DRAFT DECISION
ElectraNet transmission determination
2018 to 2023

Attachment 2 – Regulatory asset base

October 2017

AUSTRALIAN ENERGY REGULATOR

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Note

This attachment forms part of the AER's draft decision on ElectraNet's transmission determination for 2018–23. It should be read with all other parts of the draft decision.

The draft 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

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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
DMIA	demand management innovation allowance
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
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

Shortened form	Extended form
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 ElectraNet 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 2018–23 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 draft decision on the opening RAB value as at 1 July 2018 for ElectraNet. It also presents our forecast RAB values for ElectraNet over the 2018–23 regulatory control period.

2.1 Draft decision

We do not accept ElectraNet's proposed opening RAB of $2552.0 million ($ nominal) as at 1 July 2018.[5] We instead determine an opening RAB value of $2569.3 million ($ nominal) as at 1 July 2018. This is because we made the following amendments to the inputs of ElectraNet's proposed roll forward model (RFM):

- corrected some input errors[6]
- updated ElectraNet's estimate of inflation for 2016–17 with actual CPI, as it is now available.

These amendments increased the opening RAB as at 1 July 2018 by $17.3 million (or 0.7 per cent) compared to ElectraNet's proposal.

To determine the opening RAB as at 1 July 2018, we have rolled forward the RAB over the 2013–18 regulatory control period to determine a closing RAB value at 30 June 2018. This roll forward includes an adjustment at the end of the 2013–18 regulatory control period to account for the difference between actual 2012–13 capex and the estimate approved at the 2013–18 determination.[7]

Table 2.1 sets out our draft decision on the roll forward of the RAB values for ElectraNet over the 2013–18 regulatory control period.

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1 NER, cl. 6A.6.1.
2 NER, cll. 6A.4.2(3A) and (4).
3 NER, cll. 6A.5.4(a)(1) and (b)(1).
4 NER, cll. 6A.5.4(a)(2) and (3).
5 This RAB value is based on as-incurred capex.
6 The details of the amendments are set out in section 2.4.1 of this attachment.
7 The end of period adjustment will be positive (negative) if actual capex is higher (lower) than the estimate approved at the 2013–18 determination.

Table 2.1 AER's draft decision on ElectraNet's RAB for the 2013–18 regulatory control period ($ million, nominal)

	2013–14	2014–15	2015–16	2016–17 [a]	2017–18[b]
Opening RAB	2069.5	2187.9	2242.4	2337.5	2450.1
Capital expenditure[c]	136.6	117.1	165.4	166.2	168.9
Inflation indexation on opening RAB[d]	60.6	29.1	29.4	49.7	61.3
Less: straight-line depreciation[e]	78.9	91.6	99.7	103.3	109.6
Closing RAB	2187.9	2242.4	2337.5	2450.1	2570.7
Difference between estimated and actual capex (1 July 2012 to 30 June 2013)					–1.0
Return on difference for 2012–13 capex					–0.4
Opening RAB as at 1 July 2018					**2569.3**

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 ElectraNet. 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) As-incurred, net of disposals, and adjusted for actual CPI.

(d) We will update the RAB roll forward for actual CPI for 2017–18 in the final decision.

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

We determine a forecast closing RAB value at 30 June 2023 of $2757.6 million ($ nominal). This is $88.1 million (or 3.3 per cent) higher than the amount of $2669.6 million ($ nominal) proposed by ElectraNet. Our draft decision on the forecast closing RAB reflects the amended opening RAB as at 1 July 2018, and our draft decisions on the expected inflation rate (attachment 3), forecast capex (attachment 6) and forecast depreciation (attachment 5).

Table 2.2 sets out our draft decision on the forecast RAB values for ElectraNet over the 2018–23 regulatory control period.

Table 2.2 AER's draft decision on ElectraNet's RAB for the 2018–23 regulatory control period ($ million, nominal)

	2018–19	2019–20	2020–21	2021–22	2022–23
Opening RAB	2569.3	2627.8	2672.1	2724.2	2766.9
Capital expenditure[a]	101.0	107.3	119.7	113.2	61.6
Inflation indexation on opening RAB	64.2	65.7	66.8	68.1	69.2
Less: straight-line depreciation[b]	106.7	128.7	134.5	138.6	140.0
Closing RAB	**2627.8**	**2672.1**	**2724.2**	**2766.9**	**2757.6**

Source: AER analysis.

