Combined Proposal 2024-2029

Attachment 4
Rate of return

Outline: This attachment to TasNetworks' Combined Proposal sets out the proposed rates of return that will be applied to the value of TasNetworks' distribution and transmission networks, to determine the return on capital included in TasNetworks' regulated revenue allowance for the 2024-2029 regulatory control period.

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Note

This attachment forms part of TasNetworks' Combined Proposal for the 2024-2029 regulatory control period and should be read in conjunction with the other parts of the proposal. TasNetworks' Combined Proposal is made up of the documents and attachments listed below, as well as the supporting documents that are listed in Attachment 23.

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Tables in this attachment may not add due to rounding.

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4 Rate of return

4.1 Introduction

A key component of the revenue allowances set by the Australian Energy Regulator (**AER**) for network service providers (**NSPs**) such as TasNetworks is the return on capital that each business receives on its investment. The return on capital is intended to provide network businesses with the revenue they need to service the interest on the borrowings they use to finance network assets, as well as earn a fair return on equity for the investors in those businesses. This return on capital is set by applying a rate of return – calculated using the AER's Rate of Return Instrument (**RoR Instrument**) – to the value of each network's regulatory asset base (**RAB**). This Attachment explains how the rate of return is set to calculate the return on capital. It also forecasts an indicative rate of return, noting that the final rate of return will depend on economic conditions at the time the AER makes its Final Determination in April 2024.

Because the regulatory framework applied by the AER is incentive-based, the rate of return that is used to calculate the return on capital allowance is set with reference to an 'efficient benchmark' firm. This is intended to ensure that network businesses can only recover efficient costs. That is, the return on capital is not based on each network's actual cost of capital so NSPs are not compensated for inefficient funding arrangements or costs.

4.1.1 The AER's Rate of Return Instrument

The RoR Instrument is a guideline that specifies how the AER calculates the rate of return, comprising the return on debt and return on equity.

The AER is required to review and publish a new RoR Instrument every four years.[1] The RoR Instrument is binding for all revenue determinations made during the four-year period it applies. It is not retrospectively applied to revenue determinations already made by the AER.

The AER was due to publish a new RoR Instrument in December 2022, but this is now expected to be published in February 2023. As a result, TasNetworks is required to use the 2018 RoR Instrument for the purpose of this combined proposal. The AER Draft Decision, our revised proposal and the AER Final Determination will all use the 2022 RoR Instrument to calculate TasNetworks' return on capital and equity.

4.1.2 The impact of changes in financial market conditions

The RoR Instrument is highly prescriptive in terms of the methodologies and parameters used to estimate the rate of return. At the same time, it needs to reflect the impact of changing financial market conditions, which will drive the returns required by lenders (the return on debt) and equity investors (the return on equity). Noting that the timing of the regulatory control periods for each transmission and distribution network can differ, the rates of return that are set by the AER for each business need to have appropriate regard to the prevailing financial market conditions and outlook at the time of the revenue determination.

Under the 2018 RoR Instrument and the 2022 Draft RoR Instrument there are only two parameters whose values are allowed to vary over time in accordance with market conditions. These are:

