



DRAFT DECISION
Endeavour Energy
Distribution determination
2019–24

Attachment 2 – Regulatory
asset base

November 2018

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Note

This attachment forms part of the AER's draft decision on the distribution determination that will apply to Endeavour Energy for the 2019–24 regulatory control period. 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

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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

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Shortened forms

Shortened form	Extended form
AER	Australian Energy Regulator
capex	capital expenditure
CCP	Consumer Challenge Panel
CESS	capital expenditure sharing scheme
CPI	consumer price index
distributor	distribution network service provider
disposal	asset disposal
NER	national electricity rules
NPV	net present value
opex	operating expenditure
PTRM	post-tax revenue model
RAB	regulatory asset base
RFM	roll forward model
RIN	regulatory information notice
WACC	weighted average cost of capital

2 Regulatory asset base

As part of our distribution determination, we make a decision on Endeavour Energy's (Endeavour) opening regulatory asset base (RAB) as at 1 July 2019.¹ The RAB is the value of those assets that are used by Endeavour 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 Endeavour 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 (capex).²

2.1 Draft decision

We accept Endeavour's proposed opening RAB of \$6512.1 million (\$nominal) as at 1 July 2019.³ We have checked and reconciled Endeavour's proposed inputs to the roll forward model (RFM), which included changes⁴ that were confirmed in the 2014–19 post-tax revenue model (PTRM) from the final remittal decision for the 2014–19 regulatory control period.⁵

To determine the opening RAB as at 1 July 2019, we have rolled forward the RAB over the 2014–19 regulatory control period in accordance with our RFM⁶ to determine a closing RAB value at 30 June 2019. This roll forward also includes an adjustment at the end of the 2014–19 regulatory control period to account for the difference between actual 2013–14 capex and the estimate⁷ approved at the 2014–19 determination.⁸

Table 2.1 sets out our draft decision on the roll forward of the RAB values for Endeavour over the 2014–19 regulatory control period.

¹ NER, cl. 6.12.1(6).

² NER, cl. 6.12.1(18).

³ Endeavour Energy, *Regulatory proposal 1 July 2019 to 30 June 2024*, April 2018, p. 80.

⁴ These changes included forecast: inflation rate for the 2014–19 period; nominal vanilla WACC values for the 2014–19 period; equity raising costs in 2014–15; and straight-line depreciation for the 2014–19 period.

⁵ AER, *Final decision Endeavour Energy 2014–19 electricity distribution determination*, September 2018.

⁶ AER, *Electricity distribution network service providers: Roll forward model (version 2)*, 15 December 2016.

⁷ While 2014–15 was a transitional year for Endeavour, we were unable to account for actual capex for 2013–14 in the 2014–19 final decision. Instead, an estimated capex for that year was included in Essential's opening RAB at 1 July 2014. See section 2.3 for further discussion on Endeavour's transitional year. The end of period adjustment will be positive (negative) if actual capex is higher (lower) than the estimate approved at the 2014–19 determination.

⁸ Although our 2015 determination for the 2014–19 period was set aside during the appeal process, the approved 2013–14 capex estimate was not varied as part of our remade determination.

Table 2.1 AER's draft decision on Endeavour's RAB for the 2014–19 regulatory control period (\$million, nominal)

	2014–15	2015–16	2016–17	2017–18 ^a	2018–19 ^b
Opening RAB	5581.3	5895.3	5979.9	6015.3	6238.4
Capital expenditure ^c	377.4	216.4	195.3	348.7	409.2
Inflation indexation on opening RAB ^d	138.9	88.9	76.4	117.2	122.5
Less: straight-line depreciation ^e	202.3	220.8	236.2	242.8	252.9
Interim closing RAB	5895.3	5979.9	6015.3	6238.4	6517.3
Difference between estimated and actual 2013–14 capex (1 July 2013 to 30 June 2014) ^f					–3.9
Return on difference for 2013–14 capex ^f					–1.3
Closing RAB as at 30 June 2019					6512.1

Source: AER analysis; Endeavour Energy, *0.05 Roll forward Model*, April 2018.

