



DRAFT DECISION

Amadeus Gas Pipeline Access Arrangement

2021 to 2026

**Attachment 3
Rate of return**

November 2020

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Note

This attachment forms part of the AER's draft decision on the access arrangement that will apply to APT Pipelines (NT) Pty Ltd (APTNT)'s Amadeus Gas Pipeline for the 2021–2026 access arrangement period. It should be read with all other parts of the draft decision.

The draft decision includes the following documents:

Overview

Attachment 1 – Services covered by the access arrangement

Attachment 2 – Capital base

Attachment 3 – Rate of return

Attachment 4 – Regulatory depreciation

Attachment 5 – Capital expenditure

Attachment 6 – Operating expenditure

Attachment 7 – Corporate income tax

Attachment 8 – Efficiency carryover mechanism

Attachment 9 – Reference tariff setting

Attachment 10 – Reference tariff variation mechanism

Attachment 11 – Non-tariff components

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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 ten 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 time.

3.1 Draft decision

We are required by the National Gas Law (NGL) to apply a rate of return instrument—the current 2018 Rate of Return Instrument (2018 Instrument)—to estimate an allowed rate of return.¹

The 2018 Instrument specifies how we will estimate the return on debt, the return on equity, and the overall rate of return. In this draft decision, we apply the 2018 Instrument to APT Pipelines (NT) Pty Ltd (APTNT)’s Amadeus Gas Pipeline access arrangement proposal for the 2021–26 access arrangement period, and estimate a placeholder allowed rate of return of 4.64 per cent (nominal vanilla), which will be updated for our final decision on the averaging periods.

APTNT’s proposal applied the 2018 Instrument.²

Our calculated rate of return in Table 3.1 would apply to the first year of the 2021–26 access arrangement period. A different rate of return would apply for the remaining regulatory years of the period. This is because we will update the return on debt

¹ NGL, Chapter 2, Part 1, division 1A; AER, *Rate of Return Instrument*, December 2018. See <https://www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/rate-of-return-instrument-2018/final-decision>.

² APTNT, *Amadeus Gas Pipeline 2021–26 Access Arrangement Revision Proposal, Overview*, July 2020, p.37.

component of the rate of return each year, in accordance with the 2018 Instrument, to use 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.

Table 3.1 Draft decision on APTNT’s rate of return (% nominal)

	AER final decision (2016–21)	APTNT’s Proposal (2021–26)	AER draft decision (2021–26)	Allowed return over the access arrangement period
Nominal risk free rate	2.57%	1.21%	0.91% ^a	
Market risk premium	6.5%	6.1%	6.1%	
Equity beta	0.7	0.6	0.6	
Return on equity (nominal post-tax)	7.1%	4.87%	4.57%	Constant (%)
Return on debt (nominal pre-tax)	5.56% ^b	4.75%	4.69% ^a	Updated annually
Gearing	60%	60%	60%	Constant (60%)
Nominal vanilla WACC	6.18%	4.79%	4.64%	Updated annually for return on debt
Expected inflation	2.39%	2.39%	2.37%	Constant (%)

Source: AER analysis; Amadeus Gas Pipeline, *Access Arrangement Revision Proposal, 1 July 2021 – 30 June 2026, Overview*, July 2020, pp. 37–39.

(a) Calculated using a placeholder averaging period of 20 business days ending 31 August 2020.

(b) Applies to the first year of the 2016–2021 access arrangement period.

Our draft decision is to accept APTNT’s proposed risk free rate averaging period³ and debt averaging periods because they comply with the conditions set out in the 2018 Instrument.⁴

We specify these averaging periods in confidential Appendix A and they will be used to update the risk free rate and return on debt in the final decision.

3.2 Expected Inflation

Our estimate of expected inflation included in this draft decision is 2.37 per cent (detailed in Table 3.1). It is an estimate of the average annual rate of inflation expected over a ten year period.

Our current method is to estimate over a ten year term to align with the term of the rate of return. This estimate of expected inflation is calculated in accordance with the

³ This is also known as the return on equity averaging period.

⁴ AER, *Rate of Return Instrument*, December 2018, cll. 7–8, 23–25, 36.

method set out in the post-tax revenue model (PTRM). The National Gas Rules (NGR) set out how we are to apply the PTRM and the inflation estimation method in the model in our gas access arrangements.

3.2.1 APTNT's proposal

In its 2021–26 proposal, APTNT adopted our current approach for estimating expected inflation. APTNT's proposal used RBA inflation forecasts from the May 2020 *Statement of Monetary Policy* which resulted in an expected inflation of 2.39%.⁵ APTNT has not commented on the current inflation review.

3.2.2 Inflation review

We are currently undertaking a review into the treatment of inflation in our regulatory framework, including the method likely to result in the best estimates of expected inflation.⁶ The final outcomes of this review are expected in December 2020. If we consider a different method for estimating expected inflation should be adopted, we intend to commence the consultation process under the NGR for amending the PTRM.⁷ We expect to apply amendments to the PTRM (if any) in our final determination for APTNT's Amadeus Gas Pipeline in April 2021, unless a rule change proposal is required.

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 only incurred once and would be associated with funding the particular capital investments.

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

3.3.1 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.

