DRAFT DECISION
Powerlink Queensland
Transmission Determination

2022 to 2027

Attachment 2
Regulatory asset base

September 2021

AUSTRALIAN ENERGY REGULATOR

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Note

This attachment forms part of the AER's draft decision on Powerlink Queensland's transmission network revenue determination for the 2022–27 regulatory control period. 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 – Regulatory depreciation

Attachment 5 – Capital expenditure

Attachment 6 – Operating expenditure

Attachment 7 – Corporate income tax

Attachment 8 – Efficiency benefit sharing scheme

Attachment 9 – Capital expenditure sharing scheme

Attachment 10 – Service target performance incentive scheme

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Attachment 12 – Pass through events

Attachment 13 – Demand management innovation allowance mechanism

Contents

2 Regulatory asset base

The regulatory asset base (RAB) is the value of the assets used by Powerlink 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 2022–27 regulatory control period.[3] We set the RAB as the foundation for determining a transmission network service provider's (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 blocks.[4]

This attachment presents our draft decision on the opening RAB value as at 1 July 2022 for Powerlink and our forecast of its RAB values over the 2022–27 period. It also presents our draft decision for establishing the RAB as at the commencement of the 2027–32 period using depreciation that is based on forecast capital expenditure (capex).[5]

2.1 Draft decision

We determine an opening RAB value of $6983.4 million (nominal) as at 1 July 2022 for Powerlink. This value is $25.0 million (0.4 per cent) higher than Powerlink's proposed opening RAB of $6958.4 million as at 1 July 2022.[6] This increase is largely due to updating the actual consumer price index (CPI) input for 2020–21 in Powerlink's proposed roll forward model (RFM) that has become available since Powerlink submitted its revenue proposal.[7] Actual CPI for 2020–21 was 0.86 per cent, compared to Powerlink's proposed placeholder of 0.50 per cent. This higher inflation value results in the indexation of the RAB for 2020–21 to be $61.1 million in our draft decision, compared to $35.5 million using Powerlink's proposed placeholder.

While we largely accept the other aspects of Powerlink's proposed method for calculating the opening RAB, we also made the following revisions to the proposed inputs in the RFM:

- updated the proposed final year asset adjustment and asset disposal values to reflect updates for actual CPI and corrections made to the indexation of Powerlink's proposed RAB additions and removals

1 NER, cl. 6A.6.1(a).
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 NER, cl. 6A.14.1(5E).
6 Powerlink, *2023–27 Revenue proposal,* January 2021, p. 113.
7 We will update the RAB roll forward for actual CPI for 2021–22 in the final decision.

- updated the nominal weighted average cost of capital (WACC) for 2021–22 following the most recent return on debt update in the 2017–22 post-tax revenue model (PTRM)
- corrected a number of minor rounding errors in the nominal WACC and forecast inflation rate inputs.

To determine the opening RAB as at 1 July 2022, we have rolled forward the RAB over the 2017–22 regulatory control period to determine a closing RAB value at 30 June 2022 in accordance with our RFM.[8] This roll forward process includes an adjustment at the end of the 2017–22 period to account for the difference between actual 2016–17 capex and the estimate approved in the 2017–22 determination.[9] All other adjustments are applied as part of the final year adjustments at 30 June 2022 to establish the opening RAB value at 1 July 2022.[10]

Powerlink's roll forward included an adjustment to the RAB in the final year (end of period) for reclassification of assets. Powerlink proposed to roll-in $2.0 million ($2021–22) of assets that provide prescribed services into the opening RAB as at 1 July 2022.[11] Our draft decision accepts Powerlink's proposal to include the remaining value of these assets in the RAB subject to an indexation update (section 2.4.1).[12]

Table 2.1 sets out our draft decision on the roll forward of Powerlink's RAB over the 2017–22 period.

8 AER, *Electricity transmission network service providers: Roll forward model (version 4)*, 7 April 2020.

9 The end of period adjustment will be positive (negative) if actual capex is higher (lower) than the estimate approved at the 2017–22 determination.

10 The final year asset adjustments 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 TNSP 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.

11 Powerlink, *2023–27 Revenue proposal,* January 2021, p. 113.

12 We will update the RAB roll-in value for actual 2021–22 CPI in the final decision.

Table 2.1 AER's draft decision on Powerlink's RAB for the 2017–22 regulatory control period ($ million, nominal)

	2017–18	2018–19	2019–20	2020–21[a]	2021–22[b]
Opening RAB	7069.4	7094.5	7105.5	7103.2	7029.6
Capital expenditure[c]	151.4	170.5	170.1	179.8	204.9
Inflation indexation on opening RAB[d]	135.0	126.6	130.8	61.1	70.3
Less: straight-line depreciation[e]	261.3	286.1	303.2	314.5	317.7
Interim closing RAB	7094.5	7105.5	7103.2	7029.6	6987.2
Difference between estimated and actual capex in 2016–17					–4.5
Return on difference for 2016–17 capex					–1.2
Final year asset adjustment[f]					2.0
Closing RAB as at 30 June 2022					**6983.4**

Source: AER analysis.

