FINAL DECISION
Multinet Gas
Access arrangement
2018 to 2022

Overview

November 2017

AUSTRALIAN ENERGY REGULATOR

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Note

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

The final decision includes this Overview and the following attachments:

Attachment 2 - Capital base

Attachment 5 - Regulatory depreciation

Attachment 6 - Capital expenditure

Attachment 8 - Corporate income tax

Attachment 14 - Capital expenditure sharing scheme

These have been numbered consistently with the equivalent attachments to our longer, draft decision. In these and other elements of our decision, our draft decision reasons form part of this final decision.

Our revisions are reflected in the *Approved access arrangement for Multinet Gas 2018-22 (Parts A and B[1])*, which gives effect to this decision.[2]

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1 We have not made revisions to Part C of Multinet's revised proposed access arrangement.

2 Rule 64(2) provides that the AER's proposal for an access arrangement or revisions is to be formulated with regard to (a) the matters the Law requires an access arrangement to include, (b) the service provider's access arrangement proposal, and (c) the AER's reasons for refusing to approve that proposal.

Contents

Shortened forms

Shortened form	Extended form
ACCC	Australian Competition and Consumer Commission
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
capex	Capital expenditure
CAPM	Capital asset pricing model
CCP11	Consumer Challenge Panel, Sub-panel 11
CESS	Capital expenditure sharing scheme
CPI	Consumer price index
HDPE	High density polyethylene
Multinet	Multinet Gas (DB No. 1) Pty Ltd and Multinet Gas (DB No. 2) Pty Ltd, Trading as Multinet Gas Distribution Partnership for the Distribution System
NER	National Electricity Rules
NGL	National Gas Law
NGO	National Gas Objective
NGR	National Gas Rules
opex	Operating expenditure
PTRM	Post tax revenue model
RBA	Reserve Bank of Australia
SCADA	Supervisory control and data acquisition
TAB	Tax asset base
WACC	Weighted average cost of capital

About this decision

The Australian Energy Regulator (AER) works to make all Australian energy consumers better off, now and in the future. We regulate energy networks in all jurisdictions except Western Australia. We set the amount of revenue that network businesses can recover from customers for using these networks.

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):[3]

> …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.

The Multinet Gas Distribution Partnership (Multinet) owns and operates a network of pipelines servicing customers in Victoria. These are regulated by the AER under an approved access arrangement.[4] This is our final decision on the access arrangement that will apply to Multinet's gas distribution network from 1 January 2018 to 31 December 2022.

The decisions we make and the actions we take affect a wide range of individuals, businesses and organisations. Effective and meaningful engagement with stakeholders across all our functions is essential to fulfilling our role, and it provides stakeholders with an opportunity to inform and influence what we do. Engaging with those affected by our work helps us make better decisions, provides greater transparency and predictability, and builds trust and confidence in the regulatory regime. This is reflected in our Stakeholder Engagement Framework and in the consultation process set out for our access arrangement reviews in the NGR, which we have followed in this review. Throughout this review we have also had the benefit of advice from our Consumer Challenge Panel (CCP11).

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[3] NGL, s. 23.

[4] 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. '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.

1 Our final decision

Our final decision is that Multinet will be able to recover $1035.5 million ($nominal, smoothed[5]) from its customers over the 2018–22 access arrangement period. In making this decision we have accepted most elements of Multinet's revised proposal. The revenue we have approved is 0.3 per cent less than Multinet sought in its revised proposal, but an increase of 1.8 per cent from our draft decision.

Based on our estimates, this final decision will allow for modest reductions in the Multinet's contribution to average annual gas bills for Victorian consumers in 2018, and relatively stable prices thereafter. We discuss these estimates more fully in section 1.3. While our decision only affects about a quarter of the average gas bill, stability in network charges can help reduce the impact of increases in some of the other components of gas bills, including wholesale costs. As the ACCC's Interim Report in the 2017-2020 Gas Inquiry noted, high and increasing prices in the wholesale gas market are having significant effects on small businesses and households, particularly lower income households.[6] Modelling by the Australian Energy Market Operator (AEMO) also projects that the delivered wholesale cost of gas in Australia will continue to rise.[7]

In this environment our final decision, which largely accepts Multinet's proposal, provides a stable revenue stream that will allow Multinet to deliver on its key priorities for 2018–22: safety, reliability, efficiency and readiness for future demand. In the sections below, we discuss the key drivers of the revenue we have approved for Multinet over the next five years, including what has changed since our draft decision in July.

Multinet's own consumer engagement in the development of its initial proposal was commended by CCP11 and others.[8] We have had the benefit of advice from CCP11 throughout this process, which—while observing that Multinet had not continued its engagement in developing its revised proposal and responding to our draft decision[9]—was in its final advice largely supportive of the outcomes of this review.

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5 Includes Ancillary Reference Services. Nominal revenue includes the expected impact of inflation. Smoothed revenue spreads Multinet's total revenue requirement over the five years covered by this decision to provide a stable, predictable price path for Multinet's users over time.

6 ACCC, *Gas Inquiry 2017-2022:Interim report*, September 2017, p. 42

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

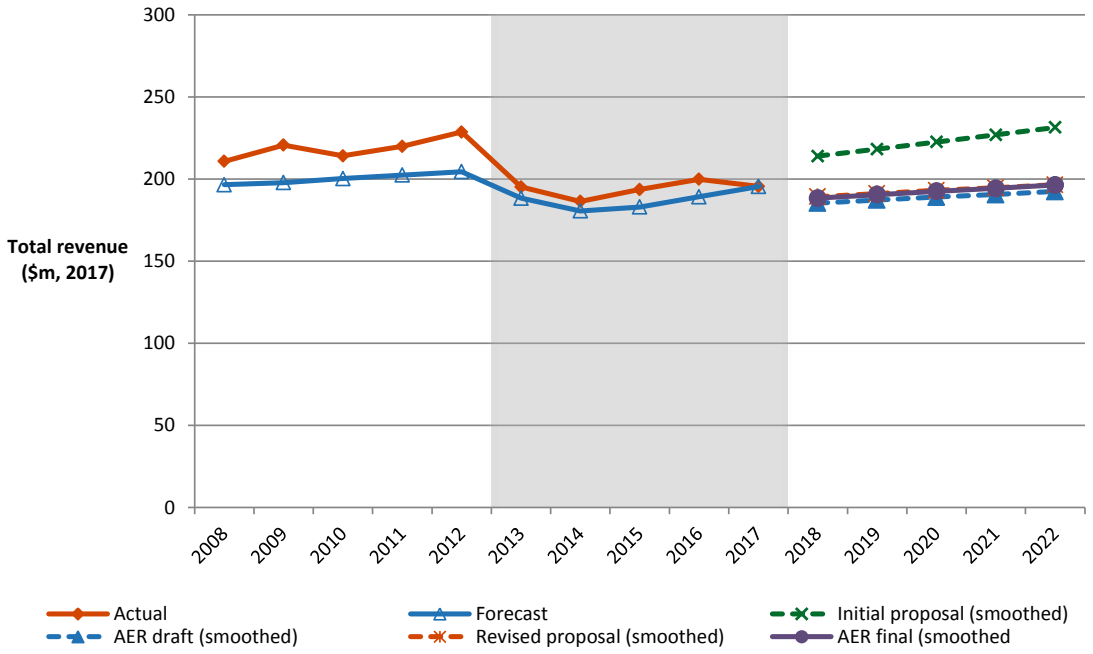
8 CCP 11 - *Response to proposals from AGN, AusNet and Multinet for the 2018-2022 Access Arrangements* - 3 March 2017, pp. 33-34.

9 CCP 11 - *Response to proposals from AGN, AusNet and Multinet for the 2018-2022 Access Arrangements* - 3 March 2017, p. 11.

1.1 What is driving Multinet's revenue?

Figure 1-1 uses real revenue to show how this final decision for 2018–22 compares to the revenue forecast for, and recovered during, the current, 2013–17 access arrangement period. Multinet's regulated revenue fell from the 2008–12 access arrangement period to the current, 2013–17 period. Under this decision, the revenue Multinet can recover from consumers will remain stable and in line with current levels. This means a limited impact on Multinet's tariffs, and therefore on gas bills.

Figure 1-1 Multinet's past total revenue, proposed total revenue and AER final decision total revenue ($ million, 2017)



Source: AER analysis.

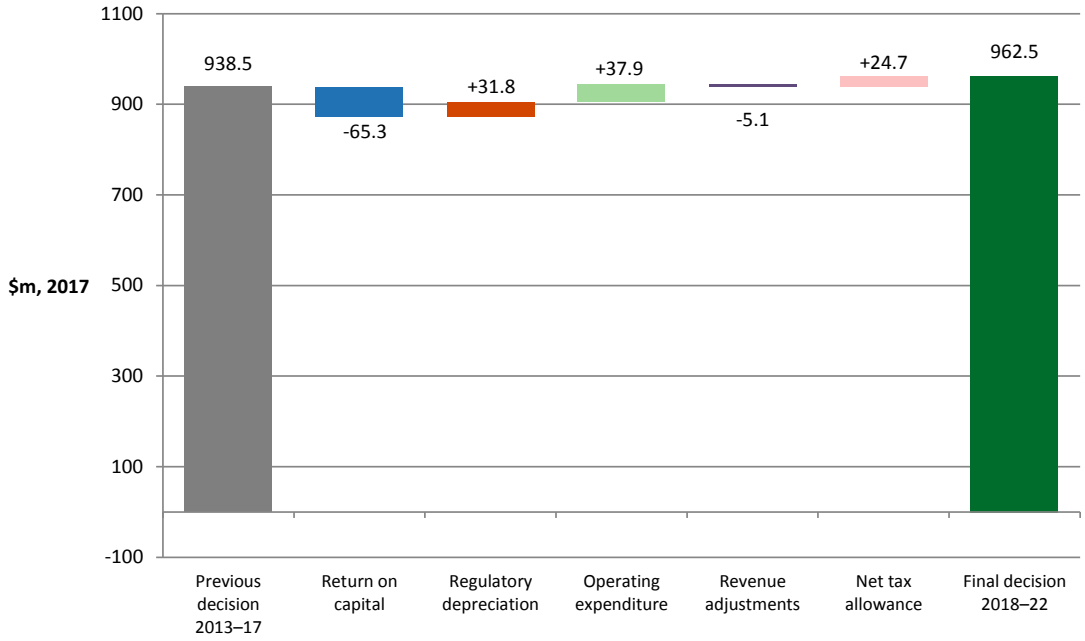
Note: The impact of inflation—which changes over time—makes it difficult to compare revenue from one period to the next on a like-for-like basis. To do this we use 'real' values based on a common year (in this case 2017), which have been adjusted to remove the impact of inflation.

