DRAFT DECISION

TasNetworks Distribution Determination 2019 to 2024

Attachment 2 Regulatory asset base

September 2018

AUSTRALIAN ENERGY REGULATOR

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Note

This attachment forms part of the AER's draft decision on TasNetworks' 2019–24 distribution determination. It should be read with all other parts of the draft decision.

The draft decision includes the following attachments:

Overview

Attachment 1 – Annual revenue requirement

Attachment 2 – Regulatory asset 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 benefit sharing scheme

Attachment 9 – Capital expenditure sharing scheme

Attachment 10 – Service target performance incentive scheme

Attachment 11 – Demand management incentive scheme

Attachment 12 – Classification of services

Attachment 13 – Control mechanism

Attachment 14 – Pass through events

Attachment 15 – Alternative control services

Attachment 16 – Negotiated services framework and criteria

Attachment 17 – Connection policy

Attachment 18 – Tariff structure statement

Contents

Shortened forms

Shortened form	Extended form
ACS	alternative control services
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
augex	augmentation expenditure
capex	capital expenditure
CCP	Consumer Challenge Panel
CCP 13	Consumer Challenge Panel, sub-panel 13
CESS	capital expenditure sharing scheme
CPI	consumer price index
DRP	debt risk premium
DMIAM	demand management innovation allowance (mechanism)
DMIS	demand management incentive scheme
distributor	distribution network service provider
DUoS	distribution use of system
EBSS	efficiency benefit sharing scheme
ERP	equity risk premium
Expenditure Assessment Guideline	Expenditure Forecast Assessment Guideline for Electricity Distribution
F&A	framework and approach
MRP	market risk premium
NEL	national electricity law
NEM	national electricity market
NEO	national electricity objective
NER	national electricity rules
NSP	network service provider

Shortened form	Extended form
opex	operating expenditure
PPI	partial performance indicators
PTRM	post-tax revenue model
RAB	regulatory asset base
RBA	Reserve Bank of Australia
repex	replacement expenditure
RFM	roll forward model
RIN	regulatory information notice
RPP	revenue and pricing principles
SAIDI	system average interruption duration index
SAIFI	system average interruption frequency index
SCS	standard control services
SLCAPM	Sharpe-Lintner capital asset pricing model
STPIS	service target performance incentive scheme
WACC	weighted average cost of capital

2 Regulatory asset base

As part of our distribution determination, we make a decision on TasNetworks' opening regulatory asset base (RAB) as at 1 July 2019.[1] The RAB is the value of those assets that are used by TasNetworks to provide standard control services. We use the RAB at the start of each regulatory year to determine the return of capital (regulatory depreciation) and return on capital building block allowances.

This attachment presents our draft decision on the opening RAB value as at 1 July 2019 for TasNetworks and roll forward of the forecast RAB over the 2019–24 regulatory control period. It also presents our draft decision on whether depreciation for establishing the RAB as at the commencement of the 2024–29 regulatory control period is to be based on actual or forecast capital expenditure.[2]

2.1 Draft decision

We determine an opening RAB value of $1747.0 million ($nominal) as at 1 July 2019 for TasNetworks. This value is $8.8 million (or 0.5 per cent) lower than TasNetworks' proposed opening RAB of $1755.8 million ($nominal) as at 1 July 2019.[3] While we largely accept the proposed opening RAB, we made the following updates to TasNetworks' proposed inputs to the roll forward model (RFM):

- the 2017–18 inflation rate with actual consumer price index (CPI) input for indexation in the RAB roll forward
- the weighted average cost of capital (WACC) input for 2018–19 following the return on debt update for that year in the 2017–19 PTRM
- the forecast straight-line depreciation for 2018–19 following the return on debt update for that year in the 2017–19 PTRM.

To determine the opening RAB as at 1 July 2019, we have rolled forward the RAB over the 2017–19 regulatory control period in accordance with our RFM[4] to determine a closing RAB value at 30 June 2019. This roll forward includes an adjustment at the end of the 2017–19 regulatory control period to account for the difference between actual 2016–17 capex and the estimate approved at the 2017–19 determination.[5]Table 2.1 AER's draft decision on TasNetworks' RAB for the 2017–19 regulatory control period ($million, nominal)

	2017–18[a]	2018–19[b]

1 NER, cl. 6.12.1(6).

2 NER, cl. 6.12.1(18).

3 TasNetworks, *Transmission and Distribution Regulatory Proposal 2019-2024*, January 2018, p. 160, Table 10–2.

4 AER, *Electricity distribution network service providers Roll forward model (version 2)*, 15 December 2016.

5 The end of period adjustment will be positive (negative) if actual capex is higher (lower) than the estimate approved at the 2017–19 determination.