- (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 Endeavour. 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.
- (f) Despite 2014–15 being a transitional year for Endeavour, there is still a true-up required for 2013–14. This is discussed further in section 2.3.

We determine a forecast closing RAB value at 30 June 2024 of \$7748.0 million (\$nominal). This is \$504.1 million (or 6.1 per cent) lower than the amount of \$8252.0 million (\$nominal) proposed by Endeavour.⁹ Our draft decision on the forecast closing RAB reflects our draft decisions on the expected inflation rate (attachment 3), forecast depreciation (attachment 4) and forecast capex (attachment 5), which is the main driver of the reduction compared to the proposal.

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

⁹ Endeavour Energy, *Regulatory proposal 1 July 2019 to 30 June 2024*, April 2018, p. 83.

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

	2019–20	2020–21	2021–22	2022–23	2023–24
Opening RAB	6512.1	6786.4	7024.8	7256.8	7500.7
Capital expenditure ^a	380.9	358.6	362.8	382.9	382.4
Inflation indexation on opening RAB	157.9	164.6	170.3	176.0	181.9
Less: straight-line depreciation	264.4	284.8	301.1	315.0	317.0
Closing RAB	6786.4	7024.8	7256.8	7500.7	7748.0

Source: AER analysis.

(a) Net of forecast disposals and capital contributions. In accordance with the timing assumptions of the 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 accept Endeavour's proposal that the forecast depreciation approach is to be used to establish the opening RAB at the commencement of the 2024–29 regulatory control period.¹⁰ We consider this approach is consistent with the capital expenditure incentive objective in that it will provide sufficient incentives for Endeavour to achieve capex efficiency gains over the 2019–24 regulatory control period.

2.2 Endeavour Energy's proposal

Endeavour used our RFM to establish an opening RAB as at 1 July 2019 and our PTRM to roll forward the RAB over the 2019–24 regulatory control period.

Endeavour proposed an opening RAB value as at 1 July 2014 of \$5581.3 million (\$nominal). Rolling forward this RAB and using depreciation based on forecast capex, Endeavour proposed a closing RAB as at 30 June 2019 of \$6512.1 million (\$nominal). Table 2.3 presents Endeavour's proposed roll forward of its RAB during the 2014–19 regulatory control period.¹¹

¹⁰ NER, cl. 6.12.1(18).

¹¹ Endeavour Energy, *Regulatory proposal 1 July 2019 to 30 June 2024*, April 2018, p. 82.

Table 2.3 Endeavour's proposed RAB for the 2014–19 regulatory control period (\$million, nominal)

	2014–15	2015-16	2016-17	2017–18 ^a	2018–19 ^a
Opening RAB	5581.3	5895.3	5979.9	6015.3	6238.4
Capital expenditure ^b	377.4	216.4	195.3	348.7	409.2
Inflation indexation on opening RAB	138.9	88.9	76.4	117.2	122.5
Less: straight-line depreciation ^c	202.3	220.8	236.2	242.8	252.9
Closing RAB	5895.3	5979.9	6015.3	6238.4	6517.3
Difference between estimated and actual 2013–14 capex (1 July 2013 to 30 June 2014)					–3.9
Return on difference for 2013–14 capex					–1.3
Closing RAB as at 30 June 2019^d					6512.1

Source: Endeavour Energy, *0.05 Roll forward Model*, April 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.
- (d) Despite 2014–15 being a transitional year for Endeavour, there is still a true-up required for 2013–14. This is discussed further in section 2.3.