Multinet operates 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 an access arrangement period, rather than the total revenue requirement set in our decision Tariffs are derived from the total revenue requirement after consideration of demand for each tariff category. Where actual demand across the access arrangement period varies from the demand forecast in the access arrangement, Multinet's actual revenue will vary from the revenue allowance determined in our decision. In general, if actual demand is above forecast demand, Multinet's actual revenue will be above forecast revenue, and vice versa.

The forecast of total revenue we have approved for the 2018–22 access arrangement period in this decision is 2.7 per cent ($25.5 million, $2017) higher than that used to set Multinet's reference tariffs throughout the 2013–17 period. Figure 1-2 highlights some

of the key reasons for this by comparing this final decision for 2018–22 to Multinet's allowed revenue for the current, 2013–17 period, and breaking down the changes in the various components that make up total revenue.

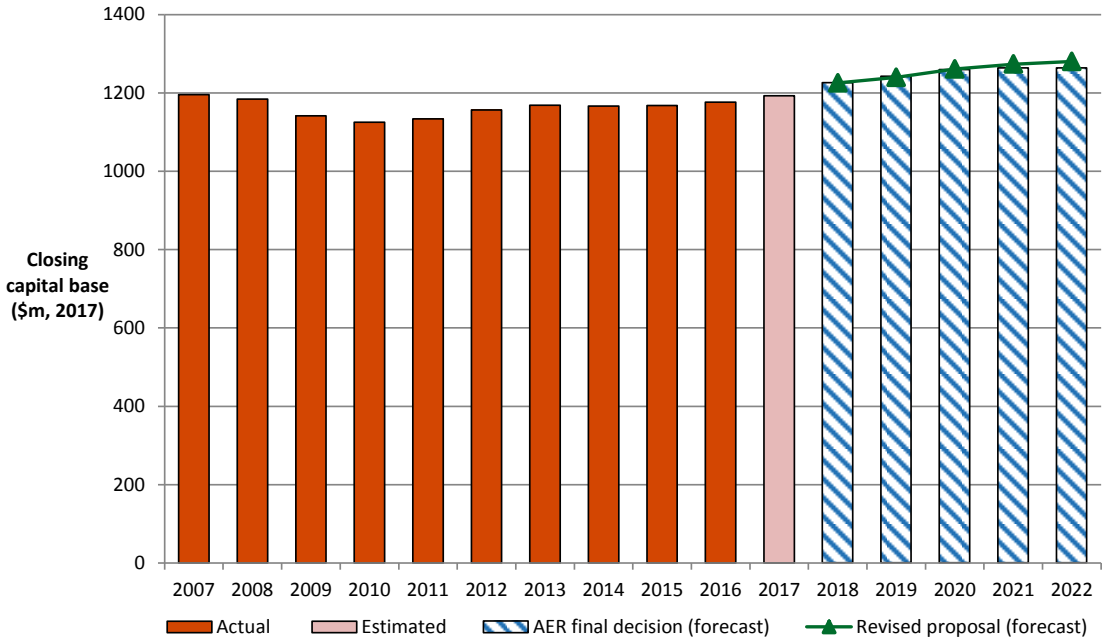
Figure 1-2 Comparison of forecast revenue requirements for 2013–17 and 2018–22 ($ million, 2017)



Source: AER analysis.

Improved financial market conditions since our last decision on Multinet's revenue are a key factor in the limited change in revenues from period to period. The approved rate of return Multinet receives on its capital base has been reduced from 7.03 per cent in the current period to 5.67 per cent from 2018. This has reduced the impact of growth in Multinet's capital base which (as Figure 1-3 shows) increased by 3.1 per cent over the current period and is projected to grow by a further 5.9 per cent by 2022 as Multinet continues to invest in maintaining the safety and integrity of its network.

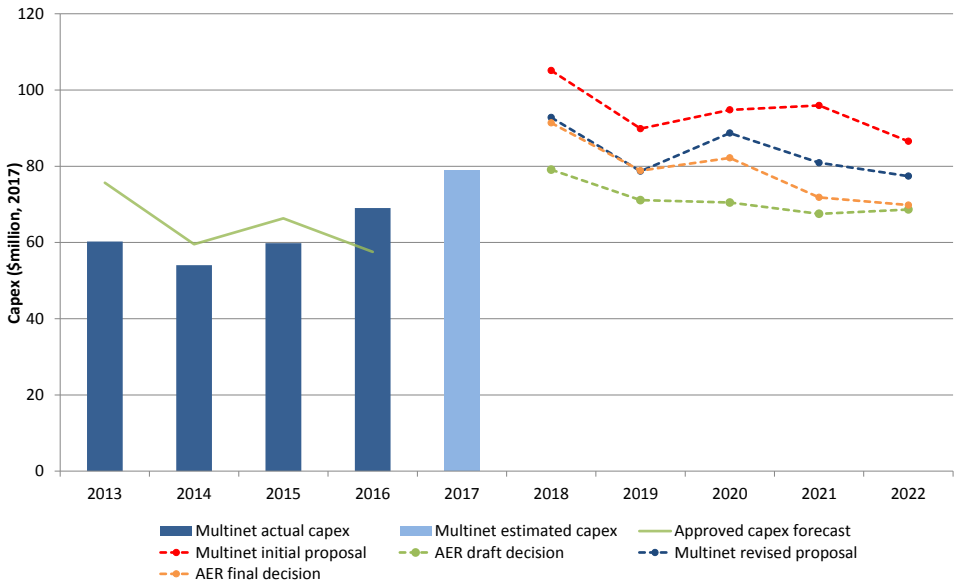
Figure 1-3 Projected growth in Multinet's capital base ($ million, 2017)



Source: AER analysis.

The focus of Multinet's capex over the 2018–22 period will be its mains replacement program. Our final decision approves $193.7 million ($2017) of Multinet's forecast capex of $217.3 million for a significant program of mains replacement works to maintain and improve the safety and security of Multinet's networks. This program is a marked increase in mains replacement compared to previous periods, with increased activity in recent years expected to continue through the period covered by this decision. Customers will benefit from this expenditure in the form of safer and more reliable gas supply. However, the short term impact of the mains replacement works will be to increase Multinet's revenue over the next five years as the assets Multinet replaces are removed from the capital base in the form of accelerated regulatory depreciation. The lower rate of return we mentioned above will help to balance this impact by reducing Multinet's return on capital, so that revenue overall will remain stable.

Figure 1-4 Multinet's past and forecast capex ($ million, 2017)

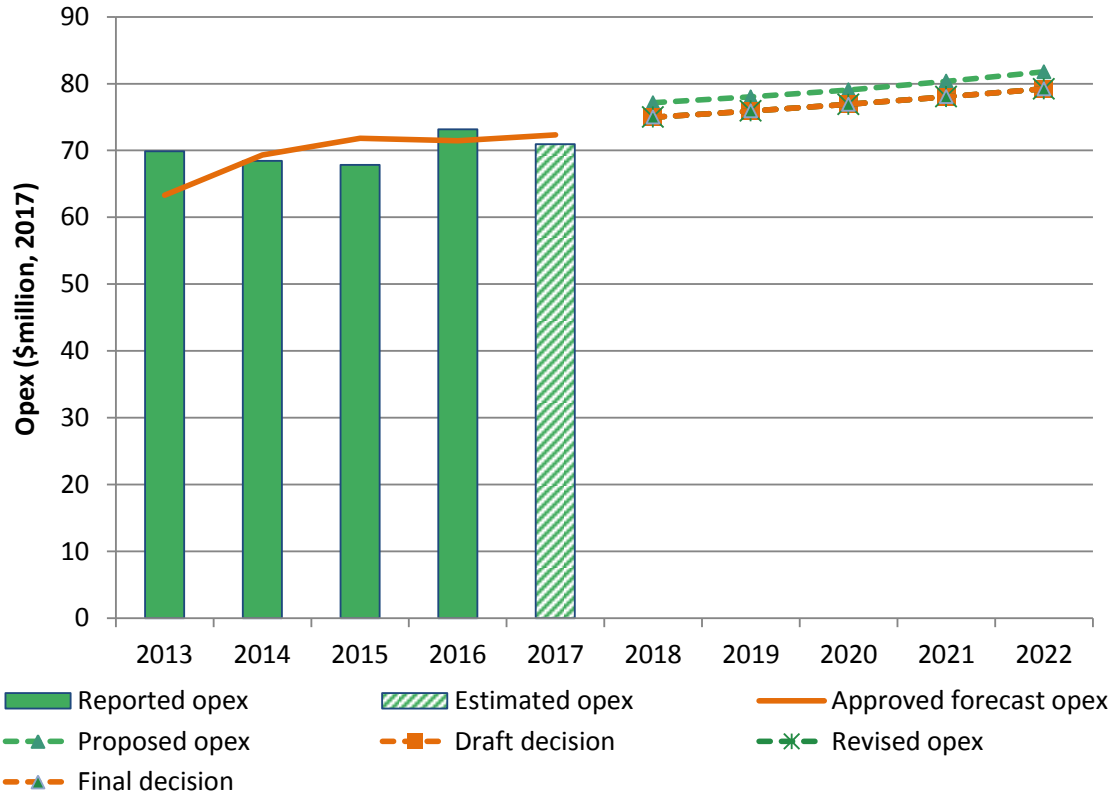


Source: AER analysis.

