Draft Decision

Power and Water Corporation Electricity Distribution Determination 2024 to 2029

(1 July 2024 to 30 June 2029)

Attachment 2
Regulatory asset base

September 2023

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Inquiries about this publication should be addressed to:

Australian Energy Regulator
GPO Box 3131
Canberra ACT 2601
Tel: 1300 585 165

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2 Regulatory asset base

The regulatory asset base (RAB) is the value of the assets used by Power and Water Corporation to provide standard control services.[1] Our distribution 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 revenue requirement for each year of the 2024–29 regulatory control period.[3] We set the RAB as the foundation for determining a distributor'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 blocks.[4]

This attachment presents our draft decision on the opening RAB value as at 1 July 2024 for Power and Water Corporation and our forecast of its RAB values over the 2024–29 period. It also presents our draft decision for establishing the RAB as at the commencement of the 2029–34 period using depreciation that is based on forecast capital expenditure (capex).[5]

2.1 Draft decision

We determine an opening RAB of $1,270.2 million ($ nominal) as at 1 July 2024 for Power and Water Corporation. This value is $9.3 million (0.7%) lower than Power and Water Corporation's proposed opening RAB of $1,279.5 million ($ nominal) as at 1 July 2024.[6] This decrease is largely due to the updates we made to the consumer price index (CPI) inputs for 2022–23 and 2023–24 in the roll forward model (RFM) to reflect more up-to-date values:

- We have updated the actual CPI for 2022–23 to 7.83%, reflecting the 2022 December quarter CPI published by the Australian Bureau of Statistics (ABS), which became available after Power and Water Corporation submitted its proposal. This compares to Power and Water Corporation's proposed estimated CPI of 8.00%.
- We have also updated the estimated CPI for 2023–24 with the latest Reserve Bank of Australia (RBA) forecast published in its Statement on Monetary Policy to reflect the latest economic conditions.[7] For our draft decision, we adopt an estimated CPI value of 4.10% for 2023–24, compared to Power and Water Corporation's proposed 4.70%. The CPI input for 2023–24 will be updated again to reflect the actual CPI published by the ABS for our final decision.

As the RAB must be maintained in real dollar terms by indexing for inflation,[8] the combined effect of our above amendments to CPI results in a lower opening RAB value as at 1 July 2024 of $9.2 million (0.7%) compared to Power and Water Corporation's proposal. These inflation updates also result in a slight reduction (0.7% or less than $0.1 million) to the value

1 NT NER, cl. 6.5.1(a).

2 NT NER, cll. 6.3.2(a)(1) and (2).

3 NT NER, cll. 6.4.3(a)(1) and (b)(1).

4 NT NER, cll. 6.4.3(a)(2) and (3).

5 NT NER, cl. 6.12.1(18).

6 Power and Water Corporation, *PWC - 10.03 - 2024-29 SCS Roll-forward Model - 31 Jan 2023 - Public*

7 RBA, *Statement on Monetary Policy, Appendix: Forecasts*, August 2023.

8 NT NER, cll. 6.4.3(b)(1) and 6.5.1(e)(3).

of Power and Water Corporation's end of period adjustments related to historical corporate assets.

We accept Power and Water Corporation's proposed method for calculating the opening RAB. However, in addition to the CPI updates discussed above, we made a further update to the proposed input in the RFM in respect of the nominal vanilla weighted average cost of capital (WACC) for 2023–24 to reflect the 2023–24 return on debt update in the post-tax revenue model (PTRM) for the 2019–24 period, which became available after Power and Water Corporation submitted its proposal. The impact of this update is negligible to the opening RAB value.

To determine the opening RAB as at 1 July 2024, we have rolled forward the RAB over the 2019–24 period to determine a closing RAB value at 30 June 2024 in accordance with our RFM.[9] This roll forward process includes an adjustment at the end of the 2019–24 period to account for the difference between actual 2018–19 capex and the estimate approved in the 2019–24 determination.[10]

Table 2.1 sets out our draft decision on the roll forward of Power and Water Corporation's RAB during the 2019–24 period.

We determine a forecast closing RAB value as at 30 June 2029 of $1,538.6 million ($ nominal) for Power and Water Corporation. This is $168.6 million lower than Power and Water Corporation's proposed closing RAB value of $1,707.2 million ($ nominal).[11] This reduction is mainly due to our draft decision on the forecast capital expenditure (discussed in this attachment 5). Our draft decisions on the opening RAB at 1 July 2024 (Attachment 2), expected inflation rate (Attachment 3) and forecast depreciation (Attachment 4) also impact the forecast closing RAB value as at 30 June 2029.[12]

Table 2.2 sets out our draft decision on the forecast RAB values for Power and Water Corporation over the 2024–29 period.