	2017–18[a]	2018–19[b]
Opening RAB	1615.2	1685.8
Capital expenditure[c]	117.3	108.9
Inflation indexation on opening RAB[d]	30.8	41.3
Less: straight-line depreciation[e]	77.5	98.3
Interim closing RAB	1685.8	1737.7
Difference between estimated and actual 2016–17 capex (1 July 2016 to 30 June 2017)		8.3
Return on difference for 2016–17 capex		1.0
Closing RAB as at 30 June 2019		**1747.0**

Source: AER analysis.

(a) Based on estimated capex. We will update the RAB roll forward for actual capex in the final decision.

(b) Based on estimated capex provided by TasNetworks. We expect to update the RAB roll forward with a revised capex estimate in the final decision, and true-up the RAB for actual capex at the next reset.

(c) Net of disposals and capital contributions, and adjusted for actual CPI and half-year WACC.

(d) We will update the RAB roll forward for actual CPI for 2018–19 in the final decision.

(e) Adjusted for actual CPI. Based on forecast as-incurred capex.

We determine a forecast closing RAB value at 30 June 2024 of $2006.5 million ($ nominal). This is $208.2 million (or 9.4 per cent) lower than the amount of $2214.7 million ($nominal) proposed by TasNetworks. Our draft decision on the forecast closing RAB reflects the updated opening RAB as at 1 July 2019, and our draft decisions on the forecast depreciation (attachment 4) and forecast capex (attachment 5).

Table 2.2 sets out our draft decision on the forecast RAB values for TasNetworks over the 2019–24 regulatory control period.

sets out our draft decision on the roll forward of the RAB values for TasNetworks over the 2017–19 regulatory control period.

Table 2.1 AER's draft decision on TasNetworks' RAB for the 2017–19 regulatory control period ($million, nominal)

	2017–18[a]	2018–19[b]
Opening RAB	1615.2	1685.8
Capital expenditure[c]	117.3	108.9
Inflation indexation on opening RAB[d]	30.8	41.3
Less: straight-line depreciation[e]	77.5	98.3
Interim closing RAB	1685.8	1737.7
Difference between estimated and actual 2016–17 capex (1 July 2016 to 30 June 2017)		8.3
Return on difference for 2016–17 capex		1.0

	2017–18[a]	2018–19[b]
Closing RAB as at 30 June 2019		**1747.0**

Source: AER analysis.

(a) Based on estimated capex. We will update the RAB roll forward for actual capex in the final decision.

(b) Based on estimated capex provided by TasNetworks. We expect to update the RAB roll forward with a revised capex estimate in the final decision, and true-up the RAB for actual capex at the next reset.

(c) Net of disposals and capital contributions, and adjusted for actual CPI and half-year WACC.

(d) We will update the RAB roll forward for actual CPI for 2018–19 in the final decision.

(e) Adjusted for actual CPI. Based on forecast as-incurred capex.

We determine a forecast closing RAB value at 30 June 2024 of $2006.5 million ($ nominal). This is $208.2 million (or 9.4 per cent) lower than the amount of $2214.7 million ($nominal) proposed by TasNetworks.[6] Our draft decision on the forecast closing RAB reflects the updated opening RAB as at 1 July 2019, and our draft decisions on the forecast depreciation (attachment 4) and forecast capex (attachment 5).

Table 2.2 sets out our draft decision on the forecast RAB values for TasNetworks over the 2019–24 regulatory control period.

Table 2.2 AER's draft decision on TasNetworks' RAB for the 2019–24 regulatory control period ($million, nominal)

	2019–20	2020–21	2021–22	2022–23	2023–24
Opening RAB	1747.0	1812.4	1870.7	1912.1	1961.1
Capital expenditure[a]	122.8	121.2	110.7	123.0	123.7
Inflation indexation on opening RAB	42.8	44.4	45.8	46.8	48.0
Less: straight-line depreciation	100.2	107.3	115.1	120.8	126.3
Closing RAB	1812.4	1870.7	1912.1	1961.1	2006.5

Source: AER analysis.

(a) Net of forecast disposals and capital contributions. In accordance with the timing assumptions of the post-tax revenue model (PTRM), the capex includes a half-year WACC allowance to compensate for the six month period before capex is added to the RAB for revenue modelling.

We determine that the forecast depreciation approach is to be used to establish the opening RAB at the commencement of the 2024–29 regulatory control period for TasNetworks.[7] We consider this approach is consistent with the capital expenditure incentive objective in that it will provide sufficient incentives for TasNetworks to achieve capex efficiency gains over the 2019–24 regulatory control period.