To strengthen Multinet's incentives to find more efficient ways to operate and maintain its network—particularly at a time when it is increasing its mains replacement program—we have also approved the application of a new capital expenditure incentive scheme (CESS). To reduce the risk that any savings in capex are made at the expense of the health of the network, any rewards under the CESS will be contingent on Multinet maintaining its current level of safety and reliability. Rewards for reduced expenditure may also be adjusted or withheld if they arise from inefficient deferral of capital works from one period to the next.

Multinet's operating expenditure is also expected to increase over the next five years. Growth in Multinet's customer numbers, which continues to be a significant driver of both operating and capital expenditure, is the primary reason that the forecast opex in this final decision for 2018–22 is higher than in the current period (See Figure 1-5).

Figure 1-5 Multinet's past and forecast opex ($ million, 2017)



Source: Multinet, *Final RIN templates - Multinet Gas response*, January 2017; AER analysis; Multinet, *Post tax revenue model,* 14 August 2017.

Note: Includes debt raising costs.

As we explained above, the impact of increased expenditure and the higher regulatory depreciation allowance is mitigated by the lower rate of return. This means that even with these increases, this final decision will result in relatively stable revenues—and therefore tariffs—between periods.

1.2 What's changed since our draft decision and Multinet's revised proposal?

Our draft decision accepted much of Multinet's initial proposal, but reduced its proposed revenue by 13.2 per cent. The largest contributors to this difference were our lower rate of return (5.75 per cent compared to 6.12 per cent in Multinet's proposal) and our application of a value of imputation credits (gamma) of 0.4 compared to Multinet's proposed 0.25. Multinet's revised proposal adopted our draft decision in both respects.

Even though we have not changed our approach to the rate of return, inputs to the rate of return calculation are updated throughout this process at each milestone—draft decision, revised proposal, final decision—as new and more reliable data becomes available. The updated 5.67 per cent rate of return applied in this decision is lower than

our draft decision rate of return of 5.75 per cent, but higher than the placeholder of 5.59 per cent in Multinet's revised proposal.

In this final decision the key issue in contention has been Multinet's forecast of the capex required to support its ongoing mains replacement program. Multinet's revised proposal—while considerably lower than its initial proposal—was for 17 per cent more capex than we included in our draft decision forecast. As we discuss in section 2.3.6 (and in more detail in attachment 6), our final decision approves 8.7 per cent ($37.2 million) more capex than our draft. Because we are still not satisfied that all of Multinet's revised mains replacement capex proposal is necessary to maintain the safety and security of its network, we have not approved the full amount proposed by Multinet. However, Multinet has established that a higher volume of mains replacement than it has completed in previous periods is necessary, and that it has taken appropriate steps to progress this work.

These impacts have been largely offset by the lower rate of return, resulting in only a small increase of 1.4 per cent from the revenue approved in our draft decision.

1.3 How will our final decision affect gas bills?

We estimate this final decision will reduce the contribution Multinet's distribution charges make to its customers' average annual bill by around $3 (nominal) in 2018 for residential customers, and around $5 for small business customers.

Table 1-1 shows our estimate of the impact this final decision will have on average annual gas bills for residential and small business customers on Multinet's network over the next five years.

This is a simple estimate, which we have calculated by varying the distribution charges for an average residential and small business customer on Multinet's network in accordance with this final decision, but 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.

Table 1-1 Estimated impact of our final decision on average annual gas bills for 2018–22 ($ nominal)

	2017	2018	2019	2020	2021	2022
AER Final decision						
Residential annual gas bill	1406[a]	1403	1414	1426	1439	1452
Annual change[c]		–3 (–0.2%)	11 (0.8%)	12 (0.8%)	13 (0.9%)	13 (0.9%)
Small business annual gas bill	4937[b]	4932	4955	4978	5003	5029
Annual change[c]		–5 (–0.1%)	23 (0.5%)	23 (0.5%)	25 (0.5%)	26 (0.5%)

	2017	2018	2019	2020	2021	2022
Multinet revised proposal						
Residential annual gas bill	1406[a]	1404	1415	1427	1439	1452
Annual change[c]		–2 (–0.1%)	11 (0.8%)	12 (0.8%)	12 (0.9%)	13 (0.9%)
Small business annual gas bill	4937[b]	4934	4957	4980	5005	5030
Annual change[c]		–3 (–0.1%)	23 (0.5%)	23 (0.5%)	25 (0.5%)	25 (0.5%)

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

(a) Based on average standing residential offers at November 2017 on Switch On comparison tool using average annual consumption calculated in the PTRM for each of Multinet's tariff regions (postcodes 3102, 3139 and 3984).

(b) Based on average standing small business offers at November 2017 on Switch On comparison tool using average annual consumption calculated in the PTRM for each of Multinet's tariff regions (postcodes 3102, 3139 and 3984).

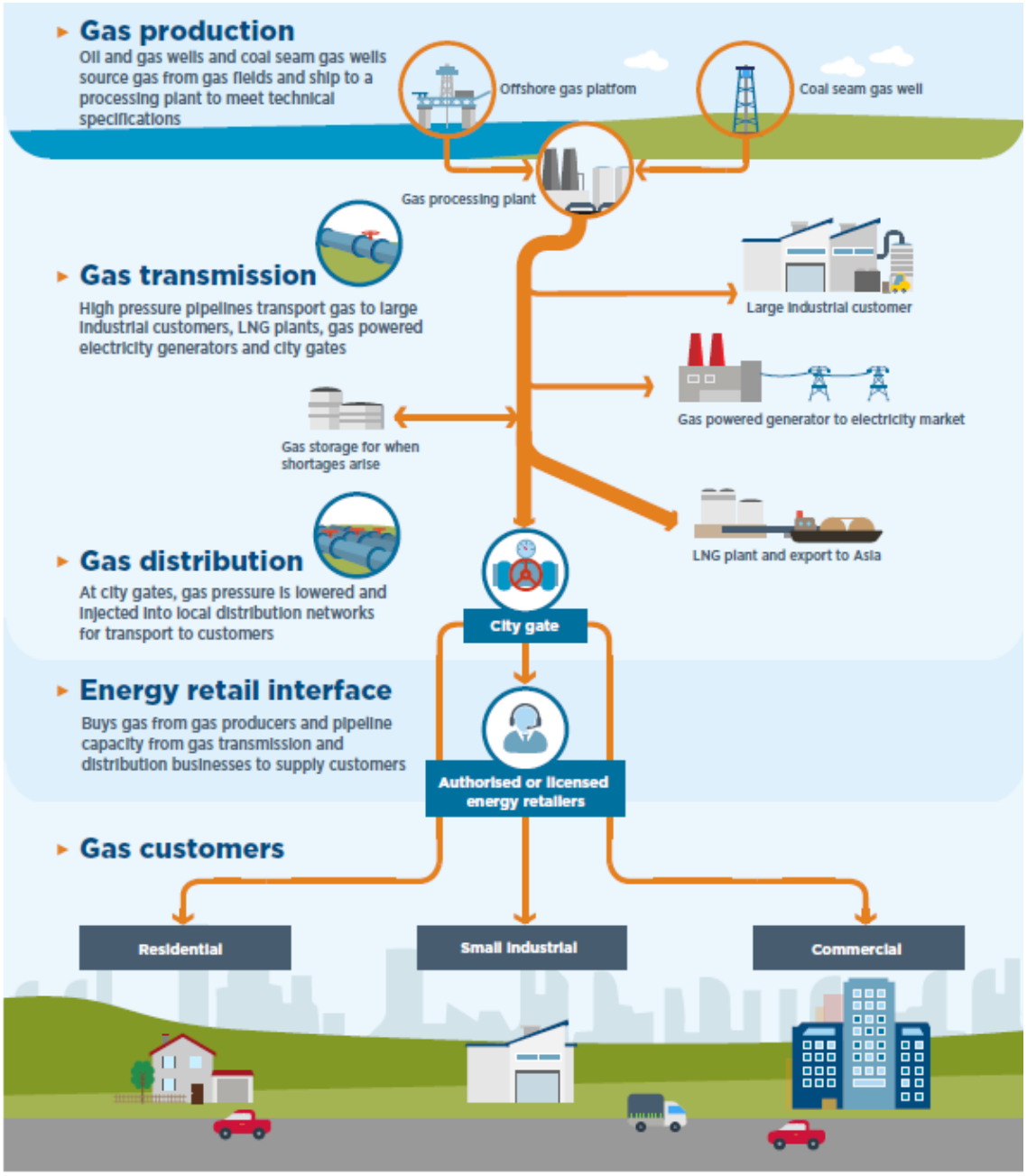
(c) Annual change amounts and percentages are indicative. They are derived by varying the distribution component of 2017 bill amounts by the nominal weighted average expected change in tariffs. Actual bill impacts will vary depending on consumption and tariff class.

The annual gas bill for customers in Victoria is made up of the combined cost of all the gas supply chain components, not just those covered by this decision. Changes in gas bills over time reflect movements in one or more of the components in the bill. The main components are illustrated in Figure 1-6.

Our decision on Multinet's access arrangement will affect the component of the bill related to distribution pipelines. For customers on Multinet's network, this makes up approximately 19 per cent of an average residential customer's annual gas bill, and 11 per cent for an average small business customer.[10]

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

Figure 1-6 Gas supply chain



Source: AER, State of the Energy Market May 2017, p. 19.

2 Key components of our decision

Gas pipelines that are subject to full regulation—like Multinet's—are regulated under an approved access arrangement.[11] This forms the foundation for negotiations between pipeline operators and users.