We accept Power and Water Corporation's proposal that the forecast depreciation approach is to be used to establish the opening RAB at the commencement of the 2024–29 period.[13] We consider this approach is consistent with the capital expenditure incentive objective in that it will provide sufficient incentives for Power and Water Corporation to achieve capex efficiency gains over the 2024–29 period. This approach is also consistent with our *Framework and approach* (F&A) paper.[14]

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9 AER, *Electricity distribution network service providers: Roll forward model (version 3.1)*, May 2022.

10 The end of period adjustment will be positive (negative) if actual capex is higher (lower) than the estimate approved at the 2019–24 determination.

11 Power and Water Corporation, *PWC - 10.02 - 2024-29 SCS PTRM - 31 Jan 2023 - Public.*

12 Capex enters the RAB net of forecast disposals and capital contributions. It includes equity raising costs (where relevant) and the half-year WACC to account for the timing assumptions in the PTRM. Therefore, our draft decision on the forecast RAB also reflects our amendments to the rate of return for the 2024–29 period (Attachment 3).

13 NT NER, cl. 6.12.1(18).

14 AER, *Framework and approach, Power and Water Corporation (Northern Territory), Regulatory control period commencing, 1 July 2024*, July 2022, p. 46.

Table 2.1 AER's draft decision on Power and Water Corporation's RAB for the 2019−24 period ($million, nominal)

	2019–20	2020–21	2021–22	2022–23[a]	2023–24[b]
Opening RAB	962.0	1,001.9	1,005.9	1,059.0	1,175.3
Capital expenditure[c]	63.7	43.4	69.4	91.1	108.0
Inflation indexation on opening RAB[d]	17.7	8.6	35.2	82.9	48.2
Less: straight-line depreciation[e]	41.5	48.0	51.5	57.7	64.8
Interim closing RAB	1,001.9	1,005.9	1,059.0	1,175.3	1,266.8
Difference between estimated and actual capex in 2018–19					–3.2
Return on difference for 2018–19 capex					–1.1
Final year asset adjustment[f]					7.7
Closing RAB as at 30 June 2024					**1,270.2**

Source: AER analysis.

(a) Based on estimated capex provided by Power and Water Corporation. We will update the RAB roll forward with actual capex in the final decision.

(b) Based on estimated capex provided by Power and Water Corporation. 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 distribution determination.

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

(d) We will update the RAB roll forward for actual CPI for 2023–24 in the final decision.

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

(f) Includes the addition of capitalised corporate assets as at 30 June 2024.

Table 2.2 AER's draft decision on Power and Water Corporation's RAB for the 2024–29 period ($million, nominal)

	2024–25	2025–26	2026–27	2027–28	2028–29
Opening RAB	1,270.2	1,339.9	1,412.6	1,476.4	1,508.0
Capital expenditure[a]	105.5	109.5	103.3	76.6	79.5
Inflation indexation on opening RAB	35.6	37.5	39.5	41.3	42.2
Less: straight-line depreciation	71.4	74.4	79.0	86.3	91.1
Closing RAB	**1,339.9**	**1,412.6**	**1,476.4**	**1,508.0**	**1,538.6**

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.

2.2 Power and Water Corporation's proposal

Power and Water Corporation used our RFM to establish an opening RAB as at 1 July 2024 and our PTRM to roll forward the RAB over the 2024–29 period.

Power and Water Corporation proposed an opening RAB value as at 1 July 2019 of $962.0 million ($ nominal). Rolling forward the RAB with actual/estimated capex and using depreciation based on forecast capex approved for the 2019–24 period, Power and Water Corporation proposed a closing RAB value of $1,279.5 million ($ nominal) as at 30 June 2024.

For the final year (end of period) asset adjustment,[15] Power and Water Corporation proposed to add $7.8 million of capitalised corporate assets to the RAB at the end of the 2019–24 period to reflect capex incurred prior to July 2019 that was not included in the RAB.

Table 2.3 sets out Power and Water Corporation's proposed roll forward of its RAB during the 2019–24 period.

Table 2.3 Power and Water Corporation's proposed RAB for the 2019–24 period ($million, nominal)

	2019–20	2020–21	2021–22	2022-23[a]	2023–24[a]
Opening RAB	962.0	1,001.9	1,005.9	1,059.0	1,177.2
Capital expenditure[b]	63.7	43.4	69.4	91.2	108.4
Inflation indexation on opening RAB	17.7	8.6	35.2	84.7	55.3
Less: straight-line depreciation[c]	41.5	48.0	51.5	57.7	64.9
Interim closing RAB	1,001.9	1,005.9	1,059.0	1,177.2	1,276.0
Difference between estimated and actual capex in 2018-19					–3.2
Return on difference for 2018-19 capex					–1.1
Final year asset adjustment[d]					7.8
Closing RAB as at 30 June 2024					**1,279.5**

Source: Power and Water Corporation, *PWC - 10.03 - 2024-29 SCS Roll-forward Model - 31 Jan 2023 - Public*.
(a) Based on estimated capex.
(b) Net of disposals and capital contributions, and adjusted for actual CPI and half-year WACC.
(c) Adjusted for actual CPI. Based on forecast capex.
(d) Reflects capitalised corporate assets as at 30 June 2024.

