



FINAL DECISION
Australian Gas Networks (SA)
Access Arrangement

2021 to 2026

Attachment 3
Rate of return

April 2021

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Note

This attachment forms part of the AER's final decision on the access arrangement that will apply to Australian Gas Networks (SA) ('AGN') for the 2021–26 access arrangement period. It should be read with all other parts of the final decision.

The final decision includes the following documents:

Overview

Attachment 2 – Capital base

Attachment 3 – Rate of return

Attachment 4 – Regulatory depreciation

Attachment 5 – Capital expenditure

Attachment 6 – Operating expenditure

Attachment 7 – Corporate income tax

Attachment 8 – Efficiency carryover mechanism

Attachment 11 – Non-tariff components

Attachment 12 – Demand

Attachment 13 – Capital expenditure sharing scheme

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3 Rate of return

The return each business is to receive on its capital base, known as the ‘return on capital,’ continues to be a key driver of proposed revenues. We calculate the regulated return on capital by applying a rate of return to the value of the capital base.

We estimate the rate of return by combining the returns of the two sources of funds for investment: equity and debt. The allowed rate of return provides the business with a return on capital to service the interest on its loans and give a return on equity to investors.

The estimate of the rate of return is important for promoting efficient prices in the long term interests of consumers. If the rate of return is set too low, the network business may not be able to attract sufficient funds to be able to make the required investments in the network and reliability may decline. Conversely, if the rate of return is set too high, the network business may seek to spend too much and consumers will pay inefficiently high tariffs.

We also make an estimate of inflation expected over the next five years, which sits alongside our nominal estimate of the rate of return. Together these determine the effective real return that will be provided to investors over the upcoming access arrangement period.

3.1 Final decision

The 2018 Rate of Return Instrument (2018 Instrument) specifies how we will estimate the return on debt, the return on equity, and the overall rate of return.¹ In this final decision, we apply the 2018 Instrument to AGN’s access arrangement proposal for the 2021–26 access arrangement period, and estimate an allowed rate of return of 4.96 per cent (nominal vanilla) as required under National Gas Law (NGL).²

AGN has accepted the application of the 2018 Instrument.³

We apply the binding 2018 instrument to calculate the rate of return. The value in Table 3.1, will apply to the first year of the 2021–26 period. A different rate of return will apply for the remaining regulatory years of the period. This is because we will update the return on debt component of the rate of return each year in accordance with the 2018 Instrument, which uses a 10 year trailing average portfolio return on debt that is rolled-forward each year. Hence only 10 per cent of the return on debt is calculated from the most recent averaging period with 90 per cent from prior periods.

¹ AER, *Rate of return instrument*, December 2018. See <https://www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/rate-of-return-guideline-2018/final-decision>.

² The legislative amendments to replace the (previous) non-binding Rate of Return Guidelines with a binding legislative instrument were passed by the South Australian Parliament in December 2018. See, Statutes Amendment (National Energy Laws) (Binding Rate of Return Instrument) Act 2018 (SA). NGL, Chapter 2, Part 1, division 1A; NEL, Part 3, division 1B.

³ AGN, *Revised Final Plan: Five year plan for our South Australian network, 2021–26*, January 2021, p. 7.

Table 3.1 AER’s final decision on AGN’s rate of return (% nominal)

	AER’s draft decision (2021–26)	AGN’s Revised Proposal (2021–26)	AER’s final decision (2021–26)	Allowed return over the access arrangement period
Nominal risk free rate	0.91% ^a	0.86%	1.71% ^b	
Market risk premium	6.1%	6.1%	6.1%	
Equity beta	0.6	0.6	0.6	
Return on equity (nominal post–tax)	4.57%	4.52%	5.37%	Constant (%)
Return on debt (nominal pre–tax)	4.67% ^a	4.62%	4.68% ^c	Updated annually
Gearing	60%	60%	60%	Constant (60%)
Nominal vanilla WACC	4.63%	4.58%	4.96%	Updated annually for return on debt
Expected inflation	2.37%	1.95%	2.00%	Constant (%)

Source: AER analysis; AER, *Draft decision, Australian Gas Networks access arrangement 2021–26, Overview*, November 2020, p. 38; AGN, *Revised proposal, Attachment 1.5A – Rate of Return Model*, 13 January 2021.

- (a) Calculated using a placeholder averaging period of 20 business days ending 31 August 2020.
- (b) Calculated using an averaging period of 21 business days ending 29 March 2021.
- (c) We use the proposed debt averaging period. The return on debt has been updated for this averaging period.

We note that AGN's proposed risk free rate⁴ and debt averaging periods were submitted with its initial regulatory proposal and complied with the conditions set out in the 2018 Instrument.⁵ Therefore, we are required to apply these averaging periods to estimate its rate of return for the upcoming regulatory period per our application of the 2018 Instrument. We specify these periods in confidential Appendix A.

⁴ This is also known as the return on equity averaging period.

⁵ AER, *Rate of Return Instrument*, December 2018, cl. 7–8, 23–25 and 36.