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).

The prices (reference tariffs) that apply to reference services are based on the approved forecast revenue requirement determined in this decision.

In the sections below, we summarise the key components of our final decision on Multinet's access arrangement. In most respects we have accepted Multinet's revised proposal for the reasons in our draft decision and in this final decision. Where Multinet's revised proposal has adopted our draft decision, we have not received any submissions—from Multinet or other stakeholders—which impact on our reasoning in the draft decision. As such, our draft decision reasons form part of this final decision.

2.1 Reference services and tariffs

2.1.1 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.[12]

Multinet must provide access to its reference services, but can negotiate with users to agree alternative terms and conditions at alternative prices to suit users' needs. Multinet 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.[13]

Our draft decision approved Multinet's proposal to continue to offer the same reference services and ancillary reference services in 2018–22 as it has in the current 2013–17 period, with the addition of a new 'insert service valve to pit' service requested by

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[11] 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. '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.

[12] NGR, r. 48.

[13] NGL, Chapter 6.

retailers using Multinet's network. These reference services are approved in this final decision. Multinet's revised proposal includes proposed reference tariffs for the new service, which are also approved in this final decision.[14]

2.1.2 Reference tariff setting and the annual tariff variation mechanism

This final decision includes a decision on the reference tariffs that will apply for the first year of Multinet's 2018–22 access arrangement period.[15] We have updated these tariffs to reflect our final decision on Multinet's forecast revenue requirement, which is slightly lower than its revised proposal. For each subsequent year, tariffs will be updated and submitted for our approval in accordance with the annual tariff variation mechanism.

We have approved the tariff structures in Multinet's access arrangement, which remain largely unchanged from the current period. CCP11 remains concerned with the complexity of distribution tariffs[16] and has suggested that in future access arrangements for gas distributors we work with interested stakeholders:[17]

- to probe a bit further with the distribution networks whether their more complex price structures are justifiable and effective; and
- to encourage further dialogue primarily between retailers and distributors, but also including consumer engagement, to try and achieve a more agreed approach between the parties.

CCP11 has not suggested, and we have not made, changes to Multinet's tariff structures in this final decision. The tariff structures we have approved are consistent with those that applied in the current period, and we remain satisfied that these are appropriate for 2018–22.

However, we agree with CCP11's suggestion that distributors' tariff structures are an area that would benefit from continued engagement in future gas access arrangement reviews, to ensure the tariff structures proposed as part of those reviews are justifiable, effective and cost-reflective. Cost-reflective distribution tariffs send signals to retailers about the cost of using the distribution network. Retailers can then determine if and how their retail offerings reflect these signals. This helps to support increased retailer innovation and greater tariff choice for end customers.

Multinet's revised proposal adopts the majority of the revisions our draft decision required to its tariff variation mechanism (a weighted average price cap) without further

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14 Multinet Gas - *Revised access arrangement information* - 14 August 2017 - public, pp. 6-7; AER - *Approved access arrangement for Multinet Gas 2018-22 - Part A - principal arrangements*, November 2017, cl. 5.1.1.

15 AER - *Approved access arrangement for Multinet Gas 2018-22 - Part B - reference tariffs and reference tariff policy*, November 2017, Schedules 1, 2.

16 CCP11, *Final advice: AGN, AusNet and Multinet*, September 2017, p. 48

17 CCP11, *Final advice: AGN, AusNet and Multinet*, September 2017, p. 52.

amendment. The exceptions to this were the definitions we set out in the draft decision for a number of cost pass through events.

Multinet accepted the smaller suite of cost pass through events approved in our draft decision, but proposed alternative definitions for a number of the approved events. Our final decision approves the alternatives Multinet proposed for the Insurance Cap, Insurer Credit Risk and Retailer Insolvency events, which we agree are clearer in their meaning and therefore preferable to those in our draft decision.[18]

However, we have not accepted Multinet's proposed revisions to the Regulatory Change and Service Standard Events. Multinet's proposed revisions would bring these definitions out of alignment with the equivalent prescribed events under the National Electricity Rules (NER). As in our draft decision, we consider consistent treatment of common risks across gas and electricity networks is preferable. Multinet's proposed revisions confuse the requirement that a change to an obligation or standard be 'substantial' with the requirement that the cost impact of that change be 'material'. For these events, our final decision therefore affirms the definitions set out in our draft decision.[19] Our final decision therefore requires the same revisions to the Regulatory Change and Service Standard events as our draft decision, which we have reflected in the approved access arrangement released with this final decision. We have also made minor drafting changes to clarify the application of the materiality threshold to cost pass through events.[20]

Subject to these changes, we accept the tariff variation mechanism in Multinet's revised proposal.

2.1.3 Forecast demand

We have approved the demand forecasts in Multinet's revised proposal, which anticipate:

- a decrease in total residential gas demand of 1.16 per cent per year over 2018-22 access arrangement period. This is slightly lower than the current period, which saw a fall of approximately 1 per cent per year. The result for forecast residential demand is due to forecast reductions in consumption per connection of 1.8 per cent per year being offset by slight net customer growth of 0.7 per cent per year.[21]
- a reduction in total small commercial demand of 2.7 per cent per year over the 2018-22 access arrangement period. This compares to 2.5 per cent per year in the

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18 Multinet Gas - *Revised access arrangement information* - 14 August 2017 - public, pp. 36-38, 40.

19 AER - *Approved access arrangement for Multinet Gas 2018-22 - Part A - principal arrangements*, November 2017, pp. 27 and 29.

20 AER - Approved access arrangement for Multinet Gas 2018-22 - Part B - reference tariffs and reference tariff policy, p. 23; Multinet, Response to IR34, 24 November 2017.

21 This compares to a reduction in consumption per connection of 1.65 per cent per year and a growth in net customer connections of 0.7 per cent in the current period.

current period. This reduction in small commercial demand is due to a forecast fall of 1.7 per cent per year in consumption per connection and a fall in commercial net connections of 1 per cent per year.[22]

- a reduction in industrial demand of 1.9 per cent per year over the 2018-22 access arrangement period. This compares to an increase of 0.5 per cent per year in the current period.

Our draft decision accepted Multinet's demand forecasts for small commercial customers and industrial customers, which remained unchanged in its revised proposal. Multinet's revised proposal also adopted amendments made in our draft decision to its residential customer forecast.

Consistent with CCP11's comment that our final decision should rely on the most recent data available, our final decision accepts Multinet's updates to its opening customer numbers for 2017, which were not available at the time of its initial proposal.[23] These updates aside, the only divergence between Multinet's revised proposal and our draft decision is Multinet's use of average customer numbers to calculate tariffs for the metropolitan customers, in place of the closing customer numbers we used in our draft decision. [24] We agree with Multinet that this approach better captures movement in customer numbers throughout the year.

Demand is an important input into the derivation of Multinet'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/decrease in forecast demand has the effect of reducing/increasing the tariff. In this instance, the slight decrease of 0.6 per cent in residential demand forecasts between our draft and final decisions has not had a marked impact on tariff outcomes.

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22 This compares to a reduction in consumption per connection of 1.5 per cent per year and a reduction in net customer connections of 0.9 per cent in the current period

23 Multinet Gas - *Revised access arrangement information - 14 August 2017* - public, pp. 45-46.

24 Multinet Gas, *Response to draft decision on demand* - 14 August 2017 - public.

2.2 Total revenue requirement

The total revenue approved in this final decision is a forecast of the efficient cost of providing gas distribution services over the access arrangement period. We determine forecast revenue in nominal terms—that is, including inflation—because it will be in nominal amounts that consumers pay. To do this, we take into account expected future inflation to determine what the nominal price levels will be in future periods.[25] Table 2-1 sets out our final decision on Multinet's total revenue requirement.

Table 2-1 Final decision on smoothed total revenue and X factors for 2018–22 ($ million, nominal)

Building block	2018	2019	2020	2021	2022	Total
Return on capital	67.6	71.2	73.9	76.8	78.9	368.5
Regulatory depreciation	34.0	36.1	39.5	42.6	46.2	198.3
Operating expenditure	76.8	79.7	82.7	86.0	89.4	414.6
Revenue adjustments	–2.2	4.9	–2.4	–5.9	0.0	–5.6
Corporate income tax	11.1	11.1	11.5	13.5	13.5	60.8
Building block revenue – unsmoothed (including ARS)	**187.4**	**203.0**	**205.3**	**212.8**	**228.1**	**1036.6**
Less: Ancillary reference services	2.4	2.4	2.5	2.6	2.7	12.6
Building block revenue – unsmoothed (excluding ARS)	185.0	200.6	202.7	210.2	225.4	1024.0
Building block revenue – smoothed (excluding ARS)	190.6	197.4	204.5	211.5	218.9	1022.9
X factor[a]	**3.40%**	**–1.80%**	**–1.80%**	**–1.80%**	**–1.80%**	**n/a**
Inflation forecast	2.45%	2.45%	2.45%	2.45%	2.45%	n/a
Nominal price change	–1.0%	4.3%	4.3%	4.3%	4.3%	n/a
Building block revenue – smoothed (including ARS)	**193.0**	**199.9**	**207.0**	**214.0**	**221.6**	**1035.5**

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.

[25] This decision uses 10 year inflation expectations on average to convert revenues to nominal values.

2.2.1 Revenue equalisation (smoothing) and tariffs

Multinet operates under a weighted average price cap. Under the tariff variation mechanism approved in this final decision[26] we determine the weighted average tariff change—or 'X factor'—for each year. We set the X factors in such a way that the sum of the smoothed revenues across the period equals the unsmoothed building block revenue in net present value terms.

The X factors represent the weighted average real change in tariffs (that is, excluding the impact of inflation). As part of the annual reference tariff variation process, we will combine the X factors we have determined in this decision with actual inflation to create nominal reference tariffs for the coming year.

