DRAFT DECISION
Ausgrid
Distribution determination

2019–24

Attachment 2 – Regulatory asset base

November 2018

AUSTRALIAN ENERGY REGULATOR

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Note

This attachment forms part of the AER's draft decision on the distribution determination that will apply to Ausgrid 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

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Attachment 17 – Connection policy

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Contents

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
NSW	New South Wales
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 Ausgrid's opening regulatory asset bases (RABs) as at 1 July 2019 for its distribution and transmission (dual function assets) networks.[1] Ausgrid's dual function assets are high voltage assets which support the broader NSW/ACT transmission network owned and operated by TransGrid. The AER has decided to apply transmission pricing to these assets.[2] The RAB is the value of those assets that are used by Ausgrid 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 values as at 1 July 2019 for Ausgrid and roll forward of the forecast RABs 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).[3]

2.1 Draft decision

We determine opening RAB values of $13767.9 million and $1915.4 million ($ nominal) as at 1 July 2019 for Ausgrid's distribution and transmission networks respectively. Ausgrid proposed opening RAB values of $13800.3 million and $1915.4 million ($ nominal) as at 1 July 2019 for its distribution and transmission assets respectively.[4] We accept the proposed opening RABs, subject to the following revisions:

- adjusted 2015–16 and 2016–17 actual gross capex for movements in capitalised provisions for Ausgrid's distribution network. Although not having a material impact on the opening RAB, we have made this adjustment to reflect our preferred approach that we consistently apply in our determinations
- updated inputs to the roll forward models (RFMs) due to changes in the 2014–19 post-tax revenue models (PTRMs) from Ausgrid's remittal proposal for the 2014–19 regulatory control period.[5] Although not having a material impact, we have made the following updates to determine opening RAB values that reflect the best available information:
    - forecast inflation rate for the 2014–19 period

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1 NER, cl. 6.12.1(6).

2 AER, *Framework and approach Ausgrid, Endeavour Energy and Essential Energy Regulatory control period commencing 1 July 2019,* July 2017, p. 13.

3 NER, cl. 6.12.1(18).

4 Ausgrid, *Attachment 4.01 – Distribution RFM*, April 2018; Ausgrid, *Attachment 4.04 – Transmission RFM*, April 2018.

5 Ausgrid also provided PTRMs to the AER with its remittal proposal document. We reviewed and suggested amendments to some of the inputs to these remittal PTRMs which Ausgrid has accepted. Our 2019–24 draft decision RFMs reflect these amendments.

- forecast nominal vanilla WACC values for the 2014–19 period
- forecast straight-line depreciation for the 2014–19 period.

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 roll forward model (RFM)[6] to determine a closing RAB value at 30 June 2019. Our approach to rolling forward the RAB generally involves an adjustment to account for the difference between actual capex and the estimate approved for the final year of the previous regulatory control period.[7] However, this adjustment is not required for establishing Ausgrid's opening RABs as at 1 July 2019 since the approved opening RAB values at 1 July 2014 of $12251.7 million and $2035.7 million for its distribution and transmission networks respectively do not include any estimated capex. This is because 2014–15 was a transitional year for Ausgrid and we were able to include the actual capex values for 2013–14 in our determination for the 2014–19 regulatory control period.[8]

Table 2.1 and Table 2.2 set out our draft decision on the roll forward of the RAB values for Ausgrid over the 2014–19 regulatory control period for its distribution and transmission networks respectively.

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

7 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 actual capex will not be varied as part of our upcoming remittal decision.

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

	2014–15	2015–16	2016–17	2017–18[a]	2018–19[b]
Opening RAB	12251.7	12615.9	12645.1	12647.1	12977.9
Capital expenditure[c]	498.1	308.7	338.8	557.7	727.7
Inflation indexation on opening RAB[d]	304.8	190.3	161.5	246.4	291.0
Less: straight-line depreciation[e]	438.6	469.8	498.3	473.4	483.4
Interim closing RAB	12615.9	12645.1	12647.1	12977.9	13513.2
Final year asset adjustment moving from transmission to distribution					254.7
Closing RAB as at 30 June 2019[f]					**13767.9**

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 Ausgrid. 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.

(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) There is no true-up required for 2013–14 capex as the approved opening RAB value of $12251.7 million at 1 July 2014 does not include any estimated capex. This is because 2014–15 was a transitional year for Ausgrid and we were able to include the actual capex values for 2013–14 in our final decision for the 2014–19 regulatory control period.