(a) As-incurred, and net of forecast 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.

We determine that the forecast depreciation approach is to be used to establish the opening RAB at the commencement of the 2023–28 regulatory control period for ElectraNet.[8] We consider this approach will provide sufficient incentives for ElectraNet to achieve capex efficiency gains over the 2018–23 regulatory control period.

2.2 ElectraNet's proposal

ElectraNet used our RFM to establish an opening RAB as at 1 July 2018 and our post-tax revenue model (PTRM) to roll forward the RAB over the 2018–23 regulatory control period.

ElectraNet proposed an opening RAB value as at 1 July 2013 of $2069.5 million ($ nominal).[9] Rolling forward this RAB and using depreciation based on actual capex, ElectraNet proposed a closing RAB as at 30 June 2018 of $2552.0 million ($ nominal).

Table 2.3 presents ElectraNet's proposed roll forward of its RAB during the 2013–18 regulatory control period.

Table 2.3 ElectraNet's proposed RAB for the 2013–18 regulatory control period ($ million, nominal)

	2013–14	2014–15	2015–16	2016–17[a]	2017–18[a]
Opening RAB	2069.5	2187.4	2242.0	2336.9	2446.3
Capital expenditure[b]	136.2	117.1	165.2	166.7	168.2
CPI indexation on opening RAB	60.6	29.1	29.4	46.0	48.2
Less: Straight-line depreciation[c]	78.9	91.6	99.6	103.3	109.4
Closing RAB	2187.4	2242.0	2336.9	2446.3	2553.4
Difference between estimated and actual capex (1 July 2012 to 30 June 2013)					–1.0
Return on difference for 2012–13 capex					–0.4
Opening RAB as at 1 July 2018					**2552.0**

Source: ElectraNet, *Roll Forward Model - March 2017 - Public*, March 2017.

(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 actual capex.

[8] NER, cl. S6A.2.2B(a).

[9] ElectraNet, *Revenue proposal, attachment 2 Regulatory asset base*, March 2017, p. 5.

ElectraNet proposed a closing forecast RAB as at 30 June 2023 of $2669.6 million ($ nominal). This value reflects its proposed opening RAB, forecast capex, expected inflation, and depreciation (based on forecast capex) over the 2018–23 regulatory control period. Its projected RAB over the 2018–23 regulatory control period is shown in Table 2.4.

Table 2.4 ElectraNet's proposed RAB for the 2018–23 regulatory control period ($ million, nominal)

	2018–19	2019–20	2020–21	2021–22	2022–23
Opening RAB	2552.0	2597.5	2628.3	2666.1	2694.0
Capital expenditure[a]	100.8	106.3	118.0	111.1	60.1
Inflation indexation on opening RAB	50.3	51.2	51.8	52.5	53.1
Less: straight-line depreciation[b]	105.5	126.8	131.9	135.8	137.6
Closing RAB	**2597.5**	**2628.3**	**2666.1**	**2694.0**	**2669.6**

Source: ElectraNet, *Post Tax Revenue Model - March 2017 - Public*, March 2017.

(a) As-incurred, and inclusive of the half-WACC to account for the timing assumptions in the PTRM.

(b) Based on as-commissioned capex.

2.3 Assessment approach

We roll forward ElectraNet's RAB during the 2013–18 regulatory control period to establish the opening RAB at 1 July 2018. This value can be adjusted for any differences in the forecast and actual capex, and disposals.[10] It may also be adjusted to reflect any changes in the use of the assets, with only assets used to provide prescribed transmission services to be included in the RAB.[11]

To determine the opening RAB, we developed an asset base RFM that a TNSP must use in preparing its revenue proposal.[12] The RFM rolls forward ElectraNet's RAB from the beginning of the final year of the 2008–13 regulatory control period,[13] through the 2013–18 regulatory control period, to the beginning of the 2018–23 regulatory control period. The roll forward occurs for each year by:

