# Final decision

ElectraNet transmission determination
1 July 2023 to 30 June 2028

Overview

**April 2023**

AUSTRALIAN ENERGY REGULATOR

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# Note

This Overview forms part of the AER's final decision on ElectraNet's 2023–28 transmission determination. It should be read with all other parts of the final decision.

As a number of issues were settled at the draft decision stage or required only minor updates, we have not prepared all attachments. The final decision attachments have been numbered consistently with the equivalent attachments to our draft decision. In these circumstances, our draft decision reasons form part of this final decision.

The final decision includes the following documents:

Overview

Attachment 1 – Maximum allowed revenue

Attachment 2 – Regulatory asset base

Attachment 3 – Rate of return

Attachment 4 – Regulatory depreciation

Attachment 6 – Operating expenditure

Attachment 7 – Corporate income tax

Attachment 13 – Cost pass through events

# Executive summary

The Australian Energy Regulator (AER) exists to ensure energy consumers are better off, now and in the future. Consumers are at the heart of our work, and we focus on ensuring a secure, reliable, and affordable energy future for Australia. The regulatory framework governing electricity transmission and distribution networks is the National Electricity Law and Rules (NEL and NER). Our work is guided by the National Electricity Objective (NEO).

A regulated network business must periodically apply to us to determine the maximum allowed revenue it can recover from consumers for using its network. On 31 January 2022 we received a revenue proposal from South Australian electricity transmission network service provider ElectraNet, for the period 1 July 2023 to 30 June 2028 (2023–28 period).

Having consulted on that initial proposal, a draft decision in September 2022, and a revised proposal submitted by ElectraNet in response to that draft decision in December 2022, our final decision is that ElectraNet can recover $2214.9 million ($nominal, smoothed) from consumers over the 2023–28 period. This is $36.0 million (1.7%) more than ElectraNet's revised proposal, and $97.0 million (4.6%) more than our draft decision.

We have accepted key elements of ElectraNet's proposal, including its total forecast capital expenditure (capex). Our review has identified other areas, including forecast operating expenditure (opex), in which ElectraNet has not satisfied us that its forecasts and calculations are appropriate and our final decision therefore includes a lower amount. The impact of these reductions is offset by movements in market variables such as interest rates, bond rates and expected inflation. These are currently acting to increase regulatory depreciation of ElectraNet's regulatory asset base (RAB) relative to its revised proposal. Updates for these movements are a standard part of our determination process. Their impact in this final decision is that total revenue is higher than presented in ElectraNet's revised proposal.

The total revenue approved in this final decision will be the main component of ElectraNet's transmission charges for the 2023–28 period. ElectraNet's transmission charges will also incorporate transmission charges for the Murraylink interconnector. Our final revenue determination for Murraylink has been made at the same time as this determination for ElectraNet.

For illustrative purposes only, we estimate the modelled impact of this final decision would be a decrease to average transmission charges of around 0.6% in real terms in 2027–28, compared to 2022–23 levels. This estimate is subject to ongoing revenue adjustments and changes in customer energy consumption. In considering the outcomes of this decision it is also important to remember that over the 2023–28 period there are several additional mechanisms under the NER that may operate to increase or decrease ElectraNet's approved revenue. These could include further projects defined by AEMO as necessary to action its Integrated System Plan (ISP), and the two additional contingent projects put forward by ElectraNet that we have accepted as part of this final decision.

In nominal terms, which include the impact of expected inflation, the impact of this final decision would be an increase to the current transmission component of consumers' energy bills. For illustrative purposes only, the modelled impact of this final decision on the average annual electricity bill for a residential customer in South Australia, as it is today, would be an increase of $31 (1.7%) by 2027–28. For small business customers, the impact would be $76 (1.7%).

In preparing its revised proposal, ElectraNet reconstituted its Consumer Advisory Panel (CAP2) and worked with the panel on key areas of difference between our draft decision and the outcomes it sought. This engagement benefited from a range of improvements identified through the earlier stages of this review, which have provided for more active participation by CAP2 in and between meetings, and increased transparency and accountability in ElectraNet's recognition and consideration of feedback. CAP2 provided a submission that was broadly supportive of directions in the revised proposal, again deferring to our assessment of the revised proposal to test and determine the prudent and efficient level of expenditure required for the 2023-28 period.

As in our draft decision, we have accepted ElectraNet's total forecast capital expenditure (capex) for 2023-28, which continues to trend down over time and is a significant reduction from the current period. Large ISP driven projects including Project EnergyConnect (PEC) and the Main Grid System Strength project were added to regulated revenue during the current period. These projects will provide benefits to consumers over the long term by allowing for additional renewables, improving security and diversity of supply and strengthening the electricity system in South Australia. As these new assets are added to ElectraNet's RAB, the return on that capital investment will continue to be a significant contributor to the increase in ElectraNet's revenue and tariffs for 2023–28.

However, our review of ElectraNet's revised proposal identified other areas, including forecast operating expenditure (opex), in which ElectraNet has not satisfied us that its forecasts and calculations are appropriate. Our final decision therefore includes a lower opex forecast than proposed. A key driver of this difference is that our final decision does not include ElectraNet's revised step increases in opex for a capability uplift to manage its responsibilities in planning and managing an increasingly complex electricity network. Engagement with CAP2 on this element of the revised proposal was limited. We are not satisfied that ElectraNet has sufficiently justified the need or quantum of the proposed costs, or that this is new expenditure is driven by external factors beyond its control.

The impact of these opex reductions is offset by movements in market variables such as interest rates and expected inflation. The lower rate of return and expected inflation in this final decision are decreasing the return on ElectraNet's regulatory asset base (RAB) relative to its revised proposal but increase regulatory depreciation. Updates for these movements are a standard part of our determination process and these are not areas of disagreement between us and ElectraNet. As in our draft decision, The increase in regulatory depreciation outweighs the combined effect of the reductions to ElectraNet's opex forecast and return on capital, resulting in higher total revenue than its revised proposal.

# 1 Our final decision

In the sections below we briefly outline what is driving ElectraNet's revenue, and the key differences between our final decision revenue of $2,214.9 million ($nominal, smoothed) compared to the $2,117.9 million in our draft decision, and the $2,178.9 million in its revised proposal.

In our draft decision we explained why we had determined a revenue allowance that was significantly (15.4%) higher than ElectraNet initially put to us in January 2022. Having carefully reviewed ElectraNet's proposal, we accepted its total forecast capex, but made reductions to its proposed forecast operating expenditure (opex) because we were not satisfied that the amount of opex proposed was prudent or efficient. However, after ElectraNet lodged its initial proposal, we saw movements in market variables such as interest rates and expected inflation which acted to increase the return on ElectraNet's RAB relative to its January proposal. This increase more than offset the reductions our draft decision made to the opex forecast.

It is important that we update for the latest market data so that ElectraNet's determination reflects current financial market conditions. This enables ElectraNet to attract the capital it needs to provide the services that consumers want. Moreover, the return investors receive on their assets should reflect the risks of their investment. These risks include the prospect of inflation eroding the investor's purchasing power. An allowance for expected inflation provides compensation for this risk. Updates for these movements are a standard part of our determination process and have been made again in ElectraNet's revised proposal and our final decision.

The rate of return and expected inflation parameters have decreased from our draft decision and ElectraNet's revised proposal.

- Our final decision applies a rate of return of 5.55% for the first year of the regulatory period based on the new 2022 Rate of Return Instrument and final data from ElectraNet's approved averaging periods, compared to the placeholder rate of return of 5.56% used in our draft decision and ElectraNet's revised proposal, and the 4.29% in ElectraNet's initial proposal.
- Our final decision uses an expected inflation rate of 2.92% per annum based on the Reserve Bank of Australia's February 2023 Statement on Monetary Policy, compared to the placeholder estimates of 3.37% in ElectraNet's revised proposal, 3.00% in our draft decision and 2.40% in ElectraNet's initial proposal