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

(b) Based on estimated capex provided by Powerlink. 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 and half-year WACC.

(d) We will update the RAB roll forward for actual CPI for 2021–22 in the final decision.

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

(f) Roll-in of assets at 30 June 2022 that provide prescribed services.

We determine a forecast closing RAB value at 30 June 2027 of $6961.9 million (nominal). This is $23.0 million (0.3 per cent) higher than the amount of $6939.0 million proposed by Powerlink. Our draft decision on the forecast closing RAB reflects the amended opening RAB as at 1 July 2022, and our draft decisions on the expected inflation rate (Attachment 3), forecast depreciation (Attachment 4) and forecast capex (Attachment 5).[13]

Table 2.2 sets out our draft decision on the forecast RAB values for Powerlink over the 2022–27 period.

[13] Capex enters the RAB net of forecast disposals. 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 2022–27 regulatory control period (Attachment 3).

Table 2.2 AER's draft decision on Powerlink's RAB for the 2022–27 regulatory control period ($ million, nominal)

	2022–23	2023–24	2024–25	2025–26	2026–27
Opening RAB	6983.4	7010.0	7049.5	7028.1	6996.9
Capital expenditure[a]	196.4	220.3	168.7	167.0	172.5
Inflation indexation on opening RAB	157.1	157.7	158.6	158.1	157.4
Less: straight-line depreciation[b]	326.9	338.6	348.7	356.4	364.9
Closing RAB	**7010.0**	**7049.5**	**7028.1**	**6996.9**	**6961.9**

Source: AER analysis.

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

(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 2027–32 period for Powerlink.[14] We consider this approach is consistent with the capex incentive objective, in that it will provide sufficient incentives for Powerlink to achieve capex efficiency gains over the 2022–27 period. This approach is also consistent with our Framework and Approach paper.[15]

2.2 Powerlink's proposal

Powerlink used our RFM to establish an opening RAB as at 1 July 2022 and version 4 of our PTRM to roll forward the RAB over the 2022–27 regulatory control period.[16]

Powerlink proposed an opening RAB value as at 1 July 2017 of $7069.4 million (nominal). Rolling forward this RAB and using depreciation based on forecast capex (approved for the 2017–22 period), Powerlink proposed a closing RAB as at 30 June 2022 of $6958.4 million (nominal).[17]

Powerlink's proposed closing RAB at 30 June 2022 includes a roll-in of $2.0 million ($2021–22) of assets that provide prescribed services. Powerlink noted that after an assessment of potential asset transfers, it identified a portion of non-regulated land and easement assets that should be re-classified as providing prescribed shared transmission services for the 2022–27 period and therefore included in the RAB. Powerlink's proposed value of these assets to include in the RAB only reflects the

14 NER, cl. S6A.2.2B(a).

15 AER, *Final Framework and Approach for Powerlink – Regulatory control period commencing 1 July 2022*, July 2020, p. 20.

16 We have released a new version of the PTRM (version 5) in April 2021 after Powerlink submitted its revenue proposal. Our draft decision uses this updated version 5 PTRM.

17 Powerlink, *2023–27 Revenue proposal,* January 2021, p. 113.

portion of non-depreciating land and easement assets, as the full value of the other relevant non-regulated assets have already been recovered via non-regulated charges.

Powerlink also proposed to remove $4.4 million ($2021–22) of assets from the RAB in 2021–22 as these assets have been repurposed to no longer provide prescribed transmission services.[18] These assets have been removed as disposals in the RFM, consisting of $4.1 million of substation assets and $0.3 million in easements.[19]

Table 2.3 sets out Powerlink's proposed roll forward of its RAB during the 2017–22 period.

