed AusNet's capex for the first four years of the current period (2013 to 2016), for which actual data is available. Our review also covered AusNet's actual capex in 2012 (the final year of the previous access arrangement period), for which actual data was not available when we made our final decision for 2013–17.⁴⁸

Our draft decision is that AusNet's actual capex of \$463.4 million (\$2017) for the years 2012 to 2016 is appropriately included in the opening capital base from 1 January 2018. We will review AusNet's actual capex for 2017 as part of our next review of its access arrangement in 2022.

⁴⁷ AER - Access arrangement final decision - SP AusNet - Part 1 - March 2013

⁴⁸ AER - Access arrangement final decision - SP AusNet - Part 1 - March 2013

5.5.2 Conforming capex for 2018-22

AusNet's proposed total (net) forecast capex of \$487.7 million (\$2017) for the 2018–22 access arrangement period is 5.7 per cent greater than its current period expenditure. Our draft decision accepts most of AusNet's forecast, and approves total forecast capex of \$460.0 million. This is 5.7 per cent lower than AusNet's proposal, and is in line with its actual expenditure over the current access arrangement period.

The difference between our draft decision and AusNet's proposal primarily relates to the following elements of its forecast:

- AusNet's forecast mains replacement capex made up around 28 per cent of its total forecast capex. Its proposed expenditure of \$130.6 million is \$22.3 million (or 20.6 per cent) higher than its actual mains replacement expenditure in the current period, reflecting the higher unit rates that come with AusNet's plan to replace mains in higher density areas over the 2018–22 access arrangement period. On the information before us we are not satisfied that this increase in mains replacement expenditure is required. The total capex forecast in our draft decision includes a lower mains replacement forecast of \$114.5 million.
- We have not accepted AusNet's forecast of \$32.4 million for meter replacement, and have substituted a lower forecast of \$28.3 million. Our lower forecast removes \$1.6 million AusNet proposed for a digital metering program (and an additional \$2.1 million for related IT capex), which we do not consider AusNet has justified in its proposal. We have reduced the meter replacement forecast by a further \$2.4 million, by adopting a lower unit rate that takes into account AusNet's opportunity to reduce costs by using a combination of both new and refurbished meters.
- Our draft decision reduces AusNet's forecast connections capex of \$193.8 million by 1.4 per cent (to \$191.2 million) as a consequence of our decision not to accept AusNet's opex step change for marketing expenditure, and the associated increase in its demand forecast.

Table 5-7 compares AusNet's proposed capex forecast to that approved in our draft decision.

Table 5-7 Comparison of forecast capex in AusNet's proposal and this draft decision (\$million, 2017)

Category	AusNet's proposal	Draft decision	Difference (\$millions)
Mains replacement	130.6	114.5	-16.1
New customer connections	193.8	191.2	-2.6
Meter replacement	32.4	28.3	-4.1
Augmentation	15.2	13.1	-2.1
IT capex	57.0	54.9	-2.1
Other (incl. SCADA)	34.0	34.0	0.0
Escalation	10.6	10.0	-0.6
Overheads	34.6	34.6	0.0
GROSS TOTAL CAPITAL EXPENDITURE	508.4	480.8	-27.6
Customer contributions	20.7	20.8	0.1
NET TOTAL CAPITAL EXPENDITURE	487.7	460.0	-27.7

Source: AusNet's capex model; AER analysis.

5.6 Operating expenditure (opex)

Operating expenditure (opex) is the operating, maintenance and other non-capital expenses incurred in the provision of reference services for a pipeline. Forecast opex is one of the building blocks we use to determine a service provider's total revenue requirement.

AusNet proposed an opex forecast of \$304.8 million (\$2017) over the 2018–22 access arrangement period—an increase of 17.5 per cent from the current period.⁴⁹ Our draft decision does not accept this forecast and substitutes a lower forecast of \$268.7 million (\$2017).⁵⁰ This is a reduction of 11.9 per cent from AusNet's proposal, and allows forecast opex 3.6 per cent higher than AusNet's current period opex.

Table 5-8 compares our draft decision to AusNet's proposal.

⁴⁹ Increase above AusNet's actual and estimated 2013–17 operating expenditure. Includes ancillary reference services and debt raising costs.

⁵⁰ Includes ancillary reference services and debt raising costs.