- Adding an inflation (indexation) adjustment to the opening RAB for the relevant year. This adjustment is consistent with the inflation factor used in the annual indexation of the maximum allowed revenue (MAR).[14]

10 NER, cll. S6A.2.1(f)(3) and (6).

11 NER, cll. S6A.2.1(f)(8) and S6A.2.3.

12 NER, cll. 6A.6.1(b), 6A.6.1(e) and S6A.1.3(5).

13 The roll forward commences in the final year of the 2008–13 regulatory control period to allow us to adjust for the difference between actual 2012–13 capex and the estimated 2012–13 capex used in our 2013 transmission determination. See NER, cl. S6A.2.1(f)(3).

14 NER, cl. 6A.6.1(e)(3).

- Adding actual or estimated capex to the RAB for the relevant year.[15] We review a TNSP's past capex and may exclude past capex from being rolled into the RAB where total capex exceeds the regulatory allowance.[16] The details of our assessment approach for capex overspend are set out in the *Capital expenditure incentive guideline*.[17] We note that under the transitional rules, our review of past capex does not apply to ElectraNet prior to 1 July 2014.[18] Also, the review of past capex does not include the last two years of the 2013–18 regulatory control period—these will instead be reviewed at the next reset.[19] We check actual capex amounts against audited regulatory accounts data and generally accept the capex reported in those accounts in rolling forward the RAB.[20] However, there may be instances where adjustments are required to the annual regulatory accounts data.[21]
- Subtracting depreciation from the RAB for the relevant year, calculated in accordance with the rates and methodologies allowed (if any) in the transmission determination for ElectraNet's 2013–18 regulatory control period.[22] Depreciation based on forecast or actual capex can be used to roll forward the RAB.[23] For this draft decision, we use depreciation based on actual capex for rolling forward the RAB for ElectraNet's 2013–18 regulatory control period.[24]
- Subtracting any gross proceeds for asset disposals for the relevant year from capex to be added to the RAB.[25] We check these amounts against audited regulatory accounts 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 2013–18 regulatory control period. The PTRM used to calculate the annual building block revenue requirement for the 2018–23 regulatory control period generally adopts the same RAB roll forward approach as the RFM although the adjustments to the RAB are based on forecasts, rather than actual amounts.

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15 NER, cl. S6A.2.1(f)(4).

16 NER, cl. S6A.2.2A.

17 AER, *Capital expenditure incentive guideline for electricity network service providers*, November 2013, pp. 12–20. Under the NER, cl S6A.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. S6A.2.2A (c), (d) and (e) of the NER.

18 NER, cl. 11.63.

19 NER, cl. S6A.2.2(a1). The two year lag ensures that actual capex (instead of estimated capex) is available when the review of past capex commences.

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

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

22 NER, cl. S6A.2.1(f)(5).

23 NER, cl. 6A 4.2(a1).

24 The use of actual depreciation is consistent with the depreciation approach established in the 2013–18 transmission determination for ElectraNet, which reflected the rules at the time. AER, *Final Decision: ElectraNet Transmission Determination 2013–18*, April 2013, p. 142 , footnote 476.

25 NER, cl. S6A.2.1(f)(6).

We also decide whether depreciation for establishing ElectraNet's RAB as at the commencement of the 2023–28 regulatory control period is to be based on actual or forecast capex.[26]

The opening RAB for the 2023–28 regulatory control period can be determined using depreciation based either on forecast or actual capex incurred during the 2018–23 regulatory control period. To roll forward the RAB using depreciation based on forecast capex, we would use the forecast depreciation contained in the PTRM for the 2018–23 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 2018–23 regulatory control period.

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

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

2.3.1 Interrelationships

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

The RAB is determined by various factors, including:

- the opening RAB (meaning the value of existing assets at the beginning of the regulatory control period)
- net capex[29]

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[26] NER, cl. S6A.2.2B(a).

[27] NER, cl. S6A.2.2B(c).

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

[29] Net capex is gross capex less disposals. The rate of return or WACC also influences the size of the capex. This is because 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.

- 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 building block revenue requirement.