Table 2.3 Powerlink's proposed RAB for the 2017–22 regulatory control period ($ million, nominal)

	2017–18	2018–19	2019-20	2020–21[a]	2021–22[a]
Opening RAB	7069.4	7094.5	7105.5	7103.2	7003.7
Capital expenditure[b]	151.4	170.5	170.1	179.5	205.0
CPI indexation on opening RAB	135.0	126.6	130.8	35.5	70.0
Less: straight-line depreciation[c]	261.3	286.1	303.2	314.5	316.6
Interim closing RAB	7094.5	7105.5	7103.2	7003.7	6962.2
Difference between estimated and actual capex in 2016–17					–4.5
Return on difference for 2016–17 capex					–1.2
Final year asset adjustment[d]					2.0
Closing RAB as at 30 June 2022					**6958.4**

Source: Powerlink, *Revenue proposal 2022–27,* RFM*,* January 2021.

(a) Based on forecast estimated capex.

(b) As-incurred, net of disposals, and adjusted for actual CPI and half-year WACC.

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

(d) Roll-in of assets at 30 June 2022 that provide prescribed services.

Powerlink proposed a forecast closing RAB as at 30 June 2027 of $6939.0 million (nominal). This value reflects its proposed opening RAB, forecast capex, expected inflation, and depreciation (based on forecast capex) over the 2022–27 period. Table 2.4 shows its projected RAB over the 2022–27 period.

[18] Ibid, p. 114.

[19] Powerlink, *Roll forward model*, January 2021.

Table 2.4 Powerlink's proposed RAB for the 2022–27 regulatory control period ($million, nominal)

	2022–23	2023–24	2024–25	2025–26	2026–27
Opening RAB	6958.4	6985.4	7025.2	7004.2	6973.4
Capital expenditure[a]	196.2	220.1	168.6	166.9	172.4
Inflation indexation on opening RAB	156.5	157.1	158.0	157.5	156.8
Less: straight-line depreciation[b]	325.7	337.4	347.6	355.2	363.7
Closing RAB	**6985.4**	**7025.2**	**7004.2**	**6973.4**	**6939.0**

Source: Powerlink, *2023–27 Revenue proposal, Post-tax revenue model,* January 2021.

(a) As-incurred, and net of forecast disposals. Inclusive of the half-year WACC to account for the timing assumptions in the PTRM.

(b) Based on as-commissioned capex.

2.3 Assessment approach

We roll forward Powerlink's RAB during the 2017–22 regulatory control period to establish the opening RAB at 1 July 2022. This value must be adjusted for any differences in estimated and actual capex.[20] It may also be adjusted to reflect any changes in the use of the assets. We may include (or remove) assets from the RAB in circumstances where the nature of the assets has changed and they are now contributing (or no longer contributing) to the provision of prescribed transmission services.[21]

To determine the opening RAB, we developed an asset base RFM that a TNSP must use in preparing its revenue proposal.[22] We used the RFM to roll forward Powerlink's RAB from the beginning of the final year of the 2012–17 period,[23] through the 2017–22 period, to the beginning of the 2022–27 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 annual indexation of the maximum allowed revenue[24]

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

21 NER, cll. S6A.2.1(f)(6)–(8) and S6A.2.3.

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

23 The roll forward commences in the final year of the 2012–17 regulatory control period to allow us to adjust for the difference between actual 2016–17 capex and the estimated 2016–17 capex used in our 2012–17 transmission determination. This adjustment will be positive (negative) if actual capex is higher (lower) than the estimate approved in the 2012–17 determination. See NER, cl. S6A.2.1(f)(3).

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

- adding actual or estimated capex to the RAB for the relevant year.[25] 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.[26] The details of our assessment approach for capex overspend are set out in the capex incentive guideline. We note that our review of past capex does not include the last two years of the 2017–22 period—these will instead be reviewed at the next reset.[27] We check actual capex amounts against audited regulatory accounts data and generally accept the capex reported in those accounts in rolling forward the RAB.[28] However, there may be instances where adjustments are required to the annual regulatory accounts data[29]
- 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 Powerlink's 2017–22 period.[30] Depreciation based on forecast or actual capex can be used to roll forward the RAB.[31] For this draft decision, we use depreciation based on forecast capex for rolling forward the RAB for Powerlink's 2017–22 period.[32] Depreciation based on forecast capex will also be used for the 2022–27 period RAB roll forward at the next reset[33]
- subtracting any gross proceeds for asset disposals for the relevant year from capex to be added to the RAB.[34] 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 2017–22 period.[35] The PTRM used to calculate the annual building block revenue requirement for the 2022–27 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.[36]

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

26 NER, cl. S6A.2.2A. 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 inappropriate capitalisation of opex as defined in cll. S6A.2.2A (c), (d) and (e) of the NER.

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

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

29 For example, we make adjustment for movements in provisions if the actual capex amounts reported in the regulatory accounts include capitalised provisions.

