Draft Decision

Roma to Brisbane Pipeline
Access Arrangement 2022 to 2027

Attachment 3
Rate of return

November 2021

AUSTRALIAN ENERGY REGULATOR

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Note

This attachment forms part of the AER's draft decision on the access arrangement that will apply to APT Petroleum Pipelines Pty Limited (APTPPL)'s Roma to Brisbane Pipeline (RBP) for the 2022–2027 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

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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 five years. Alongside our nominal estimate of the rate of return, 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 APTPPL's Roma to Brisbane Pipeline (RBP) proposal for the 2022–27 access arrangement period (2022–27 period). Our placeholder allowed rate of return is 4.33 per cent (nominal vanilla). This will be updated for our final decision on the averaging periods.[2]

APTPPL's RBP proposal applied the 2018 Instrument.[3]

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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 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 APTPPL, *Roma to Brisbane Pipeline 2022–27 Access arrangement, Overview,* July 2021, p. 20; APTPPL, *Roma to Brisbane Pipeline 2022–27, Attachment 11 – Rate of return calculations*, July 2021.

Our calculated rate of return in Table 3.1 would apply to the first year of the 2022–27 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 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 APTPPL's RBP rate of return (% nominal)

	AER previous decision (2017–22)	APTPPL's proposal (2022–27)	AER draft decision (2022–27)	Allowed return over the access arrangement period
Nominal risk-free rate	2.44%	1.34%	1.14%[a]	
Market risk premium	6.5%	6.1%	6.1%	
Equity beta	0.7	0.6	0.6	
Return on equity (nominal post–tax)	7.0%	5.0%	4.80%	Constant (%)
Return on debt (nominal pre–tax)	4.64%[b]	3.94%	4.02%[a]	Updated annually
Gearing	60%	60%	60%	Constant (60%)
Nominal vanilla WACC	5.58%	4.36%	4.33%	Updated annually for return on debt
Expected inflation	2.42%	2.00%	2.25%	Constant (%)

Source: AER analysis; APTPPL, *Roma to Brisbane Pipeline 2022–27, Attachment 11 – Rate of return calculations*, July 2021.

[a] Calculated using a placeholder averaging period of 20 business days ending 31 August 2021 which will be updated for the final decision.

[b] Applies to the first year of the 2017–2022 access arrangement period.

Our draft decision is to accept APTPPL's proposed risk free rate averaging period[4] and debt averaging periods because they comply with the conditions set out in the 2018 Instrument.[5]

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.

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

[5] AER, *Rate of return instrument*, December 2018, clauses 7–8, 23–25 and 36.

3.2 Expected inflation rate

Our estimate of expected inflation included in this draft decision is 2.25 per cent (detailed in Table 3.2) based on the approach adopted in our final position paper from our 2020 Inflation Review.[6]

APTPPL's proposal adopted our current approach for estimating expected inflation.[7]

Table 3.2 Draft decision on APTPPL's RBP forecast inflation (%)

	Year 1	Year 2	Year 3	Year 4	Year 5	Geometric average
Expected inflation	2.00%	2.13%	2.25%	2.38%	2.50%	2.25%

Source: AER analysis; RBA Statement on Monetary policy, August 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 5 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.

We noted subsequently that the linear glide-path can apply from the RBA's latest inflation forecasts for year 1 if there is no RBA data for year 2.[9]

The key reasons for these changes are:[10]

- 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.

6 AER, *Final position – Regulatory treatment of inflation*, December 2020.
7 APTPPL, *Roma to Brisbane Pipeline 2022–27, Attachment 3 – Post-tax revenue model*, 1 July 2021.
8 AER, *Final position – Regulatory treatment of inflation,* December 2020, p. 6.
9 AER, *Explanatory statement proposed amendments – Electricity transmission and distribution network service providers – Post-tax revenue models (version 5),* December 2020, p. 11.
10 AER, *Final position – Regulatory treatment of inflation,* December 2020, p. 6.

- 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.

We considered that these changes will provide service providers a reasonable opportunity to recover their efficient costs more accurately 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 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 the opex and capex attachments, respectively.[11] In this section, 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.

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.[12]

Our benchmark approach was initially based on 2007 advice from Allen Consulting Group (ACG).[13] We amended this method in our 2009 decisions for the ACT, NSW and

[11] Attachment 5 for capex and Attachment 6 for opex.

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

[13] ACG, Estimation of Powerlink's SEO transaction cost allowance – Memorandum, 5 February 2007.

Tasmanian electricity service providers.[14] We further refined this approach in our 2012 Powerlink decision.[15]

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 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.

APTPPL forecast zero equity raising costs in the PTRM.[16] We have updated our estimate for this access arrangement period based on the benchmark approach using updated inputs. This results in zero 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 ACG, commissioned by the Australian Competition & Consumer Commission (ACCC) in 2004.[17] 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.[18]

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

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

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

[16] APTPPL, *Roma to Brisbane Pipeline 2022–27, Attachment 3 – Post-tax revenue model*, 1 July 2021.

[17] Allen Consulting Group, *Debt and Equity Raising Transaction Costs: Final Report*, December 2004

[18] PricewaterhouseCoopers, *Energy Networks Association: Debt financing costs*, June 2013; Chairmont, *Debt Raising Costs*, 29 June 2019.

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

APTPPL proposed debt raising costs of 8.1 bppa.[19]

Conclusion on debt raising costs

We apply the approach from our final decision for SA Power Networks.[20] 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 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'.[21] 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 9.3 bppa which is considered as part of our opex decision.

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 response to our information request showed that each business has its own system for reporting cost categories with the number and naming of categories

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19 APTPPL, *Roma to Brisbane Pipeline 2022–27, Attachment 3 – Post-tax revenue model*, 1 July 2021.

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

21 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.

differing between businesses. 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 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 at this stage

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.

In our 2020 Energy Network Debt Data paper, we proposed to collect the data used for the Energy Infrastructure Credit Spread Index (EICSI) using Regulatory Information Notices (RIN).[22] As part of developing this RIN, we proposed that it would also collect direct debt raising costs that is not compensated for in either our existing allowance or the opex allowance. Regulated businesses would also need to pay these costs directly to the lender of the debt instrument.

[22] AER, Energy network debt data final working paper, November 2020, p. 5.

A. Confidential Appendix (Averaging Period)

B. Shortened forms

Shortened form	Extended form
2018 Instrument	2018 Rate of Return Instrument
ACCC	Australian Competition & Consumer Commission
ACG	Allen Consulting Group
ACT	Australian Capital Territory
AER	Australian Energy Regulator
APTPPL	APT Petroleum Pipelines Pty Limited
bppa	Basis points per annum
Capex	Capital expenditure
NGL	National Gas Law
NSW	New South Wales
Opex	Operating expenditure
PTRM	Post-tax revenue model
PwC	PricewaterhouseCoopers
RBA	Reserve Bank of Australia
RBP	Roma to Brisbane Pipeline
RIN	Regulatory information notice
WACC	Weighted average cost of capital