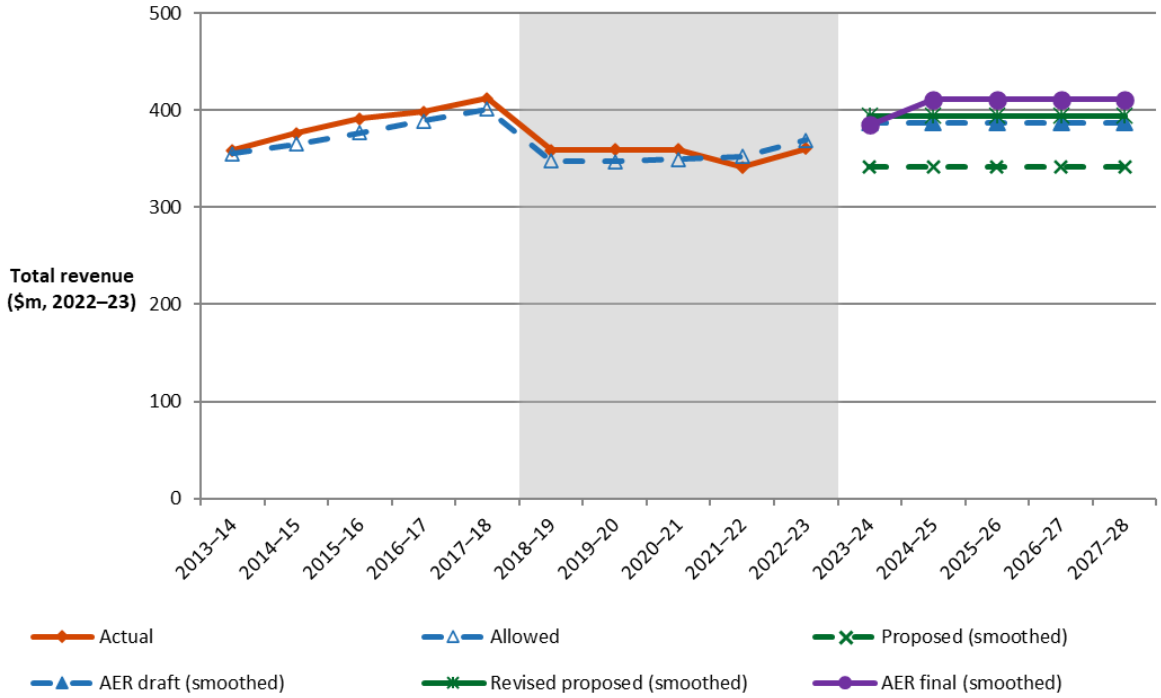
This means the return on capital is lower due to the decrease in the rate of return. However, the decrease to expected inflation results in higher regulatory depreciation which more than offsets the lower return on capital and our reduced opex forecast. The combined impact on the final decision is that total revenue is still $36.0 million (1.7%) higher than presented in ElectraNet's revised proposal.

## 1.1 What is driving revenue?

Over time, inflation impacts the spending power of money. To compare revenue from one period to the next on a like-for-like basis, in this section we use 'real' values based on a common year (2022–23) that have been adjusted for the impact of inflation instead of the nominal values above.

In real terms, this final decision would allow ElectraNet to recover $2,028.1 million ($2022–23, unsmoothed) from consumers over the 2023–28 period. This is 14.7% higher than our decision for the 2018–23 period. Changes in ElectraNet's revenue over time are shown in Figure 1.

**Figure 1 Changes in regulated revenue over time ($ million, 2022–23)**




Source: AER analysis.
Note: The material increase in revenues between the initial proposal and draft decision were primarily driven by market variables such as higher interest rates we adopted at the draft decision stage.

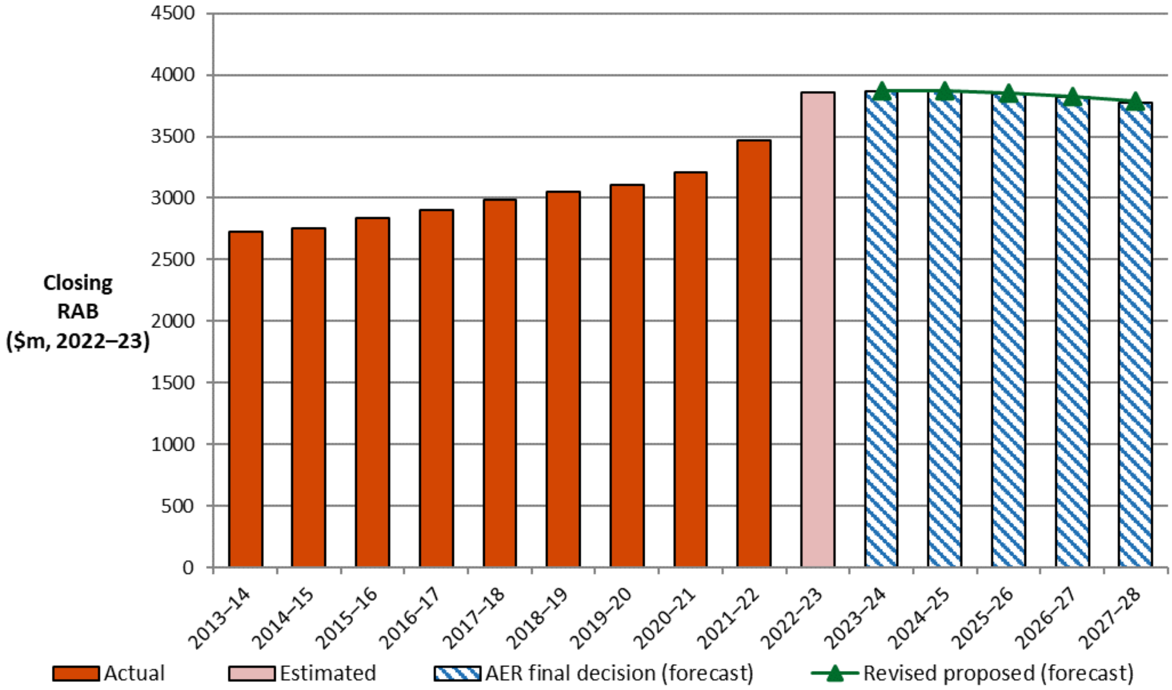
As we observed in our draft decision, much of the increase in revenue relative to the current period is driven by the major capital projects completed in that period—PEC and the Main Grid System Strength project—which have increased ElectraNet's RAB.

The impact of the higher RAB is compounded by the higher rate of return applied in this final decision compared to the current period. Compared to our decision for the 2018–23 period, the 'return on capital' in this final decision has increased by $216.7 million (25.2%). RAB growth over the next 5 years will be slower under this final decision than in the current period. Forecast capex for 2023–28 is significantly lower than that included in our decision for 2018–23. We have, however, accepted contingent projects for the Eyre Peninsula upgrade and Network Power Quality Remediation, at an estimated capex of $50-150 million and $30-60 million, respectively. If triggered these could result in additional capex during the 2023–28 period.

Figure 2 shows the value of ElectraNet's RAB over time. As shown below, after RAB growth of 29.0% over the 2018–23 period, our final decision results in a forecast reduction of RAB by $78.5 million ($2022–23) or 2.0% over the 2023–28 period. The growth in RAB over 2018-

23 was due to the construction of new lines, especially Project Energy Connect the new interconnector between South Australia and NSW.

**Figure 2 Value of ElectraNet's RAB over time – Actual, revised proposal forecast, and final decision RAB value ($ million, 2022–23)**




Source: AER analysis.

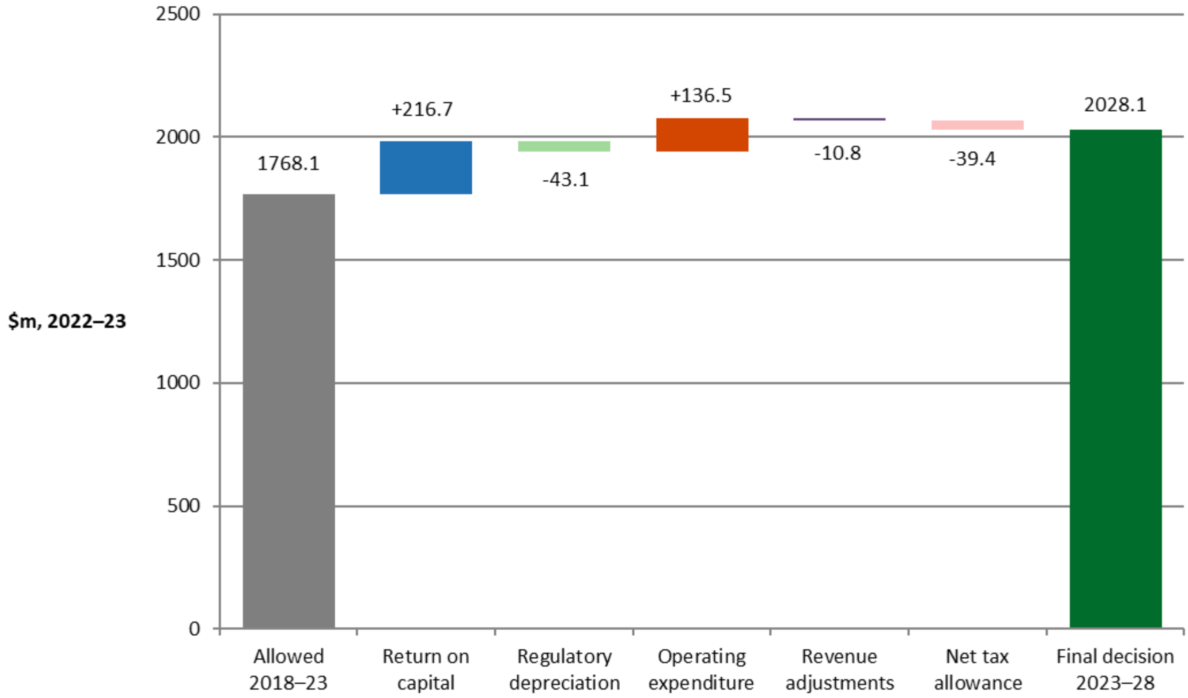
Forecast opex for 2023–28 is increasing by $136.5 million (25.4%) from our last decision. Some of this increase is driven by the forecast increase in circuit line length associated with the Eyre Peninsula Link and PEC. Other significant drivers of the increase in opex are rising insurance costs and new investment required to improve and maintain cyber security. There have also been changes in the accounting treatment of certain services, so that these now move from capex to opex. This has increased forecast opex relative to the current period and, because opex is recovered over a shorter period of time than capex, has contributed to increases in revenue in 2023–28.