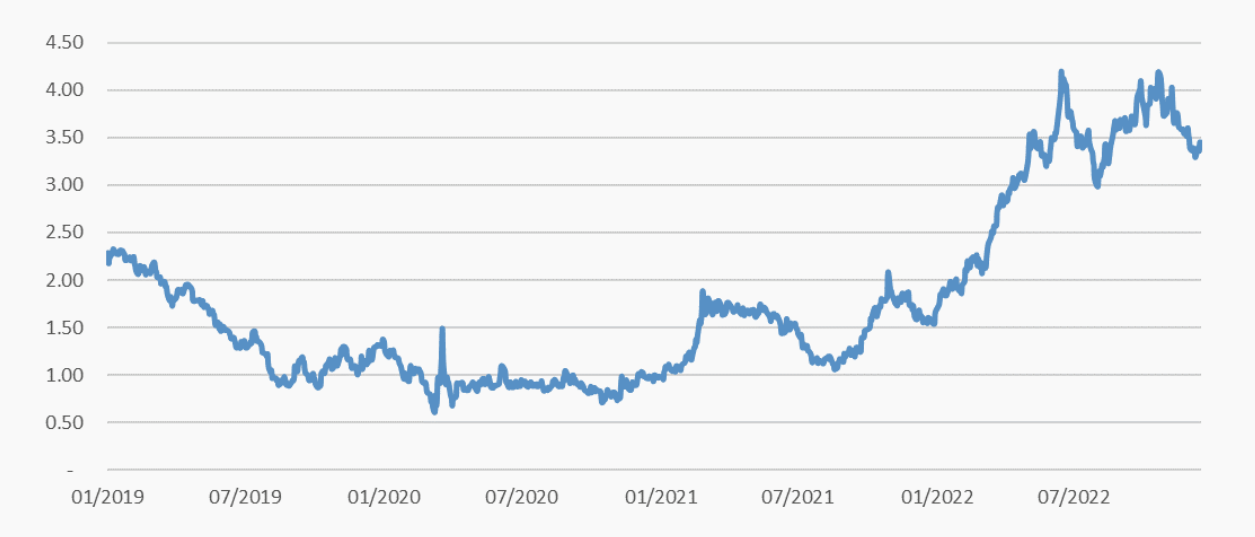
- The risk-free rate used to set the return on equity (refer section 4.3.1), which is based on the Australian Government bond yield. This is reset close to the commencement of each regulatory control period based on prevailing market rates. This value is then fixed for the duration of the regulatory control period
- The return on debt (refer section 4.3.2). This is updated annually to reflect changes in the benchmark cost of debt based on a detailed methodology prescribed in the RoR Instrument. This in turn reflects changes in the market interest rates for borrowing funds.

1 Section 18U of the National Electricity Law

Overall, the allowed rate of return that is set by the AER for the purpose of determining an NSP's allowed revenue (and hence prices) is beyond the control of TasNetworks. Apart from changes in the AER's RoR Instrument, the key driver of changes in the allowed rate of return is changes in market interest rates. This will be driven by changing conditions in financial markets.

At the commencement of TasNetworks' 2019-2024 regulatory control period, government bond yields remained at historical lows. This situation has now changed as domestic and global economies emerge from the COVID-19 pandemic and a number of factors, such as continued supply chain disruptions and the war in Ukraine, are placing significant pressure on inflation. The following chart shows the ten-year Australian Government bond yield (the risk-free rate under the 2018 RoR Instrument) from the start of TasNetworks' current regulatory control period on 1 July 2019 until the end of October 2022.

Figure 1. Ten-year Australian Government bond yield



Source: Reserve Bank of Australia, https://www.rba.gov.au/statistics/tables/#interest-rateshttps://www.rba.gov.au/statistics/tables/#interest-rates

The increases in the risk-free rate will be reflected in a higher rate of return estimate. However, as noted above, the final rate of return applying to TasNetworks' 2024-2029 regulatory control period will be based on the interest rate environment prevailing at the time of the AER's Final Determination. This could be quite different from the current environment and there remains significant uncertainty regarding future interest rates. Consequently, return on capital could be higher or lower than presented in this document when the AER makes its final determination in April 2024.

The key point is that the rate of return that is used to set TasNetworks' return on capital allowances for its transmission and distribution networks is outside our control; it is approved by the AER in accordance with its ROR Instrument. This in turn drives the most significant component of TasNetworks' building block revenue that is used to set prices.

4.2 Rule requirements

Clause 6.4.3 of the National Electricity Rules (**NER**) provides that the annual revenue requirement for a distribution network service provider (**DNSP**) in each regulatory year of a regulatory control period must be determined using a building block approach, and include a return on capital, calculated pursuant to clause 6.5.2 of the NER. Clause 6A.5.4 of the NER sets out a similar provision in relation to transmission network service providers (**TNSPs**).

Clause S6.1.3(9) of the NER requires that a revenue proposal from a DNSP must contain the DNSP's calculation of the allowed rate of return for each regulatory year of the relevant regulatory control period. For distribution networks, clause 6.5.2 of the NER states that the return on capital for a DNSP for a regulatory year (RC_t) is to be calculated using the following formula:

$RC_t = a_t \times V_t$

where:

a_t is the allowed rate of return for the DNSP for the regulatory year

V_t is the value, as at the beginning of the regulatory year, of the RAB for the distribution system owned, controlled or operated by the DNSP

Clause S6A.1.3(4A) and Clause 6A.6.2 provide the same requirements for a TNSP.