Endeavour proposed a forecast closing RAB as at 30 June 2024 of \$8252.0 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 2.4.¹²

¹² Endeavour Energy, *Regulatory proposal 1 July 2019 to 30 June 2024*, April 2018, p. 83

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

	2019–20	2020–21	2021–22	2022–23	2023–24
Opening RAB	6512.1	6886.8	7232.2	7571.4	7900.5
Capital expenditure ^a	476.6	460.5	464.5	462.5	480.7
Inflation indexation on opening RAB	162.8	172.2	180.8	189.3	197.5
Less: straight-line depreciation	264.6	287.2	306.1	322.7	326.7
Closing RAB	6886.8	7232.2	7571.4	7900.5	8252.0

Source: Endeavour Energy, *0.04 Post-tax Revenue Model*, April 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.

Endeavour proposed to apply a forecast depreciation approach to establish the RAB at the commencement of the 2024–29 regulatory control period, consistent with the approach set out in our *Framework and approach* paper.¹³

2.3 AER's assessment approach

We roll forward Endeavour's RAB during the 2014–19 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.¹⁴ 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.¹⁵

To determine the opening RAB, we developed an asset base RFM that a service provider must use in preparing its regulatory proposal.¹⁶ The RFM rolls forward Endeavour's RAB from the beginning of the final year of the 2009–14 regulatory control period, through the 2014–19 regulatory control period, to the beginning of the 2019–24 regulatory control period. Our approach to rolling forward the RAB generally involves an adjustment to account for the difference between the actual capex and the estimate approved for the final year of the previous regulatory control period.¹⁷ As 2014–15 was a transitional year for Endeavour, this adjustment typically would not be required. However, Endeavour's capex for 2013–14 as determined in our final decision for the 2014–19 regulatory control period was not adjusted for movements in capitalised provisions. As a result, we were unable to account for actual capex in 2013–14 and

¹³ Endeavour Energy, *Regulatory proposal 1 July 2019 to 30 June 2024*, April 2018, p. 92.

¹⁴ NER, cl. S6.2.1(e)(3).

¹⁵ NER, cl. S6.2.1.

¹⁶ 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.

¹⁷ NER, cl. S6.2.1(e)(3); The end of period adjustment will be positive (negative) if actual capex is higher (lower) than the estimate approved at the 2014–19 determination.

instead an estimated capex for that year was included in Endeavour's opening RAB as at 1 July 2014. Therefore, an adjustment becomes necessary during this reset for 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.¹⁸
- Adding actual or estimated capex to the RAB for the relevant year.¹⁹ We review a distributor's past capex and may exclude past capex from being rolled into the RAB where total capex exceeds the regulatory allowance.²⁰ The details of our assessment approach for capex overspending are set out in the *Capital expenditure incentive guideline*.²¹ We note that under the transitional rules, our review of past capex does not apply to Endeavour prior to 1 July 2015.²² Also, the review of past capex does not include the last two years of the 2014–19 regulatory control period—these will instead be reviewed at the next reset.²³ 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.²⁴ However, there may be instances where adjustments are required to the annual reporting RIN data.²⁵
- Subtracting depreciation from the RAB for the relevant year, calculated in accordance with the relevant distribution determination for the previous regulatory control period.²⁶ Depreciation based on forecast or actual capex can be used to roll forward the RAB.²⁷ For this draft decision, we use depreciation based on forecast capex for rolling forward Endeavour's RAB values over the 2014–19 regulatory control period.²⁸ Depreciation based on forecast capex will also be used for the 2019–24 regulatory control period RFM roll forward at the next reset.²⁹

¹⁸ NER, cl. 6.5.1(e)(3).

¹⁹ NER, cl. S6.2.1(e)(4).

²⁰ 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 cl. S6.2.2A (c), (d) and (e) of the NER.

²¹ AER, *Capital expenditure incentive guideline*, November 2013, pp. 12–20.

²² NER, cl.11.56.5(a).

²³ 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.

²⁴ We will update any estimated capex with actual capex at the time of the next reset.