Table 5-8 Our draft decision on total opex (\$million, 2017)

	2018	2019	2020	2021	2022	Total
AusNet's proposal	58.4	59.6	60.8	62.6	63.4	304.8
AER draft decision	51.8	52.7	53.7	54.7	55.6	268.6
Difference	-6.6	-6.8	-7.1	-7.8	-7.8	-36.2

Source: AusNet Services, *Distribution gas access arrangement proposal post tax revenue model (PTRM)*, 16 December 2016; AER analysis.

Note: Includes debt raising costs.

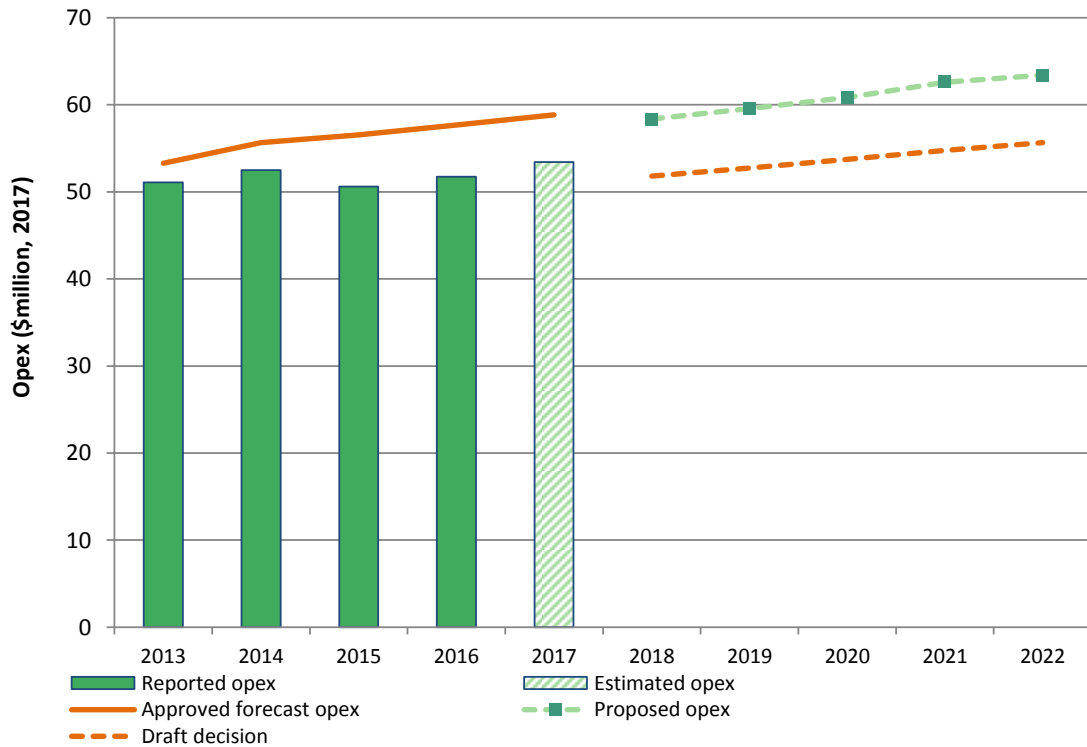
The key differences between our draft decision and AusNet's proposal are that:

- we corrected AusNet's proposed base year to adjust for movement in provisions and unaccounted for gas payments (-\$11.7 million).
- we did not include AusNet's proposed step changes (-\$22.3 million), the largest of which was for marketing. AusNet's proposed marketing step change of \$21.8 million was the key driver of its proposed increase in opex from the current period. We consider marketing is a 'business-as-usual' expense for AusNet to prioritise within its existing base opex forecast, if it is prudent and efficient to do so in the current operating environment.
- we included a lower rate of change (-\$9.8 million). Our forecast of total gas throughput takes into account large industrial throughput, which AusNet excluded from its calculation.
- we did not apply the rate of change to the base year; rather we forecast 2017 opex to reflect the difference in the allowance⁵¹ between 2015 and 2017 (\$7.6 million).

Figure 5-3 shows our draft decision and AusNet's proposal in the context of its past allowances and actual expenditure.

⁵¹ As determined in the AER Final decision for AusNet Services (SP AusNet) access arrangement 2013–17.

Figure 5-3 Our draft decision compared to AusNet's past and proposed opex (\$ million, 2017)



Source: AusNet Services, *Gas access arrangement review 2018–22 regulatory templates*, 16 December 2016; AER analysis.