Partly offsetting these drivers of increased revenue are reductions to:

- the return of capital (regulatory depreciation), which is $43.1 million (13.1%) lower than the 2018–23 period, driven primarily by a higher indexation of the RAB.
- revenue adjustments under the capital expenditure sharing scheme (CESS) and opex efficiency benefit sharing scheme (EBSS) that applied in the current and previous periods, and the introduction of the demand management innovation allowance mechanism (DMIAM) in the 2023–28 period. Total revenue adjustments in this final decision are $10.8 million lower than included in revenue for the 2018–23 period.
- the net tax allowance, which is $39.4 million (90.1%) lower than the 2018–23 period, following a review of our regulatory tax approach in 2018.

Figure 3 shows how these key drivers are reducing real revenue in 2023–28 compared to our decision for the current, 2018–23 period.

**Figure 3 Changes in total revenue 2018–23 to 2023–28 ($ million, 2022–23, unsmoothed)**




Source: AER analysis.

## 1.2 Estimated impact of our final decision on network charges

ElectraNet recovers its regulated revenue through transmission charges, which will be determined annually by ElectraNet in accordance with a pricing methodology we approve as part of its transmission determination.

ElectraNet's revised pricing methodology incorporated the minor changes required in our draft decision, as well as updates to reflect system strength pricing.[1] Our final decision is to approve ElectraNet's revised pricing methodology with two subsequent amendments:

- The first is a minor wording amendment to section 7.14 where a customer's actual maximum demand exceeds the contract agreed maximum demand. In such cases, the amendment clarifies that the actual maximum demand will become the new contract agreed maximum demand "or otherwise" in accordance with the relevant connection agreement.

  ElectraNet explained that a number of connection agreements provide for excursions above the contract agreed maximum demand under agreed conditions. The addition of the words "or otherwise" clarifies that the re-setting of the contract agreed maximum

[1] AEMC, *Efficient management of system strength on the power system, Rule determination*, 21 October 2021. We approved the equivalent system strength amendments to ElectraNet's pricing methodology for the 2018–23 period in January 2023 (see AER, Final decision, Proposed amended pricing methodology - System strength pricing, 31 January 2023 and ElectraNet, *Approved amended pricing methodology: 1 July 2018 to 30 June 2023*, 30 November 2022).

demand will have regard to the relevant connection agreement. This avoids the situation where an exceedance could inefficiently trigger an augmentation if the contract agreed maximum demand was automatically increased.

At our request, ElectraNet consulted with its relevant customers regarding this amendment as this issue was raised after ElectraNet submitted its revised proposal. All customers supported the amendment, with one customer not providing a response.[2]

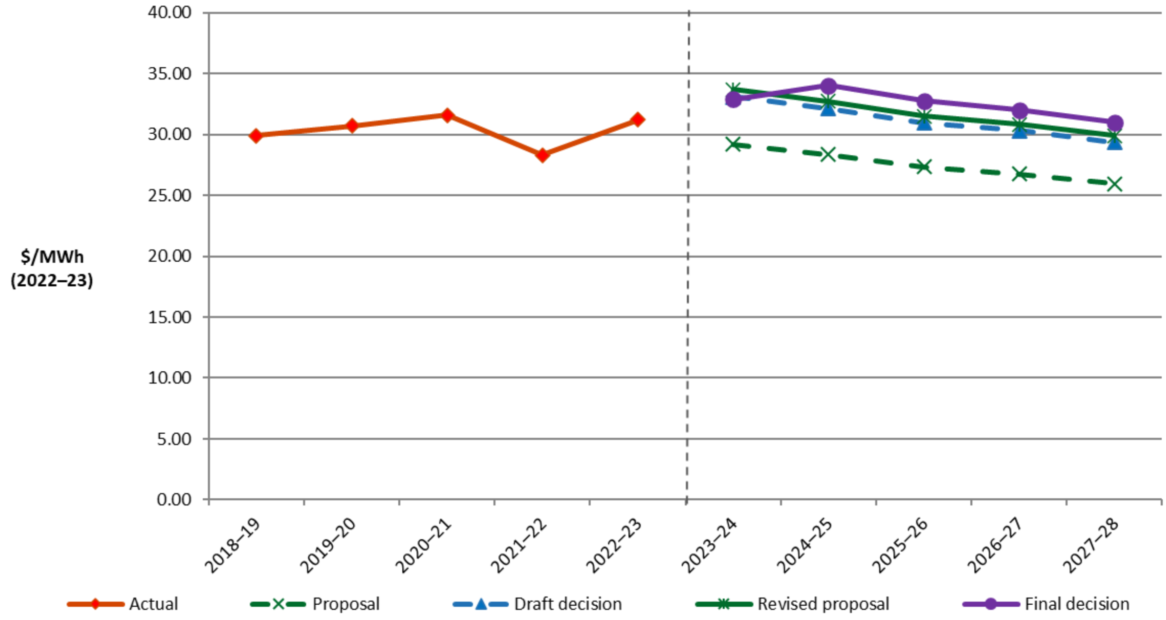
- The second amendment incorporates AEMC's final rule determination on recovering the cost of AEMO's participant fees.[3]

Our decision on ElectraNet's proposal will set the revenue allowance that forms the major component of ElectraNet's transmission charges for the 2023–28 period. It provides a baseline or starting point for those five years.

For illustrative purposes only, we estimate the modelled impact of this final decision would currently be a decrease to average transmission charges of around 0.6% in real terms by 2027–28, compared to 2022–23 levels.

Figure 4 compares this indicative price path for the 2023–28 period to actual tariffs over the current period.

**Figure 4 Change in indicative transmission tariffs 2018–23 to 2023–28 ($2022–23, $/MWh)**




Source: AER analysis.
Note: The price path for the transmission network is based on actual or forecast energy throughput amounts for ElectraNet's transmission network across South Australia. Updated forecast energy throughput amounts are relatively higher in the final decision than the draft decision.

2 ElectraNet, *Email: RE: ElectraNet Pricing Methodology minor "clerical error or an accidental slip or omission"*, 29 March 2023 (CONFIDENTIAL).

3 AEMC, *Recovering the cost of AEMO's participant fees, Rule determination*, 20 October 2022.

Actual revenue shown in this figure includes revenue from Inter- and Intra-Regional Settlements Residue collections and may not fully reflect the price path experienced by end-users.
Total allowed revenues between the initial proposal and draft decision significantly increased due to movement in market variables such as higher interest rates at the draft decision stage.

Over the 2023–28 period there are several additional mechanisms under the NER that may operate to increase or decrease those charges. These may include projects defined by the Australian Energy Market Operator (AEMO) as necessary to its ISP, and cost pass through events defined in the NER. They may also include the contingent projects and additional cost pass through events proposed by ElectraNet and approved in this final decision. The triggers we have set out for these projects and events in this decision will, if met, allow ElectraNet to apply for additional revenue for these projects throughout the period, at which point proposed costs will be subject to further consultation and assessment.

ElectraNet's transmission charges will also incorporate transmission charges for the Murraylink interconnector. Our revenue determination for Murraylink will be made at the same time as our determination for ElectraNet.

The estimates above are subject to the potential, further adjustments mentioned above and to changes in customer energy consumption. It includes the impact that would flow from our final decision for Murraylink.[4]

Transmission charges make up around 11% of consumers' energy bills. Other components of the electricity supply chain—the cost of purchasing energy from the wholesale market (28%), SA Power Networks' electricity distribution charges (37%), environmental schemes (10%) and the costs and margins applied by electricity retailers in determining the prices they will charge consumers for supply (14%)—make up larger portions of the prices ultimately paid by consumers.[5] These sit outside the decision we are making here but will also continue to change throughout the period.

In nominal terms, which include the impact of expected inflation, the impact of this final decision will be an increase to the transmission component of consumers' energy bills. For illustrative purposes only, the modelled impact of our decision on the average annual electricity bill for a residential customer in South Australia, as it is today, would be an increase of $31 (1.7%) by 2027–28. For small business customers, the impact would be $76 (1.7%).

## 1.3 ElectraNet's consumer engagement

Our draft decision recognised that ElectraNet had demonstrated sincerity and a desire to engage collaboratively with consumers in development of its initial proposal. The engagement process and its effectiveness improved over time. ElectraNet had also identified

4 We estimate the indicative effect of our draft decision on forecast average transmission charges in South Australia by taking ElectraNet's annual expected MAR determined in this draft decision, and 45% of Murraylink's expected MAR determined in the 2023–28 draft decision. We then divide the combined revenue by the forecast annual energy delivered in South Australia as published by the Australian Energy Market Operator (AEMO).