Table 2.2 AER's draft decision on Ausgrid's RAB for the 2014–19 regulatory control period – transmission ($ million, nominal)

	2014–15	2015–16	2016–17	2017–18[a]	2018–19[b]
Opening RAB	2035.7	2067.4	2027.8	2072.4	2106.2
Capital expenditure[c]	60.1	–7.4	86.6	65.7	88.6
Inflation indexation on opening RAB[d]	35.0	34.9	29.9	39.6	47.2
Less: straight-line depreciation[e]	63.3	67.1	72.0	71.4	72.0
Interim closing RAB	2067.4	2027.8	2072.4	2106.2	2170.1
Final year asset adjustment moving from transmission to distribution					–254.7
Closing RAB as at 30 June 2019[f]					**1915.4**

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 Ausgrid. 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.

(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) There is no true-up required for 2013–14 capex as the approved opening RAB value of $2035.7 million at 1 July 2014 does not include any estimated capex. This is because 2014–15 was a transitional year for Ausgrid and we were able to include the actual capex values for 2013–14 in our final decision for the 2014–19 regulatory control period.

We determine forecast closing RAB values of $15204.7 million and $2157.1 million ($ nominal) as at 30 June 2024 for Ausgrid's distribution and transmission networks respectively. Ausgrid proposed closing RAB values of $15957.9 million and $2288.1 million ($ nominal) as at 30 June 2024 for its distribution and transmission networks respectively.[9] Our draft decision on the forecast closing RAB values reflects the updated opening RABs as at 1 July 2019, and 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 2.3 and Table 2.4 set out our draft decision on the forecast RAB values for Ausgrid over the 2019–24 regulatory control period for its distribution and transmission networks respectively.

[9] Ausgrid, *Attachment 4.02 – Distribution PTRM*, April 2018; Ausgrid, *Attachment 4.05 – Transmission PTRM*, April 2018.

Table 2.3 AER's draft decision on Ausgrid's RAB for the 2019–24 regulatory control period – distribution ($ million, nominal)

	2019–20	2020–21	2021–22	2022–23	2023–24
Opening RAB	13767.9	14152.7	14463.4	14746.7	14995.4
Capital expenditure[a]	477.0	422.5	416.0	401.5	357.2
Inflation indexation on opening RAB	333.9	343.2	350.7	357.6	363.6
Less: straight-line depreciation	426.0	455.0	483.4	510.4	511.4
Closing RAB	**14152.7**	**14463.4**	**14746.7**	**14995.4**	**15204.7**

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.

Table 2.4 AER's draft decision on Ausgrid's RAB for the 2019–24 regulatory control period – transmission ($ million, nominal)

	2019–20	2020–21	2021–22	2022–23	2023–24
Opening RAB	1915.4	1971.2	2011.4	2068.0	2125.9
Capital expenditure[a]	67.0	54.9	75.1	79.9	53.7
Inflation indexation on opening RAB	46.4	47.8	48.8	50.1	51.6
Less: straight-line depreciation	57.6	62.5	67.3	72.1	74.1
Closing RAB	**1971.2**	**2011.4**	**2068.0**	**2125.9**	**2157.1**

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 Ausgrid'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 for Ausgrid.[10] We consider this approach is consistent with the capex incentive objective in that it will provide sufficient incentives for Ausgrid to achieve capex efficiency gains over the 2019–24 regulatory control period.

[10] NER, cl. 6.12.1(18).

2.2 Ausgrid's proposal

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

Ausgrid proposed opening RAB values of $12251.7 million and $2035.7 million ($ nominal) as at 1 July 2014 for its distribution and transmission networks respectively. Rolling forward these RABs and using depreciation based on forecast capex, Ausgrid proposed closing RAB values of $13800.3 million and $1915.4 million ($ nominal) as at 30 June 2019 for its distribution and transmission networks respectively. Table 2.5 and Table 2.6 present Ausgrid's proposed roll forward of its RABs during the 2014–19 regulatory control period for its distribution and transmission networks respectively.

Table 2.5 Ausgrid's proposed RAB for the 2014–19 regulatory control period – distribution ($million, nominal)

	2014–15	2015-16	2016-17	2017–18[a]	2018–19[a]
Opening RAB	12251.7	12616.0	12656.3	12678.1	13009.5
Capital expenditure[b]	498.2	319.7	358.5	557.8	727.9
Inflation indexation on opening RAB	304.8	190.3	161.6	247.1	291.7
Less: straight-line depreciation[c]	438.6	469.8	498.3	473.4	483.5
Closing RAB	12616.0	12656.3	12678.1	13009.5	13545.6
Final year asset adjustment moving from transmission to distribution					254.7
Closing RAB as at 30 June 2019[d]					**13800.3**

Source: Ausgrid, *Attachment 4.01 – Distribution RFM*, 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) There is no true-up required for 2013–14 capex as the approved opening RAB value of $12251.7 million at 1 July 2014 does not include any estimated capex. This is because 2014–15 was a transitional year for Ausgrid and we were able to include the actual capex values for 2013–14 in our final decision for the 2014–19 regulatory control period.