²⁵ For example, we make adjustment for movements in provisions if the actual capex amounts reported in the RIN include capitalised provisions.

²⁶ NER, cl. S6.2.1(e)(5).

²⁷ NER, cl. 6.12.1(18).

²⁸ The use of forecast depreciation is consistent with the depreciation approach established in the 2014–19 distribution determination for Endeavour. See AER, *Final decision Endeavour Energy distribution determination – Overview*, April 2015, p. 23.

²⁹ Refer to section 2.4.3 for the reasons.

- Subtracting any gross proceeds for asset disposals for the relevant year, by way of netting from capex to be added to the RAB.³⁰ 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 2014–19 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.³¹

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 regulatory control period.³² 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:³³

- 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.³⁴ 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.

³⁰ NER, cl. S6.2.1(e)(6).

³¹ NER, cl. S6.2.3.

³² NER, cl. S6.2.2B.

³³ NER, cl. S6.2.2B(b) and (c).

³⁴ 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.

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 capex³⁵
- depreciation
- indexation adjustment – so the RAB is present in nominal terms, consistent with the rate of return.

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.³⁶ A nominal rate of return (WACC) is multiplied by the opening RAB to produce the return on capital building block.³⁷ To prevent the double counting of inflation through the nominal WACC and indexed RAB,³⁸ the regulatory depreciation building block has an offsetting reduction for indexation of the RAB.³⁹ 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

³⁵ 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.

³⁶ NER, cll. 6.3.2(a)(2) and 6.5.1(e)(3).

³⁷ NER, cll. 6.5.2(a) and 6.5.2(d)(2).

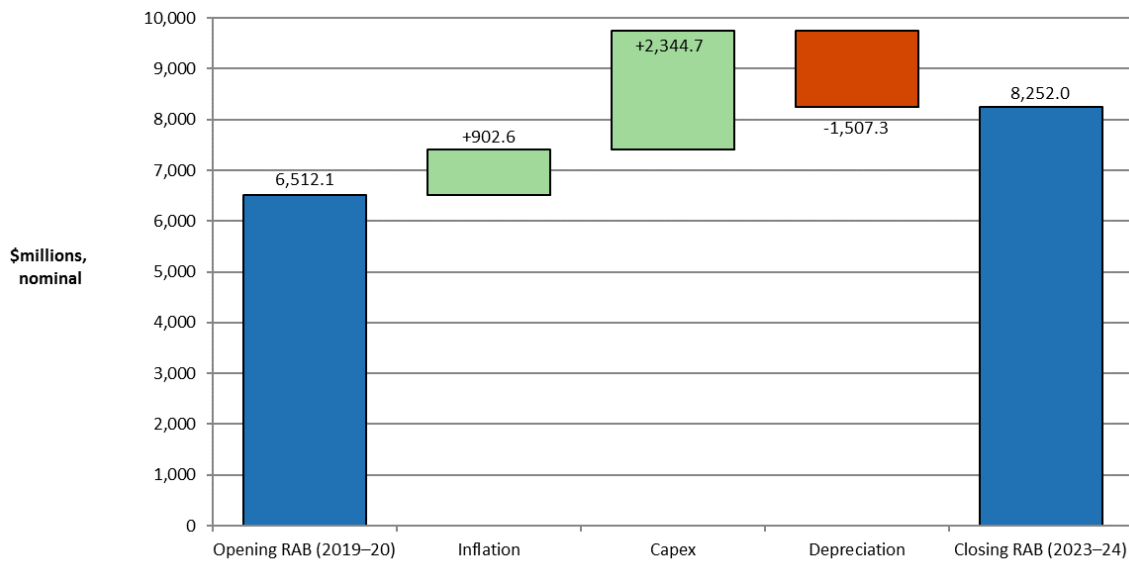
³⁸ NER, cl. 6.4.3(b)(1)(ii).