3.2 Expected inflation rate

We estimate an expected inflation rate of 2.00 per cent for the 2021–26 period (see Table 3.2 for calculations) based on the approach adopted in our final position paper from our 2020 inflation review.⁶ AGN supported the new approach to estimating expected inflation, and advocated that the AER adopt the new approach in its final decision.⁷

Table 3.2 Final decision on AGN’s forecast inflation for the 2021–26 period (per cent)

	Year 1	Year 2	Year 3	Year 4	Year 5	Geometric average
Expected inflation	1.50%	1.75%	2.00%	2.25%	2.50 %	2.00%

Source: AER analysis; *RBA Statement on Monetary Policy*, February 2021.

Our previous approach to estimate expected inflation used a 10 year average of the Reserve Bank of Australia’s (RBA) headline rate forecasts for 1 and 2 years ahead, and the mid-point of the RBA’s target band—2.5 per cent—for years 3 to 10. The period of 10 years matches the term of the rate of return.

Our inflation review considered that this should be augmented by:⁸

- shortening the target inflation horizon from 10 years to a term that matches the regulatory period (typically five years)
- applying a linear glide-path from the RBA’s forecasts of inflation for year 2 to the mid-point of the inflation target band (2.5 per cent) in year 5.

The key reasons for these changes are:⁹

- there was a mismatch between our estimate of expected inflation over a 10 year term, and our roll forward of the capital base, which is done over a 5 year term. We consider that shortening the inflation term to match the regulatory period, although creating a mismatch with the term of the rate of return, is the more critical mismatch to resolve. This is because of the sustained decline in the required rate of return and the increased difference between 5 and 10 year inflation expectations due to short-term fluctuations in inflation expectations
- applying a glide-path acknowledges that it is likely to take longer than previously for inflation to revert to the mid-point of the RBA’s target band following periods of sustained low or high inflation.

⁶ AER, *Final position, Regulatory treatment of inflation*, December 2020.

⁷ AGN, *Revised Final Plan 2021–26, Attachment 9.3 - Response to Draft Decision on Capital Base*, 13 January 2021, p. 3.

⁸ AER, *Final position, Regulatory treatment of inflation*, December 2020, p. 6.

⁹ Ibid.

We considered these changes will provide service providers a reasonable opportunity to more accurately recover their efficient costs in an increasingly changing market to better serve consumers with the energy services they want in the long term. Broadly, this was because we take out what we expect to put back into the capital base through our regulatory models.

3.3 Capital raising costs

In addition to compensating for the required rate of return on debt and equity, we provide an allowance for the transaction costs associated with raising debt and equity. We include debt raising costs in the operating expenditure (opex) forecast because these are regular and ongoing costs which are likely to be incurred each time service providers refinance their debt.

On the other hand, we include equity raising costs in the capital expenditure (capex) forecast because these costs are incurred once and would be associated with funding particular capital investments.

Our final decision forecasts for debt and equity raising costs are included in Attachment 6 (for opex) and Attachment 5 (for capex), respectively. In this section, we set out our assessment approach and the reasons for those forecasts.

3.4 Equity raising costs

Equity raising costs are transaction costs incurred when a service provider raises new equity. We provide an allowance to recover an efficient amount of equity raising costs.

We apply an established benchmark approach for estimating equity raising costs. This approach estimates the costs of two means by which a service provider could raise equity—dividend reinvestment plans and seasoned equity offerings. It considers whether a service provider's capex forecast is large enough to require an external equity injection to maintain the benchmark gearing of 60 per cent.¹⁰

Our benchmark approach was initially based on 2007 advice from the Allen Consulting Group (ACG).¹¹ We amended this method in our 2009 decisions for the ACT, NSW and Tasmanian electricity service providers.¹² We further refined this approach in our 2012 Powerlink Queensland decision.¹³

Our benchmark approach is implemented in the post-tax revenue model (PTRM) to estimate equity raising costs. Other elements of our decision act as inputs to this

¹⁰ AER, *Final decision Amendment Electricity distribution network service providers, Post-tax revenue model handbook*, 29 January 2015, pp. 15, 16 & 33. The approach is discussed in AER, *Final decision, Powerlink Transmission determination 2012–13 to 2016–17*, April 2012, pp. 151–152.

¹¹ ACG, *Estimation of Powerlink's SEO transaction cost allowance – Memorandum*, 5 February 2007.

¹² For example, see; AER, *Final decision, ACT distribution determination 2009–10 to 2013–14*, April 2009, Appendix H.

¹³ AER, *Final decision, Powerlink Transmission determination 2012–13 to 2016–17, April 2012*, pp. 151–152.

assessment, particularly the level of approved capex and the return on equity. It also requires an estimate of the dividend distribution rate (sometimes called the payout ratio) as an input into calculating equity raising costs. The dividend distribution rate is also estimated when we estimate the value of imputation credits (gamma). We consider that a consistent dividend distribution rate should be used when estimating both the value of imputation credits and equity raising costs.

AGN's revised proposal forecast zero equity raising costs in the post-tax revenue model (PTRM).¹⁴ We have updated our estimates for this access arrangement period based on the benchmark approach using updated inputs. This results in zero equity raising costs.