We maintain the RAB in real terms by indexing for inflation.[30] A nominal rate of return (WACC) is multiplied by the opening RAB to produce the return on capital building block.[31] To prevent the double counting of inflation through the nominal WACC and indexed RAB,[32] the regulatory depreciation building block has an offsetting reduction for indexation of the RAB.[33] Indexation of the RAB and the offsetting adjustment made to depreciation results in smoother revenue recovery profile over the life of an asset than if the RAB was un-indexed. If the RAB was un-indexed, there would be no need for an offsetting adjustment to the depreciation calculation of total revenue. This alternative approach provides for overall revenues being higher early in the asset's life (as a result of more depreciation being returned to the TNSP) and lower in the future—producing a steeper downward sloping profile of total revenue.[34] The implications of an un-indexed RAB are discussed further in attachment 5.

Figure 2.1 shows the key drivers of the change in the RAB over the 2018–23 regulatory control period as proposed by ElectraNet. Overall, the closing RAB at the end of the 2018–23 regulatory control period would be 4.6 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 19 per cent, while expected

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30 NER, cll. 6A.5.4(b)(1) and 6A.6.1(e)(3).

31 NER, cll. 6A.6.2(a) and 6A.6.2(d)(2).

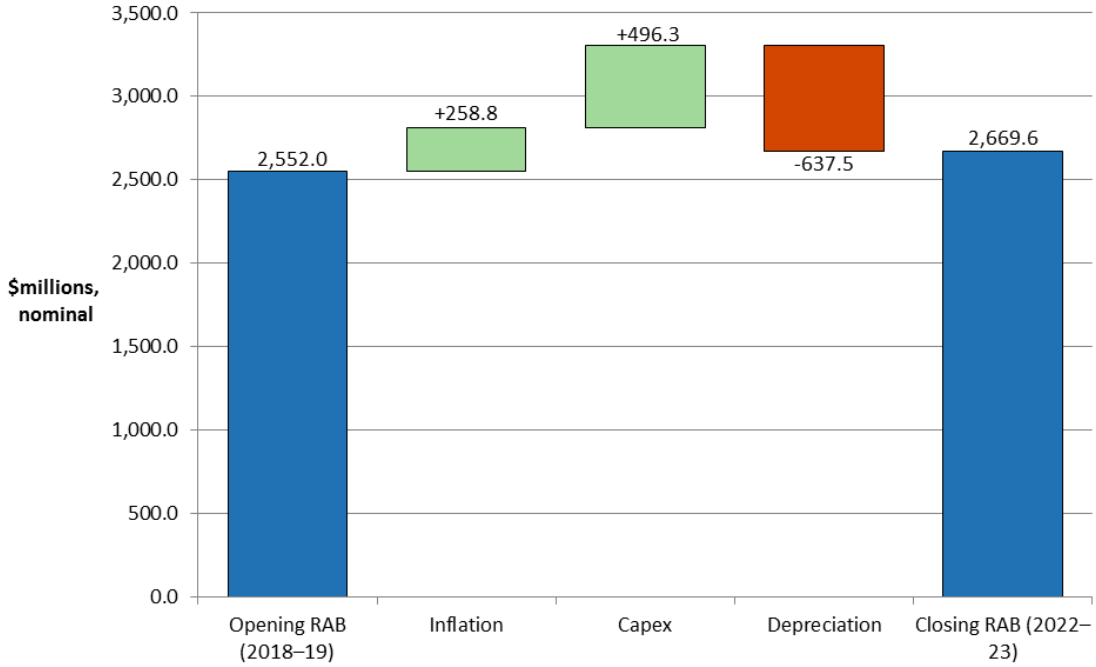
32 NER, cl. 6A.5.4(b)(1)(ii).

33 If the asset lives are extremely long, such that the RAB depreciation rate is lower than the inflation rate, then negative regulatory depreciation can emerge. The indexation adjustment is greater than the RAB depreciation in such circumstances. Please also refer to section 5.3.1 of attachment 5 of this draft decision for further explanation of the offsetting adjustment to the depreciation.

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

inflation increases it by about 10 per cent. Forecast depreciation, on the other hand, reduces the RAB by about 25 per cent.