Note: Includes debt raising costs. Excludes movements in provisions and unaccounted for gas.

5.7 Efficiency carryover mechanism

The opex efficiency carryover mechanism in AusNet's access arrangement provides an additional incentive for AusNet to pursue efficiency improvements in its opex over an access arrangement period.

Our draft decision is to approve a positive carryover amount of \$8.6 million (\$2017) from the application of the efficiency carryover mechanism in the 2013–17 access arrangement period. This is \$2.7 million (\$2017) more than AusNet's proposal. The primary reason for this difference is that AusNet's proposal used a different base year to calculate its opex forecast (2015) to the base year it used to calculate its benefits under the efficiency carryover mechanism (2016). Our draft decision uses 2015 as the base year for both calculations so that our decision is internally consistent.

Table 5-9 shows our draft decision on AusNet's proposed carryover amounts.

Table 5-9 AER draft decision on carryover amounts (\$million, \$2017)

	2018	2019	2020	2021	2022	Total
AusNet Services' proposed carryover	3.9	-0.3	1.2	1.0	–	5.9
Draft decision	3.3	1.6	3.0	–	0.6	8.6
Difference	-0.6	1.9	1.8	-1.0	0.6	2.7

Note: Numbers may not add up due to rounding.

We accept AusNet's proposal to retain an efficiency carryover mechanism for the 2018–22 access arrangement period. However, we have amended AusNet's proposed efficiency carryover mechanism to reflect improvements included in the efficiency benefit sharing scheme (EBSS) we released in November 2013 for electricity service providers.⁵² Importantly, the amendments will give AusNet more flexibility in the choice of base year it uses to forecast opex in the following period. We have also reduced the number of costs categories we will exclude from the mechanism.

The total opex forecasts we will use to calculate efficiency gains and losses for the 2018–22 access arrangement period are set out in table 9.2 of attachment 9.

5.8 Corporate income tax

Our draft decision is to approve AusNet's proposed approach to calculate its forecast corporate income tax allowance. AusNet's proposed approach is consistent with the AER's post-tax revenue model (PTRM) for electricity service providers and the approach previously approved in gas access arrangement decisions. However, we do not accept AusNet's proposed corporate income tax allowance of \$80.9 million (\$ nominal) for the 2018–22 access arrangement period.

Our draft decision on AusNet's corporate income tax allowance over the 2018–22 access arrangement period is \$46.1 million (\$ nominal). This represents a reduction of \$34.8 million (\$ nominal) or 43.1 per cent compared to AusNet's proposed forecast corporate income tax allowance. We have amended AusNet's proposed inputs for forecasting the cost of corporate income tax, including:

- the opening tax asset base
- the remaining tax asset lives
- the value of imputation credits (gamma).

⁵² AER, *Efficiency Benefit Sharing Scheme for Electricity Network Service Providers*, November 2013, pp. 7–9.

Our adjustments to the rate of return on capital⁵³, return of capital (regulatory depreciation) and forecast opex also affect revenues, which in turn impact the tax calculation.⁵⁴

Table 5-10 sets out our draft decision on the estimated cost of corporate income tax allowance for AusNet.

Table 5-10 AER's draft decision on corporate income tax allowance for AusNet (\$million, nominal)

	2018	2019	2020	2021	2022	Total
Tax payable	16.7	11.1	11.5	18.8	18.8	76.8
Less: value of imputation credits	6.7	4.4	4.6	7.5	7.5	30.7
Net corporate income tax allowance	10.0	6.6	6.9	11.3	11.3	46.1

Source: AER analysis.

⁵³ The forecast capex amount is a key input for calculating the return of and return on capital building blocks. Attachment 6 sets out our draft decision on AusNet's forecast capex.

⁵⁴ The changes affecting revenues are discussed in the overview.

6 New incentive schemes to apply from 2018

AusNet proposed two new incentive schemes to apply for the 2018-22 access arrangement period: a capital expenditure sharing scheme (CESS) and a network innovation scheme (NIS).

Our draft decision accepts the introduction of a CESS, to encourage appropriate and efficient investment in the network and provide continuous incentives to seek efficiencies throughout the access arrangement period. We consider a CESS could lead to significant benefits for consumers, particularly in limiting the growth of the capital base by providing a greater incentive for AusNet to incur only efficient capex.

