FINAL DECISION
AusNet Services transmission determination
2017-2022

Attachment 2 – Regulatory asset base

April 2017

AUSTRALIAN
ENERGY
REGULATOR

Director, Corporate Communications
Australian Competition and Consumer Commission
GPO Box 4141, Canberra ACT 2601

or publishing.unit@accc.gov.au.

Inquiries about this publication should be addressed to:

Australian Energy Regulator
GPO Box 520
Melbourne Vic 3001

Tel: 1300 585 165

Email: AERInquiry@aer.gov.au

AER reference: 56417

Note

This attachment forms part of the AER's final decision on AusNet Services' revenue proposal 2017–22. It should be read with other parts of the final decision.

The final decision includes the following documents:

Overview

Attachment 1 – maximum allowed revenue

Attachment 2 – regulatory asset base

Attachment 3 – rate of return

Attachment 4 – value of imputation credits

Attachment 5 – regulatory depreciation

Attachment 6 – capital expenditure

Attachment 7 – operating expenditure

Attachment 8 – corporate income tax

Attachment 9 – efficiency benefit sharing scheme

Attachment 10 – capital expenditure sharing scheme

Attachment 11 – service target performance incentive scheme

Attachment 12 – pricing methodology

Attachment 13 – pass through events

Attachment 14 – negotiated services

Contents

Shortened forms

Shortened form	Extended form
AARR	aggregate annual revenue requirement
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
ASRR	annual service revenue requirement
augex	augmentation expenditure
capex	capital expenditure
CCP	Consumer Challenge Panel
CESS	capital expenditure sharing scheme
CPI	consumer price index
DRP	debt risk premium
EBSS	efficiency benefit sharing scheme
ERP	equity risk premium
MAR	maximum allowed revenue
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
NTSC	negotiated transmission service criteria
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
SLCAPM	Sharpe-Lintner capital asset pricing model
STPIS	service target performance incentive scheme
TNSP	transmission network service provider
TUoS	transmission use of system
WACC	weighted average cost of capital

2 Regulatory asset base

The regulatory asset base (RAB) is the value of the assets used by AusNet Services to provide prescribed transmission services.[1] Our revenue determination specifies the RAB as at the commencement of the regulatory control period and the appropriate method for the indexation of the RAB.[2] The indexation of the RAB is one of the building blocks that form the annual building block revenue requirement for each year of the 2017–22 regulatory control period.[3] We set the RAB as the foundation for determining a TNSP's revenue requirements, and use the opening RAB for each regulatory year to determine the return on capital and return of capital (regulatory depreciation) building block allowances.[4]

This attachment presents our final decision on the opening RAB value as at 1 April 2017 for AusNet Services. It also presents our forecast RAB values for AusNet Services over the 2017–22 regulatory control period.

2.1 Final decision

We determine AusNet Services' opening RAB to be $3170.3 million ($ nominal) as at 1 April 2017. The difference of $11.0 million between this amount and AusNet Services' revised proposal reflects the update to the roll forward model (RFM) for 2016–17 actual inflation that is now available.

To determine the opening RAB as at 1 April 2017, we have rolled forward the RAB over the 2014–17 regulatory control period to determine a closing RAB value at 31 March 2017. This roll forward includes an adjustment at the end of the 2014–17 regulatory control period to account for the difference between actual 2013–14 capex and the estimate approved at the 2014–17 determination.[5] The roll forward also includes an adjustment for new assets—labelled 'Group 3 assets'—added to the opening RAB at 1 April 2017 and a true-up for the difference between actual and forecast Group 3 assets rolled in at the 2014–17 determination.[6] Expenditure on Group 3 assets occurs throughout the regulatory control period, but this capex is not

---

1 NER, cl. 6A.6.1.

2 NER, cl. 6A.4.2(3A) and (4).

3 NER, cl. 6A.5.4(a)(1) and (b)(1).

4 NER, cl. 6A.5.4(a)(2) and (3).

5 The end of period adjustment will be positive (negative) if actual capex is higher (lower) than the estimate approved at the 2014–17 determination.