Our final decision approves a lower smoothed total revenue requirement of $1035.5 million ($ nominal), compared to $1039.0 million in Multinet's revised proposal.[27] As a result, we have also updated the 2018 tariffs set out in Multinet's revised proposal and its proposed 2018–22 tariff path (see Table 2-2). Multinet's revised proposal was for a weighted average decrease of 0.6 per cent in 2018 followed by weighted average increases in nominal tariffs of 4.2 per cent per year from 2019 onwards. As a result of our lower total revenue requirement, our final decision is for a decrease in weighted average tariffs of 1.0 per cent in 2018, followed by increases of 4.3 per cent in each of the remaining years of the access arrangement period.

Table 2-2 Comparison of final decision and revised proposal weighted average tariff change (X factors)

	2018	2019	2020	2021	2022
AER final decision					
X factor[a]	3.40%	–1.80%	–1.80%	–1.80%	–1.80%
Nominal price change[b]	–1.0%	4.3%	4.3%	4.3%	4.3%
Multinet revised proposal[c]					
X factor[a]	2.93%	–1.70%	–1.70%	–1.70%	–1.70%
Nominal price change[b]	–0.6%	4.2%	4.2%	4.2%	4.2%

Source: AER analysis.

(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 3.40 per cent in 2018 means a real price decrease of 3.40 per cent that year. After consideration of inflation (assumed at 2.45 per cent) this becomes a nominal price decrease of 1.0 per cent.

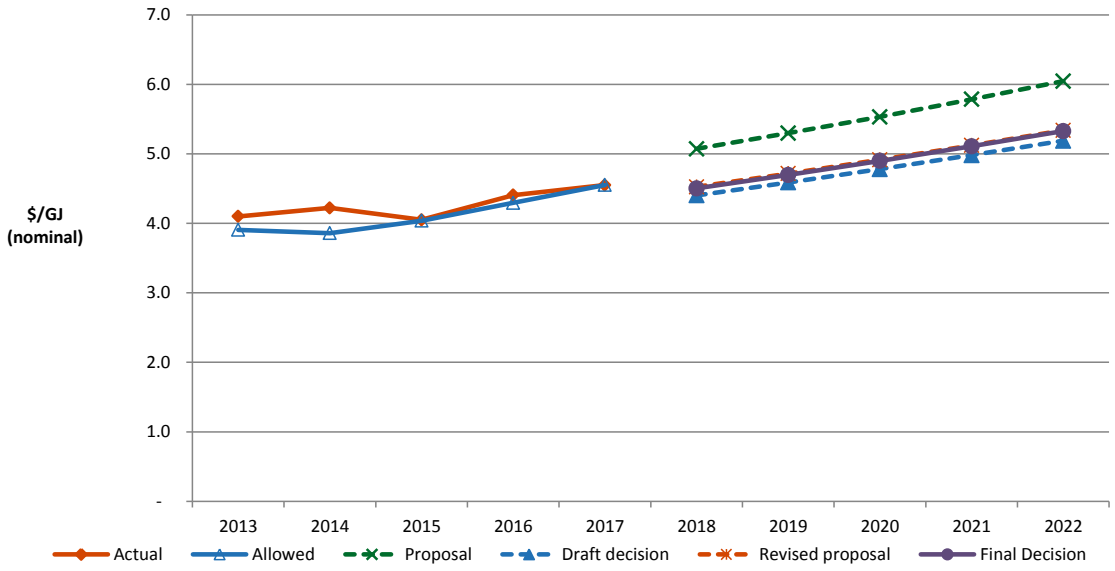
(b) For comparison purposes the nominal price changes are derived from the real price changes for Multinet adjusted by AER's final decision forecast inflation of 2.45 per cent.

[26] AER - *Approved access arrangement for Multinet Gas 2018-22 - Part B - reference tariffs and reference tariff policy*, November 2017.

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

Figure 2-1 compares the tariff path that flows from this final decision with that approved for the 2013–17 access arrangement.[28] This provides a broad overall indication of the average movement in tariffs across the two access arrangement periods.

Figure 2-1 Indicative tariff paths for Multinet's reference services from 2013 to 2022 ($/GJ)



Source: AER analysis.

2.3 Key elements of decision on revenue

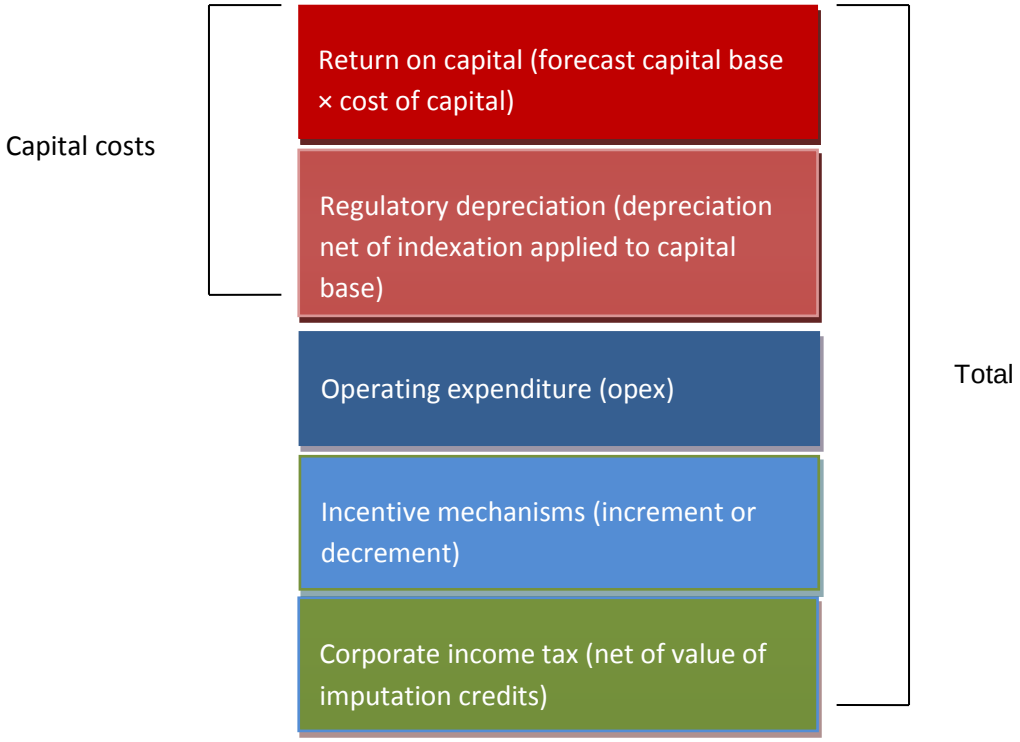
Our decision on Multinet's total revenue requirement for 2018–22 is based on forecasts of the efficient costs that Multinet is likely to incur in providing its reference services over that period. This is commonly referred to as the building block approach. The building blocks, shown in Figure 2-2, include:[29]

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

[28] The tariff path for 2013–22 uses actual inflation outcomes for the 2013–17 period, and forecast inflation for 2018–22.

[29] NGR, r. 76.

Figure 2-2 The building block approach to determining total revenue



Note: Capital expenditure (capex)—the capital costs incurred in the provision of pipeline services —mostly relates to assets with long lives and these costs are recovered over several access arrangement periods. Multinet 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 Multinet recovers the financing cost and depreciation associated with these assets over the expected life of these assets, not just in the years that expenditure was incurred.

Multinet's revised proposal adopted our draft decision on most elements of the building block calculation. Its revised proposal on capex for mains replacement was the exception to this, and has had flow on effects for our final decisions on the projected capital base and regulatory depreciation and corporate income tax allowances. In the following sections we explain how the various components of our decision have changed since our draft decision and Multinet's revised proposal.

2.3.1 Capital base

The capital base roll forward accounts for the value of Multinet's regulated assets over 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.

Table 2-3 sets out our final decision on the roll forward of Multinet's capital base during the 2013–17 access arrangement period, to determine the opening capital base as at 1 January 2018. Our opening capital base value of $1192.9 million ($ nominal) as at 1 January 2018 is slightly ($0.4 million) higher than our draft decision, because we have used updated data provided in Multinet's revised proposal on its actual capex for

2016 and estimated capex for 2017, both of which are slightly higher than expected at the time of our draft decision (see section 2.3.6).

However, the opening capital base value approved in this final decision is $0.2 million lower than Multinet's revised proposal, because we have reduced Multinet's revised proposed actual net capex values in 2016 to account for a movement in capitalised provisions.[30]

Table 2-3 Multinet's capital base roll forward for the 2013–17 access arrangement period ($ million, nominal)

	2013	2014	2015	2016	2017
Opening capital base	1055.0	1087.4	1108.7	1135.7	1161.3
Net capex	57.3	53.0	60.1	70.0	81.2
Indexation of capital base	21.1	23.5	25.6	17.1	15.1
Less: straight-line depreciation	46.0	55.3	58.7	61.5	64.7
Closing capital base	1087.4	1108.7	1135.7	1161.3	1192.9
Difference between estimated and actual capex in 2012[a]					0.0
Return on difference for 2012 capex					n/a
Opening capital base as at 1 January 2018					**1192.9**

Source: AER analysis.

(a) Actual 2012 capex was able to be included in Multinet's 2013 approved opening capital base as a result of the delayed decision due to the appeal process; therefore no true-up is required in this determination.

Table 2-4 sets out the projected roll forward of the capital base during the 2018–22 access arrangement period. Again, this is slightly higher than our draft decision—in this case because our final decision on Multinet's forecast capex is higher than our draft decision. The revised closing capital base for 2022 reflects these and changes to the depreciation allowance (section 2.3.5) and opening capital base as at 1 January 2018. Our final decision on expected inflation (section 2.3.3) has also impacted these projections.