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



Source: ElectraNet, *Post-tax revenue model*, March 2017.

ElectraNet's proposed forecast depreciation for the 2018–23 regulatory control period is $637.5 million ($ nominal). While we have largely accepted ElectraNet's depreciation proposal in terms of the year-by-year tracking method and assigned asset lives, we have amended the proposed standard asset life for the 'Transmission line – life extension' asset class as ElectraNet's proposed asset life for this asset class does not satisfy the requirements of the NER. This is discussed in attachment 5. The depreciation amount largely depends on the opening RAB, which in turn depends on capex in the past.[35]

Forecast net capex is also a significant driver of the increase in the RAB. ElectraNet proposed total forecast capex of $496.3 million ($ nominal) for the 2018–23 regulatory control period. We consider the proposed forecast capex reasonably reflects the capex criteria. We have corrected some errors and substituted the forecast inflation in ElectraNet's proposed capex model. Our draft decision is to approve $502.9 million

[35] For this draft decision, we have included ElectraNet's estimated capex in 2016–17 and 2017–18 in the RAB roll forward to 1 July 2018. At the next reset, the 2016–17 and 2017–18 capex will form part of the review period for whether past capex should be excluded for inefficiency reasons.

($ nominal) of forecast capex for the 2018–23 regulatory control period.[36] Refer to attachment 6 for the discussion on forecast capex.

A ten per cent increase in the opening RAB causes revenues to increase by about 3.3 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.[37]

2.4 Reasons for draft decision

We determine an opening RAB value for ElectraNet of $2569.3 million ($ nominal) as at 1 July 2018, an increase of $17.3 million ($ nominal) or 0.7 per cent from the proposed value. We forecast a closing RAB value of $2757.6 million by 30 June 2023. This represents an increase of $88.1 million, or 3.3 per cent compared to ElectraNet's proposal. The reasons for our draft decision are discussed below.

2.4.1 Opening RAB at 1 July 2018

We do not accept ElectraNet's proposed opening RAB of $2552.0 million ($ nominal) as at 1 July 2018.[38] We instead determine an opening RAB value of $2569.3 million ($ nominal) as at 1 July 2018. This represents an increase of $17.3 million (or 0.7 per cent).

To determine the opening RAB as at 1 July 2018 we have rolled forward the RAB over the 2013–18 regulatory control period to determine a closing RAB value as at 30 June 2018. In doing so we reviewed the key inputs of ElectraNet's proposed RFM, such as actual inflation, rate of return, gross capex values, asset disposal values and asset lives. While we found that the majority of the inputs in the proposed RFM are correct, some proposed inputs do not reconcile with relevant data sources such as regulatory accounts and the 2013–18 decision models.[39] Therefore, we made the following amendments to ElectraNet's proposed RFM inputs to correct these errors and update the CPI value:

- Corrected the allocation of the accelerated depreciation amounts in the 'Other final year adjustments' section for the opening RAB as at 1 July 2013 in relation to the

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[36] These capex values are consistent with those used for the RAB roll forward and include a half-WACC adjustment to take the values to end of year terms.

[37] If capex causes the RAB increase—return on capital, depreciation, and debt raising costs all increase too. If a reduction in depreciation causes the RAB increase, revenue could increase or decrease. In this case, the higher return on capital is offset (perhaps more than offset) by the reduction in depreciation allowance. Inflation naturally increases the RAB in nominal terms. However, the real impact from changing the inflation forecast is inconsequential as revenues are updated annually by actual inflation and the X factor, which is generally unaffected by the assumed forecast inflation rate.

[38] This RAB value is based on as-incurred capex.

[39] At the time of this draft decision, the roll forward of ElectraNet's RAB includes estimated capex values for 2016–17 and 2017–18. We will update the 2016–17 estimated capex with actuals in the final decision. We may also update the 2017–18 estimated capex with a revised estimate in the final decision.