6 During a regulatory control period, AEMO or a distribution business may request AusNet Services to provide augmentations to the transmission network or distribution connection services. While the assets constructed due to these requests provide prescribed transmission services, the forecast capex associated with these assets sit outside of the revenue determination. This is because AusNet Services is not responsible for the planning of these capex. AusNet Services and AEMO refer to the assets that provide these services as 'Group 3' assets. Group 3 assets sit outside of the RAB and are governed by commercial contracts until such time as they are rolled into the RAB, usually at the next revenue reset. See: AusNet Services, *Revenue proposal*, October 2015, p. 23.

added to the RAB each year (as is usually the case). Instead, these assets are added to the RAB at the commencement of each regulatory control period.[7]

Table 2.1 sets out our final decision on the roll forward of the RAB values for the 2014–17 regulatory control period.

Table 2.1 AER's final decision on AusNet Services' RAB for the 2014–17 regulatory control period ($ million, nominal)

	2014–15	2015–16	2016–17[a]
Opening RAB	2876.0	2948.1	2985.0
Capital expenditure[b]	151.3	145.1	181.1
Inflation indexation on opening RAB	66.4	44.3	38.7
Less: straight-line depreciation[c]	145.6	152.5	161.2
Closing RAB	2948.1	2985.0	3043.6
Difference between estimated and actual capex in 2013–14			20.0
Return on difference for 2013–14 capex			4.6
Final year adjustments[d]			102.1
Opening RAB as at 1 April 2017			**3170.3**

Source: AER analysis.

(a) Based on estimated capex.

(b) As incurred, net of disposals, and adjusted for actual CPI.

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

(d) Roll in of Group 3 assets at 1 April 2017, and true-up for difference between actual and forecast Group 3 asset roll in at the 2014–17 determination, and historical inventory allocation adjustment.

We do not accept AusNet Services' revised proposed forecast closing RAB as at 31 March 2022 of $3362.7 million. We instead determine the forecast closing RAB to be $3443.9 million ($ nominal). This is $81.3 million (or 2.4 per cent) higher than AusNet Services' revised proposal. Our final decision on the forecast closing RAB reflects the amended opening RAB as at 1 April 2017, and our final decisions on forecast capex (attachment 6), forecast regulatory depreciation (attachment 5), and the expected inflation rate (attachment 3). Our final decision reductions to forecast capex are more than offset by the impact of the final decision expected inflation rate. The net impact is a higher RAB at 31 March 2022 than that proposed by AusNet Services.

Table 2.2 sets out our final decision on the forecast RAB values for AusNet Services over the 2017–22 regulatory control period. The forecast RAB does not include any

---

[7] As noted above, this adjustment includes estimated expenditure where actual expenditure is not yet known; so there is an additional true-up required at the next revenue determination.

Group 3 assets, which may be commissioned during the 2017–22 regulatory control period. These assets would be added to the RAB at the next reset.

Table 2.2 AER's final decision on AusNet Services' RAB for the 2017–22 regulatory control period ($ million, nominal)

	2017–18	2018–19	2019–20	2020–21	2021–22
Opening RAB	3170.3	3261.2	3330.0	3382.9	3414.4
Capital expenditure[a]	187.6	167.8	159.7	141.7	122.8
Inflation indexation on opening RAB	76.1	78.3	79.9	81.2	81.9
Less: straight-line depreciation[b]	172.8	177.2	186.6	191.4	175.2
Closing RAB	**3261.2**	**3330.0**	**3382.9**	**3414.4**	**3443.9**

Source: AER analysis.

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

(b) Based on as-commissioned capex.

AusNet Services' revised proposal adopted our draft decision on the use of forecast depreciation for establishing the RAB at the commencement of the regulatory control period from 1 April 2022.[8] We therefore maintain our draft decision position on this issue for this final decision.

2.2 AusNet Services' revised proposal

AusNet Services' methodology for determining the opening RAB value at 1 April 2017 is unchanged from its initial proposal. AusNet Services used our RFM—including some changes to the depreciation calculations—to establish an opening RAB as at 1 April 2017 and our post-tax revenue model (PTRM) to roll forward the RAB over the 2017–22 regulatory control period.