Power and Water Corporation proposed a forecast closing RAB as at 30 June 2029 of $1,707.2 million ($ nominal) by the end of the 2024–29 period. This value reflects its

15 The final year asset adjustment section in the RFM is primarily for recording asset adjustments at the end of the current regulatory control period. This section is used when the DNSP needs to adjust its closing RAB by removing or adding assets (such as for a change in service classification) in the final year of the regulatory control period.

proposed opening RAB, forecast capex, expected inflation, and depreciation (based on forecast capex) over the 2024–29 period. Its projected RAB over the 2024–29 period is shown in Table 2.4.

Table 2.4 Power and Water Corporation's proposed RAB for the 2024–29 period ($million, nominal)

	2024–25	2025–26	2026–27	2027–28	2028–29
Opening RAB	1,279.5	1,351.4	1,427.1	1,490.3	1,583.9
Capital expenditure[a]	106.6	111.6	102.2	139.0	173.2
Inflation indexation on opening RAB	37.4	39.5	41.7	43.5	46.2
Less: straight-line depreciation	72.0	75.4	80.6	88.9	96.2
Closing RAB	**1,351.4**	**1,427.1**	**1,490.3**	**1,583.9**	**1,707.2**

Source: Power and Water Corporation, *PWC - 10.02 - 2024-29 SCS PTRM - 31 Jan 2023 - Public*.
(a) Net of forecast disposals and capital contributions. Inclusive of half-year WACC to account for the timing assumptions in the PTRM.

Power and Water Corporation proposed to apply a forecast depreciation approach to establish the RAB at the commencement of the 2029–34 period, consistent with the approach set out in our F&A.[16]

2.3 Assessment approach

We roll forward Power and Water Corporation's RAB over the 2019–24 period to arrive at an opening RAB value at 1 July 2024. This value must be adjusted for any differences in estimated and actual capex.[17] It may also be adjusted to reflect any changes in the use of the assets, with only assets used to provide standard control services to be included in the RAB.[18]

To determine the opening RAB at 1 July 2024, we developed an RFM that a distributor must use in preparing its regulatory proposal.[19] We used the RFM to roll forward Power and Water Corporation's RAB from the beginning of the final year of the 2014–19 period,[20] through the 2019–24 period, to the beginning of the 2024–29 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[21]

16 Power and Water Corporation, *Attachment 10.01, Revenue,* 31 January 2023, p. 10.

17 NT NER, cl. S6.2.1(e)(3).

18 NT NER, cl. S6.2.1(e)(7).

19 NT NER, cll. 6.5.1(b), 6.5.1(e), S6.1.3(7); AER, *Electricity distribution network service providers: Roll forward model version 3.1*, May 2022.

20 NT NER, cl. S6.2.1(e)(3).

21 NT NER, cl. 6.5.1(e)(3).

- adding actual or estimated capex to the RAB for the relevant year.[22] 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.[23] The details of our assessment approach for capex overspending are set out in the *Capital expenditure incentive guideline*.[24] We note that our review of past capex does not include the last two years of the 2019–24 period—these will instead be reviewed at the next distribution determination.[25] We check actual capex amounts against audited annual reporting regulatory information notice (RIN) data and generally accept the capex reported in those RINs in rolling forward the RAB.[26] However, there may be instances where adjustments are required to the annual reporting RIN data[27]
- subtracting depreciation from the RAB for the relevant year, calculated in accordance with the relevant distribution determination for Power and Water Corporation's 2019–24 period.[28] Depreciation based on forecast or actual capex can be used to roll forward the RAB.[29] For this draft decision, we use depreciation based on forecast capex for rolling forward Power and Water's RAB over the 2019–24 period.[30] Depreciation based on forecast capex will also be used for the 2024–29 period RAB roll forward at the next distribution determination[31]
- subtracting any gross proceeds for asset disposals for the relevant year from capex to be added to the RAB.[32] 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 2019–24 period. The PTRM used to calculate the annual revenue requirement for the 2024–29 period, generally adopts the same RAB roll forward approach as the RFM. However, the annual adjustments to the RAB are based on forecasts, rather than actual amounts.[33]

22 NT NER, cl. S6.2.1(e)(4).

23 NT NER, cl. S6.2.2A. Under the NT 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 NT NER.

24 AER, *Capital expenditure incentive guideline for electricity network service providers*, April 2023, pp. 13–21.

25 NT 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.

26 We will update any estimated capex with actual capex at the time of the next distribution determination.

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

28 NT NER, cl. S6.2.1(e)(5).

29 NT NER, cl. 6.12.1(18).

30 The use of forecast depreciation is consistent with the depreciation approach established in the 2019–24 distribution determination for Power and Water Corporation. See AER, *Final decision, Power and Water Corporation distribution determination 2019 to 2024, Attachment 2, Regulatory asset base*, April 2019, pp. 10–11.