³⁹ 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.

future—producing a steeper downward sloping profile of total revenue.⁴⁰ 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 Endeavour. Overall, the closing RAB at the end of the 2019–24 regulatory control period would be 26.7 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 36.0 per cent, while the expected inflation increases it by about 13.9 per cent. Forecast depreciation, on the other hand, reduces the RAB by about 23.1 per cent.

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



Source: Endeavour Energy, *0.04 Post-tax Revenue Model*, April 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.

Endeavour forecast depreciation of \$1507.3 million (\$nominal) for the 2019–24 regulatory control period. We have approved Endeavour's depreciation proposal, subject to some input updates, 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.

Forecast net capex is a significant driver of the increase in the RAB. We are not satisfied that Endeavour's proposed total forecast capex of \$2133.5 million (\$2018–

⁴⁰ 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.

19)⁴¹ for the 2014–19 regulatory control period reasonably reflects the capex criteria. We have therefore substituted an alternative total forecast capex of \$1700.3 million for the 2019–24 regulatory control period. Refer to attachment 5 for the discussion on forecast capex.

A ten per cent increase in the opening RAB at 1 July 2019 causes revenues to increase by about 6.0 per cent. However, the impact on revenues of the annual change in RAB depends on the source of the RAB change, as some drivers affect more than one building block cost.⁴²

2.4 Reasons for draft decision

We determine an opening RAB value for Endeavour of \$6512.1 million (\$nominal) as at 1 July 2019, consistent with its proposal. We forecast a closing RAB value of \$7748.0 million (\$nominal) by 30 June 2024. This represents a reduction of \$504.1 million (\$nominal) or 6.1 per cent compared to Endeavour's proposal. The reasons for our draft decision are discussed below.

2.4.1 Opening RAB as at 1 July 2019

We accept Endeavour's proposed opening RAB of \$6512.1 million (\$nominal) as at 1 July 2019.⁴³ We have checked and reconciled Endeavour's proposed inputs to the roll forward model (RFM), which included changes⁴⁴ that were confirmed in the 2014–19 post-tax revenue model (PTRM) from the final remittal decision for the 2014–19 regulatory control period.⁴⁵

To determine the opening RAB as at 1 July 2019 we have rolled forward the RAB over the 2014–19 regulatory control period to determine a closing RAB value as at 30 June 2019. In doing so we reviewed the key inputs of Endeavour's proposed RFM, such as asset lives, actual gross capex values, asset disposal values, capital contribution values, actual inflation and rate of return.⁴⁶ We found these were correct and they reconcile with relevant data sources such as annual reporting RIN data and the 2014–19 decision models.⁴⁷ We also checked and are satisfied that the proposed RFM

⁴¹ This amount is net of capital contributions, disposals and equity raising costs and excludes the half-year WACC adjustment.

⁴² 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.

⁴³ Endeavour Energy, *Regulatory proposal 1 July 2019 to 30 June 2024*, April 2018, p. 80.

⁴⁴ These changes included forecast: inflation rate for the 2014–19 period; nominal vanilla WACC values for the 2014–19 period; equity raising costs in 2014–15; and straight-line depreciation for the 2014–19 period.

⁴⁵ AER, *Final decision Endeavour Energy 2014–19 electricity distribution determination*, September 2018.

⁴⁶ In our final decision we will update the estimate for 2018–19 expected inflation with actual CPI.

⁴⁷ At the time of this draft decision, the roll forward of Endeavour's RAB includes estimated capex values for 2017–18 and 2018–19. 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.

reflects changes⁴⁸ from the final remittal decision for the 2014–19 regulatory control period.⁴⁹

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.⁵⁰ We note that under the transitional rules, in making this distribution determination, the review of past capex does not apply to Endeavour prior to 1 July 2015.⁵¹ Given this, the review period for this distribution determination is limited to 2015–16 and 2016–17 capex.⁵² Endeavour's actual capex incurred for 2015–16 and 2016–17 is below the forecast allowance set at the previous distribution determination. Therefore, the overspending requirement for an efficiency review of past capex is not satisfied.⁵³ 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.