Table 2.6 Ausgrid's proposed RAB for the 2014–19 regulatory control period – transmission ($million, nominal)

	2014–15	2015-16	2016-17	2017–18[a]	2018–19[a]
Opening RAB	2035.7	2067.4	2027.8	2072.5	2106.3
Capital expenditure[b]	60.1	–7.4	86.7	65.7	88.6
Inflation indexation on opening RAB	35.0	34.9	29.9	39.6	47.2
Less: straight-line depreciation[c]	63.3	67.1	72.0	71.4	72.0
Interim closing RAB	2067.4	2027.8	2072.5	2106.3	2170.2
Final year asset adjustment moving from transmission to distribution					–254.7
Closing RAB as at 30 June 2019[d]					**1915.4**

Source: Ausgrid, *Attachment 4.04 – Transmission RFM*, 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) There is no true-up required for 2013–14 capex as the approved opening RAB value of $2035.7 million at 1 July 2014 does not include any estimated capex. This is because 2014–15 was a transitional year for Ausgrid and we were able to include the actual capex values for 2013–14 in our final decision for the 2014–19 regulatory control period.

Ausgrid proposed forecast closing RAB values as at 30 June 2024 of $15957.9 million and $2288.1 million ($ nominal) for its distribution and transmission assets respectively. These values reflect its proposed opening RAB values, forecast capex, expected inflation, and depreciation (based on forecast capex) over the 2019–24 regulatory control period. Its projected RABs over the 2019–24 regulatory control period are shown in Table 2.7 and Table 2.8.

Table 2.7 Ausgrid's proposed RAB for the 2019–24 regulatory control period – distribution ($million, nominal)

	2019–20	2020–21	2021–22	2022–23	2023–24
Opening RAB	13800.3	14353.2	14814.9	15230.9	15609.3
Capital expenditure[a]	635.6	568.6	545.9	532.2	501.0
Inflation indexation on opening RAB	345.0	358.8	370.4	380.8	390.2
Less: straight-line depreciation	427.7	465.8	500.3	534.5	542.7
Closing RAB	**14353.2**	**14814.9**	**15230.9**	**15609.3**	**15957.9**

Source: Ausgrid, *Attachment 4.02 – Distribution PTRM*, 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.

Table 2.8 Ausgrid's proposed RAB for the 2019–24 regulatory control period – transmission ($million, nominal)

	2019–20	2020–21	2021–22	2022–23	2023–24
Opening RAB	1915.4	1988.4	2041.2	2110.6	2201.5
Capital expenditure[a]	82.3	66.6	87.5	113.1	109.9
Inflation indexation on opening RAB	47.9	49.7	51.0	52.8	55.0
Less: straight-line depreciation	57.2	63.5	69.1	75.0	78.4
Closing RAB	**1988.4**	**2041.2**	**2110.6**	**2201.5**	**2288.1**

Source: Ausgrid, *Attachment 4.05 – Transmission PTRM*, 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.

Ausgrid 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.[11]

2.3 AER's assessment approach

We roll forward Ausgrid'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.[12] 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.[13]

To determine the opening RAB, we developed an asset base RFM that a service provider must use in preparing its regulatory proposal.[14] The RFM rolls forward the 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.[15] However, this adjustment is not required for establishing Ausgrid's opening RABs as at 1 July 2019 as the approved opening RAB values at 1 July 2014 do not include any estimated capex. This is because 2014–15 was a transitional year for Ausgrid and we were able

11 Ausgrid, *Regulatory proposal 2019–24 Attachment 9.01: Application of incentive schemes,* April 2018, p. 8.

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

13 NER, cl. S6.2.1 See also NER, cl. 6.24.2(b) services provided by means of dual function assets are deemed to be standard control services.

14 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.

15 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.

to include the actual values for 2013–14 in our final decision for the 2014–19 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.[16]
- Adding actual or estimated capex to the RAB for the relevant year.[17] 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.[18] The details of our assessment approach for capex overspending are set out in the *Capital expenditure incentive guideline*.[19] We note that under the transitional rules, our review of past capex does not apply to Ausgrid prior to 1 July 2015.[20] 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.[21] 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.[22] However, there may be instances where adjustments are required to the annual reporting RIN data.[23]
- Subtracting depreciation from the RAB for the relevant year, calculated in accordance with the relevant distribution determination for the previous regulatory control period.[24] Depreciation based on forecast or actual capex can be used to roll forward the RAB.[25] For this draft decision, we use depreciation based on forecast capex for rolling forward Ausgrid's RAB values over the 2014–19 regulatory control period.[26] Depreciation based on forecast capex will also be used for the 2019–24 regulatory control period RAB roll forward at the next reset.[27]

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

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

18 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.