The CESS that will be included in AusNet's access arrangement is based on the CESS we developed under the National Electricity Rules (NER).⁵⁵ We are conscious of the risk that increased incentives could lead to inefficient deferral of capex in the interests of reducing costs within an access arrangement period. Recognising that there is no balancing service quality scheme like the STPIS under the NER, any reward to AusNet under the CESS will be contingent on AusNet maintaining current service standards. Service standards will be measured through a new network health index incorporating leaks on mains, services and meters, and system average interruption frequency and duration indices (SAIFI and SAIDI). If service standards decline, then AusNet will receive reduced CESS reward or no reward at all.

Our draft decision does not accept the introduction of a NIS. AusNet proposed a NIS in the form of an allowance (a fixed percentage of its forecast revenue requirement) to fund projects that comply with pre-determined innovation criteria.

We understand that, in general, regulated monopolistic businesses face a reduced incentive to innovate when compared to competitive businesses. For a regulated network business, any savings resulting from innovation in one period may lead to a lower revenue allowance in the next period. Therefore, businesses may avoid investments that could have a significant social benefit but would ultimately result in decreased revenue allowance in the subsequent period. However, our assessment is that AusNet's proposed NIS does not address the incentive problem for the following reasons:

- Consumers bear 100 per cent of the cost of the investment, and therefore 100 per cent of the risk that the innovation project is unsuccessful.
- It is not clear how the benefits of innovation would be shared between consumers and AusNet.
- AusNet's proposal for a NIS is not targeted at a specific social or economic problem (such as emissions reduction as the scheme is in Great Britain).⁵⁶

⁵⁵ AER, *Capital expenditure incentive guideline for electricity network service providers*, November 2013.

⁵⁶ See: <https://www.ofgem.gov.uk/gas/distribution-networks/network-innovation>

We also consider that AusNet has sufficient incentives and opportunities to invest in innovation efficiency enhancements under the current regulatory framework. Our revenue determinations provide total allowances for specific purposes, such as capex and opex investment. Service providers then decide how to spend those allowances as they consider most appropriate, which could include innovative projects that assist service providers to provide cost efficient and customer focused services.

On balance, we do not believe that a NIS will encourage efficiency in the provision of services by AusNet in the long term interests of consumers. We think that, particularly with the addition of a CESS, the current framework provides sufficient opportunity to invest in innovation while allowing businesses to retain any efficiency benefits.

7 Non-tariff components

The non-tariff components of an access arrangement include:

- the terms and conditions for the supply of reference services
- extension and expansion requirements—the method for determining whether an extension or expansion is a part of the covered pipeline and the effect this will have on tariffs
- capacity trading requirements—the arrangements for users to assign contracted capacity and change delivery and receipt points
- provisions for receipt and delivery point changes, and
- a review submission date and a revision commencement date.⁵⁷

Our draft decision is to accept AusNet's proposed non-tariff components, subject to one minor refinement—suggested by AusNet⁵⁸—to clarify the interaction of its extensions and expansions policy and tariff control formula.

AusNet initially proposed a review submission date of 1 January 2022, but then indicated it would be prepared to bring this date forward by one month to 1 December 2021 to avoid the administrative difficulties of submitting in the holiday season.⁵⁹ Our draft decision is to accept AusNet's amended review submission date of 1 December 2021.

⁵⁷ Although not required in the present case, all transmission pipelines and some distribution pipelines are also required to set out how any spare or developable capacity will be allocated among prospective users ('queuing requirements' - see NGR r. 103.

⁵⁸ AusNet, Response to AER Information Request #9, 3 March 2017.

⁵⁹ AusNet, Response to AER Information Request #9, 3 March 2017.

8 Understanding the NGO

The NGO is the central feature of the regulatory framework. 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, quality, safety, reliability and security of supply of natural gas.⁶⁰

Energy Ministers have provided us with a substantial body of explanatory material that guides our understanding of the NGO.⁶¹ The long term interests of consumers are not delivered by any one of the NGO's factors in isolation, but rather by balancing them in reaching a regulatory decision.⁶²

In general, we consider that we will achieve this balance and, therefore, contribute to the achievement of the NGO, where consumers are provided a reasonable level of safe and reliable service that they value at least cost in the long run.⁶³ We have also considered the quality and reliability of services provided to consumers. For example, the opex allowance and pass through mechanism approved in this draft decision has been set so that AusNet can meet existing and new regulatory requirements. Our approved capex forecast includes expenditure to replace assets that are aged or in unacceptable condition.

