Combined Proposal 2024-2029

Attachment 3
Regulatory asset base

Outline: This attachment to TasNetworks' Combined Proposal sets out forecasts for the roll forward of TasNetworks' regulatory asset base for Standard Control Services and regulatory asset base for the provision of Prescribed Transmission Services in the regulatory control period commencing on 1 July 2024 and ending on 30 June 2029.

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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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	Combined Proposal overview
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Attachment 2	Annual revenue requirement
Attachment 3	**Regulatory asset base**
Attachment 4	Rate of return
Attachment 5	Regulatory depreciation
Attachment 6	Capital expenditure
Attachment 7	Contingent projects
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Tables in this attachment may not add due to rounding.

Contents

3 Regulatory asset base

3.1 Introduction

Electricity networks are asset-intensive businesses, requiring thousands of poles, wires and transformers to convey electricity from the point of generation to the point at which it is used, assets that involve significant capital outlays. Most of the assets TasNetworks invests in have operating lives measured in decades, and their cost is recovered from customers over time, rather than up-front or in the year they are built or installed.

TasNetworks is unusual within the National Electricity Market (**NEM**) in that it operates two regulated electricity networks: a shared transmission network that enables large generators, such as windfarms and hydro-electric power stations, to transmit the high voltage electrical energy they produce to population centres and major industrial users of electricity, and a shared distribution network, which delivers electricity to individual consumers at the lower voltages required by households and most businesses. Most of the network service providers within the NEM operate only one or the other.

Between them, the two networks connect a comparatively substantial number of renewable generators (around 30 hydro-electric power stations and wind farms) and provide energy to a geographically dispersed population, as well as a small number of large industrial users of electricity. Increasingly, the distribution network is also being asked to reticulate energy being exported by the growing number of households and small businesses that generate electricity using photo-voltaic solar panels.

The revenue TasNetworks is allowed to earn through its network charges is intended to recover the cost of building, maintaining and operating both the transmission and distribution networks, with the Australian Energy Regulator (**AER**) setting a separate annual revenue allowance for each network. The revenue allowances set by the AER include operational costs, like providing a call centre, clearing trees away from power lines and restoring power after storms. The revenue allowances set by the AER are also intended to provide TasNetworks with a fair return on its investment in the assets used to transmit and distribute electricity, and to enable TasNetworks to recover the cost of that investment over time (i.e., through a depreciation allowance).

The value of the regulatory asset base (**RAB**) therefore is the largest determinant of TasNetworks' revenue and the network charges paid by the end users of electricity in Tasmania. Together, TasNetworks' transmission and distribution networks comprise 3,500 circuit kilometres of transmission lines and underground cables, 49 transmission substations, 22,300km of distribution power lines and underground cables, over 230,000 power poles, 18 large distribution substations and 33,000 small distribution substations.

The annual revenue requirement (**ARR**) (see Attachment 2) allows TasNetworks to recover:

- the capital cost of the investments it has made in the RAB (depreciation)
- a fair return on that investment (the return on capital).

The RAB only comprises those assets used to provide regulated transmission and distribution network services (respectively Prescribed Transmission Services and Standard Control Services). The RAB generally excludes assets such as the high voltage connection assets that that are dedicated exclusively to individual generators or load customers. When assets are disposed of or customers make capital contributions towards the cost of shared assets, those contributions are removed from the overall RAB value. The value of the RAB is indexed each year for inflation to reflect the changing value of money over time.

The RAB calculation is summarised in Figure 1.

Figure 3.2 RAB calculation

3.2 RAB

With total assets of around $4 billion, TasNetworks is conscious of the relationship between RAB values and the delivered cost of energy for its customers. Since assuming responsibility for Tasmania's electricity grid in 2014, TasNetworks has focussed on ensuring that the investments it has made in the network are prudent and efficient, balancing the need for sustainable electricity prices over the long term with maintaining safe and reliable network services.

3.2.1 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 relevant regulatory control period must be determined using a building block approach, which includes indexation of the RAB, a return on capital and depreciation. Clause 6A.5.4 of the NER sets out a similar provision for transmission network service providers (**TNSPs**).

Clause S6.1.3(7) of the NER requires the building block revenue proposal from each distribution network to include a calculation of its RAB for each year of the relevant regulatory control period, derived using the AER's roll forward model (**RFM**). The RAB values are to be accompanied by details of the amounts, values and other inputs used by the DNSP to calculate the value of its RAB, and an explanation of the calculation of the regulatory asset base's value in each regulatory year of the relevant regulatory control period. Clause S6A.1.3(5) of the NER places similar obligations TNSPs.