6 TasNetworks, *Transmission and Distribution Regulatory Proposal 2019-2024*, January 2018, p. 161, Table 10–4.

7 AER, *Final framework and approach for TasNetworks distribution and transmission,* July 2017, p. 71.

2.2 TasNetworks' proposal

TasNetworks used our roll forward model (RFM) to establish an opening RAB as at 1 July 2019 and our post-tax revenue model (PTRM) to roll forward the RAB over the 2019–24 regulatory control period.

TasNetworks proposed an opening RAB value as at 1 July 2017 of $1615.2 million ($nominal). Rolling forward this RAB and using depreciation based on forecast capex, TasNetworks proposed a closing RAB as at 30 June 2019 of $1755.8 million ($nominal). Table 2.3 presents TasNetworks' proposed roll forward of its RAB during the 2017–19 regulatory control period.[8]

Table 2.3 TasNetworks' proposed RAB for the 2017–19 regulatory control period ($million, nominal)

	2017–18[a]	2018–19[a]
Opening RAB	1615.2	1694.8
Capital expenditure[b]	117.6	108.9
Inflation indexation on opening RAB	39.6	41.5
Less: straight-line depreciation[c]	77.5	98.8
Interim closing RAB	1694.8	1746.4
Difference between estimated and actual 2016–17 capex (1 July 2016 to 30 June 2017)		8.3
Return on difference for 2016–17 capex		1.0
Closing RAB as at 30 June 2019		**1755.8**

Source: TasNetworks, *Roll Forward Model (RFM) Distribution - Standard Control,* January 2018.

(a) Based on estimated capex.

(b) Net of disposals and capital contributions, and adjusted for CPI and half-year WACC.

(c) Adjusted for actual CPI. Based on forecast as-incurred capex.

TasNetworks proposed a forecast closing RAB as at 30 June 2024 of $2214.7 million ($nominal). This value reflects its proposed opening RAB, forecast capex, expected inflation, and depreciation (based on forecast capex) over the 2019–24 regulatory control period. Its projected RAB over the 2019–24 regulatory control period is shown in Table 2.4.

[8] TasNetworks, *TasNetworks - Transmission and Distribution Regulatory Proposal 2019-2024*, January 2018, p. 160, Table 10–2.

Table 2.4 TasNetworks' proposed RAB for the 2019–24 regulatory control period ($million, nominal)

	2019–20	2020–21	2021–22	2022–23	2023–24
Opening RAB	1755.8	1859.6	1955.2	2034.3	2125.2
Capital expenditure[a]	161.5	158.9	148.8	165.6	169.4
Inflation indexation on opening RAB	43.0	45.6	47.9	49.8	52.1
Less: straight-line depreciation	100.7	108.9	117.7	124.4	132.0
Closing RAB	1859.6	1955.2	2034.3	2125.2	2214.7

Source: TasNetworks, *Post Tax Revenue Model (PTRM) Distribution - Standard Control*, January 2018.

(a) Net of forecast disposals and capital contributions. Inclusive of equity raising costs and the half-year WACC to account for the timing assumptions in the PTRM.

2.3 AER's assessment approach

We roll forward the TasNetworks' RAB during the 2017–19 regulatory control period to establish the opening RAB at 1 July 2019. This value can be adjusted for any differences in the estimated and actual capex.[9] It may also be adjusted to reflect any changes in the use of the assets, with only assets used in the provision of standard control services to be included in the RAB.[10]

To determine the opening RAB, we developed an asset base RFM that a service provider must use in preparing its regulatory proposal.[11] The RFM rolls forward TasNetworks' RAB from the beginning of the final year of the 2012–17 regulatory control period,[12] through the 2017–19 regulatory control period, to the beginning of the 2019–24 regulatory control period.

The roll forward for each year of the above period occurs by:

- Adding actual inflation (indexation) adjustment to the opening RAB for the relevant year. This adjustment is consistent with the inflation factor used in the control mechanism.[13]
- Adding actual or estimated capex to the RAB for the relevant year.[14] We review a distributor's past capex and may exclude past capex from being rolled into the RAB

9 NER, cl. S6.2.1(e)(3).

10 NER, cl. S6.2.1.

11 NER, cll. 6.5.1(b), 6.5.1(e), S6.1.3(7); AER, *Electricity distribution network service providers: Roll forward model version 2*, 15 December 2016.

12 The roll forward commences in the final year of the 2012–17 regulatory control period to allow us to adjust for the difference between actual 2016–17 capex and the estimated 2016–17 capex used in our 2017–19 distribution determination. See NER, cl. S6.2.1(e)(3).