The nature of decisions under the NGR is such that there may be a range of economically efficient decisions, with different implications for the long term interests of consumers.⁶⁴ At the same time, however, there are a range of outcomes that are unlikely to advance the NGO, or not advance the NGO to the degree that others would.

For example, we do not consider that the NGO would be advanced if allowed revenues encourage overinvestment and result in prices so high that consumers are unwilling or unable to efficiently use the network.⁶⁵ This could have significant longer term pricing implications for those consumers who continue to use network services.

Equally, we do not consider the NGO would be advanced if allowed revenues result in prices so low that investors are unwilling to invest as required to adequately maintain the appropriate quality and level of service, and where customers are making more use of the network than is sustainable. This could create longer term problems in the

⁶⁰ NGL, s. 23.

⁶¹ Hansard, *SA House of Assembly*, 9 February 2005, pp. 1451–1460.
Hansard, *SA House of Assembly*, 27 September 2007, pp. 963–972.
Hansard, *SA House of Assembly*, 26 September 2013, pp. 7171–7176.

⁶² Hansard, *SA House of Assembly*, 26 September 2013, p. 7173.

⁶³ Hansard, *SA House of Assembly*, 9 February 2005, p. 1452.

⁶⁴ *Re Michael: Ex parte Epic Energy* [2002] WASCA 231 at [143].

Energy Ministers also accept this view – see Hansard, *SA House of Assembly*, 26 September 2013 p. 7172.

AEMC, *Rule Determination National Electricity Amendment (Economic Regulation of Transmission Services) Rule 2006 No. 18*, p. 50.

⁶⁵ NGL, s. 24(7).

network⁶⁶ and could have adverse consequences for safety, security and reliability of the network.

The NGL also includes the revenue and pricing principles (RPP), which support the NGO.⁶⁷ As the NGL requires,⁶⁸ we have taken the RPPs into account throughout our analysis under the NGR. The RPPs are:

A service provider should be provided with a reasonable opportunity to recover at least the efficient costs the service provider incurs in—

- providing reference services; and
- complying with a regulatory obligation or requirement or making a regulatory payment.

A service provider should be provided with effective incentives in order to promote economic efficiency with respect to reference services the service provider provides. The economic efficiency that should be promoted includes—

- efficient investment in, or in connection with, a pipeline with which the service provider provides reference services; and
- the efficient provision of pipeline services; and
- the efficient use of the pipeline.

Regard should be had to the capital base with respect to a pipeline adopted—

- in any previous—
- full access arrangement; or
- decision of a relevant regulator under section 2 of the Gas Code; or
- in the Rules.

A reference tariff should allow for a return commensurate with the regulatory and commercial risks involved in providing the reference service to which that tariff relates.

Regard should be had to the economic costs and risks of the potential for under and over investment by a service provider in a pipeline with which the service provider provides pipeline services.

Regard should be had to the economic costs and risks of the potential for under and over utilisation of a pipeline with which a service provider provides pipeline services.

⁶⁶ NGL, s. 24(6).

⁶⁷ NGL, s. 24.

⁶⁸ NGL, s. 28(2).

Consistent with Energy Ministers' views, we set the amount of revenue that service providers can recover from customers to balance all of the elements of the NGO and consider each of the RPPs.⁶⁹ For example:

- In determining forecast opex and capex that reasonably reflects the opex and capex criteria, we take into account the revenue and pricing principle that we should provide AusNet with a reasonable opportunity to recover at least efficient costs (refer to capex attachment 6 and opex attachment 7).
- We take into account the economic costs and risks of the potential for under and over investment by a service provider in our assessment of AusNet's forecast capex and opex proposals (refer to capex attachment 6 and opex attachment 7).
- We consider the economic costs and risks of the potential for under and over utilisation of AusNet's network in our decisions on demand forecasting and forecast augmentation capex (refer to capex attachment 6 and demand attachment 13).
- The opex and capex efficiency carryover mechanisms in this decision provide AusNet with effective incentives which we consider will promote economic efficiency with respect to the reference service that AusNet provides throughout the access arrangement period (refer to efficiency carryover mechanism attachment 9, and other incentive schemes attachment 14).
- We have determined AusNet's opening capital base taking into account the capital adopted in the previous access arrangement (refer to capital base attachment 2).
- The allowed rate of return objective reflects the revenue and pricing principle in s. 24(5). We have determined a rate of return that we consider will provide AusNet with a return commensurate with the regulatory and commercial risks involved in providing pipeline services (refer to rate of return attachment 3).
- Our financing determinations provide AusNet with a reasonable opportunity to recover at least the efficient costs of accessing debt and capital (refer to rate of return attachment 3).