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

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

32 The use of forecast depreciation is consistent with the depreciation approach established in the transmission determination for the 2017–22 regulatory control period for Powerlink. See AER, *Final decision, Powerlink transmission determination 2017–22, Attachment 2 – Regulatory asset base*, April 2017, p. 23.

33 Refer to section 2.4.3 for the reasons.

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

35 Any adjustments to the closing RAB at the end of the current regulatory control period for asset movements will be recorded under the final year asset adjustments section in the RFM.

36 NER, cl. S6A.2.4(c).

The opening RAB for the 2027–32 period can be determined using depreciation based either on forecast or actual capex incurred during the 2022–27 period.[37] To roll forward the RAB using depreciation based on forecast capex, we would use the forecast depreciation contained in the PTRM for the 2022–27 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 2022–27 period.

Our decision on whether to use actual or forecast depreciation must be consistent with the capex incentive objective. This objective is to ensure that increases to the RAB through capex only occur where that capex reasonably reflects the capex criteria.[38] In deciding between actual and forecast depreciation, we have regard to:[39]

- 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.[40] 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 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[41]

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37 NER, cl. S6A.2.2B(a).

38 NER, cl 6A.5A(a).

39 NER, cl. S6A.2.2B(b) and (c).

40 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. It should be noted that the return on capital is calculated based on the RAB measured on an as incurred basis while depreciation (return of capital) is calculated based on the RAB measured on an as commissioned basis.

41 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-year 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 of the 2022–27 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 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 throughout the regulatory control period.

Depreciation reduces the RAB. The depreciation amount 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 building block revenue requirement.

We maintain the RAB in real terms by indexing for inflation.[42] A nominal rate of return (WACC) is multiplied by the opening RAB to produce the return on capital building block.[43] To prevent the double counting of inflation through the nominal WACC and indexed RAB,[44] the regulatory depreciation building block has an offsetting reduction for indexation of the RAB.[45] 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.[46] 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 2022–27 period as proposed by Powerlink. Overall, the closing RAB at the end of the 2022–27 period would be 0.3 per cent lower than the opening RAB at the start of that period based on

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

43 AER, *Rate of return instrument*, cll. 1, 3(a) and 36(c), December 2018.

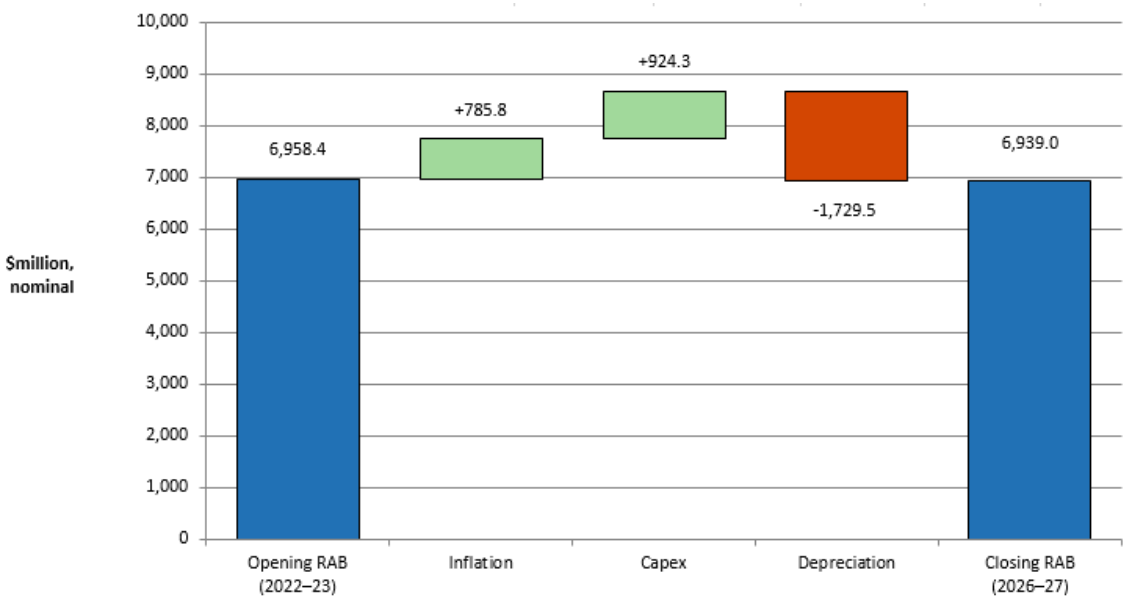
44 NER, cl. 6A.5.4(b)(1)(ii).

45 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.

46 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 net present value neutrality.

the proposal, in nominal terms. The proposed forecast net capex increases the RAB by 13.3 per cent, while expected inflation increases it by 11.3 per cent. Forecast depreciation, on the other hand, reduces the RAB by 24.9 per cent.