31 Refer to section 2.4.3 for the reasons.

32 NT NER, cl. S6.2.1(e)(6).

33 NT NER, cl. S6.2.3.

The opening RAB for the 2029–34 period can be determined using depreciation based either on forecast or actual capex incurred during the 2024–29 period.[34] To roll forward the RAB using depreciation based on forecast capex, we would use the forecast depreciation contained in the PTRM for the 2024–29 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 2024–29 period.

Our decision on whether to use actual or forecast depreciation must be consistent with the capex incentive objective.[35] This objective is to ensure that increases to the RAB through capex only occur where that capex reasonably reflects the capex criteria.[36] In deciding between actual and forecast depreciation, we have regard to:[37]

- 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 capex 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 amounts.[38] 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 amounts.

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[39]
- depreciation
- indexation adjustment – so the RAB is presented in nominal terms, consistent with the rate of return.

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34 NT NER, cl. S6.2.2B.

35 AER, *Framework and approach: Power and Water Corporation (Northern Territory), Regulatory control period commencing 1 July 2024,* July 2022, p. 46.

36 NT NER, cl, 6.4A(a).

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

38 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.

39 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-year WACC to arrive at an end of year value. It then begins depreciating the following year.

The opening RAB at the start of a regulatory control period 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 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 forecast depreciation 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 regulatory depreciation building block that feeds into the annual revenue requirement.

We maintain the RAB in real terms by indexing for inflation.[40] A nominal rate of return (WACC) is multiplied by the opening RAB to produce the return on capital building block.[41] To prevent the double counting of inflation through the nominal WACC and indexed RAB,[42] the regulatory depreciation building block has an offsetting reduction for indexation of the RAB.[43] Indexation of the RAB and the offsetting adjustment made to depreciation results in smoother revenue recovery profile over the life of an asset than if the RAB was un-indexed. If the RAB was un-indexed, there would be no need for an offsetting adjustment to the depreciation calculation of total revenue. This alternative approach provides for overall revenues being higher early in the asset's life (as a result of more depreciation being returned to the distributor) and lower in the future—producing a steeper downward sloping profile of total revenue.[44] The implications of an un-indexed RAB are discussed further in Attachment 4.

Figure 2.1 shows the key drivers of the changes in the RAB over the 2024–29 period as proposed by Power and Water Corporation. Overall, the closing RAB at the end of the 2024–29 period would be 33% 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 49%. Expected inflation increases it by about 16%. On the other hand, forecast depreciation reduces the RAB by about 32%.

40 NT NER, cll. 6.3.2(a)(2), 6.5.1(e)(3).

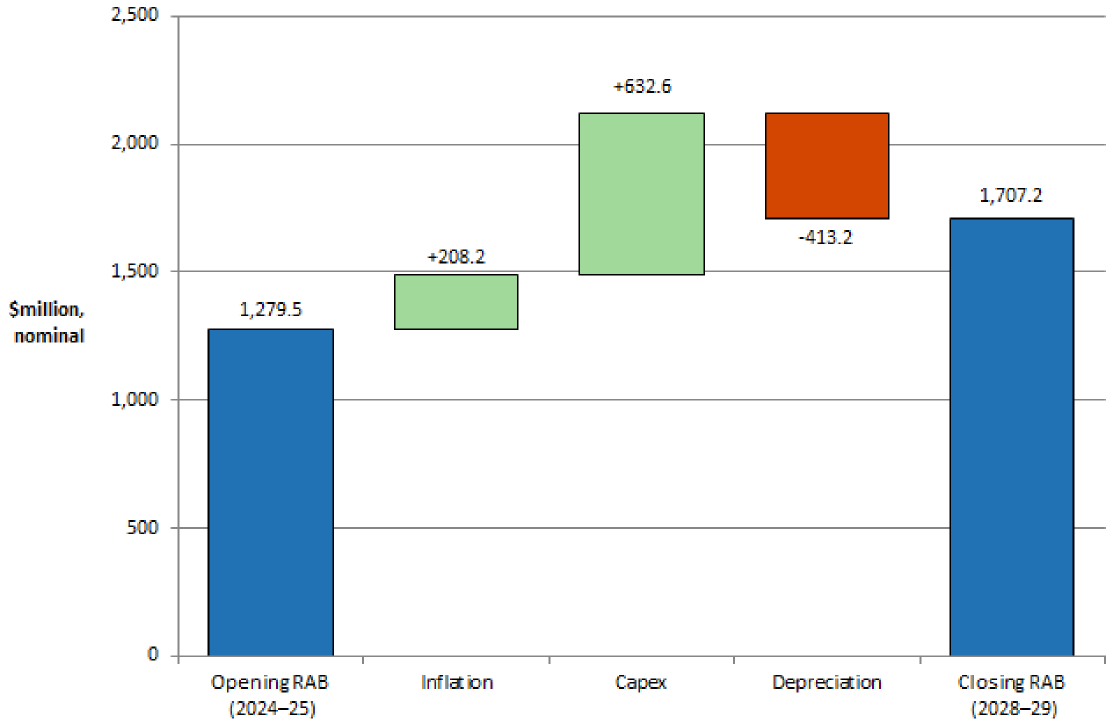
41 NT NER, cl. 6.5.2; AER, *Rate of return instrument*, cll. 1, 3, 36(c), February 2023.