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

20 NER, cl.11.56.5(a).

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

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

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

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

25 NER, cl. 6.12.1(18).

26 The use of forecast depreciation is consistent with the depreciation approach established in the 2014–19 distribution determination for Ausgrid. See AER, *Ausgrid distribution determination Final Decision 2015−16 to 2018−19 Attachment 2 – Regulatory asset base, April 2015*, p. *2–10*.

27 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.[28] 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.[29]

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.[30] 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:[31]

- 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.[32] 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.

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

29 NER, cl. S6.2.3.

30 NER, cl. S6.2.2B.

31 NER, cl. S6.2.2B(b) and (c).

32 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 capex[33]
- depreciation
- indexation adjustment – so the RAB is presented 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.[34] A nominal rate of return (WACC) is multiplied by the opening RAB to produce the return on capital building block.[35] To prevent the double counting of inflation through the nominal WACC and indexed RAB,[36] the regulatory depreciation building block has an offsetting reduction for indexation of the RAB.[37] 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

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[33] 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.

[34] NER, cll. 6.3.2(a)(2) and 6.5.1(e)(3).

[35] NER, cll. 6.5.2(a) and 6.5.2(d)(2).

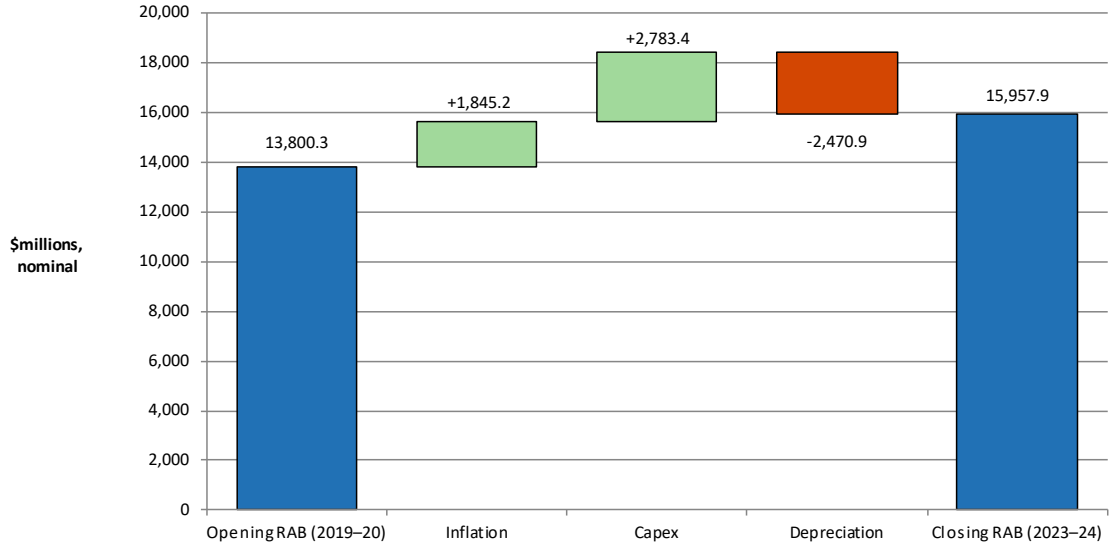
[36] NER, cl. 6.4.3(b)(1)(ii).

[37] 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.[38] The implications of an un-indexed RAB are discussed further in attachment 4.

Figure 2.1 and Figure 2.2 show the key drivers of the changes in the RABs over the 2019–24 regulatory control period as proposed by Ausgrid for its distribution and transmission networks respectively. Overall, the closing RAB at the end of the 2019–24 regulatory control period would be 15.6 per cent higher for the distribution network and 19.5 per cent higher for the transmission network than the respective opening RABs at the start of that period based on the proposal, in nominal terms. The proposed forecast net capex increases the RAB by about 20.2 per cent for the distribution network and 24.0 per cent for the transmission network. Expected inflation increases it by about 13.4 per cent for the distribution network and 13.4 per cent for the transmission network. Forecast depreciation, on the other hand, reduces the RAB by about 17.9 per cent for the distribution network and 17.9 per cent for the transmission network.