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



Source: Powerlink, *2023–27 Revenue proposal, Post-tax revenue model,* January 2021.

Note: Capex is net of forecast disposals. It is inclusive of the half-year WACC to account for the timing assumptions in the PTRM.

Powerlink's proposed forecast depreciation for the 2022–27 period is $1729.5 million (nominal). We have accepted most aspects of Powerlink's depreciation proposal, subject to some input updates, as it satisfies the requirements of the National Electricity Rules (NER) in terms of the assigned asset lives. This is discussed in Attachment 4. The depreciation amount largely depends on the opening RAB, which in turn depends on capex in the past.[47] Depreciation associated with forecast capex is a relatively smaller amount.

Forecast net capex is generally the key driver of an increase in RAB. For this draft decision, we are satisfied that Powerlink's proposed forecast capex for the 2022–27 period reasonably reflects the capex criteria. We have therefore accepted Powerlink's forecast capex proposal of $924.3 million (nominal).[48] Our review of Powerlink's forecast capex is set out in Attachment 5 of this draft decision.

[47] At the time of this draft decision, the roll forward of Powerlink's RAB includes estimated capex values for 2020–21 and 2021–22. We expect to update the 2020–21 estimated capex with actuals in the final decision. We may also update the 2021–22 estimated capex with a revised estimate in the final decision.

[48] This amount is net of asset disposals and inclusive of half-year WACC adjustment.

A 10 per cent increase in the opening RAB causes revenues to increase by about 2.0 per cent. However, the impact on revenues of the annual change in RAB depends on the source of the RAB change, as some drivers affect more than one building block cost.[49]

2.4 Reasons for draft decision

We determine an opening RAB value for Powerlink of $6983.4 million (nominal) as at 1 July 2022, an increase of $25.0 million (0.4 per cent) from the proposed value. We forecast a closing RAB value of $6961.9 million by 30 June 2027. This represents an increase of $23.0 million (0.3 per cent) compared with Powerlink's proposal. The reasons for our draft decision are discussed below.

2.4.1 Opening RAB as at 1 July 2022

We determine an opening RAB value of $6983.4 million (nominal) as at 1 July 2022 for Powerlink. This value is $25.0 million (0.4 per cent) higher than Powerlink's proposed opening RAB of $6958.4 million as at 1 July 2022.[50]

To determine the opening RAB for Powerlink as at 1 July 2022, we have rolled forward the RAB over the 2017–22 regulatory control period to determine a closing RAB value as at 30 June 2022. In doing so, we reviewed the key inputs of Powerlink's proposed RFM, such as actual inflation, rate of return, gross capex values, asset disposal values, forecast depreciation amounts and asset lives. We found these were generally correct and they reconcile with relevant data sources such as Australian Bureau of Statistics (ABS) data, regulatory accounts and the 2017–22 decision models.[51] However, we identified some minor modelling input errors and some RFM inputs that required updating with newly available data.

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[49] 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.

[50] Powerlink, *2023–27 Revenue proposal,* January 2021, p. 113.

[51] At the time of this draft decision, the roll forward of Powerlink's RAB includes estimated capex values for 2020–21 and 2021–22. We expect to update the 2020–21 estimated capex with actuals in the final decision. We may also update the 2021–22 estimated capex with a revised estimate in the final decision.

Therefore, we have made the following amendments to Powerlink's proposed RFM inputs:

- updated Powerlink's estimate for the 2020–21 inflation input of 0.50 per cent with actual CPI of 0.86 per cent as published by the ABS[52]
- updated the proposed final year asset adjustment and asset disposal values to reflect updates for actual CPI and corrections made to the indexation of Powerlink's proposed RAB additions and removals
- updated the nominal WACC for 2021–22 following the most recent return on debt update in the 2017–22 PTRM
- corrected a number of rounding errors in the nominal WACC and forecast inflation rate inputs, consistent with the approved 2017–22 PTRM.[53]

We accept Powerlink's proposal to roll-in $2.0 million ($2021–22) of assets that provide prescribed services into the opening RAB as at 1 July 2022.[54] We have assessed the supporting confidential information in Powerlink's proposal and are satisfied that these previously non-regulated assets are providing prescribed transmission services.