13 NER, cl. 6.5.1(e)(3).

14 NER, cl. S6.2.1(e)(4).

where total capex exceeds the regulatory allowance.[15] The details of our assessment approach for capex overspending are set out in the *Capital expenditure incentive guideline*.[16] We note that the review of past capex does not include the last two years of the 2017–19 regulatory control period, which coincides with the length of that period—these will instead be reviewed at the next reset.[17] We check actual capex amounts against audited annual reporting RIN data and generally accept the capex reported in those RINs in rolling forward the RAB.[18] However, there may be instances where adjustments are required to the annual reporting RIN data.[19]

- Subtracting depreciation from the RAB for the relevant year, calculated in accordance with the relevant distribution determination for that year.[20] Depreciation based on forecast or actual capex can be used to roll forward the RAB.[21] For this draft decision, we use depreciation based on forecast capex for rolling forward TasNetworks' RAB values over the 2017–19 regulatory control period.[22] Depreciation based on forecast capex will also be used for the 2019–24 regulatory control period RFM roll forward at the next reset.[23]
- Subtracting any gross proceeds for asset disposals for the relevant year, by way of netting from capex to be added to the RAB.[24] We check these amounts against audited annual reporting RIN data.

These annual adjustments give the closing RAB for any particular year, which then becomes the opening RAB for the following year. Through this process the RFM rolls forward the RAB to the end of the 2017–19 regulatory control period. The PTRM used to calculate the annual revenue requirement for the 2019–24 regulatory control period generally adopts the same RAB roll forward approach as the RFM, although the annual adjustments to the RAB are based on forecasts, rather than actual amounts.[25]

The opening RAB for the 2024–29 regulatory control period can be determined using depreciation based either on forecast or actual capex incurred during the 2019–24

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15 NER, cl. S6.2.2A. Under the NER, cl S6.2.2A(b), the exclusion of inefficient capex could only come from three areas: overspend in capex, margin paid to third party and capitalisation of opex as defined in cll. S6.2.2A (c), (d) and (e) of the NER.

16 AER, *Capital expenditure incentive guideline*, November 2013, pp. 12–20.

17 NER, cl. S6.2.2(a1). The two year lag ensures that actual capex (instead of estimated capex) is available when the review of past capex commences.

18 We will update any estimated capex with actual capex at the time of the next reset.

19 For example, we make adjustment for movements in provisions if the actual capex amounts reported in the RIN include capitalised provisions.

20 NER, cl. S6.2.1(e)(5).

21 NER, cl. 6.12.1(18).

22 The use of forecast depreciation is consistent with the depreciation approach established in the 2017 distribution determination for TasNetworks. See AER, *TasNetworks 2017-19 - Final decision overview*, April 2017, p. 18.

23 Refer to section 2.4.3 for the reasons.

24 NER, cl. S6.2.1(e)(6).

25 NER, cl. S6.2.3.

regulatory control period.[26] To roll forward the RAB using depreciation based on forecast capex, we would use the forecast depreciation contained in the PTRM for the 2019–24 regulatory control period, adjusted for actual inflation. If the approach to roll forward the RAB using depreciation based on actual capex was adopted, we would recalculate the depreciation based on actual capex incurred during the 2019–24 regulatory control period.

Our decision on whether to use actual or forecast depreciation must be consistent with the capex incentive objective. We must have regard to:[27]

- the incentives the service provider has to undertake efficient capex
- substitution possibilities between assets with different lives and the relative benefits of each
- the extent of overspending and inefficient overspending relative to the allowed forecast
- the capex incentive guideline
- the capital expenditure factors.

2.3.1 Interrelationships

The RAB is an input into the determination of the return on capital and depreciation (return of capital) building block allowances.[28] Factors that influence the RAB will therefore flow through to these building block components and the annual revenue requirement. Other things being equal, a higher RAB increases both the return on capital and depreciation allowances.

The RAB is determined by various factors, including:

- the opening RAB (meaning the value of existing assets at the beginning of the regulatory control period)
- net capex[29]
- depreciation
- indexation adjustment – so the RAB is presented in nominal terms, consistent with the rate of return.

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[26] NER, cl. S6.2.2B.

[27] NER, cl. S6.2.2B(b) and (c).

[28] The size of the RAB also impacts the benchmark debt raising cost allowance. However, this amount is usually relatively small and therefore not a significant determinant of revenues overall.

[29] Net capex is gross capex less disposals and capital contributions. The rate of return or WACC also influences the size of the capex. This is because the capex is not depreciated in the year it is first incurred, but added to the RAB at the end of the year. Instead, the capex amount is escalated by half a WACC to arrive at an end of year value. It then begins depreciating the following year.