5 AEMC, *Data Portal, Trends in SA supply chain components 2021/22.*

several further engagement opportunities which, when actioned, we considered would be positive steps in supporting the ability of consumers to engage in this and future processes.

Between submission of its initial proposal and our draft decision, ElectraNet dissolved and reconstituted its Consumer Advisory Panel (CAP2). CAP2's first discussion of the reset was a briefing on the AER's draft decision in September 2022, the day prior to its release.

Positive changes appear to have been made to both ElectraNet's engagement with CAP2 and its operation and management. The reinstatement of an independent CAP Chair was particularly well received. In our observation this improved opportunities for active participation by CAP2 in and between meetings, and increased transparency and accountability in ElectraNet's recognition and consideration of feedback as it prepared its revised proposal. CAP2 provided a submission that was broadly supportive of directions in the revised proposal.

We note, however, the reservations our Consumer Challenge Panel (CCP25) expressed as to the weight we should give to CAP2 support for elements of the revised proposal, given the complexity of these issues and the relatively limited period of engagement on them. ElectraNet's positions on treatment of deferred investment under the CESS and to ElectraNet's engagement with CAP2 on its expanded 'Rule change' step change are examples of this, and areas in which CAP2 deferred to our assessment of the revised proposal to test and resolve the prudent and efficient level of expenditure required for the 2023-28 period. The South Australian Department for Mines and Energy also highlighted these elements of the revised proposal in its submission. We discuss our assessment of these elements of the revised proposal in sections 2.5 and 2.6.

## 1.4 Key differences between our final decision and ElectraNet's revised proposal

Our draft decision accepted much of ElectraNet's January 2022 proposal, including its initial forecast of capex. We did not accept its total opex forecast and substituted a lower amount. However, for the reasons explained above, movements in market variables nonetheless led to total draft decision revenue of $2,117.9 million ($ nominal, smoothed), $282.1 million (15.4%) higher than ElectraNet's initial proposal.

ElectraNet's revised proposal did not accept that draft decision. It sought an additional $61.0 million (2.9%), bringing its proposed total smoothed revenue to $2,178.9 million ($nominal, smoothed) over the 2023–28 regulatory control period. Part of this increase resulted from further updates to the market variables we discussed above. For example, differences in forecast capex, the return on capital and regulatory depreciation between our draft decision and ElectraNet's revised proposal resulted primarily from more recent inflation estimates.

In our final decision, we have updated these inputs again:

- Our final decision applies a rate of return of 5.55% for the first year of the regulatory period based on the new 2022 Rate of Return Instrument and final data from ElectraNet's approved averaging periods, compared to the placeholder rate of return of 5.56% used in our draft decision and ElectraNet's revised proposal, and the 4.29% in ElectraNet's initial proposal. This has slightly reduced the return on capital relative to ElectraNet's revised proposal.

- Our final decision uses an expected inflation rate of 2.92% per annum based on the Reserve Bank of Australia’s February 2023 Statement on Monetary Policy, compared to the placeholder estimates of 3.37% in ElectraNet’s revised proposal, 3.00% in our draft decision and 2.40% in ElectraNet’s initial proposal. This has significantly increased regulatory depreciation relative to ElectraNet’s revised proposal.

The slight reduction to the return on capital relative to ElectraNet’s revised proposal is more than offset by the significantly higher regulatory depreciation. As a result, the corporate income tax amount has increased from zero in ElectraNet’s revised proposal to $5.0 million in this final decision.

Our final decision does not accept ElectraNet’s total forecast opex. Our calculation of total revenue does not include the full step increase in opex ElectraNet proposed for cyber security and capability uplifts in response to recent rule changes. We discuss this further in section 2.5.

As in our draft decision, we have accepted ElectraNet’s total forecast capex, which when updated again for inflation and wage price forecasts is slightly lower than at the time of its revised proposal. We have also made minor updates to ElectraNet’s calculation of revenue adjustments (penalties) under the opex Efficiency Benefit Sharing Scheme (EBSS) and Capital Expenditure Sharing Scheme (CESS), which reflect capex and opex spent over our approved forecasts for the current period. While treatment of deferred capex when assessing an underspend under the CESS was an area of difference between us and ElectraNet at the time of our draft decision, ElectraNet’s actual capex is now expected to be over the allowance in our decision for the current period. As we explain in section 2.6, this means that a deferral adjustment is no longer in issue.

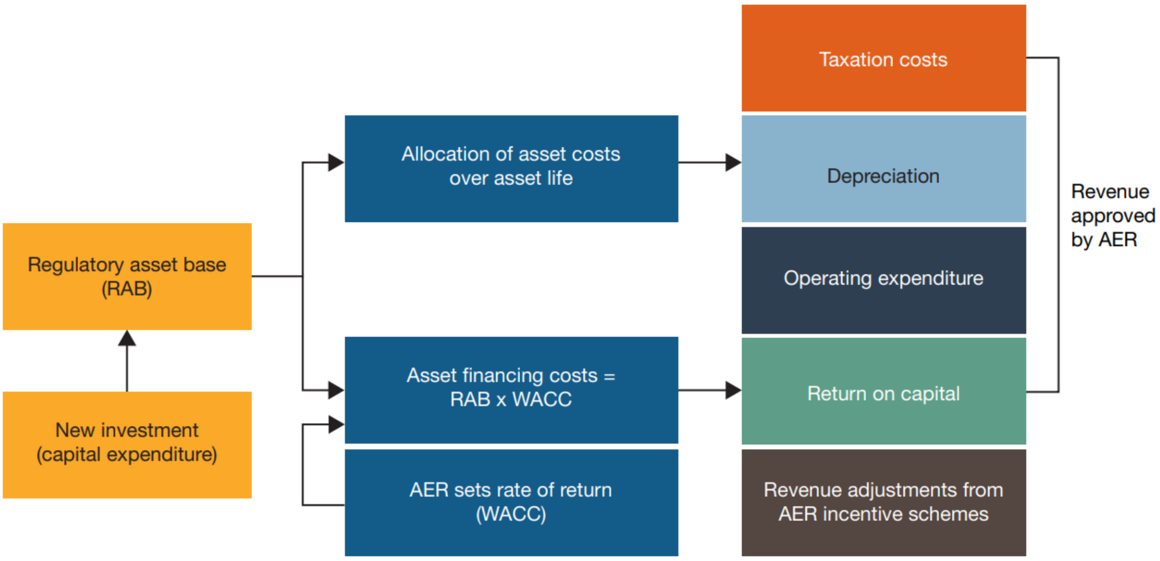
# 2 Key components of our final decision on revenue

The foundation of our regulatory approach is a benchmark incentive framework to setting maximum revenues: once regulated revenues are set for a five-year period, a network that keeps its actual costs below the regulatory forecast of costs retains part of the benefit. This provides an incentive for service providers to become more efficient over time. It delivers benefits to consumers as efficient costs are revealed and drive lower cost benchmarks in subsequent regulatory periods. By only allowing efficient costs in our approved revenues, we promote delivery of the NEO and ensure consumers pay no more than necessary for the safe and reliable delivery of electricity.

ElectraNet's proposed revenue reflects its forecast of the efficient cost of providing transmission network services over the 2023–28 period. Its revenue proposal, and our assessment of it under the Law and Rules, are based on a 'building block' approach which looks at five cost components (see Figure 5):

- return on the RAB – or return on capital, to compensate investors for the opportunity cost of funds invested in this business
- depreciation of the RAB – or return of capital, to return the initial investment to investors over time
- forecast opex – the operating, maintenance and other non-capital expenses, incurred in the provision of network services
- revenue increments/decrements – resulting from the application of incentive schemes, such as the EBSS and CESS
- estimated cost of corporate income tax.