We agree with Powerlink's approach to only roll-in the relevant portion of non-depreciable land and easement assets into the RAB given that the full value of the relevant previously non-regulated assets have already been fully depreciated and recovered. This approach is consistent with the NER, which requires that only the residual value of past capex is to be included in the RAB, to the extent that such capex relates to an asset that is used for the provision of prescribed transmission services.[55] However, we have updated the roll-in value as at 1 July 2022 to apply actual 2020–21 CPI instead of an estimate.[56]

Aurizon Network requested greater transparency and guidance on the process of how we assess a TNSP's proposed inclusion of assets and removal of existing transmission assets from the RAB.[57] For a TNSP's proposal to be accepted, it must demonstrate to us that its proposal satisfies the requirements of the NER and achieves the National Electricity Objective (NEO) to the greatest degree.

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52 All else being equal, a higher CPI will result in a higher inflation indexation for the RAB and therefore increase the value of the RAB. In our final decision, we will update the estimate for 2021–22 expected inflation with actual CPI. The ABS December quarter CPI is used as a proxy for the June financial year in Powerlink's 2022–27 regulatory control period.

53 In the PTRM, our draft decision also moves the opening RAB value in the 'Buildings - capital works' asset class back to its original 'Commercial buildings' asset class for continuity between the RFM and PTRM. This change has no impact on Powerlink's revenues, as the forecast depreciation of this asset value is unchanged.

54 Powerlink, *2023–27 Revenue proposal,* January 2021, p. 113.

55 NER, cl. S6A.2.1(f)(8)

56 This results in a small decrease of $0.01 million. We will update the RAB roll-in value for actual 2021–22 CPI in the final decision.

57 Aurizon Network, *Powerlink determination – 2022–27*, May 2021, pp. 7–8.

The NER allows for past capex that was incurred in connection with the provision of non-prescribed services to be included in the RAB under certain circumstances. The value may only be included to the extent the asset in respect of which that capex was incurred is subsequently used for the provision of prescribed transmission services; is required to meet the capex objectives; and the value is appropriately allocated and has not otherwise been recovered.[58] To determine this we assess the type of assets being transferred and its technical capability, which includes identifying to what extent, if any, the assets are providing prescribed transmission services. This requires supporting information such as an illustration of the connection arrangements the proposed transfer assets have with the shared transmission network, and description of the services provided.

To assess if the proposed value for the asset transfer into the RAB is reasonable, we must be satisfied that the value to be included only reflects past capex to the extent it is providing prescribed transmission services and has not otherwise been recovered. This may include an assessment of historical payments made for these assets. The transfer value of the assets must also be consistent with the principles and policies set out in the TNSP's cost allocation methodology.

We also accept Powerlink's proposal to remove $4.4 million ($2021–22) of assets from the opening RAB (as at 1 July 2022) as these assets have been repurposed and are no longer required in the provision of prescribed transmission services.[59] Consistent with our standard approach for asset disposals, we consider the value to be removed should align with the gross proceeds (or equivalent) to ensure that no loss or gains are recognised from the disposal of the assets.[60] As part of our analysis, we issued Powerlink an information request to provide us with further details of the calculations of the proposed disposal value.[61] After reviewing this information, we agree that the assets to be removed are no longer considered to provide prescribed transmission services and the associated value has been appropriately calculated. However, we have updated the disposal value to apply actual 2020–21 CPI instead of an estimate.[62] As such, we are satisfied that the value of the relevant assets have been removed from the RAB appropriately.

We also consider the extent to which our roll forward of the RAB to 1 July 2022 contributes to the achievement of the capex incentive objective.[63] In the 2017–22 transmission determination, we noted that the 2015–16 and 2016–17 capex would form part of the review period for whether past capex should be excluded for

58 NER, cl. S6A.2.1(f)(8).

59 Powerlink, *Revenue proposal,* January 2021, p. 114.

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

61 Powerlink, Response to information request AER IR002, 17 March 2021.

62 This results in a small increase of $0.02 million. We will update the RAB disposal value for actual 2021–22 CPI in the final decision.

63 NER, cll. 6A.14.2(b) and 6A.5A(a).

inefficiency reasons in this transmission determination.[64] The capex for 2017–2020 also forms part of the review period. Consistent with the requirements of the NER, we have excluded the last two years of the 2017–22 period from the review of past capex for this transmission determination.[65] This approach ensures that actual capex (instead of estimated capex) is available when the review of past capex commences.