'Refurbishment' and the 'Substation primary plant' asset classes, to be consistent with the allocation contained in the approved RFM for the 2013–18 determination[40]

- Corrected the benchmark amount for the 'Equity raising cost 2013–18' asset class for input in 2013–14 to be consistent with the approved PTRM for the 2013–18 determination[41]
- Corrected the actual asset disposal amounts for the 2013–14 'Office furniture, movable plant and misc' asset class and the 2015–16 'Substation primary plant' asset class, to be consistent with those set out in ElectraNet's regulatory accounts for 2013–14 and 2015–16[42]
- Updated ElectraNet's estimate of inflation for 2016–17 with actual CPI, as it is now available.[43]

2.4.1.1 Battery asset

In its revenue proposal ElectraNet described its intention to install a large scale battery storage asset on its network as a trial solution to improve power system security.[44]

To be undertaken as a consortium with AGL and Advisian (WorleyParsons), the Energy Storage for Renewable Integration South Australia (ESCRI-SA) project is to be part funded by the Australian Renewable Energy Agency (ARENA). It will involve installing a 30 MW, 8 MWh energy storage device capable of providing multiple services.

As described by ElectraNet, the ESCRI-SA battery will be used to:

- provide fast frequency response to address rate of change of frequency issues[45]
- improve supply reliability for customers supplied from Dalrymple substation (on South Australia's Yorke Peninsula)[46]
- undertake wholesale market trading—consortium partner AGL will be responsible for this aspect of the battery's use.[47]

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40 Our 2013–18 final determination for ElectraNet accepted $4.37 million of accelerated depreciation. We have used the 'Other final year adjustment' section in the RFM to allocate the accelerated depreciation amount to the closing RAB value of the relevant asset classes as at 30 June 2013.
AER, *Final Decision: ElectraNet Transmission Determination 2013–18,* 30 April 2013, RFM.

41 The benchmark amount for the 'Equity raising cost 2013–18' asset class was determined in the PTRM for the 2013–18 determination and reported in real 2012–13 end-of-year dollar terms. This amount has to be converted into nominal 2013–14 mid-year dollars terms using 6 months CPI and entered as an input to the 2013–18 RFM for the purposes of this draft decision RAB roll forward.

42 The error in the proposal was confirmed by ElectraNet. ElectraNet, *Email response to AER Information Request AER IR 007 (2) / ENET109*, 1 August 2017.

43 In our final decision we will update the estimate for 2017–18 expected inflation with actual CPI. The March quarter CPI is used as a proxy for the June financial year in ElectraNet's 2013–18 regulatory control period.

44 ElectraNet, *Revenue Proposal 2018–23 – Attachment 2 – Regulatory Asset Base*, March 2017, p. 16.

45 ElectraNet, *Revenue Proposal 2018–23 – Attachment 2 – Regulatory Asset Base*, March 2017, p.16.

46 ElectraNet, Letter to AER, 21 June 2017, p. 2.

47 ElectraNet, Letter to AER, 21 December 2016, p. 2.

ElectraNet indicated that an operating protocol and lease agreement with AGL will preserve the asset's capacity for use to provide the anticipated network benefits.[48]

Costs of the ESCRI-SA battery will be allocated according to the financial contributions of the investing parties, with only the residual value ($5.8 million of a total capital cost of $28.7 million) to be recovered from transmission customers.[49] While we consider this cost allocation outcome is acceptable, with benefits to transmission customers likely to outweigh costs borne by them, we wish to make it clear the cost allocation approach used by ElectraNet in this instance does not form a precedent for investments in similar assets. We are examining other approaches to cost allocation that might in future provide a more cost reflective approach in these circumstances that better reflects the intent of the cost allocation principles in the NER.

ElectraNet submitted that the ESCRI-SA battery project will be completed in 2017–18, the final year of the 2013–18 regulatory control period.[50] For this reason, we expect ElectraNet to provide an update to the capex for 2017–18 in its revised proposal to account for the relevant (prescribed) capital cost of the ESCRI-SA battery project. We will assess and make a determination on the revised capex estimate for 2017–18 in the final decision.