**Figure 5 The building block model to forecast network revenue**



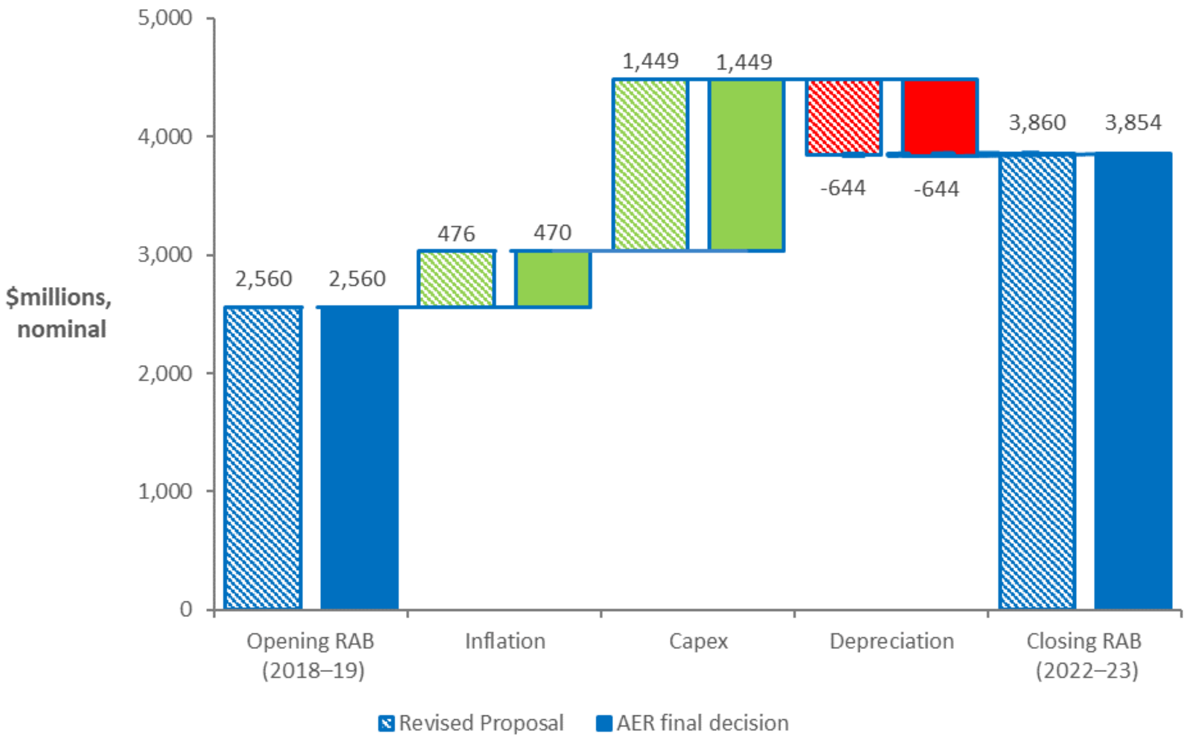

Source: AER.

## 2.1 Regulatory asset base

The RAB accounts for the value of regulated assets over time. To set revenue for a new regulatory period, we take the opening value of the RAB from the end of the last period and roll it forward year by year by indexing it for inflation, adding new capex and subtracting depreciation and other possible factors (such as disposals). This gives us a closing value for the RAB at the end of each year of the regulatory period. The value of the RAB is used to determine the return on capital and depreciation building blocks. It substantially impacts ElectraNet's revenue requirement, and the price consumers ultimately pay. Other things being equal, a higher RAB would increase both the return on capital and depreciation components of the revenue determination.

For this final decision, we have determined an opening RAB value of $3854.2 million ($ nominal) as at 1 July 2023. This value is $5.8 million (0.2%) lower than ElectraNet's revised proposal opening RAB of $3860.1 million. It reflects our update to the roll forward model (RFM) for actual consumer price index (CPI) for 2022–23. Figure 6 shows the key drivers of the change in ElectraNet's RAB over the 2018–23 period compared to ElectraNet's revised proposal.

**Figure 6 Key drivers of changes in the RAB over the 2018–23 period – ElectraNet's revised proposal compared with AER final decision ($ million, nominal)**



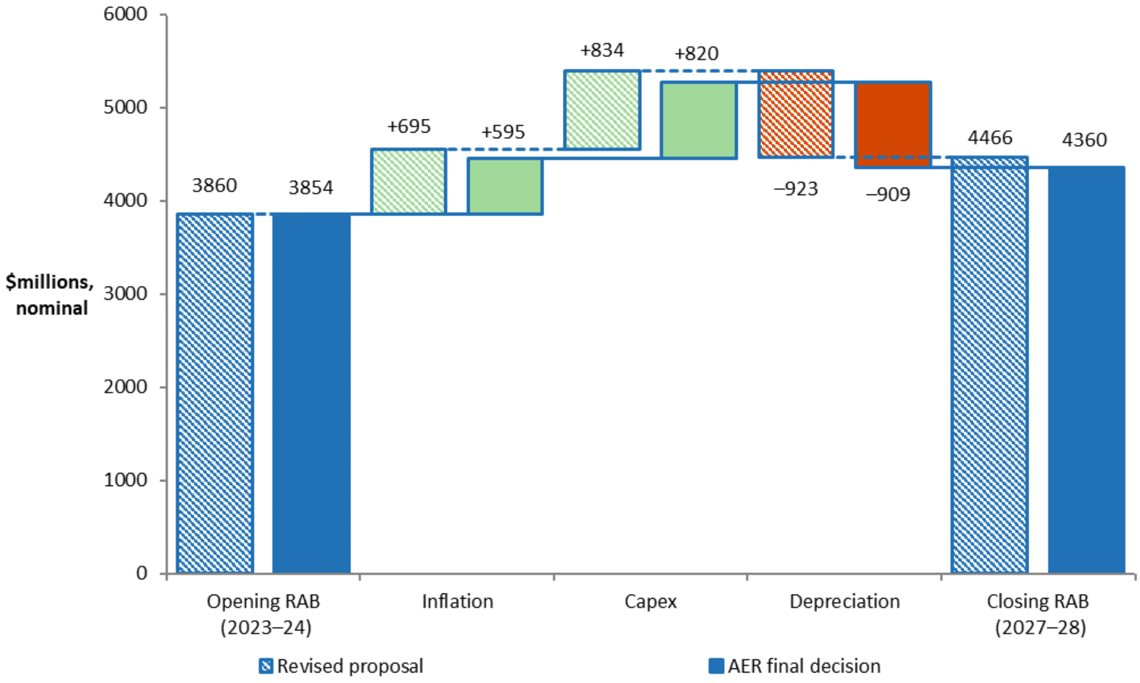

Source: AER analysis.

Note: Capex is net of disposals. It is inclusive of the half-year WACC to account for the timing assumptions in the RFM.
The closing RAB value as at 2022–23 may not reflect the sum of the opening RAB and net additions, as it also includes some amounts for end of period RAB adjustments (not shown).

Figure 7 likewise shows the key drivers of the change in ElectraNet's RAB over the 2023–28 period compared to ElectraNet's revised proposal. Our final decision projects an increase of $505.8 million (13.1%) to the RAB by the end of the 2023–28 period compared to the $606.1

million (15.7%) increase in ElectraNet's revised proposal. We have determined a projected closing RAB of $4360.0 million ($ nominal) as at 30 June 2028, which is $106.1 million (2.4%) lower than ElectraNet's proposed $4466.1 million. This decrease is mainly due to a lower expected inflation rate applied in our final decision. It also reflects our final decisions on the opening capital base as at 1 July 2023, forecast depreciation and forecast capex (discussed in the sections below).

**Figure 7 Key drivers of changes in the RAB over the 2023–28 period – ElectraNet's revised proposal compared with AER's final 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.

## 2.2 Rate of return and value of imputation credits

The return each business is to receive on its capital base (the 'return on capital') is a key driver of proposed revenues. We calculate the regulated return on capital by applying a rate of return to the value of the capital base.

We estimate the rate of return by combining the returns of two sources of funds for investment – equity and debt. The allowed rate of return provides the business with a return on capital to service the interest rate on its loans and gives a return on equity to investors. Our draft decision and ElectraNet's revised proposal applied our 2018 Rate of Return

Instrument to estimate the rate of return.[6] This final decision applies the new 2022 Rate of Return Instrument published in February 2023:[7]

- Our final decision applies a rate of return of 5.55% for the first year of the regulatory period, compared to the placeholder rate of return of 5.56% used in our draft decision and ElectraNet's revised proposal. A small reduction in the risk-free rate was offset by a marginal increase in the market risk premium in the 2022 Instrument, resulting in minimal change to the overall rate of return.
- Our final decision applies a value of imputation credits (gamma) of 0.57 as set out in the 2022 Instrument,[8] compared to 0.585 in the 2018 Instrument.[9]

Our estimate of expected inflation for the purposes of this final decision is 2.92% per annum. It is an estimate of the average annual rate of inflation expected over a five-year period based on the approach adopted in our 2020 Inflation Review[10] and the forecast from the Reserve Bank of Australia's February 2023 Statement on Monetary Policy.[11] This is lower than the estimates used in ElectraNet's revised proposal (3.37%) and our draft decision (3.00%), which were taken from earlier Statements on Monetary Policy.

Figure 8 isolates the impact of expected inflation from other parts of our final decision, to illustrate its impact on the return on capital and regulatory depreciation building blocks and the total revenue allowance. Other elements held constant, lower inflation reduces the return on capital but, but increases regulatory depreciation.