⁵ APTNT, Amadeus Gas Pipeline 2021–26 Access Arrangement Revision Proposal, Overview, July 2020, p. 39.

⁶ See AER website: <https://www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/review-of-treatment-of-inflation-2020>.

⁷ NGR, r. 75A.

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 where a service provider's capex forecast is large enough to require an external equity injection to maintain the benchmark gearing of 60 per cent.⁸

Our benchmark approach was initially based on 2007 advice from Allen Consulting Group (ACG).⁹ We amended this method in our 2009 decisions for the ACT, NSW and Tasmanian electricity service providers.¹⁰ We further refined this approach in our 2012 Powerlink decision.¹¹

Our benchmark approach is implemented in the PTRM to estimate equity raising costs. Other elements of our decision act as input to this 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. We consider that a consistent dividend distribution rate should be used when estimating both the value of imputation credits and equity raising costs.

APTNT forecast zero equity raising costs in the post-tax revenue model (PTRM).¹² We have updated our estimate for this access arrangement period based on the benchmark approach using updated inputs. This results in zero (\$million 2020–21) equity raising costs

3.3.2 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.

Current assessment approach

Our current approach to forecasting debt raising costs is based on the approach in a report from the ACG, commissioned by the Australian Competition & Consumer

⁸ 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.

⁹ ACG, *Estimation of Powerlink's SEO transaction cost allowance-Memorandum*, 5 February 2007.

¹⁰ For example, see AER, *Final decision, NSW distribution determination 2009–10 to 2013–14*, April 2009, Appendix N.

¹¹ AER, *Final decision, Powerlink Transmission determination 2012–13 to 2016–17*, April 2012, pp. 151–152.

¹² APTNT, *Amadeus Gas Pipeline 2021-26 Access Arrangement – Attachment 3 – Gas Transmission PTRM*, July 2020.

Commission (ACCC) in 2004.¹³ 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 2008–2013) and most recently in 2019 by Chairmont.¹⁴

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 capital base. 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 capital base 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 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.

Proposal

APTNT proposed debt raising costs of 8.1 basis points per annum (bppa).¹⁵ APTNT forecast debt raising costs in the PTRM using our standard approach.¹⁶

Conclusion on debt raising costs

Our draft decision is to accept the method used in APTNT's proposal which uses an annual rate of 8.1 bppa because it is not materially different from our estimate.

In arriving at this decision, we apply the approach from our final decision for SA Power Networks.¹⁷ 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.

¹³ PricewaterhouseCoopers, *Energy Networks Association: Debt financing costs*, June 2013.

¹⁴ Chairmont, *Debt Raising Costs*, 29 June 2019.

¹⁵ APTNT, *Amadeus Gas Pipeline 2021-26 Access Arrangement – Attachment 3 – Gas Transmission PTRM*, July 2020.

¹⁶ APTNT, *Amadeus Gas Pipeline 2021-26 Access Arrangement – Attachment 3 – Gas Transmission PTRM*, July 2020; APTNT, *Amadeus Gas Pipeline 2021–26 Access Arrangement Revision Proposal, Overview*, July 2020, p.41.

¹⁷ AER, *Final Decision SA Power Networks Distribution Determinations 2020–2025 - Attachment 3 Rate of Return*, June 2020.

We use this method because regulated businesses have previously raised concerns with Chairmont's 2019 update with the key focus being Chairmont's estimate of 'arrangement fee'.¹⁸ After assessing 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'.

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 9.4 bppa which is not materially different to the estimate proposed by APTNT.

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.

We have reviewed these actual cost data and found that cost category information was unclear across the industry. Specifically, each business has its own system for reporting cost categories with the number and naming of categories differing between businesses.

This makes it difficult to aggregate costs across businesses in order to arrive at an accurate estimate. There is potential to double count costs where there are reported differently between businesses, or where there are complementary expenditures in different categories. Estimates for a particular cost may be biased up or down depending on how businesses report costs. These challenges mean that at this point, we are unable to use industry data to estimate an accurate benchmark measure of debt raising costs.

We have considered whether to continue with further investigation of the industry data. This would entail significant further work. This includes requiring regulated businesses to work with each other as well as 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.

We have also had regard to the overall magnitude of this 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 propose to use 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.

¹⁸ SA Power Networks, *Revised Regulatory Proposal 2020–25: Attachment 3 Rate of Return*, 10 December 2019, pp. 20–21; CEG, *The cost of arranging debt issues*, November 2019, p. 3.

A Confidential Appendix (Averaging Period)

Shortened forms

Shortened form	Extended form
ACCC	Australian Competition and Consumer Commission
AER	Australian Energy Regulator
ACG	Allen Consulting Group
AGP	Amadeus Gas Pipeline
APTNT	APT Petroleum Pipelines Northern Territory
bppa	Basis points per annum
capex	Capital expenditure
CEG	Competition Economists Group
2018 Instrument	2018 Rate of Return Instrument
NGL	National Gas Law
NGR	National Gas Rules
opex	Operating expenditure
PTRM	Post-tax revenue model
PwC	PricewaterhouseCoopers
RBA	Reserve Bank of Australia
Regulatory proposal	Refers to a gas access arrangement proposal
WACC	Weighted average cost of capital