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

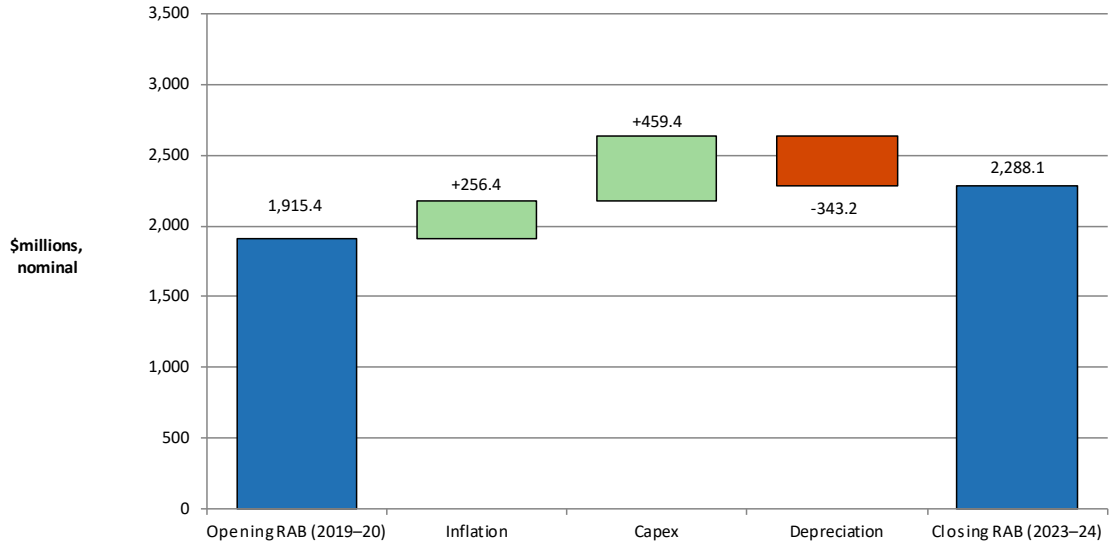


Source: Ausgrid, *Attachment 4.02 – Distribution PTRM*, April 2018.

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.

[38] 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 2.2 Key drivers of changes in the RAB – transmission ($ million, nominal)



Source: Ausgrid, *Attachment 4.05 – Transmission PTRM*, 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.

Ausgrid forecast depreciation of $2470.9 million ($ nominal) for its distribution network and $343.2 million for its transmission network ($ nominal) for the 2019–24 regulatory control period.[39] We have approved Ausgrid's depreciation proposal, subject to some input updates, as it satisfies the requirements of the NER in terms of the assigned remaining and standard 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 Ausgrid's proposed total forecast capex of $2965.8 million ($ 2018–19)[40] for the 2019–24 regulatory control period reasonably reflects the capex criteria.[41] We have therefore rejected Ausgrid's proposed capex and have substituted our estimate of $2209.8 million ($ 2018–19) for the 2019–24 regulatory control period.[42] Refer to attachment 5 for the discussion on forecast capex.

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39 This is the forecast straight-line depreciation.

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

41 Ausgrid's proposed net capex amount of $2965.8 million comprises $2548.5 million and $417.3 million for its distribution and transmission networks respectively.

42 Our draft decision net capex amount of $2209.8 million comprises $1906.7 million and $303.1 million for Ausgrid's distribution and transmission networks respectively.

A ten per cent increase in the opening RABs at 1 July 2019 causes revenues to increase by about 6.6 per cent for the distribution network and 7.6 per cent for the transmission network. 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.[43]

2.4 Reasons for draft decision

We determine Ausgrid's opening RAB value for its distribution network to be $13767.9 million ($ nominal) as at 1 July 2019. This represents a decrease of $32.4 million or 0.2 per cent from the proposed value. For Ausgrid's transmission network, we determine an opening RAB value of and $1915.4 million ($ nominal) as at 1 July 2019, consistent with its proposal. We forecast closing distribution and transmission RAB values of $15204.7 million and $2157.1 million ($ nominal) respectively, as at 30 June 2024. This represents reductions respectively of $753.2 million or 4.7 per cent and $131.0 million ($ nominal) or 5.7 per cent compared to Ausgrid's proposal. The reasons for our decision are discussed below.

2.4.1 Opening RABs as at 1 July 2019

We determine opening RAB values of $13767.9 million and $1915.4 million ($ nominal) as at 1 July 2019 for Ausgrid's distribution and transmission networks respectively. Ausgrid proposed opening RAB values of $13800.3 million and $1915.4 million ($ nominal) as at 1 July 2019 for its distribution and transmission assets respectively.[44] We accept the proposed opening RABs, subject to the following revisions:

- adjusted 2015–16 and 2016–17 actual gross capex for movements in capitalised provisions for Ausgrid's distribution network
- updated inputs to the RFMs due to changes in the 2014–19 PTRMs from Ausgrid's remittal proposal for the 2014–19 regulatory control period.[45] These updates included forecast:
    - inflation rate for the 2014–19 period
    - nominal vanilla WACC values for the 2014–19 period
    - depreciation for the 2014–19 period.