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6 AER, *Rate of return Instrument*, December 2018. See https://www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/rate-of-return-guideline-2018/final-decision

7 AER, *Rate of return Instrument*, February 2023. See https://www.aer.gov.au/publications/guidelines-schemes-models/rate-of-return-instrument-2022/final-decision

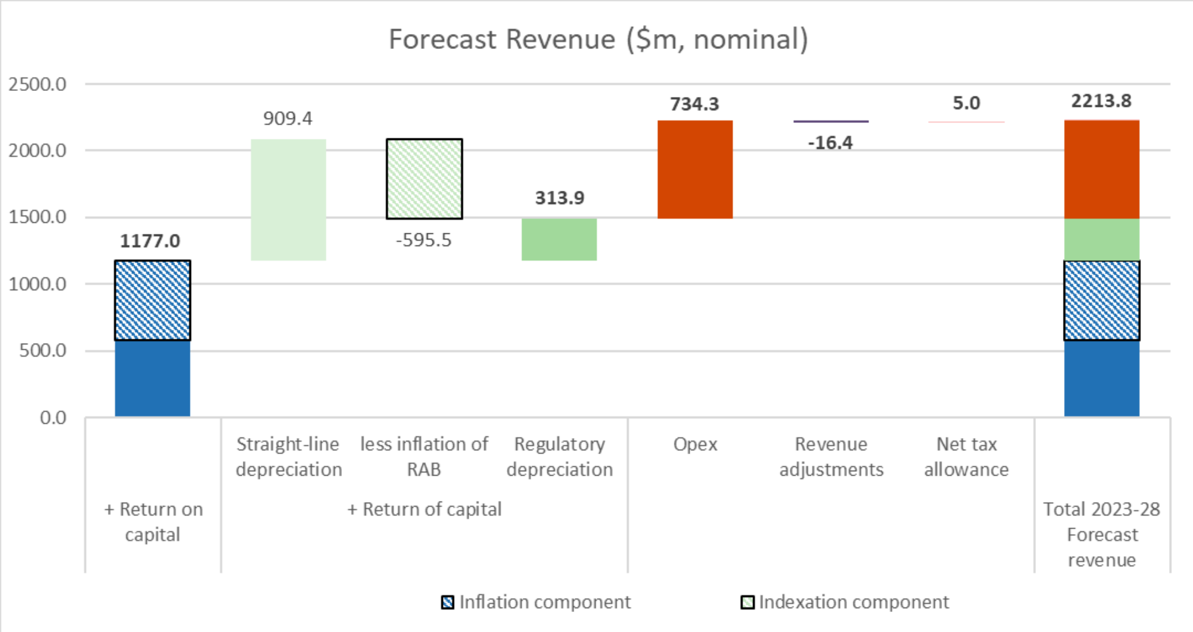
8 AER, *Rate of return Instrument, Explanatory Statement*, February 2023, pp. 240–250.

9 AER, *Rate of return Instrument, Explanatory Statement*, December 2018, pp. 307–382.

10 AER, *Final position – Regulatory treatment of inflation*, December 2020.

11 RBA, Statement on Monetary Policy, February 2023, Table 1: Forecast Table. See https://www.rba.gov.au/publications/smp/2023/feb/forecasts.html

**Figure 8 Inflation components in final decision revenue building blocks ($ million, nominal)**




Source: AER analysis.
Note: Proposed revenue in the chart is unsmoothed total revenue for the regulatory period.

## 2.3 Regulatory depreciation

Depreciation is a method used in our decision to allocate the cost of an asset over its useful life. It is the amount provided so capital investors recover their investment over the economic life of the asset (otherwise referred to as 'return of capital'). When determining ElectraNet's total revenue, we include an amount for the depreciation of the projected RAB. The regulatory depreciation amount is the net total of the straight-line depreciation less the indexation of the RAB.

Our final decision determines a regulatory depreciation amount of $313.9 million ($ nominal) for the 2023–28 period. This is an increase of $86.1 million (37.8%) from ElectraNet's revised proposal of $227.8 million.

The key reason for the difference between our final decision and ElectraNet's revised proposal is our lower expected inflation rate for the 2023–28 period. This decreases the adjustment for indexation of the RAB that is offset against straight-line depreciation in determining regulatory depreciation.

## 2.4 Capital expenditure

Capital expenditure (capex) refers to the investment made in the transmission network to provide prescribed transmission services. This investment mostly relates to assets with long lives (30-50 years is typical) and these costs are recovered over several regulatory periods. On an annual basis, the financing and depreciation costs associated with these assets are recovered through the return of, and on, capital building blocks that contribute to ElectraNet's total revenue requirement.[12]

Our final decision approves total forecast capex of $744.2 million ($2022–23) for the 2023–28 period. This is lower than ElectraNet's revised proposal because we have updated for inflation and real wage escalation.[13] As in our draft decision, we otherwise accept ElectraNet's revised proposal for capex[14] and remain satisfied that it reasonably reflects the capex criteria.[15] We consider this forecast will provide ElectraNet with a reasonable opportunity to recover at least the efficient costs it incurs in providing direct control network services.[16] Submissions on our draft decision and ElectraNet's revised proposal from CCP25, CAP2 and the South Australian Department for Mines and Energy were supportive of our draft decision and ElectraNet's revised proposal on forecast capex.[17]

Forecast capex for 2023–28 is significantly lower than that included in our decision for the current, 2018–23 period. It is a reduction of 49% from the actual capex ElectraNet expects to have incurred by the end of that period, which included the PEC and the Main Grid System Strength contingent projects approved after our decision for 2018–23 was made.

As we observed in our draft decision, ElectraNet's overall capex has been trending down over time and from a top-down perspective it is performing well. Its proposed capex forecast for 2023–28 is 40% lower than its average actual capex over the previous 3 regulatory periods, even when additional expenditure for large, ISP driven projects in the current period is considered.

Forecast capex for 2023-28 focuses on refurbishment and replacement of aging assets and new investment in physical and cyber security. It includes little growth driven or augmentation expenditure. We have, however, accepted contingent projects for the Eyre Peninsula upgrade and Network Power Quality Remediation, at an estimated capex of $50-150 million and $30-60 million, respectively.[18]

Figure 9 shows ElectraNet's historical capex trend, its revised proposed forecast for the 2023–28 period, and our draft and final decisions.

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12 NER, cl. 6A.5.4(a).

13 We have updated capex for inflation using the ABS December 2022 quarterly CPI Weighted average of eight capital cities.

14 ElectraNet, *Revised revenue proposal 2023–28*, December 2022, pp. 25–26.

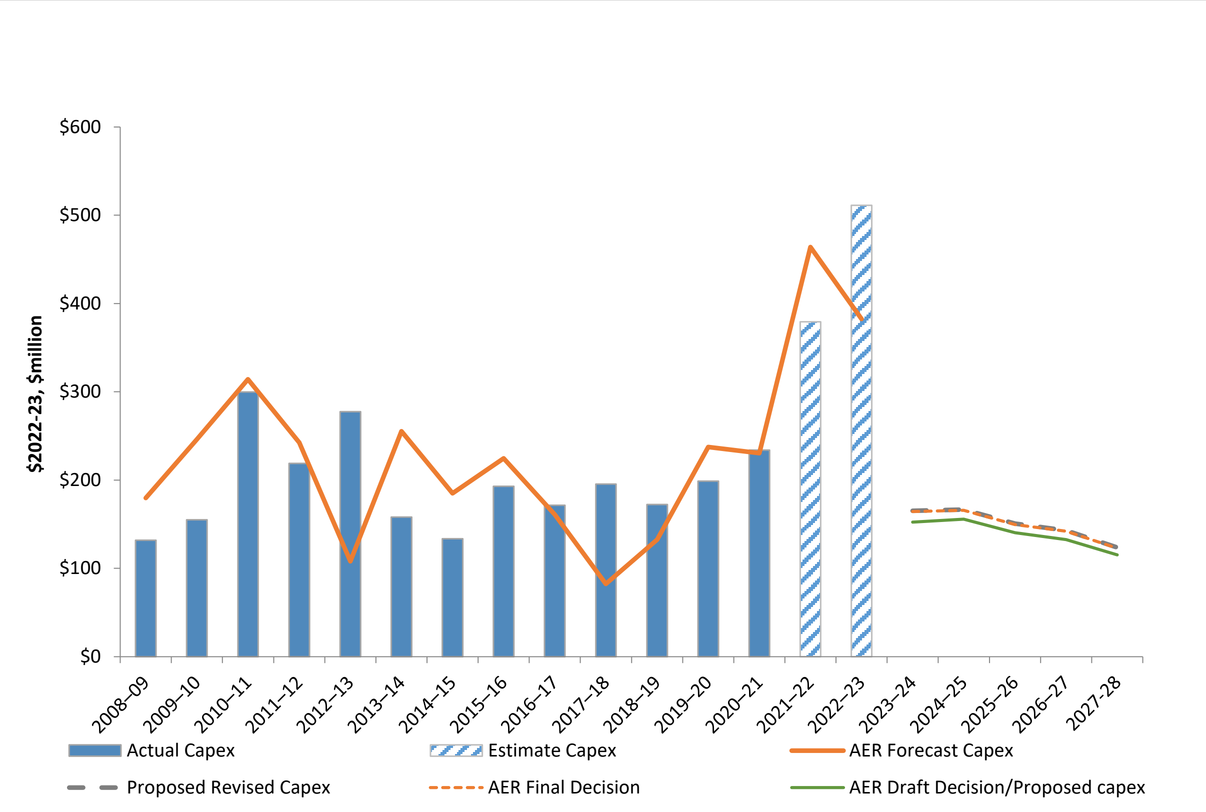
15 NER, cl. 6A.6.7(c).