42 NT NER, cl. 6.4.3(b)(1)(ii).

43 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.

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

Figure 2.1 Key drivers of changes in the RAB proposed by Power and Water Corporation ($million, nominal)



Source: Power and Water Corporation, *PWC - 10.02 - 2024-29 SCS PTRM - 31 Jan 2023 – Public*.
Note: Capex is net of forecast disposals and capital contributions. It is Inclusive of the half-year WACC to account for the timing assumptions in the PTRM.

Power and Water Corporation's proposed forecast depreciation is $413.2 million ($ nominal). We have largely accepted Power and Water Corporation's depreciation proposal, subject to some input updates in its depreciation tracking module including a change to the standard asset life for one asset class, as it satisfies the requirements of the National Electricity Rules – Northern Territory (NT NER) in terms of assigned asset lives.[45] This is discussed in Attachment 4. The depreciation amount largely depends on the opening RAB, which in turn depends on capex in the past.[46] Depreciation associated with forecast capex is a relatively smaller amount.

However, we do have concerns with the size of the forecast capex, the largest driver of the increase in the RAB over the 2024–29 period, proposed by Power and Water Corporation. For this draft decision, we have reduced Power and Water Corporation proposed forecast capex by $135.2 million ($2023–24), or 23.8% over the 2024–29 period.[47] Our review of Power and Water Corporation's forecast capex is set out in Attachment 5 of this draft decision.

45 NT NER, cl. 6.5.5(b).

46 At the time of this draft decision, the roll forward of Power and Water Corporation's RAB includes estimated capex values for 2022–23 and 2023–24. We expect to update the 2022–23 estimated capex with actuals in the final decision. We may also update the 2023–24 estimated capex with a revised estimate in the final decision.

47 This amount is net of asset disposals and capital contributions, and excludes the half-year WACC adjustment.

A 10% increase in the opening RAB at 1 July 2024 causes revenues to increase by around 6%. 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.[48]

2.4 Reasons for draft decision

We determine an opening RAB value of $1,270.2 million ($ nominal) as at 1 July 2024 for Power and Water Corporation, a reduction of $9.3 million (0.7%) from the proposed value. We forecast a closing RAB value of $1,538.6 million by 30 June 2029. This represents a decrease of $168.6 million (9.9%) compared to Power and Water Corporation's proposal. The reasons for our decision are discussed below.

2.4.1 Opening RAB as at 1 July 2024

We determine an opening RAB value of $1,270.2 million as at 1 July 2024 for Power and Water Corporation. This value is $9.3 million (0.7%) lower than Power and Water Corporation's proposed opening RAB of $1,279.5 million ($ nominal) as at 1 July 2024.[49] This reduction is mainly driven by updates to the CPI inputs for 2022–23 and 2023–24.