In some cases, our approach to a particular component (or part thereof) results in an outcome towards the end of the range of options that results in higher revenue than another option. Some of these decisions include:

- selecting at the top of the range for the equity beta
- setting the return on debt by reference to data for a BBB broad band credit rating, when the benchmark is BBB+
- the cash flow timing assumptions in the post-tax revenue model.

We take into account the RPPs when exercising discretion about an appropriate estimate. The legislative framework recognises the complexity of this task by providing

⁶⁹ Hansard, SA House of Assembly, 27 September 2007 pp. 965, Hansard, SA House of Assembly, 9 April 2008 p. 2886, Hansard, SA House of Assembly, 26 September 2013, p. 7173.

us with significant discretion in many aspects of the decision-making process to make judgements on these matters.

Part 9 of the NGR provides specifically for the economic regulation of covered pipelines. It includes detailed rules about the individual components of our decisions. These are intended to contribute to the achievement of the NGO.

8.1 Achieving the NGO to the greatest degree

An access arrangement decision is complex. In most instances, the provisions of the NGR do not point to a single answer, either for our decision as a whole or in respect of particular components. They require us to exercise our regulatory judgment. For example, Part 9 of the NGR requires us to prepare forecasts, which are predictions about unknown future circumstances. There may be more than one plausible forecast supported by expert opinion. As a result, for certain components of our decision there may be several plausible answers or several plausible point estimates.

We approach this from a practical perspective, accepting that it is not possible to consider every permutation specifically. Where there are choices to be made among several plausible alternatives each of which would result in an overall decision that contributes to the achievement of the NGO, we have selected what we are satisfied would result in an overall decision that contributes to the achievement of the NGO to the greatest degree.⁷⁰

In reaching this draft decision we have considered AusNet's proposal, and examined each of the building block components of the forecast revenue requirement, and the incentive mechanisms that should apply across the next access arrangement period. We have considered submissions we received in regard to AusNet's proposal. We have conducted our own analysis and engaged expert consultants to help us better understand if and how AusNet's proposal contributes to the achievement of the NGO. We have also considered how the individual components of our decision relate to each other, the impact that particular components of our decision have on others, and have described these interrelationships in this draft decision. We have had regard to and weighed up all of the information assembled before us in making this draft decision, and have made as much of this information publicly available as practicable for the purposes of consultation.

Therefore, we are satisfied that among the options before us, our draft decision on AusNet's access arrangement for the 2018–22 access arrangement period contributes to achieving the NGO to the greatest degree.

8.1.1 Interrelationships between individual components

Considering individual components in isolation ignores the importance of interrelationships between components of the overall decision, and would not

⁷⁰ NGL, s. 28(1)(b)(iii).

contribute to the achievement of the NGO. As outlined by Energy Ministers, considering the elements in isolation has resulted in regulatory failures in the past.⁷¹ Interrelationships can take various forms, including:

- underlying drivers and context which are likely to affect many constituent components of our decision. For example, forecast demand affects the forecasts of efficient levels of capex and opex in the access arrangement period (see attachments 6, 7 and 13).
- direct mathematical links between different components of a decision. For example, the value of imputation credits (γ) has an impact on the appropriate tax allowance; the benchmark efficient entity's debt to equity ratio has a direct effect on the cost of equity, the cost of debt, and the overall vanilla rate of return (see attachments 3, 4 and 8).
- trade-offs between different components of revenue. For example, undertaking a particular capex project may affect the need for opex and vice versa (see attachments 6 and 7).
- trade-offs between forecast and actual regulatory measures. The reasons supporting one part of a proposal may have impacts on other parts of a proposal. For example, completion of forecast augmentation (capex) to the network will mean the service provider has more assets to maintain, leading to higher opex requirements (see attachments 6 and 7).
- the service provider's approach to managing its network. The service provider's governance arrangements and its approach to risk management will influence most aspects of the proposal, including capex/opex trade-offs (see attachments 6 and 7).

We have considered interrelationships, including those above, in our analysis of the individual components of our draft decision. These considerations are explored in the relevant attachments.