16 NEL, ss. 7A(2) and 16.

17 CCP25, *ElectraNet Transmission Determination 2023 to 2028 and ElectraNet Revised Revenue Proposal 2023–28*, 20 January 2023; ElectraNet Consumer Advisory Panel, *Response to revised proposal*, 13 January 2023, p. 6; Department for Energy and Mines, *ElectraNet Regulatory Reset 2023–28 AER Draft Decision*, 24 January 2023, p. 1.

18 ElectraNet accepted our draft decision not to approve the Interconnector Upgrade contingent project; ElectraNet, *Revised revenue proposal 2023–28*, December 2022, p. 26; AER*, Draft decision, ElectraNet transmission determination 2023–28, Attachment 5 – Capital Expenditure*, September 2022, pp. 27–30.

**Figure 9 Comparison of ElectraNet's past and forecast capex ($2022–23, million)**




Source: AER analysis; AER final decision PTRM and RFM for previous regulatory periods, including updates for appeals; ElectraNet ENET261 - RRP Capex Model 2023-28, 2 December 2022; ElectraNet 2024-28 Reset RIN submissions; ElectraNet, *Revised revenue proposal 2023–28*, December 2022, p. 26

Note: Our draft decision accepted ElectraNet's initial total capex forecast of $696 million ($2023–24). ElectraNet's revised proposal updated this for inflation and real wage escalation, resulting in an increase of $53 million (8%) from our draft decision.

We are also required to provide a statement on whether the roll forward of the regulatory asset base from the previous period contributes to the achievement of the capital expenditure incentive objective.[19] We have reviewed ElectraNet's capex performance for the 2016–17 to 2020–21 regulatory years. Our ex post review is outlined in our draft decision.[20] Based on our analysis, we consider that ElectraNet's total actual capex for the ex post review period is likely to reasonably reflect the capex criteria.

## 2.5 Operating expenditure

Our final decision approves total forecast opex of $673.8 million ($2022-23). This is a reduction of $27.2 million (3.9%) from ElectraNet's revised proposal.

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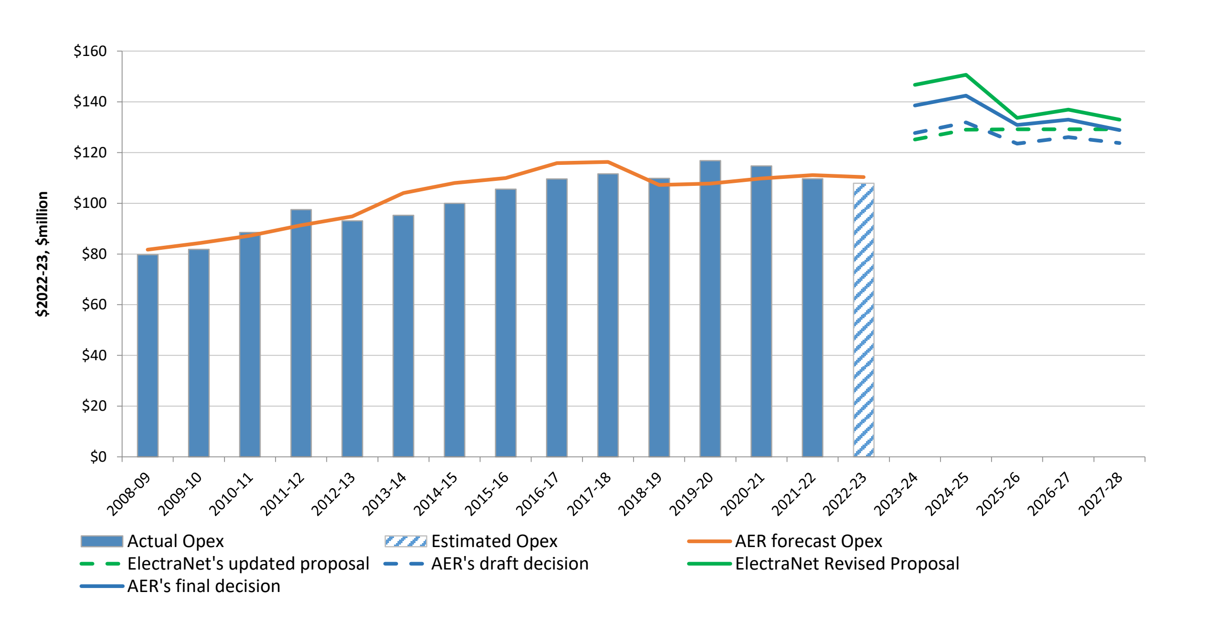
19 NER, 6.12.2 (b).

20 AER, *Draft decision, ElectraNet transmission determination 2023–28, Attachment 5 – Capital Expenditure*, September 2022, pp. 30–31.

Our approved forecast is an increase of 20.6% from ElectraNet's expected, actual opex by the end of the current period, compared to the 25.4% increase in its revised proposal. This difference, and the change in ElectraNet's opex over time, is illustrated in Figure 10.

**Figure 10 Historical and forecast opex ($ million, 2023–24)**




Source: ElectraNet, Regulatory accounts 2008–09 to 2020–21; ElectraNet, 2024–28 Revenue proposal – Operating Expenditure Model (Updated), 18 May 2022; AER, Revenue determination, PTRM (multiple periods 2008–13, 2013–18, 2018–22, 2023–28); ElectraNet, 2024–28 Revised revenue proposal – Operating Expenditure Model, 2 December 2022; AER analysis.

Note: Includes debt raising costs and movements in provisions.

Our final decision recognises that projected trends in price and output growth will outweigh expected productivity gains over the next five years. The key difference between the lower opex forecast in this final decision and ElectraNet's revised proposal is we are not satisfied that all of its proposed step increases are prudent and efficient. Where ElectraNet sought $100.6 million, we have only included $75.3 million. We have accepted what was proposed for IFRS implementation ($48.7 million) and insurance costs ($6 million), but:

- Our final decision approves a smaller step change of $18.2 million for cyber security expenditure. This is a reduction of $6.4 million from ElectraNet's revised proposal, resulting from amendments to remove some double counting of costs and align ElectraNet's calculation of costs with the assumptions in its supporting business case.
- We have included a step change for rule changes of $2.5 million ($2022–23) reflecting the component of ElectraNet's proposed 'rule change' step change relating to the increase in ElectraNet's electricity transmission licence fee.
- Our final decision does not include the additional $17.6 million ElectraNet proposed for a capability uplift to manage its responsibilities in planning and managing an increasingly complex electricity network. We are not satisfied that ElectraNet has sufficiently justified the proposed costs. The proposed expenditure was not a response to our draft decision, nor was it externally driven by factors beyond ElectraNet's control (such as a new regulatory obligation).

- Our final decision does not include ElectraNet's proposed $1.5 million for REZ design reports. ElectraNet has not demonstrated how these costs (which may or may not be incurred depending on whether the requirement to provide REZ design reports is triggered) are recurrent, or efficient, or meet the requirements of a step change.

## 2.6 Revenue adjustments

Our calculation of ElectraNet's total revenue includes adjustments under the EBSS and CESS that applied in its determination for the current period. These mechanisms provide a continuous incentive for ElectraNet to pursue efficiency improvements in opex and capex, and a fair sharing of these between ElectraNet and its users.

Our final decision accepts ElectraNet's revenue adjustment (penalty), updated for the rate of return and inflation, of $2.9 million under the CESS. Our draft decision applied a larger penalty of $8.8 million ($2022–23) from the application of the CESS in the 2018–23 regulatory control period. This included an adjustment for the $60.2 million deferral of PEC in the CESS carryover amount calculation. ElectraNet's revised proposal is now forecasting a capex overspend of $11.4 million ($nominal), and not an underspend as initially proposed. ElectraNet has updated the 2021–22 estimate for actual capex (now $54.5 million lower) and revised its 2022–23 estimate for the final year of the 2018-23 period (now $95.1 million higher). Within a regulatory control period, transmission networks are continually adjusting project delivery, and the capex profile can change, particularly in the case of large projects. The regulatory framework allows the business to manage its portfolio of capex.

This is an important change because the Capital Expenditure Incentive Guideline only allows us to adjust for deferrals where a material *underspend* in capex in the current regulatory control period is expected. We will not be making an adjustment to the CESS payments for deferred capex because there is no longer an underspend in capex in the current regulatory control period.

We have also included an adjustment (penalty) of $14.2 million under the EBSS consistent with ElectraNet's revised proposal. Our calculation updates ElectraNet's revised proposal EBSS carryovers for the Reserve Bank of Australia's February Statement of Monetary Policy and includes ElectraNet's 2022–23 revealed costs data.