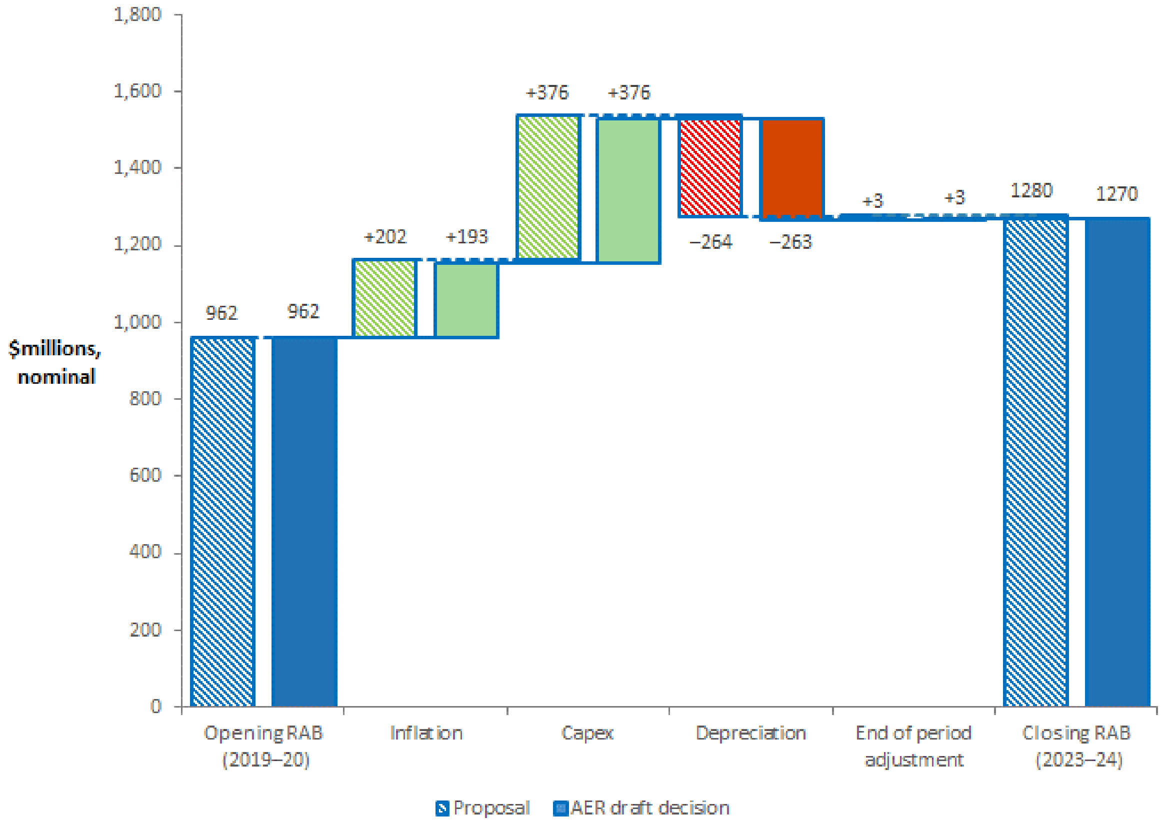
Figure 2.2 shows the key drivers of the change in Power and Water Corporation's RAB over the 2019–24 period for this draft decision. Overall, the closing RAB value at the end of the 2019–24 period is forecast to be 32% higher than the opening RAB at the start of that period, in nominal terms. The new net capex increases the RAB by 39%, while inflation indexation increases it by 20%. End of period adjustments also increase the RAB by 0%, while depreciation on the other hand, reduces the RAB by 27%.

In the following sections we discuss our assessment of Power and Water Corporation's proposed inputs in the RFM and the ex-post review of 2017–22 capex for RAB roll forward purposes.

48 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.

49 Power and Water Corporation, *PWC - 10.03 - 2024-29 SCS Roll-forward Model - 31 Jan 2023 - Public*.

Figure 2.2 Key drivers of changes in the RAB over the 2019–24 period – Power and Water Corporation's proposal compared with the AER's draft decision ($million, nominal)



Source: AER analysis.

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

2.4.1.1 Key inputs in the RFM

To determine the opening RAB for Power and Water Corporation as at 1 July 2024, we have rolled forward the RAB over the 2019–24 period to determine a closing RAB value as at 30 June 2024. In doing so, we reviewed the key inputs of Power and Water Corporation's proposed RFM, such as actual inflation, rate of return, gross capex values, capital contribution values, forecast depreciation amounts and asset lives. We found these inputs were generally correct and reconcile with relevant data sources such as ABS data, annual reporting RINs and the 2019–24 decision models. We also accept Power and Water Commission's proposal to include the written down value of capex incurred for 'corporate assets' in the previous period (before June 2019) that was not included in the opening RAB as at 1 July 2019 at the previous regulatory determination.[50] However, we consider that some of Power and Water Corporation's proposed RFM inputs require updating with newly available data.

[50] PWC, *Regulatory proposal – Attachment 10.01 – Revenue,* January 2023, p. 9.

Therefore, we have made the following updates to Power and Water Corporation's proposed RFM inputs:

- Power and Water Corporation's estimate of 2022–23 inflation of 8.00% with actual CPI of 7.83% published by the ABS, which became available after Power and Water Corporation submitted its proposal. We also updated the estimated CPI for 2023–24 to better reflect the latest economic conditions. Power and Water Corporation's proposal used 4.70% as the estimated CPI input for 2023–24, reflecting the RBA's forecast published in November 2022.[51] For this draft decision, we have updated this value to 4.10%, reflecting the RBA's forecast published in August 2023.[52] The updates to the CPI inputs have resulted in a reduction to the opening RAB value as at 1 July 2024 by $9.2 million (0.7%). These inflation updates also result in a slight reduction (0.7% or less than $0.1 million) to the value of Power and Water Corporation's end of period adjustments related to historical corporate assets.
- the nominal vanilla WACC for 2023–24 value in the RFM. This update is required to reflect the 2023–24 return on debt update in the PTRM for the 2019–24 period, which became available after Power and Water Corporation submitted its proposal. This update results in a further decrease of $0.1 million to the opening RAB value as at 1 July 2024.