Further, for the purposes of this draft decision, we have included Endeavour's 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.⁵⁴ 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).⁵⁵ As such, we consider that the 2014–19 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.⁵⁶

2.4.2 Forecast closing RAB as at 30 June 2024

We forecast a closing RAB value of \$7748.0 million (\$nominal) by 30 June 2024 for Endeavour. This represents a reduction of \$504.1 million or 6.1 per cent to Endeavour's proposal. This reduction reflects our draft decision on the inputs for determining the forecast RAB in the PTRM.

Several stakeholder submissions on Endeavour's proposal have raised concerns with the increase to the size of Endeavour's RAB over the 2019–24 regulatory control

⁴⁸ These changes included forecast: inflation rate for the 2014–19 period; nominal vanilla WACC values for the 2014–19 period; equity raising costs in 2014–15; and straight-line depreciation for the 2014–19 period.

⁴⁹ AER, *Final decision Endeavour Energy 2014–19 electricity distribution determination*, September 2018.

⁵⁰ NER, cl. 6.12.2(b).

⁵¹ NER, cl. 11. 56.5(a).

⁵² NER, cl. S6.2.2A(a1).

⁵³ NER, cl. S6.2.2A(c).

⁵⁴ 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.

⁵⁵ AER, *Final decision Endeavour Energy distribution determination – Overview*, April 2015, p. 23.

⁵⁶ NER, cll. 6.4A(a), 6.5.7(a), 6.5.7(c) and 6.12.2(b).

period.⁵⁷ Endeavour has acknowledged and provided a response to these concerns in its submission to our *Issues paper*.⁵⁸ While over the 2019–24 regulatory control period the RAB is projected to grow by 5.5 per cent in real terms under our draft decision, this is below the historical growths of 34.0 per cent for the 2009–14 period and 6.5 per cent in the current 2014–19 period.⁵⁹ Such growth in the RAB was driven largely by the higher capex spend in previous periods. The other drivers of 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 Endeavour, we amended the following PTRM inputs:

- We reduced Endeavour's proposed forecast capex for the 2019–24 regulatory control period by \$433.2 million (\$2018–19) or 20 per cent (attachment 5).
- We updated Endeavour's proposed expected inflation rate of 2.50 per cent per annum to 2.42 per cent per annum (attachment 3). This results in a decrease to the indexation of the RAB component for the 2019–24 regulatory control period by \$28.4 million (3.1 per cent).⁶⁰
- We reduced Endeavour's proposed forecast straight-line depreciation for the 2019–24 regulatory control period by \$25.0 million or 1.7 per cent (\$nominal) (attachment 4).

Figure 2.2 shows the key drivers of the change in Endeavour's 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 19.0 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 28.7 per cent, while expected inflation increases it by about 13.1 per cent. Forecast depreciation, on the other hand, reduces the RAB by about 22.8 per cent.