Clause S6.2.1 of the NER sets out how TasNetworks must establish the opening value of its distribution RAB for the 2024-2029 regulatory control period and calculate the forecast RAB values for the 2024-2029 regulatory period. This includes calculating the respective RAB values for each year of the current 2019-2024 regulatory control period using the AER's RFM and calculating the forecast RAB for the 2024-2029 regulatory period using the AER's post tax revenue model.

In calculating the forecast distribution RAB for the 2024-2029 regulatory period, the NER also requires TasNetworks to demonstrate that:

- indexation of the distribution RAB has been calculated in accordance with clause 6.5.1 and schedule 6.2, such that the building block revenue includes a negative adjustment equal to the amount referred to in clause S6.2.3(c)(4) for that year (to avoid the double counting of the change in the RAB value due to inflation)
- depreciation has been calculated in accordance with clause 6.5.5.

Clause S6A.1.3(5) of the NER places similar obligations on TasNetworks in relation to our transmission RAB.

3.3 Proposed RAB values

Based on the requirements of the NER, this attachment includes estimates of the closing values for both our transmission and distribution network RABs at the end of the 2019-2024 regulatory control period. It also includes the opening RAB values for each network on 1 July 2024 and forecast RAB values in each year of the 2024–2029 regulatory control period.

As part of these calculations:

- straight-line forecast depreciation, which is based on forecast capital expenditure as per the AER's final determination for the 2019-2024 regulatory control period, has been deducted from the initial value of the RAB at 1 July 2024
- actual capital expenditure has been rolled into the RAB to establish its initial value at 1 July 2024
- forecast capital expenditure for the 2024-2029 regulatory control period has been reduced for customer capital contributions made towards the asset and the disposal of assets, to determine net capital expenditure
- net capital expenditure includes a half year's weighted average cost of capital (**WACC**), to compensate for the six-month period before this expenditure is added to the RAB for revenue modelling
- the RAB has been adjusted for actual inflation to establish its initial value as at 1 July 2024 and adjusted to remove the effect of forecast inflation for the 2024-2029 regulatory period.

3.4 Distribution RAB

3.4.1 Distribution RAB roll-forward, 2019-2024

During the 2019-2024 regulatory control period, the value of TasNetworks' distribution network RAB is estimated to increase by 6.8 per cent in real terms (26.0 per cent in nominal terms). The roll forward of TasNetworks' distribution RAB for standard control services over the 2019–2024 regulatory control period is set out in Table 1. The (forecast) closing RAB as at 30 June 2024 is the estimated opening value at the start of the 2024-2029 regulatory control period.

Table 1. Distribution RAB roll-forward to 30 June 2024 (nominal, $ million)

	2019-20	2020-21	2021-22	2022-23 (forecast)	2023-24 (forecast)
Opening RAB	1,763.9	1,814.0	1,859.0	1,932.2	2,115.2
Actual/estimated capital expenditure, net of contributions and disposals	117.0	135.8	121.2	148.4	161.5
Indexation on opening RAB	32.5	15.6	65.1	154.6	99.4
Less: straight-line depreciation	99.4	106.4	113.0	120.0	133.2
Less: final year (2018-19) adjustments					19.98
Closing RAB	**1,814.0**	**1,859.0**	**1,932.2**	**2,115.2**	**2,223.0**

3.4.2 Distribution RAB roll-forward, 2024-2029

The roll forward of TasNetworks' distribution RAB over the 2024-2029 regulatory control period is set out in Table 2 and reflects forecasts for net capital expenditure, depreciation and indexation. The opening RAB at 1 July 2024 is based on the closing RAB value as at 30 June 2024 shown in Table 1.

Table 2. Distribution RAB roll-forward to 30 June 2029 (nominal, $ million)

	2024-25	2025-26	2026-27	2027-28	2028-29
Opening RAB	2,223.0	2,323.7	2,429.7	2,512.5	2,591.1
Actual/estimated capital expenditure, net of contributions and disposals	162.6	173.6	158.5	158.1	160.5
Indexation on opening RAB	74.4	77.8	81.4	84.1	86.8
Less: Straight-line depreciation	136.3	145.4	157.1	163.6	164.3
Closing RAB	**2,323.7**	**2,429.7**	**2,512.5**	**2,591.1**	**2,674.0**

TasNetworks' forecast capital expenditure in the 2024-2029 regulatory control period is discussed in Attachment 6 Capital expenditure.