3.5 Debt raising costs

Debt raising costs are the transaction costs incurred each time debt is raised or refinanced as well as the costs for maintaining the debt facility. These costs may include underwriting fees, legal fees, company credit rating fees and other transaction costs. We provide an allowance in opex to recover an efficient amount of debt raising costs.

3.5.1 Current assessment approach

Our current approach to forecasting debt raising costs is based on the approach in a report from ACG, commissioned by the Australian Competition and Consumer Commission (ACCC) in 2004.¹⁵ This approach compensates for the direct cost of raising debt.

It uses a five year window of bond data to reflect the market conditions at that time. Our estimates were updated in 2013 (based on a report by PricewaterhouseCoopers (PwC), which used data over 2008–13) and most recently in 2019 by Chairmont.¹⁶

The ACG method involves calculating the benchmark bond size, and the number of bond issues required to rollover the benchmark debt share (60 per cent) of the regulatory asset base (RAB). This approach looks at how many bonds a regulated service provider may need to issue to refinance its debt over a 10 year period. Our standard approach is to amortise the upfront costs that are incurred in raising the bonds using the service provider's nominal vanilla weighted average cost of capital (WACC) over a 10-year amortisation period. This is then expressed in basis points per annum (bppa) as an input into the PTRM.

This rate is multiplied by the debt component of the service provider's projected RAB to determine the debt raising cost allowance in dollar terms. Our approach recognises that part of the debt raising transaction costs such as credit rating costs and bond

¹⁴ AGN, *Revised Final Plan 2021–26, Attachment 1.4A - PTRM*, 13 January 2021.

¹⁵ PricewaterhouseCoopers, *Energy Networks Association: Debt financing costs*, June 2013.

¹⁶ Chairmont, *Debt Raising Costs*, 29 June 2019.

master program fees can be spread across multiple bond issues, which lowers the benchmark allowance (as expressed in bppa) as the number of bond issues increases.

3.5.2 Proposal

AGN proposed debt raising costs of 8.2 bppa in its 2021–26 revised proposal.¹⁷

3.5.3 Conclusion on debt raising costs

Our final decision is to accept the method used in AGN's revised proposal which uses an annual rate of 8.2 bppa because it is not materially different from our estimate.

In arriving at this decision, we applied the approach from our 2020-25 final decision for SA Power Networks.¹⁸ That is, we use updated Bloomberg data to inform the 'arrangement fee' component of debt raising costs and Chairmont's updated estimates for the remaining components.

We have previously received submissions on concerns with Chairmont's estimate of the arrangement fee.

After assessing these submissions, we recognised that Bloomberg is likely to be the most suitable source of information for the 'arrangement fee' at this time because it is the only published source of data known to us and was previously used to estimate the 'arrangement fee'. In a separate regulatory process, Powerlink Queensland submitted a report by Incenta Economic Consulting which supported the use of Bloomberg data for estimating the arrangement fee.¹⁹

Therefore, we have updated the 'arrangement fee' using Bloomberg data and the selection criteria consistent with the PwC report. This leads to an annual total debt raising cost of 8.3 bppa which is not materially different to the estimate proposed by AGN of 8.2 bppa.

3.5.4 Review of debt raising costs approach

Since late 2019 we have been reviewing our approach to setting benchmark debt raising costs, informed by actual debt raising costs data obtained from relevant regulated businesses.

The initial responses to our information requests to regulated businesses showed that each business has its own system for reporting cost categories with the number and naming of categories differing between businesses. As noted in our draft decision for

¹⁷ AGN, *Revised Final Plan 2021–26, Attachment 1.4A - PTRM*, 13 January 2021.

¹⁸ AER, *Final Decision, SA Power Networks Distribution Determinations 2020 to 2025, Attachment 3 – Rate of Return*, June 2020.

¹⁹ Incenta Economic Consulting, *Benchmark debt and equity raising costs*, November 2020.

AGN, this makes it difficult to aggregate costs across businesses in order to arrive at an accurate estimate.

We have considered whether to continue with further investigation of the industry data. This would entail significant further work and would require regulated businesses to work with each other, as well as with us, to reconcile costs to mutually agreed categories. Audit assurance would also need to be considered to ensure that costs have been correctly reconciled and allocated.

Further, we have had regard to the overall magnitude of the debt raising costs (that is, a small proportion of overall opex) and the level of imprecision in our current approach. Based on these considerations, we do not think the benefits of further investigation outweigh the costs.

Therefore, we have used our current approach for assessing benchmark debt raising costs—that is, using Bloomberg estimates for the 'arrangement fee' and Chairmont's 2019 estimates for the remaining debt raising costs.

Shortened forms

Shortened form	Extended form
ACCC	Australian Competition & Consumer Commission
ACG	Allen Consulting Group
AER	Australian Energy Regulator
bppa	Basis points per annum
capex	capital expenditure
Instrument/2018 instrument	2018 rate of return instrument
NGL	National Gas Law
NEL	National Electricity Law
opex	operating expenditure
PTRM	post-tax revenue model
PwC	PricewaterhouseCoopers
RAB	regulatory asset base
RBA	Reserve Bank of Australia
WACC	weighted average cost of capital

A Confidential Appendix (Averaging Period)