The opening RAB depends on the value of existing assets and will depend on actual net capex, actual inflation outcomes and depreciation in the past.

The RAB when projected to the end of the regulatory control period increases due to both forecast new capex and the indexation adjustment. The size of the indexation adjustment depends on expected inflation (which also affects the nominal rate of return or WACC) and the size of the RAB at the start of each year.

Depreciation reduces the RAB. The depreciation allowance depends on the size of the opening RAB, the forecast net capex and depreciation schedules applied to the assets. By convention, the indexation adjustment is also offset against depreciation to prevent double counting of inflation in the RAB and WACC, which are both presented in nominal terms. This reduces the depreciation building block that feeds into the annual revenue requirement.

We maintain the RAB in real terms by indexing for inflation.[30] A nominal rate of return (WACC) is multiplied by the opening RAB to produce the return on capital building block.[31] To prevent the double counting of inflation through the nominal WACC and indexed RAB,[32] the regulatory depreciation building block has an offsetting reduction for indexation of the RAB.[33] Indexation of the RAB and the offsetting adjustment made to depreciation results in smoother revenue recovery profile over the life of an asset than if the RAB was un-indexed. If the RAB was un-indexed, there would be no need for an offsetting adjustment to the depreciation calculation of total revenue. This alternative approach provides for overall revenues being higher early in the asset's life (as a result of more depreciation being returned to the distributor) and lower in the future—producing a steeper downward sloping profile of total revenue.[34] The implications of an un-indexed RAB are discussed further in attachment 4.

Figure 2.1 shows the key drivers of the change in the RAB over the 2019–24 regulatory control period as proposed by TasNetworks. Overall, the closing RAB at the end of the 2019–24 regulatory control period would be 26.1 per cent higher than the opening RAB at the start of that period based on the proposal, in nominal terms. The proposed forecast net capex increases the RAB by about 45.8 per cent, while expected inflation increases it by about 13.6 per cent. Forecast depreciation, on the other hand, reduces the RAB by about 33.2 per cent.

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30 NER, cll. 6.3.2(a)(2) and 6.5.1(e)(3).

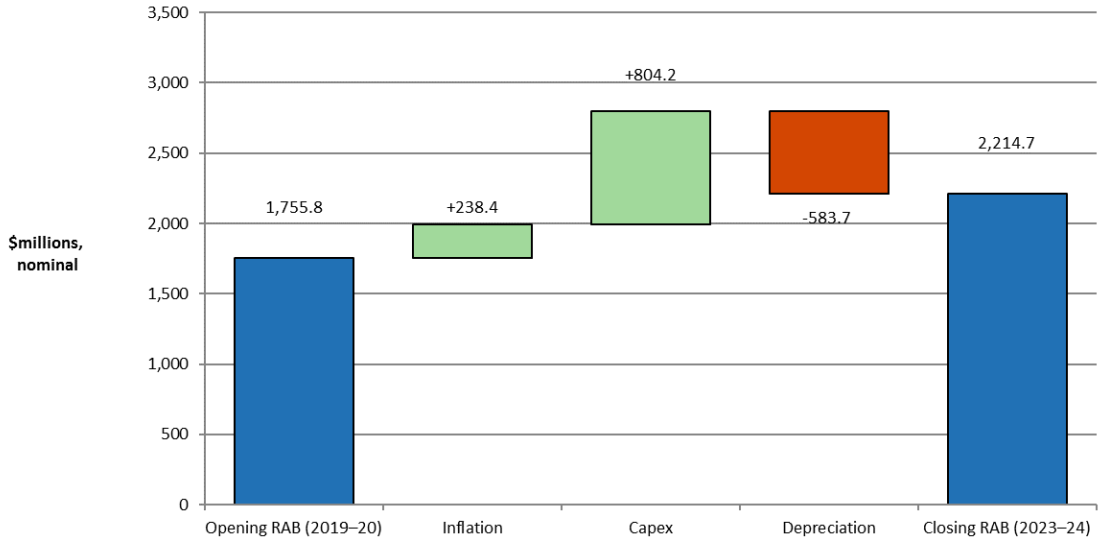
31 NER, cll. 6.5.2(a) and 6.5.2(d)(2).

32 NER, cl. 6.4.3(b)(1)(ii).

33 If the asset lives are extremely long, such that the RAB depreciation rate is lower than the inflation rate, then negative regulatory depreciation can emerge. The indexation adjustment is greater than the RAB depreciation in such circumstances. Please also refer to section 4.3.1 of attachment 4 of this draft decision for further explanation of the offsetting adjustment to the depreciation.