Powerlink's aggregated actual capex incurred from 2015–16 to 2019–20 is below the forecast amount set at the previous transmission determinations. Therefore, the overspending requirement for an efficiency review of past capex is not satisfied.[66] For the reasons discussed in Attachment 5, we consider the capex incurred in those years is consistent with the capex criteria and can therefore be included in the RAB.[67]

Further, for the purposes of this draft decision, we have included estimated capex for 2020–21 and 2021–22 in the RAB roll forward to 1 July 2022. At the next reset, the 2020–21 and 2021–22 capex will form part of the review period for assessing whether past capex should be excluded for inefficiency reasons.[68] Our RAB roll forward applies the incentive framework approved in the previous transmission determination, which included the use of a forecast depreciation approach in combination with the application of the capital expenditure sharing scheme (CESS).[69] As such, we consider that the 2017–22 RAB roll forward contributes to an opening RAB (as at 1 July 2022) that includes capex that reflects prudent and efficient costs, in accordance with the capital expenditure criteria.[70]

2.4.2 Forecast closing RAB at 30 June 2027

We forecast a closing RAB value of $6961.9 million by 30 June 2027 for Powerlink, which represents an increase of $23.0 million (0.3 per cent) to Powerlink's proposal. This increase reflects our draft decision on the inputs for determining the forecast RAB in the PTRM. Our draft decision used version 5 of the PTRM to forecast the closing RAB by 30 June 2027.[71] This new version of the PTRM was published after Powerlink submitted its revenue proposal and gives effect to the changes set out in the AER's final position paper on the treatment of inflation in its regulatory framework.[72]

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64 AER, *Final decision, Powerlink transmission determination 2017–22, Attachment 2 – Regulatory asset base*, April 2017, p. 11.

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

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

67 Ibid.

68 Here, 'inefficiency' of past capex refers to three specific assessments (labelled the overspending, margin and capitalisation requirements) detailed in NER, cl. S6A.2.2A(b). The details of our ex-post assessment approach for capex are set out in AER, *Capital expenditure incentive guideline*, November 2013, pp. 13–20.

69 AER, *Final decision, Powerlink transmission determination 2017–22, Attachment 2 – Regulatory asset base*, April 2017, p. 23.

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

71 AER, *Electricity transmission network service providers: Post-tax revenue model (version 5)*, 7 April 2021.

72 AER, *Final position – Regulatory treatment of inflation*, December 2020, pp. 6–8.

The change in the size of the RAB over the 2022–27 regulatory control period depends on our assessment of its various components including forecast capex (Attachment 5), expected inflation (Attachment 3) and forecast depreciation (Attachment 4). Inflation and capex increase the RAB, while depreciation and disposals reduce it.

To determine the forecast RAB value for Powerlink, we amended the following PTRM inputs:

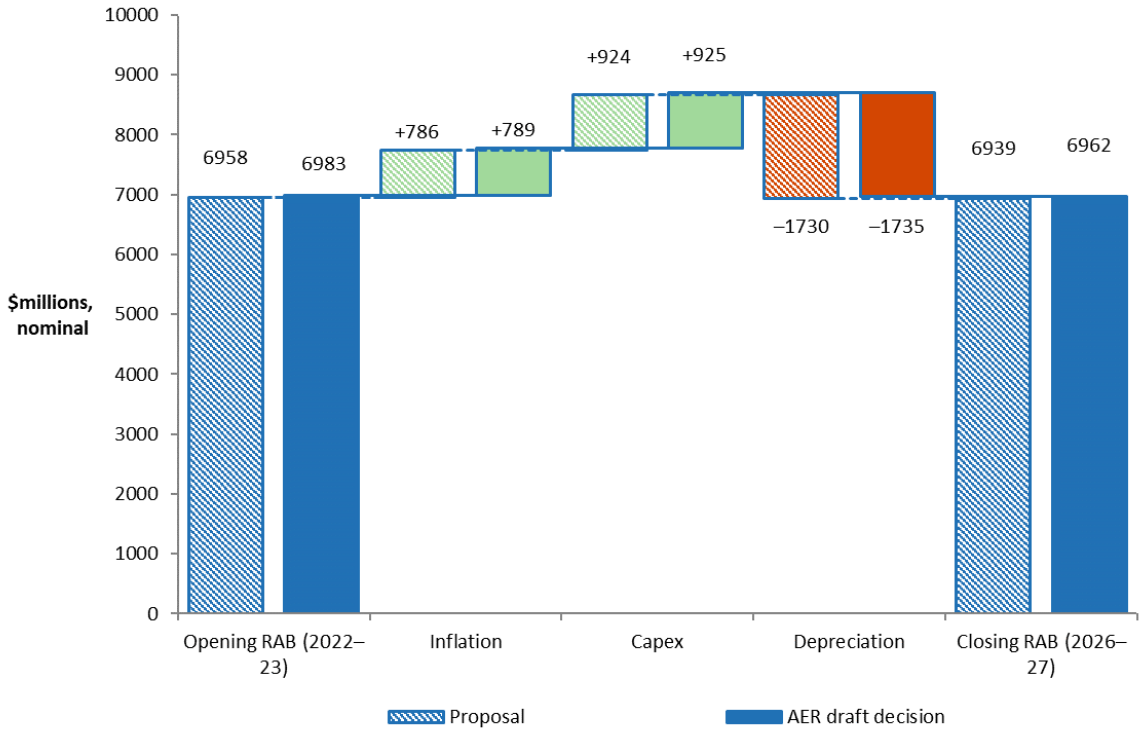
- we increased Powerlink's proposed opening RAB as at 1 July 2022 by $25.0 million (nominal) or 0.4 per cent (section 2.4.1)
- we increased Powerlink's proposed forecast capex for the 2022–27 period by $0.8 million (nominal) or 0.1 per cent (Attachment 5) [73]
- we updated Powerlink's proposed expected inflation rate to 2.25 per cent per annum over the 2022–27 period (Attachment 3). Compared to the proposal, our draft decision results in an increase to the indexation of the RAB component for the 2022–27 period by $3.1 million or 0.4 per cent (nominal)[74]
- we increased Powerlink's proposed forecast straight-line depreciation for the 2022–27 regulatory control period by $5.9 million ($ nominal) or 0.3 per cent (Attachment 4).