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[43] 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.

[44] Ausgrid, *Attachment 4.01 – Distribution RFM*, April 2018; Ausgrid, *Attachment 4.04 – Transmission RFM*, April 2018.

[45] Ausgrid also provided PTRMs to the AER with its remittal proposal document. We reviewed and suggested amendments to some of the inputs to these remittal PTRMs which Ausgrid has accepted. Our 2019–24 draft decision RFMs reflect these amendments.

To determine the opening RAB values for Ausgrid's distribution and transmission networks as at 1 July 2019 we have rolled forward the respective RABs over the 2014–19 regulatory control period to determine closing RAB values as at 30 June 2019. In doing so we reviewed the key inputs of Ausgrid's proposed RFMs, 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 2014–19 decision models.[46]

However, we consider Ausgrid's actual gross capex should be updated for movements in capitalised provisions.[47] Ausgrid's annual reporting RINs identified movements in capitalised provisions of $29.8 million ($ nominal) in 2015–16 and 2016–17 across various asset classes for its distribution network.[48] Ausgrid's proposed gross capex in its RFM for its distribution network did not make this adjustment.

Our draft decision is to adjust the gross capex in Ausgrid's distribution network RFM for these movements in capitalised provisions. We consider this approach to be appropriate because it means capitalised costs related to these provisions are only included in the RAB when they are paid out by the business. This approach is consistent with adding capex as incurred and has been applied in other AER decisions.[49] We informed Ausgrid that this is our preferred approach prior to submission of its proposal.[50]

Further, we consider Ausgrid's proposed RFMs should be updated with relevant inputs from its 2014–19 remittal proposal. We are currently assessing Ausgrid's remittal proposal and any further adjustments made in our upcoming decision for the remittal process will be reflected in our final decision for the 2019–24 regulatory control period.

We note Ausgrid's proposal included about $255 million as at 1 July 2019 of assets changing classification from dual function asset (transmission) to distribution.[51] We accept that these assets no longer meet the definition of a dual function asset and therefore reclassify them as distribution assets.[52]

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46 At the time of this draft decision, the roll forward of Ausgrid'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.

47 Provisions are expenditures that have been recorded for anticipated future payments, but not yet paid out (incurred). Examples of provisions include environmental provisions, superannuation and other employee entitlements such as annual leave and long service leave.

48 This total of $29.8 million comprises $10.7 million in 2015–16 and $19.1 million in 2016–17.

49 For example: AER, *Draft decision Multinet Gas - Access Arrangement - Attachment 2 - Capital base*, July 2017 p. 14; AER, *Preliminary decision United Energy distribution determination - Attachment 2 - Regulatory asset base*, October 2015, p. 16; AER, *Preliminary decision Ergon Energy - Attachment 2 - Regulatory asset base*, April 2015, p. 16; AER, *Final decision ElectraNet transmission determination*, April 2013, pp. 139–142.

50 AER, *Pre-lodgement engagement on Ausgrid's SCS RFMs*, emailed 15 March 2018.

51 Ausgrid, *Regulatory proposal 1 July 2019 to 30 June 2024*, April 2018, p. 52.

52 NER, cl. 6.24.2.

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.[53] We note that under the transitional rules, in making this distribution determination, the review of past capex does not apply to Ausgrid prior to 1 July 2015.[54] Given this, the review period for this distribution determination is limited to 2015–16 and 2016–17 capex.[55] Ausgrid's actual capex incurred for 2015–16 and 2016–17 are below the forecast allowance set at the previous distribution determination. Therefore, the overspending requirement for an efficiency review of past capex is not satisfied.[56] 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 Ausgrid'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.[57] 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).[58] 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.[59]

2.4.2 Forecast closing RABs as at 30 June 2024

We forecast closing RAB values of $15204.7 million and $2157.1 million ($ nominal) by 30 June 2024 for Ausgrid's distribution and transmission networks respectively. This represents a reduction of $753.2 million (4.7 per cent) for its distribution network and a reduction of $131.0 million (5.7 per cent) for its transmission network compared to the proposal. These reductions reflect our draft decision on the inputs for determining the forecast RABs in the PTRMs.

Several stakeholder submissions on Ausgrid's proposal raised concerns regarding the increase to the size of Ausgrid's RAB over the 2019–24 regulatory control period.[60] Our

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53 NER, cl. 6.12.2(b).