TasNetworks proposes that the depreciation for establishing the closing RAB value of the distribution network at 30 June 2029 be based on forecast capex, consistent with the AER's Framework and Approach paper for TasNetworks in the 2024–2029 regulatory control period and clause S6.2.2B of the NER.

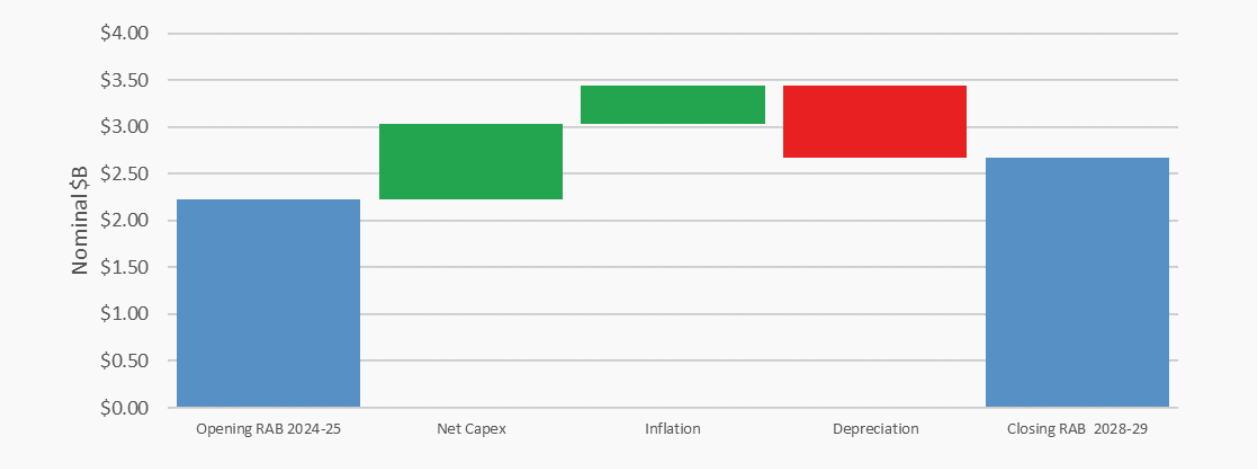
TasNetworks' forecasts of depreciation have been calculated on a straight-line basis using AER-approved standard asset lives and are discussed in Attachment 5 Regulatory depreciation.

Indexation of the RAB during the 2024-2029 regulatory control period has been calculated using a forecast inflation rate of 3.35 per cent, which is based on the AER's inflation forecasting methodology as discussed in Attachment 4 Rate of return. In calculating the return of capital allowance in the ARR (i.e., regulatory depreciation), the indexation amount is deducted from the value of straight-line depreciation.

The closing distribution network RAB at the end of the 2024–2029 regulatory control period is forecast to be 20.3 per cent higher in nominal dollar terms and 5.4 per cent higher in real dollar terms than the opening RAB at the start of that period.

Figure 2 shows the contributors to the forecast change in the value of TasNetworks' distribution network RAB over the course of the 2024-2029 regulatory control period.

Figure 2. Drivers of distribution RAB value, 2024-2029 (nominal, $ billion)



3.5 Transmission RAB

3.5.1 Transmission RAB roll-forward, 2019-2024

During the 2019-2024 regulatory control period, the value of TasNetworks' transmission network RAB is estimated to decrease marginally in real terms (18.9 per cent increase in nominal terms). The roll forward of TasNetworks' transmission RAB for the provision of prescribed transmission services during the 2019–2024 regulatory control period is set out in Table 3. The (forecast) closing RAB at 30 June 2024 is the estimated opening value of TasNetworks' transmission network RAB at the start of the 2024-2029 regulatory control period.

Table 3. Transmission RAB roll-forward to 30 June 2024 (nominal, $ million)

	2019-20	2020-21	2021-22	2022-23 (forecast)	2023-24 (forecast)
Opening RAB	1,479.1	1,506.7	1,513.1	1,560.5	1,695.0
Actual/estimated capital expenditure, net of contributions and disposals	51.6	45.6	47.1	64.1	56.6
Indexation on opening RAB	27.2	13.0	53.0	124.8	79.7
Less: straight-line depreciation	51.2	52.2	52.6	54.5	58.8
Less: final year (2018-19) adjustments					13.7
Closing RAB	**1,506.7**	**1,513.1**	**1,560.5**	**1,695.0**	**1,758.7**

3.5.2 Transmission RAB roll-forward, 2024-2029

The roll forward of TasNetworks' transmission RAB for prescribed transmission services over the 2024-2029 regulatory control period is set out in Table 4. TasNetworks has modelled the roll forward of its transmission network RAB in the 2024–2029 regulatory control period based on the closing RAB value on 30 June 2024, as shown in Table 3.