2.4.1.2 Ex post review of 2017–22 capex

We also consider the extent to which our roll forward of the RAB to 1 July 2024 contributes to the achievement of the capital expenditure incentive objective.[53] In the 2019–24 distribution determination, we noted that the 2017–18 and 2018–19 capex would form part of the review period for whether past capex should be excluded for inefficiency reasons in this distribution determination.[54] The capex for 2019–22 also forms part of the review period.

Consistent with the requirements of the NT NER we have excluded the last two years of the 2019–24 period from the review of past capex for this distribution determination.[55] This approach ensures that actual capex (instead of estimated capex) is available when the review of past capex commences.

Power and Water Corporation's actual capex incurred from 2017–18 to 2021–22 is below the forecast allowance set at the previous relevant distribution determinations. 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 estimated capex for 2022−23 and 2023–24 in the RAB roll forward to 1 July 2024. At the next distribution

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[51] RBA, *Statement on Monetary Policy, Appendix: Forecasts*, November 2022.

[52] RBA, *Statement on Monetary Policy, Appendix: Forecasts*, August 2023.

[53] NT NER, cl. 6.12.2(b).

[54] AER, *Final decision, Power and Water Corporation distribution determination 2019–24, Attachment 2 Regulatory asset base,* April 2019, p. 7.

[55] NT NER, cl. S6.2.2.A(a1).

[56] NT NER, cl. S6.2.2A(c).

determination, the 2022–23 and 2023–24 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 2019–24 RAB roll forward contributes to an opening RAB (as at 1 July 2024) that includes capex that reflects prudent and efficient costs, in accordance with the capital expenditure criteria.[59]

2.4.2 Forecast closing RAB as at 30 June 2029

We forecast a closing RAB value of $1,538.6 million ($ nominal) by 30 June 2029 for Power and Water Corporation, which represents a reduction of $168.6 million (9.9%) compared to Power and Water Corporation's proposed amount of $1,707.2 million ($ nominal). The decrease reflects our draft decision on the inputs for determining the forecast RAB in the PTRM.

The change in the size of the RAB over the 2024–29 period depends on our assessment of its various components including expected inflation (Attachment 3), forecast depreciation (Attachment 4) and forecast capex (Attachment 5). Inflation and capex increase the RAB, while depreciation and disposals reduce it.

To determine the forecast RAB value for Power and Water Corporation, we amended the following PTRM inputs:

- We reduced Power and Water Corporation's proposed opening RAB value as at 1 July 2024 by $9.3 million ($ nominal) or 0.7% (section 2.4.1).
- We updated Power and Water Corporation's proposed expected inflation rate of 2.92% per annum for the 2024–29 period to 2.80% per annum (Attachment 3). Compared to the proposal, our draft decision results in a decrease to the indexation of the RAB component for the 2024–29 period by $12.1 million ($ nominal) or 5.8%.[60]
- We reduced Power and Water Corporation's proposed forecast straight-line depreciation for the 2024–29 period by $11.0 million ($ nominal) or 2.7% (Attachment 4).
- We reduced Power and Water Corporation's proposed forecast capex for the 2024–29 period by $158.2 million ($ nominal) or 25.0% (Attachment 5).[61]

Figure 2.3 shows the key drivers of the change in Power and Water Corporation's RAB over the 2024–29 period for this draft decision. Overall, the closing RAB at the end of the 2024–29 period is forecast to be 21% higher than the opening RAB at the start of that period, in

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57 Here, 'inefficiency' of past capex refers to three specific assessments (labelled the overspending, margin and capitalisation requirements) detailed in NT NER, cl. S6.2.2A. The details of our ex post assessment approach for capex are set out in AER, *Capital expenditure incentive guideline*, April 2023, pp. 13–21.

58 AER, *Final decision, Power and Water Corporation distribution determination 2019–24, Attachment 2 Regulatory asset base,* April 2019, pp. 10–11.