For this final decision, we confirm the position taken in our draft decision and Multinet's revised proposal that the capital base as at 1 January 2023 is to be established using the approved depreciation schedules (straight-line) based on forecast capex at the asset class level.[31]

30 Multinet response to *IR#30*, 22 September 2017.

31 NGR, r. 90.

Table 2-4 Multinet's projected capital base roll forward for the 2018–22 access arrangement period ($ million, nominal)

	2018	2019	2020	2021	2022
Opening capital base	1192.9	1255.9	1303.9	1354.1	1392.0
Net capex	97.1	84.0	89.8	80.4	80.0
Indexation of capital base	29.2	30.8	31.9	33.2	34.1
Less: straight-line depreciation	63.2	66.9	71.4	75.7	80.3
Closing capital base	**1255.9**	**1303.9**	**1354.1**	**1392.0**	**1425.8**

Source: AER analysis.

2.3.2 Rate of return (return on capital)

The allowed rate of return provides Multinet an expected 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 capital base.

In its initial proposal Multinet proposed to depart from the approach set out in our rate of return guideline in a number of respects such as its approach to estimating the market risk premium parameter and proposal to include an 'alpha' term in the Sharpe-Lintner CAPM. It also proposed a different combination of data sources for estimating the return on debt relative to the combination of data sources we have used in our recent determinations. We did not accept these departures in our draft decision.

Our draft decision generally implemented the approach outlined in our guideline. However, we made some departures from our guideline in response to decisions of the Tribunal, the Federal Court and the submissions we have received from stakeholders through the various gas and electricity determination processes we have conducted since our guideline was published. These departures relate to the following aspects of our approach:

- equity and debt averaging periods
- transitioning from the on-the-day approach to a trailing average to estimating the return on debt
- implementing contingency arrangements for estimating debt if there are difficulties in applying an average of the Bloomberg and RBA debt series
- estimating the value of imputation credits.

We determine the rate of return on a basis that is consistent with the estimate of the value of imputation credits used in calculating a tax allowance.[32] Each of these matters is discussed in detail in our draft decision.

In its revised rate of return proposal, Multinet adopted our draft decision.[33] It accepted our market risk premium, Sharpe-Lintner CAPM and using the debt data source combination we have used in recent determinations (a simple average of debt yields based on data published by the RBA and Bloomberg).

Beyond noting a general concern that this represents 'a cautious regulatory approach that has been regarded as overly conservative by various consumer groups', CCP11 largely supported this outcome.[34]

We accept Multinet's revised proposal on the rate of return, which was to accept our draft decision.[35] As such, our draft decision reasons form part of the reasons for this final decision. The draft decision also sets out the future debt averaging periods–to be used to update the cost of debt over Multinet's access arrangement period–and the equity averaging period that has been used to update the cost of equity for its access arrangement period in this final decision.[36] The only changes we have made to our draft decision are to update the inputs and parameters of the rate of return to reflect the averaging periods nominated by Multinet and the prevailing market conditions, as close as practically possible to the start of the new access arrangement period.

Having considered the information before us, including CCP11's final advice and the most recent decisions of the Federal Court and Australian Competition Tribunal as discussed in our final decision for APA VTS,[37] we are satisfied that our determination of the rate of return contributes to the achievement the allowed rate of return objective and the NGO.[38] That is, we consider our 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 Multinet in providing reference services.[39]

Updates to the return on debt (and overall WACC) will be made annually throughout the access arrangement period as we transition to a trailing average cost of debt and as part of the annual tariff variation process.

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32 NGR 87(4)(b)

33 Multinet Gas - *Revised access arrangement information* - 14 August 2017 - public, p. 11.

34 CCP, *Final advice to AER following Draft Decision and Revised Proposals from AusNet, AGN and Multinet*, 12 September 2017, p. 33

35 AER, *Draft Decision - Multinet Gas Access Arrangement 2018 to 2022 - Attachment 3 - Rate of return*, (Confidential appendices O), July 2017.

36 AER, *Draft Decision - Multinet Gas Access Arrangement 2018 to 2022 - Attachment 3 - Rate of return*, (Confidential appendices O), July 2017.

37 AER, *Final Decision - APA VTS transmission determination 2018 to 2023 - Attachment 3 - Rate of return*, November 2017.

38 NER, cl. 6.5.2(b); cl. 6A.6.2(b); NGR, cl. 87(2); NEL, s.16; NGL, s. 28.

39 NER, cl. 6.5.2(c); cl. 6A.6.2(c); NGR, cl. 87(3); NEL, s.16; NGL, s. 28.

For 2018, this final decision applies the following values in the rate of return calculation:

Table 2-5 Final decision on Multinet's rate of return (% nominal)

	Current period (2013-17)	Multinet's revised proposal (2018-22)	AER final decision (2018)	Allowed return over 2018–22 regulatory control period
Return on equity (nominal post–tax)	7.92	7	7.2	Constant (7.2%)
Return on debt (nominal pre–tax)	6.44	4.65	4.65	Updated annually
Gearing	60	60	60%	Constant (60%)
Nominal vanilla WACC	7.03	5.59	5.67	Updated annually for return on debt
Forecast inflation	2.5	2.47	2.45	Constant (%)

Source: AER analysis; Multinet, Revised Access Arrangement Information, 14 August 2017, pp.11–12.

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

Table 2-6 Final decision on Multinet's return on equity (% nominal)

	Current period (2013–17)	Multinet's revised proposal (2018–22)	AER final decision (2018–22)
Nominal risk free rate (return on equity only)	3.12%	2.45%[a]	2.63[b]
Equity risk premium	4.8%	4.55%	4.55%
Market risk premium	6%	6.5%	6.50
Equity beta	0.8	0.7	0.7
Nominal post–tax return on equity	7.92%	7%	7.2

Source: AER analysis; Multinet, Revised Access Arrangement Information, 14 August 2017, pp.11–12.

a Multinet's placeholder risk free rate adopted for its revised proposal

b Calculated with a final averaging period of 7 August 2017 to 21 August 2017.

2.3.3 Forecast inflation

For this final decision we have estimated expected inflation 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. This is the same approach used in our draft decision and is our current approach. Multinet challenged this approach in its initial proposal, but has adopted it for the purposes of its revised proposal.[40]

In its revised proposal Multinet noted that:

> Since the submission of our Initial AA Proposal, the AER has commenced its review process of the current Rate of Return Guidelines. The AER is also undertaking a review of its methodology for expected inflation. We consider that it appropriate for the issues raised in our Initial AA Proposal to be debated and consulted on through the industry wide Guideline and expected inflation reviews, rather than through this AA review process.[41]

And:

> …the breakeven approach best meets the requirement of the NGR. However, we are also participating in the current review on the appropriate approach to the estimation of inflation being undertaken by the AER. We understand the AER intends to reflect the findings of this review in its Final Decision. We endorse this approach.[42]

As noted by Multinet, we are currently conducting an industry-wide view of approaches to estimating inflation for our regulatory decisions. In our draft decision we indicated that findings from that review may inform this final decision. The finalisation of that review is now expected in December 2017. Therefore, we discussed with Multinet whether we should apply a tariff variation mechanism. Such a mechanism would allow us to adjust the approved revenue in the event that the approach to estimating inflation in our final decision is inconsistent with the inflation review outcome.[43] Multinet's preference, which we accept as the most appropriate in the circumstances, is to adopt our inflation review preliminary position in this Final decision.[44]

We released a preliminary position on that review in October, which was that our current approach remains the most appropriate to derive the best estimate of expected inflation.[45] Multinet did not provide a submission to the preliminary position paper. On the evidence before us, we consider that our current approach has the greatest strengths and fewest weaknesses and is therefore the best estimate of expected inflation. We assessed all the material before us and engaged all stakeholders in arriving at our preliminary position. The reasons discussed in that paper is relevant to this final decision as well.

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40 Multinet Gas - *Revised access arrangement information* - 14 August 2017 - public, p. 11.
41 Multinet Gas - *Revised access arrangement information* - 14 August 2017 - public, p. 11.
42 Multinet Gas - *Revised access arrangement information* - 14 August 2017 - public, p. 7.
43 AER, Emails to Multinet - Timing of final decision vs inflation review - 24 and 27 November 2017.
44 Multinet, Email to AER - Timing of final decision vs inflation review - 28 November 2017.
45 AER, *Preliminary Position Paper - Regulatory treatment of inflation*, 13 October 2017.

2.3.4 Value of imputation credits (gamma)

Under the Australian tax system investors can receive imputation credits for tax paid at the company level. We make an adjustment to our taxation building block (section 2.3.9, below) to account for the value of imputation credits. The higher the value of gamma, the larger the adjustment to the corporate income tax allowance.

Our draft decision did not accept Multinet's proposed gamma value of 0.25, and instead applied a gamma of 0.4. For the purposes of its revised proposal, Multinet has adopted our draft decision on gamma.[46] CCP11 again generally supported this position.[47]

Our final decision, consistent with our draft decision and Multinet's revised proposal, is to apply a gamma value of 0.4. Our reasons for this decision are principally set out in our draft gamma decision for Multinet.[48] However, in this final decision we have also had regard to:

- the recent Australian Competition Tribunal decisions for ActewAGL [Gas] Distribution and Jemena Electricity Networks;[49]
- recent submissions on gamma by TransGrid; and
- updated tax and equity ownership data.

Our consideration of TransGrid's recent submissions on gamma, recent legal decisions and the most recent data, are set out in our draft electricity transmission determination for ElectraNet.[50]

2.3.5 Regulatory depreciation (return of capital)

Our decision on Multinet's total revenue includes an allowance for the depreciation of the projected capital base (the 'return of capital'). 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.[51]

Our final decision approves forecast regulatory depreciation of $198.3 million ($ nominal) for Multinet over the 2018–22 access arrangement period, as set out in Table 2-7. This is $16.0 million (8.7 per cent) higher than our draft decision, but $7.3 million (3.6 per cent) lower than Multinet's revised proposal. The difference is

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46 Multinet Gas - *Revised access arrangement information* - 14 August 2017 - public, p. 13.