34 A change of approach from an indexed RAB to an un-indexed RAB would result in an initial step change increase in revenues to preserve NPV neutrality.

Figure 2.1 Key drivers of changes in the RAB ($ million, nominal)



Source: TasNetworks, *Post Tax Revenue Model (PTRM) Distribution - Standard Control*, January 2018.

Note: Capex is net of forecast disposals and capital contributions. It is inclusive of equity raising costs and the half-year WACC to account for the timing assumptions in the PTRM.

TasNetworks forecast depreciation of $583.7 million ($nominal) for the 2019–24 regulatory control period. We have largely accepted TasNetworks' depreciation proposal, subject to some input updates and minor modelling corrections, as it satisfies the requirements of the NER in terms of the assigned asset lives. This is discussed in attachment 4. The depreciation amount largely depends on the opening RAB, which in turn depends on capex in the past.

However, we do have concerns with the size of the forecast capex, the largest driver of the increase in the RAB over the 2019–24 regulatory control period, proposed by TasNetworks. In this draft decision, we have reduced TasNetworks' proposed forecast capex by $183.5 million ($2018–19), or 25.0 per cent over the 2019–24 regulatory control period.[35] Submissions from a number of stakeholders also raised concerns over the size of the proposed forecast capex and its effect on the RAB.[36] Our review of TasNetworks' forecast capex is set out in attachment 5 of this draft decision.

A ten per cent increase in the opening RAB causes revenues to increase by about 6.5 per cent. However, the impact on revenues of the annual change in RAB depends

[35] This amount is net of equity raising costs, asset disposals and capital contributions and excludes half-year WACC adjustment.

[36] CCP13, Consumer Challenge Panel, CCP Sub-Panel No. 13, *Advice to the AER, Response to proposals from TasNetworks for a revenue reset for the 2019–24 regulatory period*, 16 May 2018, p. 29; Tasmanian Small Business Council, *TasNetworks transmission revenue and distribution regulatory proposal*, May 2018, p. 69.

on the source of the RAB change, as some drivers affect more than one building block cost.[37]

2.4 Reasons for draft decision

We determine an opening RAB value for TasNetworks of $1747.0 million ($nominal) as at 1 July 2019, a reduction of $8.8 million ($nominal) or 0.5 per cent from the proposed value. We forecast a closing RAB value of $2006.5 million by 30 June 2024. This represents a reduction of $208.2 million or 9.4 per cent compared to TasNetworks' proposal. The reasons for our draft decision are discussed below.

2.4.1 Opening RAB as at 1 July 2019

We determine an opening RAB value of $1747.0 million ($nominal) as at 1 July 2019 for TasNetworks. This value is $8.8 million (or 0.5 per cent) lower than TasNetworks' proposed opening RAB of $1755.8 million ($nominal) as at 1 July 2019.[38] This is because we have:

- updated the inflation input for 2017–18 using the actual December 2017 CPI published by the Australian Bureau of Statistics[39]
- updated the WACC input and forecast straight-line depreciation for 2018–19 following the return on debt update for that year in the 2017–19 PTRM.

To determine the opening RAB as at 1 July 2019 we have rolled forward the RAB over the 2017–19 regulatory control period to determine a closing RAB value as at 30 June 2019. In doing so we reviewed the key inputs of TasNetworks' proposed RFM, such as asset lives, actual gross capex values, asset disposal values, capital contribution values, actual inflation and rate of return. We found these were generally correct and they reconcile with relevant data sources such as annual reporting RIN data and the 2017–19 decision models.[40] However, we consider TasNetworks' proposed RFM input should be updated for 2017–18 actual CPI as it is now available.[41] Similarly, we consider the RFM should be updated with relevant inputs from the 2018–19 return on debt update.

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37 If capex causes the RAB increase, return on capital, depreciation, and debt raising costs all increase too. If a reduction in depreciation causes the RAB increase, revenue could increase or decrease. In this case, the higher return on capital is offset (perhaps more than offset) by the reduction in depreciation allowance. Inflation naturally increases the RAB in nominal terms.

38 TasNetworks, *Transmission and Distribution Regulatory Proposal 2019-2024*, January 2018, p. 160, Table 10–2.

39 The December quarter CPI is used as a proxy for the June financial year in the 2017–19 regulatory control period. As discussed in attachment 13, the December quarter CPI will still be used as a proxy for the June financial year for the 2019–24 regulatory control period.

40 At the time of this draft decision, the roll forward of TasNetworks's RAB includes estimated capex values for the entire period of 2017–19 due to the shorter regulatory period for this reset. We will update the 2017–18 estimated capex with actuals in the final decision. We may also update the 2018–19 estimated capex with a revised estimate in the final decision.