Figure 2.2 shows the key drivers of the change in Powerlink's RAB over the 2022–27 period for this draft decision. Overall, our draft decision closing RAB at the end of the 2022–27 period is forecast to be 0.3 per cent lower than the opening RAB at the start of that period, in nominal terms. The approved forecast net capex increases the RAB by 13.2 per cent, while expected inflation increases it by 11.3 per cent. Forecast depreciation, on the other hand, reduces the RAB by 24.9 per cent.

[73] This figure reflects as-incurred capex net of asset disposals and inclusive of half-year WACC adjustment. We have accepted Powerlink's forecast capex proposal. This difference reflects updates to expected inflation and the nominal vanilla WACC in our draft decision.

[74] Since both the expected inflation rate of 2.25 per cent and forecast capex remains largely unchanged from Powerlink's proposal, the increase in the indexation to the RAB is being driven by the higher opening RAB in our draft decision.

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



Source: AER analysis.

Note: Capex is net of forecast disposals. 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 reset

We determine that the depreciation approach to be applied to Powerlink's opening RAB at the commencement of the 2027–32 regulatory control period will be based on the depreciation schedules (straight-line) using forecast capex at the asset class level approved for the 2022–27 period. We consider this approach will provide sufficient incentives for Powerlink to achieve capex efficiency gains over the 2022–27 period.[75]

Powerlink's proposal noted that we had specified in the Framework and Approach process that we would use the forecast depreciation approach in rolling forward the RAB for the commencement of Powerlink's 2027–32 period.[76] Consistent with our

[75] NER, cll. 6A.14.1(5E) and S6A.2.2B.

[76] Powerlink, *Revenue proposal,* January 2021, p. 121.

Framework and Approach paper, we consider that the forecast depreciation approach should be used to establish the opening RAB as at 1 July 2027.[77]

We have used forecast depreciation for this draft decision when rolling forward the opening RAB at the commencement of the 2022–27 period (section 2.4.1). The use of forecast depreciation to establish the opening RAB for the commencement of the 2027–32 period at the next reset therefore maintains the current approach.

As discussed in Attachment 9, Powerlink is currently subject to the CESS for the 2017–22 period. We will continue to apply the CESS to Powerlink over the 2022–27 period. We consider that the CESS will provide sufficient incentives for Powerlink 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.[78]

2.4.4 Change in service classification of assets

Over time, the use of Powerlink's network can change and the classification of its assets may also change. In these circumstances, we amend the RAB to reflect the changing circumstances of the assets. At this time, we are seeking additional information from Powerlink about the use of some of its assets and will make any necessary adjustments in our final decision.

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77 AER, *Final Framework and Approach for Powerlink – Regulatory control period commencing 1 July 2022*, July 2020, p. 20.

78 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 and 20–21. The guideline also sets out how all our capex incentive measures are consistent with the capex incentive objective.

A. Shortened forms

Shortened form	Extended form
ABS	Australian Bureau of Statistics
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
Capex	Capital expenditure
CESS	Capital expenditure sharing scheme
CPI	Consumer price index
NEO	National Electricity Objective
NER	National Electricity Rules
Opex	Operating expenditure
PTRM	Post-tax revenue model
RAB	Regulatory asset base
RFM	Roll forward model
TNSP	Transmission network service provider
WACC	Weighted average cost of capital