⁷¹ SCER, *Regulation Impact Statement: Limited Merits Review of Decision-Making in the Electricity and Gas Regulatory Frameworks – Decision Paper*, 6 June 2013 p. 6.

9 Consultation

Stakeholder participation is important to informed decision making under the NGL and NGR. It allows us to take a range of views into account when considering how a proposal or decision contributes to the NGO. Effective consultation and engagement provide confidence in our processes and are good regulatory practice. This is reflected in the consultation process set out in the NGR, under which we have:

- published AusNet's access arrangement revision proposal and the material AusNet provided in support of that proposal
- invited and had regard to submissions on AusNet's proposal
- held a public forum on AusNet's proposal
- published this draft decision and reasoning
- invited written submissions on this draft decision.

We have also consulted on our approaches to these reviews: our 2013 Better Regulation Program brought a wide range of views to our development of assessment tools and techniques and our approaches to decision making. More recently, we have commenced consultation on approaches to forecasting inflation for the purposes of modelling regulated revenues. Our continued engagement on these processes enables us to identify and reflect stakeholder priorities and will result in decisions that will or are likely to contribute to the achievement of the NGO to the greatest degree.

9.1 AusNet's engagement with customers

AusNet undertook its own engagement process in the development of its proposal, and provided a summary of activities and outcomes in support of that proposal.⁷² AusNet also consulted jointly with other Victorian gas distributors on incentive arrangements for gas distributors, with that consultation informing its proposed CESS and NIS.⁷³

We tasked the AER Consumer Challenge Panel (CCP11) specifically with advising the AER on the effectiveness of AusNet's engagement activities with its customers and how this was reflected in the development of its proposal.

CCP11 found that AusNet had undertaken a well-planned, well-designed and reasonably comprehensive customer engagement process.⁷⁴ Its advice notes in particular that AusNet had built on its experience with engagement on its recent

⁷² AusNet Services - Access Arrangement Information 2018-2022 - 20161221, p. 77; See also appendices 5A-5E of AusNet's proposal.

⁷³ AusNet Services - Access Arrangement Information 2018-2022 - 20161221, p. 266.

⁷⁴ Consumer Challenge Panel (CCP 11) - Response to proposals from AGN, AusNet and Multinet for the 2018-2022 Access Arrangements - 3 March 2017, pp. 23, 30.

electricity distribution determination process,⁷⁵ and had set itself a sound objective for consumer engagement:⁷⁶

[T]o deliver authentic, customer priority-driven engagement that will meet external stakeholder expectations and inform the development of the GAAR proposal and business planning.⁷⁷

CCP11 also identified the joint consultation on gas incentive arrangements as 'a proactive, transparent and effective initiative'.⁷⁸

We received positive feedback from stakeholders on both processes:

...AusNet Services has undertaken a robust stakeholder engagement program, which demonstrates its commitment to making genuine efforts to effectively engage with customers and to increase stakeholder transparency in the development of access arrangements proposals.⁷⁹

[AGN and] AusNet appear to have consulted extensively with industry peers and consumers on the design of the proposed incentive mechanisms. In particular, they have sought feedback on the proposed CESS to ensure that it is fit for purpose, delivers benefits to customers and would not compromise the quality of services.⁸⁰

As part of its review CCP11 also sought views from consumer advocates who had participated in AusNet's consumer engagement process. That feedback was also positive in terms of AusNet's openness in publishing detail of consumer engagement on its website, its use of independent chairs for meetings and the good faith participants feel AusNet showed in meetings.⁸¹

CCP11's advice identified a number of areas where it suggests AusNet could further improve its engagement, which we encourage AusNet to do in future processes. That advice⁸² is available on our website for the benefit of other businesses as well as AusNet. Two key themes emerged.

⁷⁵ Consumer Challenge Panel (CCP 11) - Response to proposals from AGN, AusNet and Multinet for the 2018-2022 Access Arrangements - 3 March 2017, p. 6.

⁷⁶ Consumer Challenge Panel (CCP 11) - Response to proposals from AGN, AusNet and Multinet for the 2018-2022 Access Arrangements - 3 March 2017, p. 23.

⁷⁷ AusNet Services - Access Arrangement Information 2018-2022 - 20161221, p. 79.

⁷⁸ Consumer Challenge Panel (CCP 11) - Response to proposals from AGN, AusNet and Multinet for the 2018-2022 Access Arrangements - 3 March 2017, p. 26.