47 CCP11, *Final advice: AGN, AusNet and Multinet*, September 2017, p. 47.

48 AER, *Draft Decision - Multinet Gas Access Arrangement 2018 to 2022 - Attachment 4 - Value of imputation credits*, July 2017.

49 Australian Competition Tribunal, *Application by ActewAGL Distribution [2017] ACompT 2,* 17 October 2017.

50 AER, *Draft Decision - ElectraNet transmission determination 2018 to 2023 - Attachment 4 - Value of imputation credits*, October 2017.

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

driven primarily by our final decision on Multinet's forecast capex, which includes some, but not all, of the higher allowance for mains replacement in Multinet's revised proposal (see section 2.3.6). The increase in mains replacement capex relative to our draft decision brings with it accelerated depreciation of the assets replaced. In consultation with Multinet, we have also made some corrections to its modelling of the depreciation allowance.[52]

Table 2-7 Regulatory depreciation allowance for 2018–22 ($ million, nominal)

	2018	2019	2020	2021	2022	Total
Straight-line depreciation	63.2	66.9	71.4	75.7	80.3	357.6
Less: indexation on capital base	29.2	30.8	31.9	33.2	34.1	159.2
Regulatory depreciation	**34.0**	**36.1**	**39.5**	**42.6**	**46.2**	**198.3**

Source: AER analysis

As discussed in section 1.1, the increase in Multinet's regulatory depreciation allowance from the current 2013–17 access arrangement period to our final decision for 2018–22 reflects the following:

- Multinet is undertaking a substantial mains replacement program to maintain the safety and security of its network. As it does this, depreciation of the assets it is replacing will be accelerated so that they are removed more quickly from the capital base or over a shorter period of time.
- The return of capital building block increases as the capital base increases. Multinet's capital base grew by 3.1 per cent in real terms over the current period, and is projected to grow by a further 5.1 per cent from 2018 to 2022.[53]

Multinet has also changed its approach to implement straight-line depreciation of assets, which can increase revenue fluctuations as depreciation depends more on when individual assets expire. Multinet's new approach (often referred to as the 'year-by-year tracking' approach) meets the criteria of the depreciation schedule reflecting assets' economic lives, where it tracks the asset's technical life. However, it does increase depreciation over the short to medium term. Other things being equal, this also increases prices. Our analysis suggests the price impact in this case will be modest.

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52 Multinet, *Response to AER information request IR#30*, 22 September 2017.

53 In nominal terms AGN's capital base grew by 39.1 per cent in 2013–17, and is projected to grow by 22.3 per cent from 2018 to 2022.

2.3.6 Capital expenditure

Capital expenditure (capex) refers to the capital costs and expenditure incurred in the provision of pipeline services.[54] This investment mostly relates to assets with long lives, and these costs are recovered over several access arrangement periods. Multinet 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 Multinet recovers the financing cost and depreciation associated with these assets over the expected life of these assets.

Conforming capex for the current period

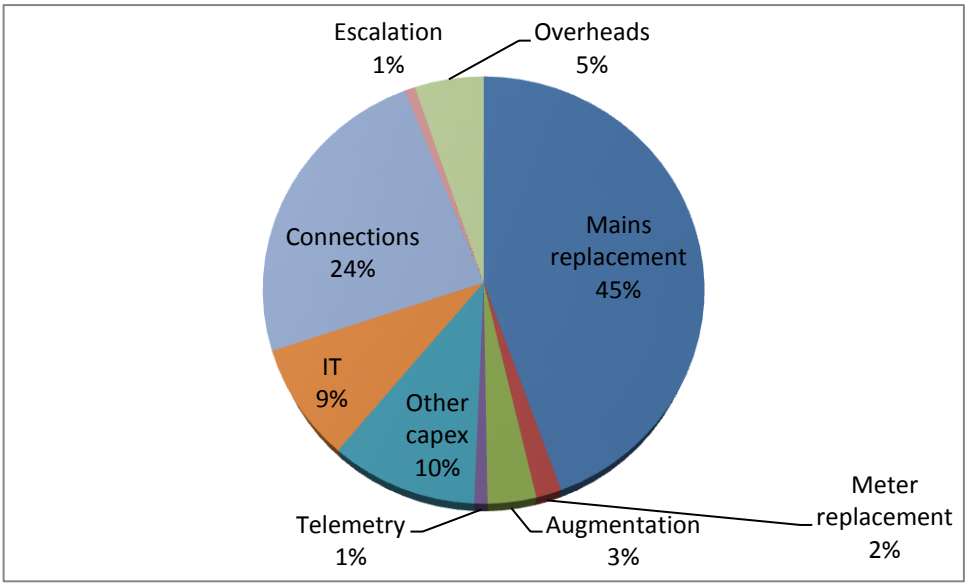
Our decision on Multinet's revenue includes an assessment of Multinet's actual capex in the current period, which is added to its opening capital base for 2018.[55] Our final decision confirms our acceptance of Multinet's actual capex of $322.1 million ($2017) in the 2013–17 access arrangement period. This amount includes updates—requested in our draft decision—to Multinet's actual capex in 2016, which was slightly higher than expected at the time of our draft decision. As discussed above, these updates have decreased Multinet's opening capital base slightly (by 0.02 per cent).

Conforming capex for 2018-22

Our final decision approves total forecast capex of $394.1 million ($2017) for 2018–22. This is an increase of 8.7 per cent ($37.2 million) from our draft decision. The key driver of this forecast, as shown in Figure 2-3, will be Multinet's mains replacement program.

[54] NGR, r. 69.
[55] NGR, r. 77.

Figure 2-3 Composition of gross forecast capex 2018–22 ($2017)



Source: AER analysis

Multinet's revised proposal adopted most elements of our draft decision on its forecast capex for 2018–22, including capex for new connections, meter replacement, network augmentation, SCADA and information technology. For the reasons set out in our draft decision, we have accepted these elements of its revised capex proposal.[56] Our final decision also includes additional capex for the modified low pressure mains replacement program in Multinet's revised proposal.

Multinet's proposed mains replacement capex was the key difference between our draft decision and Multinet's initial proposal. The total forecast capex approved in this final decision is still lower than Multinet's revised proposal of $418.6 million. As in our draft decision, the remaining difference of $24.5 million relates to aspects of Multinet's forecast capex for mains replacement. As we discuss in attachment 6 to this final decision, we have accepted Multinet's modified low pressure mains replacement proposal. Multinet has satisfied us that a higher rate of replacement than Multinet had achieved in previous periods for its low pressure mains—expenditure that we have previously accepted was necessary—should be factored into its total capex forecast. Updated data on Multinet's current (2017) level of activity and new procurement arrangements for the forward looking program have provided comfort that the increased volume of works in the revised forecast has been arrived at on a reasonable basis.[57] However, we are still not satisfied that all of Multinet's revised mains replacement capex for medium pressure cast iron mains and early first generation HDPE mains is necessary to maintain the safety and security of its network. For these

[56] AER, *Draft Decision Multinet Gas Access Arrangement 2018 to 2022, Attachment 6 - Capital expenditure*, July 2017.

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

elements of the capex forecast we have maintained the positions from our draft decision.[58]

The assumed composition of the total forecast capex approved in this final decision, and the remaining differences between our decision and Multinet's revised proposal, is shown in Table 2-8.

Table 2-8 Comparison of forecast capex approved in this final decision and Multinet's revised proposal ($million, 2017)

Category	Revised Proposed	Approved	Difference ($millions)
Connections	105.2	105.2	0.0
Mains replacement	217.3	193.7	-23.6
Meter replacement	7.9	7.9	0.0
Augmentation	15.0	15.0	0.0
SCADA	4.1	4.1	0.0
Other capex	45.5	45.5	0.0
IT	38.1	38.1	0.0
Escalation	3.6	3.3	-0.2
Overheads	23.3	22.7	-0.6
GROSS TOTAL CAPITAL EXPENDITURE	**459.9**	**435.5**	**-24.5**
Contributions	41.3	41.3	0.0
NET TOTAL CAPITAL EXPENDITURE	**418.6**	**394.1**	**-24.5**

Source: AER analysis. Totals may not sum due to rounding.

2.3.7 Operating expenditure

Operating expenditure (opex) includes 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.

[58] NGR, r. 79(2)(c).

Multinet's revised proposal has adopted our draft decision forecast. For the reasons set out in our draft decision, our final decision approves Multinet's total forecast opex of $385.1 million ($2017).[59]

Table 2-9 Total forecast opex for 2018–22 ($ million, 2017)

	2018	2019	2020	2021	2022	Total
Multinet's revised opex	74.98	75.93	76.93	78.05	79.24	385.1
AER draft decision	74.98	75.93	76.93	78.05	79.24	385.1
Difference	–	–	–	–	–	–

Source: Multinet, *Post tax revenue model,* 14 August 2017; AER analysis.

Note: Includes debt raising costs. Numbers may not add up due to rounding.

2.3.8 Efficiency carryover mechanism

The opex efficiency carryover mechanism in Multinet's access arrangement provides an additional incentive for Multinet to pursue efficiency improvements in its opex over an access arrangement period. It does this by allowing Multinet to retain efficiency savings, or incur efficiency losses, for a longer period of time.

Multinet's revised proposal adopted the carryover amounts approved in our draft decision.[60] Our final decision confirms those amounts, and a total efficiency carryover amount of –$5.1 million ($2017).[61] The negative carryover in this final decision partly offsets the increase in opex from 2013–17 to 2018–22.

Table 2-10 shows our draft decision on Multinet's proposed carryover amounts.