54 NER, cl. 11. 56.5(a).

55 NER, cl. S6.2.2A(a1).

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

57 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.

58 AER, *Ausgrid distribution determination Final Decision 2015−16 to 2018−19 Attachment 2 – Regulatory asset base, April 2015, p. 2–10.*

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

60 AGL, *Submission on Ausgrid 2019–24 regulatory proposal*, September 2018, p. 3; CCP10, *Submission on Ausgrid 2019–24 regulatory proposal*, August 2018, p. 40; ECA, *Submission on Ausgrid 2019–24 regulatory proposal*, August 2018, pp. 7–8; EUAA, *Submission on Ausgrid 2019–24 regulatory proposal*, August 2018, pp. 3–4.

draft decision projects the RAB to decrease by 1.8 per cent in real terms over the 2019–24 regulatory control period.[61] This compares to the historical increase of 51.8 per cent for the 2009–14 period and zero growth over the current 2014–19 period. Such movements 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 values for Ausgrid, we amended the following PTRM inputs:

- We reduced Ausgrid's proposed opening RAB value by $32.4 million ($ nominal) as at 1 July 2019 for its distribution network (section 2.4.1).
- We reduced Ausgrid's proposed forecast capex for the 2019–24 regulatory control period by $755.9 million ($ 2018–19) or 25.5 per cent (attachment 5).[62]
- We updated Ausgrid'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 $58.8 million (3.1 per cent) and $8.1 million (3.1 percent) ($ nominal) for its distribution and transmission networks respectively.[63]
- We reduced Ausgrid's proposed forecast straight-line depreciation for the 2019–24 regulatory control period by $84.6 million (3.4 per cent) and $9.5 million (2.8 per cent) ($ nominal) for its distribution and transmission networks respectively (attachment 4).

Figure 2.3 and Figure 2.4 show the key drivers of the change in Ausgrid's RAB over the 2019–24 regulatory control period for this draft decision for its distribution and transmission networks respectively. Overall, the closing RABs at the end of the 2019–24 regulatory control period are forecast to be 10.4 per cent and 12.6 per cent higher than the opening RABs at the start of that period for the distribution and transmission networks respectively, in nominal terms. The approved forecast net capex increases the RAB by about 15.1 per cent for the distribution network and 17.3 per cent for the transmission network. Expected inflation increases the RABs by about 12.7 per cent for the distribution network and 12.8 per cent for the transmission network. Forecast depreciation, on the other hand, reduces the RABs by about 17.3 per cent for the distribution network and 17.4 per cent for the transmission network.

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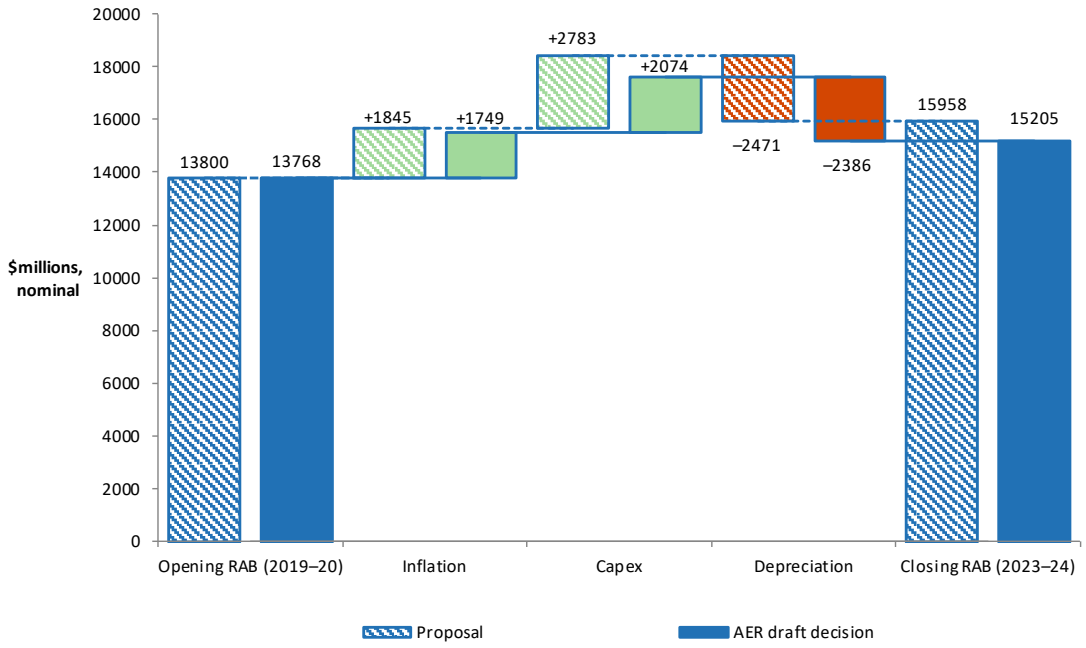
61 Real RAB change is calculated in $ 2018–19.