AusNet Services' revised proposal submitted an opening RAB value as at 1 April 2017 of $3181.2 million ($ nominal).[9] It adopted our draft decision amendments to the indexation approach applied in the RFM and the value of asset disposals. AusNet Services also updated 2015–16 capex for actuals and provided further clarification on the issues of capitalised provisions and allocation of inventory capex raised in the draft decision.[10]

Table 2.3 presents AusNet Services' revised proposed roll forward of its RAB during the 2014–17 regulatory control period.

8 AusNet Services, *Revised proposal*, September 2016, p. 235.

9 AusNet Services, *Revised proposal*, September 2016, p. 235.

10 AusNet Services, *Revised proposal*, September 2016, pp. 234–242.

Table 2.3 AusNet Services' revised proposed RAB for the 2014–17 regulatory control period ($ million, nominal)

	2014–15	2015–16	2016–17[a]
Opening RAB	2876.0	2948.1	2985.0
Capital expenditure[b]	151.3	145.1	181.4
Inflation indexation on opening RAB	66.4	44.3	49.3
Less: straight-line depreciation[c]	145.6	152.5	161.2
Closing RAB	2948.1	2985.0	3054.5
Difference between estimated and actual capex in 2013–14			20.0
Return on difference for 2013–14 capex			4.6
Final year adjustments[d]			102.1
Opening RAB as at 1 April 2017			**3181.2**

Source: AusNet Services, *Revised proposal*, September 2016, pp. 235 and 242.

(a) Based on estimated capex and forecast inflation.

(b) As incurred, net of disposals, and adjusted for actual CPI.

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

(d) Roll in of Group 3 assets at 1 April 2017, true-up for difference between actual and forecast Group 3 asset roll in at the 2014–17 determination, and historical inventory allocation adjustment.

AusNet Services proposed a revised closing forecast RAB as at 31 March 2022 of $3362.7 million ($ nominal). This value reflects its revised proposed opening RAB, forecast capex, expected inflation, and depreciation (based on forecast capex) over the 2017–22 regulatory control period. Its projected RAB over the 2017–22 regulatory control period is shown in Table 2.4.

Table 2.4 AusNet Services' revised proposed RAB for the 2017–22 regulatory control period ($ million, nominal)

	2017–18	2018–19	2019–20	2020–21	2021–22
Opening RAB	3181.2	3249.4	3297.7	3333.7	3350.1
Capital expenditure[a]	188.9	171.2	166.3	149.9	129.3
Inflation indexation on opening RAB	52.5	53.6	54.4	55.0	55.3
Less: straight-line depreciation[b]	173.2	176.6	184.7	188.5	172.0
Closing RAB	**3249.4**	**3297.7**	**3333.7**	**3350.1**	**3362.7**

Source: AusNet Services, *Revised proposal*, September 2016, pp. 235 and 242.

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

(b) Based on as-commissioned capex.

AusNet Services maintained its proposal to apply the forecast depreciation approach to establish the opening RAB at the commencement of the 2022–27 regulatory control period.[11] This is consistent with our draft decision and the approach set out in our *Framework and approach* paper.[12]

2.3 AER's assessment approach

We did not change our assessment approach for the RAB from our draft decision. Section 2.3 of our draft decision details that approach.

2.4 Reasons for final decision

We determine an opening RAB value for AusNet Services of $3170.3 million ($ nominal) as at 1 April 2017, a reduction of $11.0 million ($ nominal) or 0.3 per cent from the revised proposed value. We forecast a closing RAB value of $3443.9 million by 31 March 2022. This represents an increase of $81.3 million or 2.4 per cent compared to AusNet Services' revised proposal. The reasons for our final decision are discussed below.

2.4.1 Opening RAB at 1 April 2017

We determine an opening RAB value of $3170.3 million ($ nominal) as at 1 April 2017 for AusNet Services. This value is $11.0 million (or 0.3 per cent) lower than AusNet Services' revised proposed opening RAB of $3181.2 million ($ nominal) as at 1 April 2017.[13] This is because we updated the inflation input for 2016–17 using the actual September 2016 consumer price index (CPI) published by the Australian Bureau of Statistics.[14]

In our draft decision, we made certain amendments to AusNet Services' proposed roll forward of its RAB over the 2014–17 regulatory control period. These amendments included:

- applying the standard partially-lagged inflation approach for RFM indexation
- accounting for asset disposal values based on gross proceeds.