Table 4. Roll forward of Transmission network RAB, 2024–2029 (nominal, $ million)

	2024-25	2025-26	2026-27	2027-28	2028-29
Opening RAB	1,758.7	1,799.0	1,858.8	1,908.8	1,958.8
Actual/estimated capital expenditure, net of contributions and disposals	54.4	73.3	65.6	66.6	61.6
Indexation on opening RAB	58.9	60.2	62.2	63.9	65.6
Less: straight-line depreciation	73.0	73.7	77.8	80.5	84.3
Closing RAB	**1,799.0**	**1,858.8**	**1,908.8**	**1,958.8**	**2,001.7**

TasNetworks' forecast capital expenditure in the 2024-2029 regulatory control period is discussed in Attachment 6 Capital expenditure.

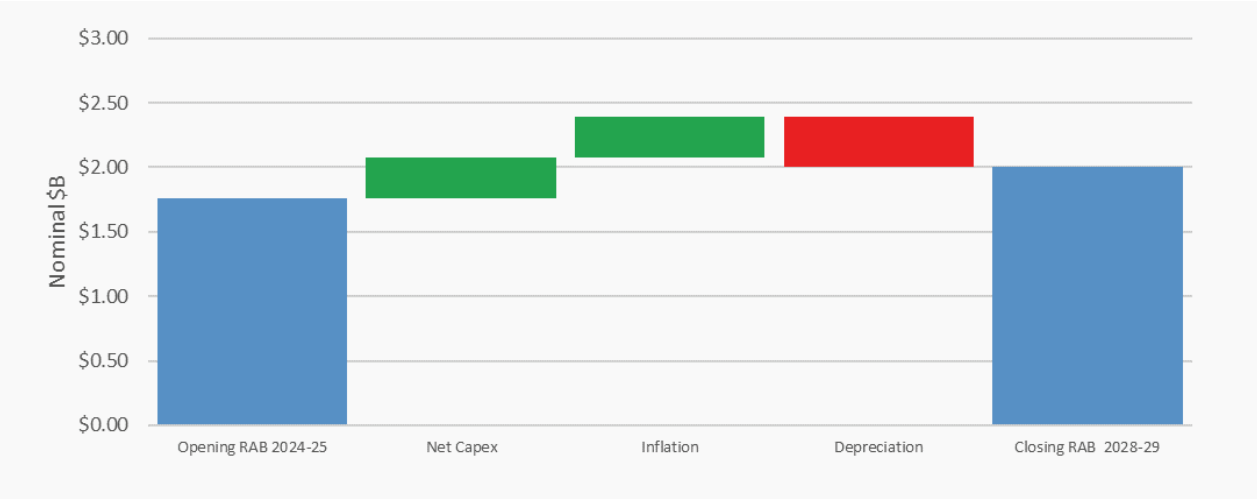
TasNetworks proposes that the depreciation for establishing the closing RAB value as at 30 June 2029 be based on forecast capex, consistent with the AER's Framework and Approach paper for TasNetworks in the 2024–2029 regulatory control period. TasNetworks' forecasts of depreciation have been calculated on a straight-line basis using AER-approved standard asset lives and are discussed in Attachment 5 Regulatory depreciation.

Indexation of the RAB has been calculated using a forecast inflation rate of 3.35 per cent, which is discussed in Attachment 4 Rate of return. In calculating the return of capital allowance in the ARR (i.e., regulatory depreciation), the indexation amount is deducted from the value of straight-line depreciation.

The closing transmission network RAB at the end of the 2024–2029 regulatory control period is forecast to be 13.8 per cent higher than the opening RAB at the start of that period, in nominal terms, and 0.2 per cent lower in real terms.

Figure 3 below shows the contributors to the forecast change in the value of TasNetworks' transmission network RAB over the course of the 2024-2029 regulatory control period.

Figure 3. Drivers of transmission RAB value, 2024-2029 (nominal, $ billion)



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