62 Capex is net of capital contributions, disposals and equity raising costs and excludes half-year WACC adjustment. Ausgrid's proposed net capex amount of $2965.8 million comprises $2548.5 million and $417.3 million for its distribution and transmission networks respectively. Our draft decision net capex amount of $2209.8 million comprises $1906.7 million and $303.1 million for Ausgrid's distribution and transmission networks respectively.

63 The calculated decreases to the RAB indexation component amounts due to updates in expected inflation are based on input data provided in Ausgrid's proposal PTRMs.

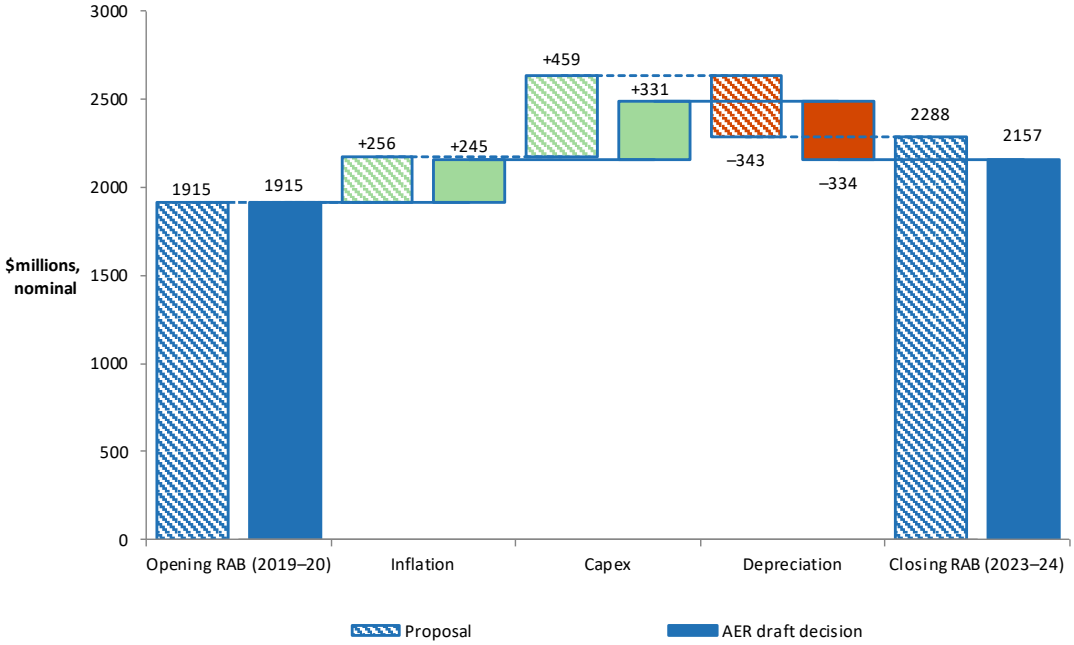
Figure 2.3 Key drivers of changes in the RAB – Ausgrid's proposal compared with AER's draft decision – distribution ($ million, nominal)



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.

Figure 2.4 Key drivers of changes in the RAB – Ausgrid's proposal compared with AER's draft decision – transmission ($ million, nominal)



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 accept Ausgrid's proposal on the depreciation approach to be applied to establish the RABs 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.[64]

Ausgrid proposed to use the forecast depreciation approach to roll forward the RABs for the commencement of its 2024–29 regulatory control period,[65] consistent with our *Framework and approach*.[66]

We stated in the *Framework and approach* that depreciation used to roll forward the RAB could be based on either:[67]

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64 NER, cll. 6.12.1(18) and S6.2.2B.

65 Ausgrid, *Regulatory proposal 2019–24 Attachment 9.01: Application of incentive schemes,* April 2018, p. 8.

66 AER, *Framework and approach Ausgrid, Endeavour Energy and Essential Energy Regulatory control period commencing 1 July 2019,* July 2017, p. 13.

- 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 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 discussed in attachment 9, Ausgrid 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 Ausgrid over the 2019–24 regulatory control period. We consider that the CESS will provide sufficient incentives for Ausgrid 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.[68]

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[67] AER, *Framework and approach Ausgrid, Endeavour Energy and Essential Energy Regulatory control period commencing 1 July 2019,* July 2017, p. 79–80.

[68] 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.