41 In our final decision we will update the estimate for 2018–19 expected inflation with actual CPI.

We also consider the extent to which our roll forward of the RAB to 1 July 2019 contributes to the achievement of the capital expenditure incentive objective.[42] We note that under the NER, in making this distribution determination, the review of past capex involves looking at the final two years of the 2012–17 regulatory control period.[43] Further, the length of TasNetworks' 2017–19 regulatory control period coincides with the two year period which is excluded from the review period for this determination. Given this, the review period for this distribution determination is limited to 2015–16 and 2016–17 capex.

TasNetworks' actual capex incurred for 2015–16 and 2016–17 are above the forecast allowance set at the 2012–17 distribution determination for that period. Therefore, the overspending requirement for an efficiency review of past capex has been satisfied.[44] However, for the reasons discussed in attachment 5, we consider the capex incurred in those years is consistent with the capital expenditure criteria and can therefore be included in the RAB.[45]

For the purposes of this draft decision, we have included TasNetworks' estimated capex in 2017–18 and 2018–19 in the RAB roll forward to 1 July 2019. At the next reset, the 2017–18 and 2018–19 capex will form part of the review period for whether past capex should be excluded for inefficiency reasons.[46] Our RAB roll forward applies the incentive framework approved in the previous distribution determination, which included the use of a forecast depreciation approach in combination with the application of the capital expenditure sharing scheme (CESS).[47] As such, we consider that the 2017–19 RAB roll forward contributes to an opening RAB (as at 1 July 2019) that includes capex that reflects prudent and efficient costs, in accordance with the capital expenditure criteria.[48]

2.4.2 Forecast closing RAB as at 30 June 2024

We forecast a closing RAB value of $2006.5 million ($nominal) by 30 June 2024 for TasNetworks. This represents a reduction of $208.2 million or 9.4 per cent to TasNetworks' proposal. This reduction reflects our draft decision on the inputs for determining the forecast RAB in the PTRM.

The submissions from the CCP13 and Tasmanian Small Business Council on TasNetworks' proposal raised concerns with the increase to the size of TasNetworks'

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42 NER, cl. 6.12.2(b).

43 NER, cll. S6.2.2A(a1), 11.62.

44 NER, cl. S6.2.2A(c).

45 NER, cl. S6.2.2A(f).

46 Here, 'inefficiency' of past capex refers to three specific assessments (labelled the overspending, margin and capitalisation requirements) detailed in NER, cl. S6.2.2A. The details of our ex post assessment approach for capex are set out in AER, *Capital expenditure incentive guideline*, November 2013, pp. 12–20.

47 AER, *Draft decision – TasNetworks distribution determination 2017–19 – Attachment 2 – Regulatory asset base,* September 2016, p. 17.

48 NER, cll. 6.4A(a), 65.7(a), 6.5.7(c) and 6.12.2(b).

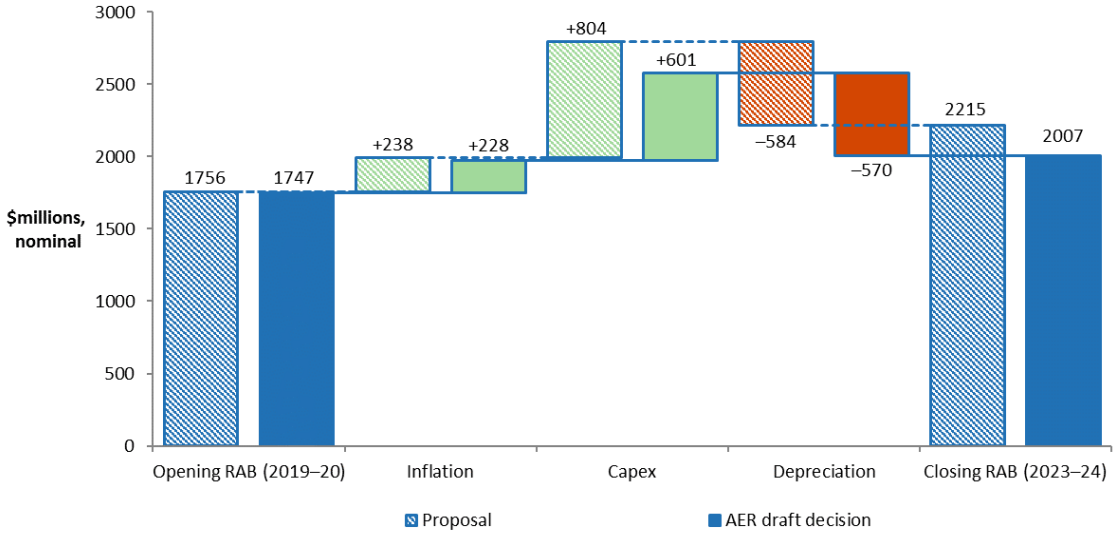
RAB over the 2019–24 regulatory control period.[49] The change in the size of the RAB depends on our assessment of its various components including expected inflation (attachment 3), forecast depreciation (attachment 4) and forecast capex (attachment 5). Inflation and capex increase the RAB, while depreciation and disposals reduce it.