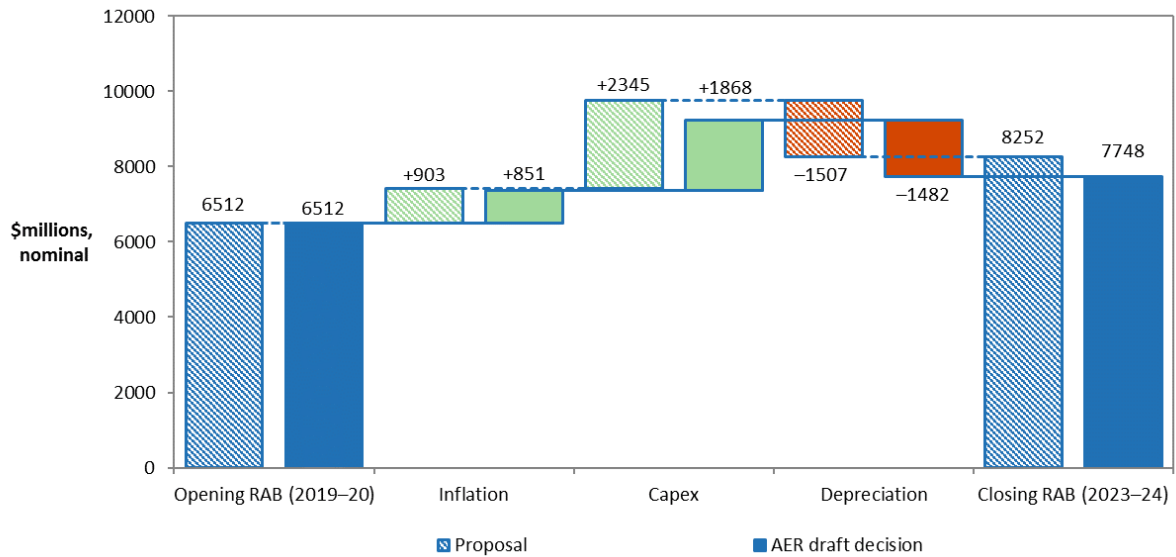
⁵⁷ AGL, *Submission on Endeavour Energy 2019–24 regulatory proposal*, September 2018, p. 3; CCP10, *Submission on Endeavour Energy 2019–24 regulatory proposal*, August 2018, p. 40; ECA, *Submission on Endeavour Energy 2019–24 regulatory proposal*, August 2018, pp. 6–7; EUAA, *Submission on Endeavour Energy 2019–24 regulatory proposal*, August 2018, pp. 3–4; PIAC, *Submission on Endeavour Energy 2019–24 regulatory proposal – Attachment C – Submission on Endeavour Energy's 2019–24 capex proposal*, pp. 6–7.

⁵⁸ Endeavour Energy, *Response to AER issues paper – NSW electricity distribution determinations 2019–24*, August 2018.

⁵⁹ Real RAB change is calculated in \$ 2018–19.

⁶⁰ The calculated decrease to the RAB indexation component amount due to updates in expected inflation is based on input data provided in Endeavour's proposed PTRM.

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



Source: AER analysis.

Notes: 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 accept Endeavour's proposal on the depreciation approach to be applied to establish the opening RAB at the commencement of the 2024–29 regulatory control period. We determine that the depreciation approach will be based on the depreciation schedules (straight-line) using forecast capex at the asset class level approved for the 2019–24 regulatory control period.⁶¹

Endeavour proposed to use the forecast depreciation approach to roll forward the RAB for the commencement of its 2024–29 regulatory control period,⁶² consistent with our *Framework and approach*.⁶³

We stated in the *Framework and approach* that depreciation used to roll forward the RAB could be based on either:⁶⁴

- 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

⁶¹ NER, cll. 6.12.1(18) and S6.2.2B.

⁶² Endeavour Energy, *Regulatory proposal 1 July 2019 to 30 June 2024*, April 2018, p. 92.

⁶³ AER, *Final framework and approach for Ausgrid, Endeavour Energy and Essential Energy*, July 2017, p. 13.

⁶⁴ AER, *Final framework and approach for Ausgrid, Endeavour Energy and Essential Energy*, July 2017, p. 80.

- 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 2.4.1). 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 we discussed in attachment 9, Endeavour is currently subject to the CESS for the 2014–19 regulatory control period, but not in the transitional 2014–15 regulatory year. We will continue to apply the CESS to Endeavour over the 2019–24 regulatory control period. We consider that the CESS will provide sufficient incentives for Endeavour to achieve capex efficiency gains over that period. We are satisfied that the use of a forecast depreciation approach in combination with the application of the CESS and our other ex post capex measures are sufficient to achieve the capex incentive objective.⁶⁵

⁶⁵ 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.