AusNet Services adopted both of these amendments in its revised proposal.

We also noted the roll forward of AusNet Services RAB included estimated capex for 2015–16 and 2016–17, and estimated inflation for 2016–17, because these actual values were not yet available.

---

11 AusNet Services, *Revised proposal*, September 2016, p. 235.

12 AER, *Draft decision AusNet Services transmission determination 2017–22 Attachment 2 – Regulatory asset base*, p. 23; AER, *Final decision: Framework and approach paper for AusNet Services – Regulatory control period commencing 1 April 2017*, pp. 27–29.

13 AusNet Services, *Revised proposal*, September 2016, p. 242.

14 Australian Bureau of Statistics, *6401.0 - Consumer Price Index, Australia, Sep 2016*, 26 October 2016.

In its revised proposal, AusNet Services updated 2015–16 capex with actual amounts and provided an updated estimate of 2016–17 capex. AusNet Services also amended the allocation of its as-commissioned capex to address the issues raised in the draft decision with the historical allocation of inventory movements.[15] It did not adopt our draft decision adjustment for the movement in capitalised provisions, noting that the adjustment was not required as it was already made in its proposal. These three issues are discussed in turn below.

We also consider the extent to which our roll forward of the RAB to 1 April 2017 contributes to the achievement of the capital expenditure incentive objective.[16] As discussed in our draft decision, the review period for this transmission determination is limited to 2014–15 capex.[17] Consistent with our draft decision, the overspending requirement for an efficiency review of past capex is not satisfied.[18] Accordingly, the capex incurred in that year is regarded as likely to be prudent and efficient, and included in the RAB—this is discussed further in appendix C of capex attachment 6 of our final decision.[19] For the purposes of this final decision we have included AusNet Services' actual capex in 2015–16 and estimated 2016–17 in the RAB roll forward to 1 April 2017. At the next reset, the 2015–16 and 2016–17 capex will form part of the review period for whether past capex should be excluded for inefficiency reasons.[20] Our RAB roll forward applies the incentive framework approved in the previous transmission determination, which included the use of an actual depreciation approach.[21] As such, we consider that the 2014–17 RAB roll forward contributes to an opening RAB (as at 1 April 2017) that includes capex that reflects prudent and efficient costs, in accordance with the capital expenditure criteria.[22]

Updates to estimated capex

AusNet Services' revised proposal included an update to 2015–16 capex for actuals now available. We reviewed AusNet Services' updated 2015–16 actual capex inputs to see if they reconciled with AusNet Services' regulatory accounts for that year submitted to us and identified a small allocation discrepancy. We raised this discrepancy with AusNet Services and it acknowledged that there was an error in its 2015–16 regulatory accounts.[23] AusNet Services subsequently resubmitted its

---

15 AusNet Services, *Revised proposal*, September 2016, pp. 234–242.

16 NER, cl. 6A.14.2(b).

17 AER, *Draft decision AusNet Services transmission determination 2017–22 Attachment 2 – Regulatory asset base*, p. 23.

18 AusNet Services' actual capex incurred in 2014–15 is below the forecast allowance set at the previous transmission determination; NER, cl. S6A.2.2A(c).

19 AER, *Final decision AusNet Services transmission determination 2017–22 Attachment 6 – Capital expenditure*, Appendix C.

20 Here, 'inefficiency' of past capex refers to three specific assessments (labelled the overspending, margin and capitalisation requirements) detailed in NER, cl. S6A.2.2A. The details of our assessment approach for inefficient capex are set out in AER, *Capital expenditure incentive guideline*, November 2013, pp. 12–20.