Table 2-10 Carryover amounts under the opex efficiency carryover mechanism ($ million, $2017)

	2017	2018	2019	2020	2021	Total
Multinet's proposed carryover	-2.1	4.6	-2.2	-5.4	0.0	-5.1
Final decision	-2.1	4.6	-2.2	-5.4	–	-5.1
Difference	–	–	–	–	–	–

Source: Multinet, *Post tax revenue model,* 14 August 2017; AER analysis.

Note: Numbers may not add up due to rounding.

[59] For the composition of Multinet's opex forecast, see: Multinet Gas - Revised access arrangement information - 14 August 2017 - public, p. 26.

[60] Multinet Gas - *Revised access arrangement information* - 14 August 2017 - public, pp. 30-31.

[61] AER, *Final decision post tax revenue model*, November 2017.

In its revised proposal Multinet proposed to adopt our draft decision efficiency carryover mechanism.[62] However, Multinet's revised access arrangement did not incorporate the revisions we proposed in the draft decision.[63] Multinet has confirmed it intended to adopt these revisions.[64] So, our final decision reflects our draft decision revisions. Subject to minor drafting changes (clause 6.4) that Multinet agreed with.[65] The forecast expenditure amounts that will be used as a basis for measuring opex efficiencies over the 2018–22 period are set out in the approved access arrangement.[66]

2.3.9 Corporate income tax

Multinet has adopted the post-tax framework to derive its revenue requirement for the 2018–22 access arrangement period. When determining the total revenue for Multinet, we therefore include an estimate of Multinet's cost of corporate income tax.

Our final decision on the estimated cost of corporate income tax is $60.8 million ($ nominal) for Multinet over the 2018–22 access arrangement period, as shown in Table 2-11.[67]

Table 2-11 Cost of corporate tax allowance for the 2018–22 access arrangement period ($million, nominal)

	2018	2019	2020	2021	2022	Total
Tax payable	18.5	18.6	19.2	22.4	22.6	101.3
Less: value of imputation credits	7.4	7.4	7.7	9.0	9.0	40.5
Net corporate income tax allowance	**11.1**	**11.1**	**11.5**	**13.5**	**13.5**	**60.8**

Source: AER analysis.

2.4 New capital expenditure sharing scheme

From 2018, a new capital expenditure sharing scheme (CESS) will apply to Multinet. The detail of the CESS is set out in Part B[68] of Multinet's access arrangement, and explained in attachment 14 to this final decision.

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62 Multinet, *Revised access arrangement information*, August 2017, pp.30–31.

63 Multinet, *Revised access arrangement access arrangement for Multinet Gas 2018-22 - Part B - reference tariffs and reference tariff policy*, ,November 2017, cl. 6.4

64 Multinet, *Response to AER's information request–#IR33*, 8 November 2017.

65 Multinet, *Response to AER's information request–#IR33 (follow up)*, 16 November 2017.

66 AER, *Approved access arrangement for Multinet Gas 2018-22 - Part B - reference tariffs and reference tariff policy*, ,November 2017, cl. 6.4(k).

67 This is a reduction of $0.3 million ($ nominal) or 0.5 per cent from the $61.1 million ($ nominal) in Multinet's revised proposal. The reduction reflects our amendments to Multinet's revised proposed inputs for forecasting the cost of corporate income tax, including the opening tax asset base at 1 January 2018 and remaining tax asset lives. Our adjustments to the return on capital (section 2.3.2), regulatory depreciation (section 2.3.5) and forecast capex (section 2.3.6) also affect revenues, which in turn impacts the tax calculation.

This scheme was not a part of Multinet's initial proposal, or our draft decision. It was, however, approved in our draft decisions for AGN and AusNet (released at the same time). For the reasons set out in those decisions, Multinet's revised proposal included the same contingent CESS that we had approved for the other Victorian distributors.[69]

In its final advice to us on this review, CCP11 supported the application of the new CESS to Multinet. However, CCP11 raised continued concerns—consistent with its reservations about Multinet's revised mains replacement proposal—about the adequacy of provisions to manage the risk that the CESS would reward a business for inefficient deferral of capital works from one period to the next.[70]

In this final decision we have explicitly detailed the operation of the CESS, including the methodology we will use to:

- calculate efficiency gains and losses;
- account for the benefits and costs already accrued;
- calculate the CESS reward or penalty (contingent on network health);
- undertake a final year adjustment to CESS rewards or penalties at the following access arrangement; and
- adjust CESS payments when capex has been deferred to the following access arrangement period.

Recognising the concerns that stakeholders—including CCP11—have raised throughout this process, including in our consultation on this element of the AGN and AusNet decisions, the CESS has been designed so that any reward to Multinet under the CESS will be contingent on Multinet maintaining current service standards, measured through a new network health index. If service standards decline, then Multinet will receive a reduced CESS reward or no reward at all.

Importantly, we consider that the capex deferral mechanism in the approved CESS will operate to identify capex deferrals—for example where actual volumes of capex for mains replacement are lower than anticipated in our approved capex forecast—and potentially adjust CESS payments where such deferrals are not appropriately recognised as capex efficiencies..

2.5 Non-tariff components

The non-tariff components of an access arrangement include:

- the terms and conditions for the supply of reference services

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[68] AER, *Approved access arrangement for Multinet Gas 2018-22 - Part B - reference tariffs and reference tariff policy*, ,November 2017, cl. 6.5.

[69] Multinet Gas - *Revised access arrangement information* - 14 August 2017 - public, p. 48.

[70] CCP11*, Final advice: AGN, AusNet and Multinet*, September 2017, p. 25.

- 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.[71]

Our final decision approves the non-tariff components of Multinet's revised proposal. Multinet's revised proposal adopted our draft decision on all but one provision in its terms and conditions. Our draft decision did not accept an amendment to Multinet's terms and conditions to make its users responsible for informing customers about supply interruptions caused by factors independent of the distribution system. We received no submissions on this issue, either in response to Multinet's initial proposal or our draft decision. In its revised proposal Multinet submitted that the amendment was consistent with the Victorian Gas Distribution Code which allows a distributor to request a retailer to use reasonable endeavours to ensure that its customers comply with a requirement to interrupt supply.[72] Our final decision accepts this argument and approves Multinet's amendment to clause 9.1(j).

[71] 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.

[72] Multinet, *Revised Access Arrangement Information*, 14 August 2017 pp. 43-44.

A The National Gas Objective

The NGL requires us to make this decision in a manner that contributes, or is likely to contribute, to achieving the NGO.[73] The focus of the NGO is on promoting efficient investment in, and operation and use of, natural gas services (rather than assets) in the long term interests of consumers of natural gas with respect to price, quality, safety, reliability and security of supply of natural gas.[74] This is not delivered by any one of the NGO's factors in isolation, but rather by balancing them in reaching a regulatory decision.[75]

In general, we consider that the long-term interests of consumers are best served where consumers receive a reasonable level of safe and reliable service, which they value, at least cost in the long run.[76] A decision that places too much emphasis on short term considerations may not lead to the best overall outcomes for consumers once the longer term implications of that decision are taken into account. [77]

There may be a range of economically efficient decisions that we could make in a revenue decision, each with different implications for the long term interests of consumers.[78] A particular economically efficient outcome may not be in the long term interests of consumers, depending on how prices are structured and risks allocated within the market.[79] There are also a range of outcomes that are unlikely to advance the NGO, or advance the NGO to the degree that others would. For example:

- the long term interests of consumers will not be advanced if our decisions encourage overinvestment which results in prices so high that consumers are unwilling or unable to efficiently use the network.[80] This could have significant longer term pricing implications for those consumers who continue to use network services.
- equally, the long-term interests of consumers will not be advanced if we allowed revenues to result in prices so low that investors do not invest to sufficiently maintain the appropriate quality and level of service.[81] This could create longer term problems in the network, and could have adverse consequences for safety, security and reliability of the network.

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73 NGL, s. 28(1)

74 This is also the view of the Australian Energy Markets Commission (the AEMC). See, for example, the AEMC, *'Applying the Energy Objectives: A guide for stakeholders'*, 1 December 2016, p. 5.

75 Hansard, *SA House of Assembly,* 26 September 2013, p. 7173. See also the AEMC, 'Applying the Energy Objectives: A guide for stakeholders', 1 December 2016, p. 7-8.

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

77 See, for example, the AEMC, *'Applying the Energy Objectives: A guide for stakeholders'*, 1 December 2016, p. 6-7.

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

79 See, for example, the AEMC, *'Applying the Energy Objectives: A guide for stakeholders'*, 1 December 2016, p. 5.

80 NGL, s. 24(7).

81 NGL, s. 24(6).

The legislative framework recognises the complexity of this task by providing us with significant discretion in many aspects of the decision-making process to make judgements on these matters

A.1 Achieving the NGO to the greatest degree

Our decisions on gas access arrangements are complex. In most cases, 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 judgement. For example, part 9 of the NGR requires us to consider forecasts, which are predictions about unknown future circumstances. Very often, there will be more than one plausible forecast, and much debate amongst stakeholders about relevant costs. For certain components of our decision there may therefore be several plausible answers or several plausible point estimates.

When the components of our decision are considered together, this means there will almost always be several potential, overall decisions. More than one of these may contribute to the achievement of the NGO. In these cases, our role is to make an overall decision that we are satisfied contributes to the achievement of the NGO to the greatest degree.

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, 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.

A.2 Interrelationships between the different components of our decision

Examining individual components of our decision in isolation ignores the importance of the interrelationships between components of the overall decision, and would not contribute to the achievement of the NGO. The attachments to our draft and final decisions consider these interrelationships as part of our analysis of the various components of our decision. Examples include:

- underlying drivers and context which are likely to affect many constituent components of our decision. For example, forecast demand affects the efficient levels of capex and opex in the regulatory control period.
- direct mathematical links between different components of a decision. For example, the level of gamma 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.
- trade-offs between different components of revenue. For example, undertaking a particular capex project may affect the need for opex or vice versa.