2.4.1.2 Review of past capital expenditure

We consider the extent to which our roll forward of the RAB to 1 July 2018 contributes to the achievement of the capital expenditure incentive objective.[51] We note that under the transitional rules, in making this transmission determination, the review of past capex does not apply to ElectraNet prior to 1 July 2014.[52] Given this, the review period for this transmission determination is limited to 2014–15 and 2015–16 capex.[53] ElectraNet's actual capex incurred in 2014–15 and 2015–16 are below the forecast allowance set at the previous transmission determination. Therefore, the overspending requirement for an efficiency review of past capex is not satisfied.[54] Accordingly, the capex incurred in those years are regarded as prudent and efficient, and included in the RAB. This is discussed further in appendix E of capex attachment 6.

Further, for the purposes of this draft decision, we have included ElectraNet's estimated capex in 2016–17 and 2017–18 in the RAB roll forward to 1 July 2018.[55] At the next reset, the 2016–17 and 2017–18 capex will form part of the review period for

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48 ElectraNet, Letter to AER, 21 June 2017, p. 4.

49 Operating costs will be recovered from the parties in the same proportions as capital costs are allocated/recovered.

50 ElectraNet, *Network Capability Incentive Parameter Action Plan (NCIPAP) Amendment of Priority Projects*, 21 June 2017.

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

52 NER, cl. 11.63.

53 NER, cl. S6A.2.2A(a1).

54 NER, cl. S6A.2.2A(c).

55 We have adjusted the estimated capex in 2016–17 and 2017–18 to reflect the actual inflation in 2016–17 and the inflation forecast of 2.5 per cent for 2017–18.

whether past capex should be excluded for inefficiency reasons.[56] Our RAB roll forward applies the incentive framework approved in the previous transmission determination, which included the use of an actual depreciation approach.[57] As such, we consider that the 2013–18 RAB roll forward contributes to an opening RAB (as at 1 July 2018) that includes capex that reflects prudent and efficient costs, in accordance with the capital expenditure criteria.[58] The forecast capex is the largest driver of the increase in the RAB over the 2018–23 regulatory control period. Submissions from a numbers of stakeholder raised concerns over the size of the proposed forecast capex.[59] Our review of ElectraNet's forecast capex are set out in attachment 6 of this draft decision.

2.4.2 Forecast closing RAB at 30 June 2023

We forecast a closing RAB value of $2757.6 million by 30 June 2023 for ElectraNet, which represents an increase of $88.1 million (or 3.3 per cent) to ElectraNet's proposal. This increase reflects our draft decision on the inputs for determining the forecast RAB in the PTRM.

The submissions from South Australian Council of Social Service, Business SA, and Consumer Challenge Panel Sub-Panel 9 on the proposal all raised concerns with the increase to the size of ElectraNet's RAB over the 2018–23 regulatory control period.[60] The change in the size of the RAB depends on our assessment of its various components. Inflation and capex increase the RAB, while depreciation reduces it. To determine the forecast RAB value for ElectraNet, we amended the following PTRM inputs:

- We increased ElectraNet's proposed opening RAB as at 1 July 2018 by $17.3 million or 0.7 per cent (section 2.4.1).
- We increased ElectraNet's proposed forecast capex for the 2018–23 regulatory control period by $6.6 million ($ nominal) or 1.3 per cent (attachment 6).

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56 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 ex post assessment approach for capex are set out in AER, *Capital expenditure incentive guideline for electricity network service providers*, November 2013, pp. 12–20.

57 The use of actual depreciation is consistent with the depreciation approach established in the 2013–18 transmission determination for ElectraNet, which reflected the rules at the time.