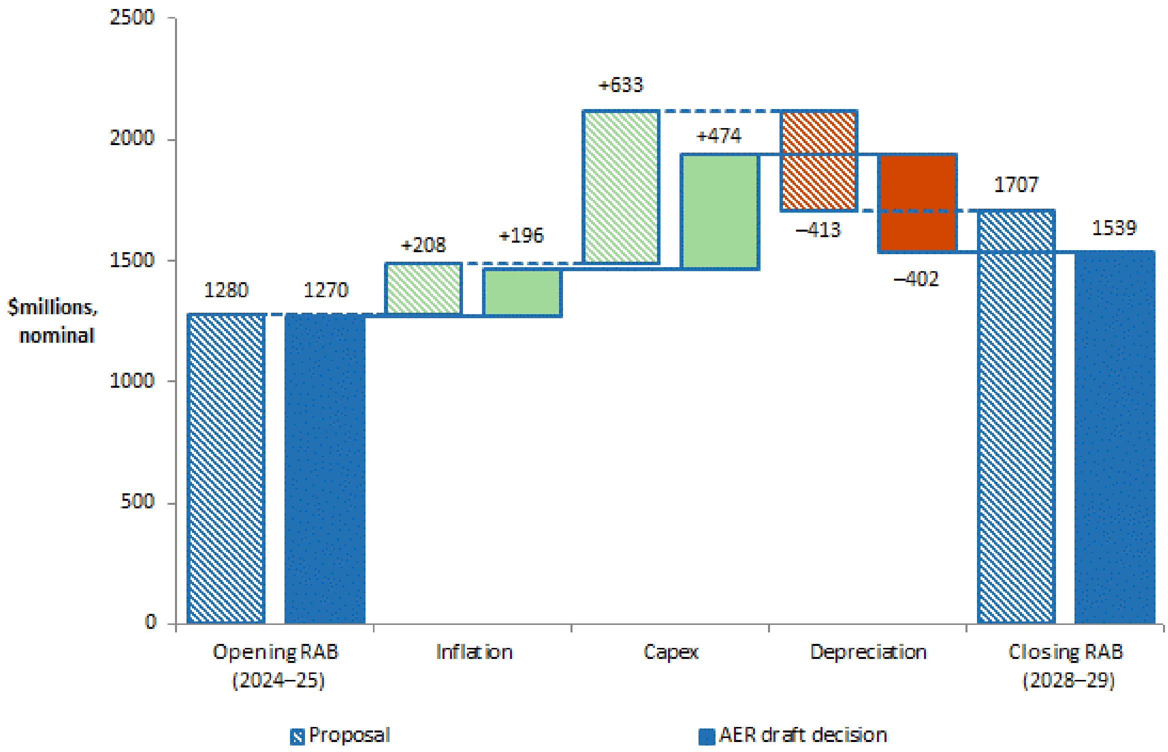
59 NT NER, cll. 6.4A(a), 65.7(a), 6.5.7(c) and 6.12.2(b).

60 The calculated decrease to the RAB indexation component amount due to updating for expected inflation is based on input data provided in Power and Water Corporation's proposed PTRM.

61 Capex net of disposals and customer contributions, and inclusive of half-year WACC adjustment.

nominal terms. The approved forecast net capex increases the RAB by 37%, while expected inflation increases it by 15%. Forecast depreciation, on the other hand, reduces the RAB by 32%.

Figure 2.3 Key drivers of changes in the RAB over the 2024–29 period – Power and Water Corporation's proposal compared with the AER's draft decision ($million, nominal)



Source: AER analysis.
Note: Capex is net of forecast disposals and capital contributions. It is inclusive of 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 distribution determination

We determine that the depreciation approach to be applied to establish Power and Water Corporation's RAB at the commencement of the 2029–34 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 2021–26 period.[62]

Power and Water Corporation proposed to use the forecast depreciation approach to roll forward its RAB for the commencement of the 2029–34 period. [63] We note that this approach is consistent with our position in the F&A.[64]

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

63 Power and Water Corporation, *Attachment 10.01, Revenue,* 31 January 2023, p. 10.

64 AER, *Framework and approach, Power and Water Corporation (Northern Territory), Regulatory control period commencing, 1 July 2024*, July 2022, p. 46.

We have used forecast depreciation for this draft decision when rolling forward the opening RAB at the commencement of the 2024–29 period (section 2.4.1). The use of forecast depreciation to establish the opening RAB for the commencement of the 2029–34 period at the next distribution determination therefore maintains the current approach.

As discussed in Attachment 9, Power and Water Corporation is currently subject to the CESS for the 2019–24 period. We will continue to apply the CESS to Power and Water Corporation over the 2024–29 period. We consider that the CESS will provide sufficient incentives for Power and Water Corporation to achieve capex efficiency gains over that period. We are satisfied that the use of a forecast depreciation approach in combination with the application of the CESS and our other ex post capex measures are sufficient to achieve the capex incentive objective.[65]

[65] Our ex-post capex measures are set out in the capex incentives guideline, AER, *Capital expenditure incentive guideline for electricity network service providers*, April 2023, pp. 13–21. The guideline also sets out how all our capex incentive measures are consistent with the capex incentive objective.

Shortened Forms

Term	Definition
ABS	Australian Bureau of Statistics
AER	Australian Energy Regulator
Capex	capital expenditure
CESS	capital expenditure sharing scheme
CPI	consumer price index
F&A	Framework and approach
NT NER	National Electricity Rules – Northern Territory
Opex	operating expenditure
PTRM	post-tax revenue model
RAB	regulatory asset base
RBA	Reserve Bank of Australia
RFM	roll forward model
RIN	regulatory information notice
WACC	weighted average cost of capital