4.3 Forecast rate of return

The rates of return in the 2019-2024 regulatory control period were determined using the AER's 2018 RoR Instrument. The AER approved a nominal (vanilla) rate of return of 5.55 per cent for TasNetworks' Prescribed Transmission Services and 5.28 per cent for Standard Control Services for the first year of TasNetworks' 2019–2024 regulatory control period. A different rate of return has been applied in each subsequent regulatory year of the current regulatory control period because the return on debt is updated each year, in accordance with the 2018 RoR Instrument.

Table 1. Rate of return, 2019-20 – 2022-23

Regulatory year	2019-20	2020-21	2021-22	2022-23
Prescribed Transmission Services	5.55%	5.33%	5.11%	4.99%
Standard Control Services	5.28%	5.13%	4.97%	4.90%

Using the 2018 RoR Instrument, TasNetworks has estimated rates of return of 5.68 per cent for the transmission network and 5.71 per cent for the distribution network for 2024-25, the first year of the 2024-2029 regulatory control period. The estimated rates of return are based on financial market data up until the end of September 2022. The AER Draft Decision will utilise updated financial market data and the final 2022 RoR Instrument.

These are higher rates of return than the rates applying to TasNetworks in 2022-23 and higher than the rates of return that applied at the start of the 2019-2024 regulatory control period. As explained in section 4.1.2, this is primarily driven by changes in market interest rates.

The calculations for these rates of return have been based on the parameters set out in Table 2 which is followed by an explanation of the approaches used to estimate the rate of return parameters.

Table 2. Rate of return parameters

Parameter	Value (Transmission)	Value (Distribution)
Return on equity	7.44%	7.44%
Return on debt	4.50%	4.55%
Leverage / gearing ratio	60%	60%
Gamma	58.5%	58.5%
Nominal vanilla weighted average cost of capital (WACC)	**5.68%**	**5.71%**

4.3.1 Return on equity

Under the 2018 RoR Instrument, the return on equity must be calculated as the risk-free rate of return plus an equity beta multiplied by a market risk premium. The risk-free rate must be calculated as the ten-year yield to maturity on Australian Government Securities, measured over the risk-free rate averaging period approved by the AER.

We have calculated the return on equity using a placeholder risk free rate of 3.78 per cent, based on the placeholder averaging period of the last 20 business days in September 2022. The risk-free rate will be updated by the AER for its Draft Decision for TasNetworks. The risk-free rate will be updated again for the AER's Final Decision based on the approved averaging period (see section 4.4).

The equity beta and market risk premium is set by the RoR Instrument and is fixed for all determinations during the four year term of that instrument. As noted above the combined proposal is based on the 2018 RoR Instrument, but the final determination will be based on the 2022 RoR Instrument. In the 2018 RoR Instrument, the equity beta is set to a value of 0.6 and the market risk premium is set to an effective annual value of 6.1 per cent per annum and these values have been used to estimate the return on equity in the combined proposal.

4.3.2 Return on debt

The 2018 RoR Instrument requires the return on debt to be calculated as a ten-year trailing average, updated annually. TasNetworks has estimated the ten-year trailing average annual return on debt based on the placeholder averaging period of the last 20 business days in September 2022.

As with the risk-free rate in the return on equity, the return on debt will be updated by the AER for its Draft Decision. It will be updated again for the Final Decision based on the AER's approved averaging period (see section 4.4).

4.3.3 Leverage / gearing ratio

The gearing ratio refers to the proportion of debt in total financing. It is set by the RoR Instrument and is fixed for all determinations during the four-year term of that instrument. As noted above the combined proposal is based on the 2018 RoR Instrument, but the final determination will be based on the 2022 RoR Instrument. In the 2018 RoR Instrument, the gearing ratio is set at a value of 0.6.

4.3.4 Gamma

Under the Australian imputation tax system, investors receive imputation credits for tax paid at the company level. For eligible shareholders, imputation credits offset their Australian income tax liabilities. Gamma is the value of imputation credits calculated by the AER and set by the RoR Instrument. In the 2018 RoR Instrument gamma is set to 0.585.