21 AER, *Final decision, SP AusNet transmission determination 2014–15 to 2016–17*, January 2014, p. 20.

22 NER, cll. 6A.5A(a), 6A.6.7(a), 6A.6.7(c) and 6A.14.2(b)

23 AusNet Services, *Email response to AER information request #021*, 13 October 2016.

regulatory accounts with corrected capex values that reconciled with the revised proposed RFM. We therefore accept AusNet Services' update to the actual capex for 2015–16 of $145.1 million ($ nominal) in the RAB roll forward.[24]

AusNet Services also provided an updated estimate of 2016–17 capex. We accept its revision to the net capex estimate of $181.4 million ($ nominal).[25] This amount is lower than in the initial proposal, reflecting more up-to-date data and therefore is the best forecast available. We note that the financial impact of any difference between actual and estimated capex for 2016–17 will be accounted for at the next reset.[26]

Inventory capex allocation

Our draft decision raised an issue with the allocation of AusNet Services' as-commissioned capex. We noted there was a potential issue with the allocation of inventory movements in AusNet Services' historical regulatory accounts. Due to the complexity of the issue and the need to verify items in the regulatory accounts AusNet Services was unable to confirm the appropriate allocation of capex in time for the draft decision. AusNet Services provided further clarification of the issue in its revised proposal. It found that historical inventory additions had not been correctly recorded against its as-incurred RAB since 2008–09. It also found that inventory movements recorded against its as-commissioned RAB were allocated to the wrong asset class. The inventory movements were allocated to the depreciating 'Other (non-network)' asset class instead of the non-depreciating 'Inventory' asset class. This resulted in AusNet Services incorrectly receiving a revenue allowance for the depreciation of its as-commissioned inventory assets when it should not have, and an as-incurred RAB that was lower than if inventory capex were correctly recorded.

AusNet Services proposed to include the historical inventory capex incurred from 2008–09 to 2012–13 into its as-incurred opening RAB at 1 April 2017 as an end of period adjustment. It also proposed to reallocate the as-commissioned RAB value from the 'Other (non-network)' asset class to the correct 'Inventory' asset class and return the value that was incorrectly depreciated back to customers through a new asset class with a negative asset value. This adjustment is discussed further in the depreciation attachment (attachment 5).

We consider it appropriate to correct the error identified, even though it relates to capex prior to the 2014–17 regulatory control period. AusNet Services incurred this capex and if its regulatory accounts had been correct it would have been added to the RAB. We have reviewed AusNet Services' proposed approach and the calculations underlying the proposed values. We agree with the calculations, and consider it a reasonable approach to correct the error identified.

---

24 NER, cl. S6A.2.1(f).

25 This amount includes a half-WACC allowance to compensate for the six month period before capex is added to the RAB.

26 NER, cl. S6A.2.1(f)(3).

Movements in capitalised provisions

AusNet Services' revised proposal agreed with our approach to adjust gross capex for the movement in capitalised provisions. However, it noted that the capex provided in its proposed RFM and annual regulatory accounts was already adjusted for the movement in capitalised provisions.[27] AusNet Services provided further information in its revised proposal regarding the movement in capitalised provisions to demonstrate this. After reviewing the issue in light of the information provided we agree with AusNet Services' revised proposal. We therefore accept that the revised proposed actual gross capex inputs already adjust for the movement in capitalised provisions, and no further adjustment is required.[28]

2.4.2 Forecast closing RAB at 31 March 2022

We forecast a closing RAB of $3443.9 million by 31 March 2022 for AusNet Services. This represents an increase to AusNet Services' revised proposal of $81.3 million (or 2.4 per cent). This change reflects our final decision on the inputs for determining the forecast RAB in the PTRM. To determine the forecast RAB value, we amended the following PTRM inputs:

- We reduced AusNet Services' revised proposed opening RAB value by $11 million or 0.3 per cent as at 1 April 2017 (section 2.4.1).
- We increased AusNet Services' revised proposed expected inflation rate of 1.65 per cent per annum to 2.40 per cent per annum (attachment 3). This results in an increase to the indexation of the RAB component for the 2017–22 regulatory control period by $126.6 million ($ nominal) or 46.8 per cent.
- We reduced AusNet Services' revised proposed forecast capex for the 2017–22 regulatory control period by $26 million ($ nominal) or 3.2 per cent (attachment 6).
- We increased AusNet Services' revised proposed forecast straight-line depreciation by $8.3 million ($ nominal) or 0.9 per cent (attachment 5). This increase is the result of the different expected inflation rates used to inflate straight-line depreciation from real 2016–17 to nominal terms.[29] Our final decision reduces real straight-line depreciation by $10.9 million ($ 2016–17) or 1.3 per cent.