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

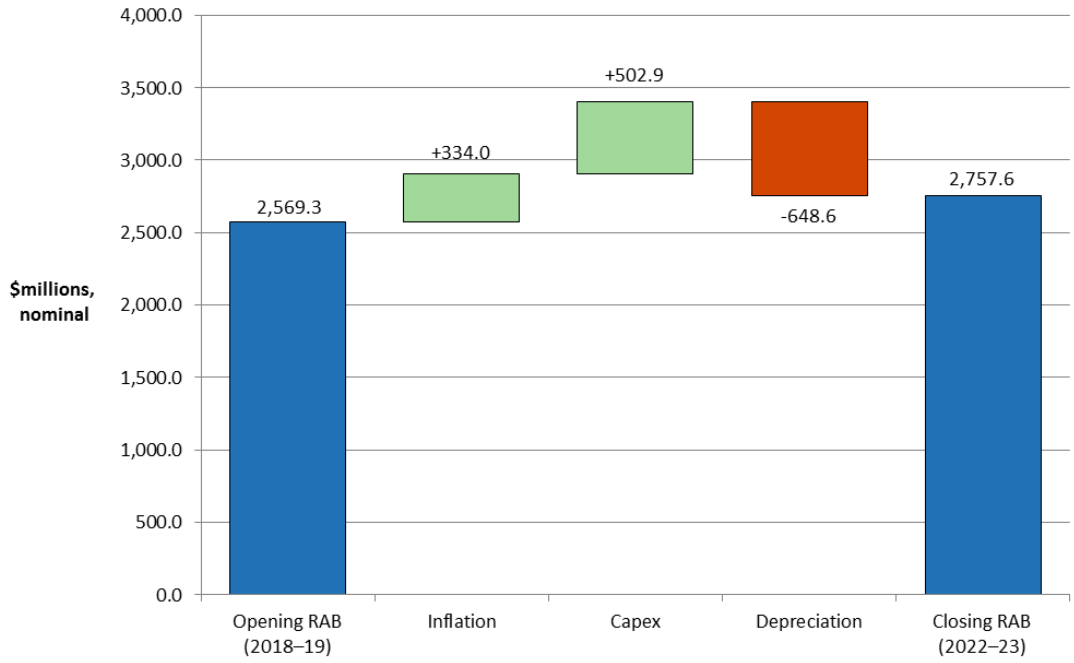
59 South Australian Council of Social Service, SACOSS *Submission to ElectraNet's Revenue Proposal 2018–2023,* 13 July 2017, p. 2. Business SA, *Submission on ElectraNet's Revenue Proposal for the regulatory period 2018–23,* 12 July 2017, p. 2. Consumer Challenge Panel Sub-Panel 9, *Response to proposals from ElectraNet for a revenue reset for the 2018–23 regulatory period,* 12 July 2017, p. 30.

60 South Australian Council of Social Service, SACOSS *Submission to ElectraNet's Revenue Proposal 2018–2023,* 13 July 2017, p. 2. Business SA, *Submission on ElectraNet's Revenue Proposal for the regulatory period 2018–23,* 12 July 2017, p. 2. Consumer Challenge Panel Sub-Panel 9, *Response to proposals from ElectraNet for a revenue reset for the 2018–23 regulatory period,* 12 July 2017, p. 30.

- We reduced ElectraNet's proposed forecast depreciation for the 2018–23 regulatory control period by $64.2 million or 16.9 per cent (attachment 5).

Figure 2.2 shows the key drivers of the change in ElectraNet's RAB over the 2018–23 regulatory control period for this draft decision. Overall, the closing RAB at the end of the 2018–23 regulatory control period is forecast to be 7.3 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 19.6 per cent, while expected inflation increases it by about 13.0 per cent. Forecast depreciation, on the other hand, reduces the RAB by about 25.2 per cent.

Figure 2.2 Key drivers of changes in the RAB ($ million, nominal)



Source: AER analysis.

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

We determine that the depreciation approach to be applied to establish the RAB at the commencement of the 2023–28 regulatory control period will be based on the depreciation schedules (straight-line) using forecast capex at the asset class level approved for the 2018–23 regulatory control period. We consider this approach will provide sufficient incentives for ElectraNet to achieve capex efficiency gains over the 2018–23 regulatory control period.

ElectraNet did not propose a depreciation approach to roll forward the RAB for the commencement of its 2023–28 regulatory control period. However, we consider that the forecast depreciation approach should be used to established the opening RAB as at 1 July 2023. We note that this approach is consistent with the AER's *Framework and*

approach.[61] As discussed in attachment 10, while ElectraNet is not currently subject to a capital expenditure sharing scheme (CESS), we will apply the CESS to ElectraNet over the 2018–23 regulatory control period. We consider that the CESS will provide sufficient incentives for ElectraNet 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.[62]

[61] AER, *Final decision: Framework and approach for ElectraNet*, July 2016, p. 25.

[62] 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.