⁷⁹ Energy Networks Australia - AusNet Services Access Arrangement Proposal 2018-22 – Energy Networks Australia's comments - 3 March 2017, p. 2.

⁸⁰ ATCO Gas Australia - Submission to Victorian Gas Networks (AGN and AusNet Services) Access Arrangement 2018-22 - 3 March 2017, p. 2.

⁸¹ Consumer Challenge Panel (CCP 11) - Response to proposals from AGN, AusNet and Multinet for the 2018-2022 Access Arrangements - 3 March 2017, p. 28.

⁸² Consumer Challenge Panel (CCP 11) - Response to proposals from AGN, AusNet and Multinet for the 2018-2022 Access Arrangements - 3 March 2017, pp. 25-30.

First, AusNet's proposal could do more to explain how consumer engagement outcomes were considered in relation to the key aspects of the proposal.⁸³ For example, in response to AusNet's comment that '[c]ustomers' views on pricing, reliability and safety were taken into account in designing AusNet's proposed investment program *where it was feasible to do so*',⁸⁴ CCP11 suggested that:

It would be helpful to see more information on how consumers' views have been considered, particularly consumers' concerns about price increases, and some of the considerations which are made to determine whether it is "feasible" to take these into account.⁸⁵

Second, what AusNet's learnt from its consumer engagement was likely limited by the fact that engagement did not involve consulting on the proposal itself or a preliminary set of key features. Absent this, 'the learnings are much more an extrapolation from principles or issues identified in the engagement process'.⁸⁶ For example, CCP11 considered AusNet's drawing support for complex incentive schemes from sentiment for strengthening incentives and concern for potential price increases to be a simplification.⁸⁷

It would be a leap forward for AusNet in future consumer engagements to share with consumers some detail of what the Company is thinking of proposing to the AER, or indeed to share a draft of its Access Arrangement proposal, and listen to customer reactions, and then to integrate these into the proposal that it submits to the AER.⁸⁸

In concluding, CCP11 noted that AusNet has established a permanent Customer Consultative Committee, which meets regularly and could provide a foundation for further improvement of AusNet's engagement with its customers.⁸⁹ In particular, this Committee provides an opportunity for AusNet to explore how consumers feel their concerns were addressed in AusNet's proposal: a useful basis for an assessment of the program's effectiveness and plans for future engagement.⁹⁰

⁸³ Consumer Challenge Panel (CCP 11) - Response to proposals from AGN, AusNet and Multinet for the 2018-2022 Access Arrangements - 3 March 2017, p. 28.

⁸⁴ AusNet Services - Access Arrangement Information 2018-2022 - 20161221, p. 105.

⁸⁵ Consumer Challenge Panel (CCP 11) - Response to proposals from AGN, AusNet and Multinet for the 2018-2022 Access Arrangements - 3 March 2017, p. 30.

⁸⁶ Consumer Challenge Panel (CCP 11) - Response to proposals from AGN, AusNet and Multinet for the 2018-2022 Access Arrangements - 3 March 2017, p. 28.

⁸⁷ Consumer Challenge Panel (CCP 11) - Response to proposals from AGN, AusNet and Multinet for the 2018-2022 Access Arrangements - 3 March 2017, p. 29.

⁸⁸ Consumer Challenge Panel (CCP 11) - Response to proposals from AGN, AusNet and Multinet for the 2018-2022 Access Arrangements - 3 March 2017, p. 28.

⁸⁹ Consumer Challenge Panel (CCP 11) - Response to proposals from AGN, AusNet and Multinet for the 2018-2022 Access Arrangements - 3 March 2017, p. 30.

⁹⁰ Consumer Challenge Panel (CCP 11) - Response to proposals from AGN, AusNet and Multinet for the 2018-2022 Access Arrangements - 3 March 2017, p. 30.

A List of submissions

This draft decision has been made with regard to submissions from the following stakeholders on AusNet's proposal:

Submission from:	Date received*
Jemena Gas Networks	2 March 2017
ATCO Gas Australia	3 March 2017
Consumer Challenge Panel (CCP11)	3 March 2017
Energy Networks Australia	3 March 2017
Origin Energy	10 March 2017
AGL Energy Limited	21 March 2017
Beverly Hughson	22 March 2017

* This column lists the date on which submissions were *received* by the AER, which may differ from the date on the submission itself.