Figure 2.1 shows the key drivers of the change in AusNet Services' RAB over the 2017–22 regulatory control period for this final decision. Overall, the closing RAB at the end of the 2017–22 regulatory control period is forecast to be 8.6 per cent higher than

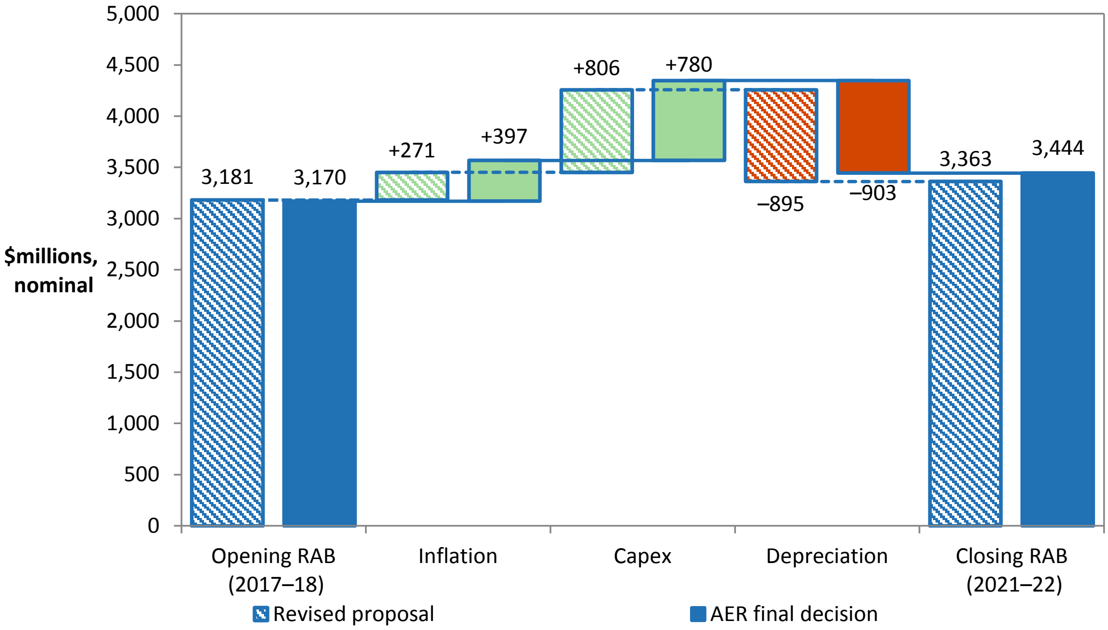
27 AusNet Services, *Revised proposal*, September 2016, pp.240– 241.

28 To make a further adjustment as was done in the draft decision would result in double counting, which would not be appropriate.

29 AusNet Services' revised proposal used a lower expected inflation rate (1.65 per cent compared to 2.40 per cent) to inflate real 2016–17 values into nominal dollar terms. This means that the same underlying real dollar values would appear as an increase in the final decision when comparing on a nominal basis.

the opening RAB at the start of that period, in nominal terms.[30] The approved forecast net capex increases the RAB by about 24.6 per cent, while expected inflation increases it by about 12.5 per cent. Forecast depreciation, on the other hand, reduces the RAB by about 28.5 per cent.

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



Source: AER analysis; AusNet Services, *Revised proposal*, September 2016, pp. 235 and 242.

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

When we roll forward AusNet Services' RAB for the 2017–22 regulatory control period at the next reset we must adjust for depreciation. Our final decision is to roll forward the RAB for the commencement of AusNet Services' 2022–27 regulatory control period using depreciation based on forecast capex (updated for actual inflation). This approach is consistent with our draft decision, AusNet Services' initial proposal and the framework and approach.[31]

---

30 However, the RAB value will further increase when Group 3 assets are rolled in at the commencement of the 2022–27 regulatory control period.

31 AER, *Draft decision – Attachment 2 – Regulatory asset base*, p. 23; AusNet Services, *Revenue proposal*, October 2015, p. 174; AER, *Final decision: Framework and approach paper for AusNet Services – Regulatory control period commencing 1 April 2017*, pp. 27–29.