To determine the forecast RAB value for TasNetworks, we amended the following PTRM inputs:

- we reduced TasNetworks's proposed opening RAB as at 1 July 2019 by $8.8 million ($nominal) or 0.5 per cent (section 2.4.1).
- we reduced TasNetworks' proposed forecast capex for the 2019–24 regulatory control period by $183.5 million ($2018–19) or 25.0 per cent (attachment 5).
- we reduced TasNetworks' proposed forecast straight-line depreciation for the 2019–24 regulatory control period by $14.0 million or 2.4 per cent ($nominal) (attachment 4).

Figure 2.2 shows the key drivers of the change in TasNetworks' RAB over the 2019–24 regulatory control period for this draft decision. Overall, the closing RAB at the end of the 2019–24 regulatory control period is forecast to be 14.9 per cent higher than the opening RAB at the start of that period, in nominal terms. The approved forecast net capex increases the RAB by about 34.4 per cent, while expected inflation increases it by about 13.0 per cent. Forecast depreciation, on the other hand, reduces the RAB by about 32.6 per cent.

Figure 2.2 Key drivers of changes in the RAB – TasNetworks' proposal compared with AER's draft decision ($million, nominal)



[49] CCP13, Consumer Challenge Panel, CCP Sub-Panel No. 13, *Advice to the AER, Response to proposals from TasNetworks for a revenue reset for the 2019–24 regulatory period*, 16 May 2018 , p. 29; Tasmanian Small Business Council, *TasNetworks transmission revenue and distribution regulatory proposal*, May 2018, p. 69.

Source: AER analysis.

Note: Capex is net of forecast disposals and capital contributions. It is inclusive of equity raising costs and the half-year WACC to account for the timing assumptions in the PTRM.

2.4.3 Application of depreciation approach in RAB roll forward for next reset

We determine that the forecast depreciation approach using forecast capex is to be used to establish the opening RAB at the commencement of the 2024–29 regulatory control period for TasNetworks. We consider this approach will provide sufficient incentives for TasNetworks to achieve capex efficiency gains over the 2019–24 regulatory control period.[50]

TasNetworks has not specified in its proposal what depreciation approach to use in the roll forward of the RAB for the commencement of its 2024–29 regulatory control period. However, we consider that the forecast depreciation approach should be used to establish the opening RAB as at 1 July 2024. We note that this approach is consistent with the AER's *Framework and approach*.[51]

We stated in the *Framework and approach* that depreciation used to roll forward the RAB could be based on either:[52]

- actual capex incurred during the regulatory control period (actual depreciation). We roll forward the RAB based on actual capex less the depreciation on the actual capex incurred by the distributor, or
- the capex allowance forecast at the start of the regulatory control period (forecast depreciation). We roll forward the RAB based on actual capex less the depreciation on the forecast capex approved for the regulatory control period.

We have used forecast depreciation for this draft decision when rolling forward the opening RAB at the commencement of the 2019–24 regulatory control period (section). The use of forecast depreciation to establish the opening RAB for the commencement of the 2024–29 regulatory control period at the next reset therefore maintains the current approach.

As discussed in attachment 9, TasNetworks is currently subject to the CESS for the 2017–19 regulatory control period. We will continue to apply the CESS to TasNetworks over the 2019–24 regulatory control period. We consider that the CESS will provide sufficient incentives for TasNetworks to achieve capex efficiency gains over that period. We are satisfied that the use of a forecast depreciation approach in

[50] NER, cll. 6.12.1(18) and S6.2.2B.

[51] AER, *Final framework and approach for TasNetworks distribution and transmission,* July 2017, p. 71.

[52] AER, *Final framework and approach for TasNetworks distribution and transmission,* July 2017, p. 70.

combination with the application of the CESS and our other ex post capex measures are sufficient to achieve the capex incentive objective.[53]

[53] Our ex post capex measures are set out in the capex incentives guideline, AER, *Capital expenditure incentive guideline for electricity network service providers*, November 2013, pp. 13–19, 20–21. The guideline also sets out how all our capex incentive measures are consistent with the capex incentive objective.