The AER uses a post-tax framework with a rate of return that is after company tax but before personal tax. Under the post-tax framework, gamma is not a WACC parameter. Instead it is a direct input into the calculation of tax liability via the corporate tax component of the building block model. See Attachment 9 Corporate income tax for more information on TasNetworks' calculation of corporate income tax for the 2024-2029 regulatory control period.

4.4 Averaging periods

As described above, the risk-free rate and return on debt estimates that are finally used to set TasNetworks' revenue and prices at the commencement of the 2024-2029 regulatory control period will depend on the prevailing interest rate environment closer to that time.

Under the 2018 RoR Instrument, and taking into account the 2022 Draft RoR Instrument, TasNetworks has chosen to nominate averaging periods for the risk-free rate and return on debt in accordance with the terms of that instrument, for approval by the AER.[2]

2 For the return on debt, this same approved averaging period will be applied to the update of the return on debt in each year of the regulatory control period.

4.5 Forecast inflation

In setting TasNetworks' total revenue allowances at the start of each regulatory control period, the AER must apply a forecast of expected inflation. This forecast is used for a number of purposes, including indexation of TasNetworks' RAB. Adjusting the RAB for inflation is intended to preserve the value of investments made in that RAB.

Forecasting inflation for the five-year term of a regulatory control period is a challenging task. Under the NER, the AER is required to determine a method that is likely to result in the 'best' estimate of expected inflation.[3] In December 2020 the AER published its Final Position Paper following a review of the regulatory treatment of inflation[4] and this updated treatment has been reflected in updates to the post tax revenue model for transmission and distribution networks (the April 2021 amendments).[5]

The approach previously applied by the AER that was used to forecast inflation for TasNetworks' current regulatory control periods applied a ten-year average of:

- the Reserve Bank of Australia's (**RBA**) forecast of headline inflation for the first two years, then
- the mid-point of its target inflation band of 2 per cent to 3 per cent (i.e., 2.5 per cent) for the remaining eight years of that forecast.

The AER's recent inflation methodology review found that with the significant instability in the domestic and global economies and the persistently low inflation that has been experienced in recent years, its preferred methodology was not producing the 'best' estimate of expected inflation. It therefore concluded that adjustments to its methodology were required to improve the performance of its inflation forecast "in periods of economic instability or sustained periods of low or high inflation."[6] The main adjustments it has made are to:

- shorten the target horizon for forecasting inflation to match the term of the regulatory control period (which, in TasNetworks' case, is five years)
- apply a linear glide path from the RBA's forecasts of inflation in the first two years to the midpoint of the RBA's target band (2.5 per cent) in year five.

This is the approach that TasNetworks has applied in estimating its forecast of expected inflation for its transmission and distribution networks for the 2024-2029 regulatory control period.

Forecasting expected inflation in the current environment is particularly challenging. Although the environment leading up to the AER's recent inflation forecasting methodology review was characterised by persistently low inflation, the Australian economy, along with other world economies, is now experiencing significant inflationary pressures that are reflected in rising interest rates.

For example, in its November 2022 Statement on Monetary Policy, the RBA forecast headline inflation peaking at 8.0 per cent in December 2022, before gradually reducing to 3.2 per cent (just above the top end of the RBA's target band) in December 2024.[7] Consistent with the interest rate outlook, the future direction for inflation is highly uncertain.

Applying the AER's updated methodology, TasNetworks has applied a placeholder estimate of expected inflation of 3.35 per cent. This will be updated by the AER prior to its draft and final decisions for (the then) most recent RBA inflation forecasts.

3 Clause 6.4.2(b)(1) clause, 6A.5.3(b)(1).

4 Australian Energy Regulator, Final Position Paper: Regulatory Treatment of Inflation, December 2020

5 AER, Electricity transmission and distribution network service providers Post-tax revenue models (version 5), April 2021

6 AER, Final Position Paper: Regulatory Treatment of Inflation, December 2020, p.6.

7 Reserve Bank of Australia, Statement on Monetary Policy November 2022, accessed November 2022

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