Our final decision also includes an allowance of $2.2 million ($2022–23) for the DMIAM, which will apply to ElectraNet for the first time in the 2023–28 period. In each year of the 2023–28 period, ElectraNet will submit demand management projects for approval under the DMIAM. Any part of the $2.2 million that is not spent on an approved project will be returned to consumers in the subsequent regulatory control period.

The combined effect of these revenue adjustments is a negative $14.8 million ($2022–23) revenue adjustment building block in the final decision compared to ElectraNet's revised proposal of negative $14.7 million.

## 2.7 Corporate income tax

Our determination of the total revenue requirement includes the estimated cost of corporate income tax for 2023–28 period. Under the post-tax framework, this amount is calculated as part of the building blocks assessment using our post-tax revenue model (PTRM).

Our final decision determines an estimated cost of corporate income tax amount of $5.0 million ($ nominal) for ElectraNet over the 2023–28 period. This is an increase from the zero amount in ElectraNet's revised proposal which estimated its forecast tax expenses would exceed its revenue for tax assessment purposes over the 2023–28 period. This increase is primarily due to our final decision on regulatory depreciation, which in turn increased ElectraNet's taxable income and therefore the cost of corporate income tax.

# 3 Incentive schemes and allowances

Incentive schemes are a component of incentive-based regulation and complement our approach to assessing efficient costs. They provide important balancing incentives under network determinations, encouraging businesses to pursue expenditure efficiencies while maintaining the reliability and overall performance of its network. Our final decision confirms that the following incentive schemes will apply to ElectraNet in the 2023–28 period:

- Version 2 of the Efficiency benefit sharing scheme (EBSS). This provides a continuous incentive to pursue efficiency improvements in opex and provide for a fair sharing of these between ElectraNet and network users. Consumers benefit from improved efficiencies through lower opex in regulated revenues for future periods. We will also continue to apply exclusions for acceptable costs as required by version 2 of the EBSS, as set out in our draft decision.[21]
- Version 1 of the Capital expenditure sharing scheme (CESS). This incentivises efficient capex throughout the period by rewarding efficiency gains and penalising efficiency losses, each measured by reference to the difference between forecast and actual capex. Consumers benefit from improved efficiencies through a lower RAB, which is reflected in regulated revenues for future periods.
- Version 5 of the Service target performance incentive scheme (STPIS). The purpose of the STPIS is to provide incentives to transmission network service providers to improve or maintain a high level of service for the benefit of participants in the National Electricity Market and end users of electricity. The parameters that will apply to each component of the STPIS have been published as part of this final decision.[22]
- Version 1 of the Demand Management Innovation Allowance Mechanism. This funds research and development in demand management projects that have the potential to reduce long term network costs. The allowance available to ElectraNet in the 2023-28 period will be $2.2 million. Any part of the allowance not spent on project approved by us will be returned to consumers in the subsequent regulatory control period.

This is consistent with the position taken in our Framework and Approach paper and in our September 2022 draft decision.

At the time of our draft decision, we had not fully resolved the application of the market impact component (MIC) of the STPIS to ElectraNet. The MIC provides an incentive to ElectraNet to minimise the impact of transmission outages that can affect wholesale market outcomes. It measures performance against the number of dispatch intervals where an outage on the TNSP's network results in a network outage constraint with a marginal value greater than $10/MWh.

In applying the MIC it is important to draw a distinction between outages which are within ElectraNet's control and those that are not. In our 2022 final decision on the application of

21 AER, ElectraNet 2023-28 - Draft Decision - Attachment 8 - Efficiency benefit sharing scheme, September 2022, pp. 6-7.

22 AER – ElectraNet 2023-28 – Final decision - STPIS targets and parameters – April 2023.

the MIC to Victorian transmission network service provider, AusNet, we considered the risk that AusNet could be penalised by renewable generators modifying their bids when they are, or ought to be, aware that a planned outage will make those bids impossible to deliver.

While this clarification is important, these circumstances do not affect all networks and ElectraNet's revised proposal has confirmed that they are not applicable to its network.[23] Our final decision therefore confirms the approach taken in our draft decision, noting that the average outage duration parameter values have been re-calculated using corrected 2021 data.

23 ENET273 - ElectraNet Revised Revenue Proposal - 2 December 2022, p 48

# A Constituent decisions

Our final decision on ElectraNet's transmission revenue determination for the 2023–28 regulatory control period includes the following constituent components:[24]

| Constituent component |
|---|
| In accordance with clause 6A.14.1(1)(i) of the NER, the AER's final decision is not to approve the total revenue cap set out in ElectraNet's revised building block proposal. Our decision on ElectraNet's total revenue cap is $2,214.9 million ($ nominal, smoothed) for the 2023–28 regulatory control period. This decision is discussed in Attachment 1 of this final decision. |
| In accordance with clause 6A.14.1(1)(ii) of the NER, the AER's final decision is not to approve the maximum allowed revenue (MAR) for each regulatory year of the regulatory control period set out in ElectraNet's revised building block proposal. Our decision on ElectraNet's MAR for each year of the 2023–28 regulatory control period is set out in Attachment 1 of this final decision. |
| In accordance with clause 6A.14.1(1)(iii) of the NER, the AER's final decision is to apply the service component, network capability component and market impact component of Version 5 of the service target performance incentive scheme (STPIS) to ElectraNet for the 2023–28 regulatory control period. The targets and parameters of the STPIS we have approved are set out in the AER – ElectraNet 2023-28 – Final decision - STPIS targets and parameters – April 2023 spreadsheet published with this final decision. |
| In accordance with clause 6A.14.1(1)(iv) of the NER, the AER's final decision on the values that are to be attributed to the parameters for the efficiency benefit sharing scheme (EBSS) that will apply to ElectraNet in respect of the 2023–28 regulatory control period are set out in version 2 of the EBSS and Attachment 8 to our draft decision. |
| In accordance with clause 6A.14.1(1)(v) of the NER, the AER's final decision is to approve the commencement and length of the regulatory control period as ElectraNet proposed in its revenue proposal. The regulatory control period will commence on 1 July 2023 and the length of this period is five years, expiring on 30 June 2028. |
| In accordance with clause 6A.14.1(2)(i) of the NER and acting in accordance with clause 6A.6.7(c), the AER's draft decision is to accept ElectraNet's proposed total forecast capital expenditure of $744.2 million ($2022). The reasons for our final decision were set out in Attachment 5 to our draft decision. |
| In accordance with clause 6A.14.1(3)(ii) of the NER and acting in accordance with clause 6A.6.6(d), the AER's final decision is to not accept ElectraNet's proposed total forecast operating expenditure inclusive of debt raising costs of $701.1 million ($2022). Our final decision therefore includes a substitute estimate of ElectraNet's total forecast operating expenditure for the 2023–28 regulatory control period of $673.8 million ($2022). The reasons for our final decision are set out in Attachment 6 to this final decision. |

24 NEL, s. 16(1)(c).

| Constituent component |
| --- |
| In accordance with clause 6A.14.1(4)(i) of the NER, the AER's final decision is that the following proposed contingent projects are contingent projects for the purpose of this revenue determination:<br>• Eyre Peninsula Upgrade<br>• Network Power Quality Remediation.<br>The reasons for our final decision are set out in Attachment 5 to our draft decision and section 2.4 of this overview. |
| In accordance with clause 6A.14.1(4)(ii) of the NER, the AER's final decision is that it is satisfied that the capital expenditure in the range of $50-$150 ($nominal) for the Eyre Peninsula Upgrade contingent project and $30-60 million ($nominal) for the Network Power Quality Remediation Project as described in ElectraNet's revenue proposal, and as determined to be contingent projects by the AER, reasonably reflects the capital expenditure criteria, taking into account the capital expenditure factors. The reasons for our final decision were set out in Attachment 5 to our draft decision. |
| In accordance with clause 6A.14.1(4)(iii) of the NER, the AER's final decision on the trigger events for the Eyre Peninsula Upgrade and Network Quality Power Remediation contingent projects are those set out in Attachment 5 to our draft decision. |
| In accordance with clause 6A.14.1(5A) of the NER, the AER's final decision is that version 1 of the capital expenditure sharing scheme (CESS) as set out in the Capital Expenditure Incentives Guideline will apply to ElectraNet in the 2023–28 regulatory control period. This is set out in this overview. |
| In accordance with clause 6A.14.1(5A) of the NER, the AER's final decision is that the demand management innovation allowance mechanism (DMIAM) for electricity transmission networks will apply to ElectraNet in the 2023–28 regulatory control period. This is set out in this overview. |
| In accordance with clause 6A.14.1(5B) and 6A.6.2 of the NER, the AER's final decision is that the allowed rate of return for the 2023-24 regulatory year is 5.55% (nominal vanilla), as set out in Attachment 3 of this final decision. The rate of return for the remaining regulatory years 2024–28 will be updated annually because our decision is to apply a trailing average portfolio approach to estimating debt which incorporates annual updating of the allowed return on debt. |
| In accordance with clause 6A.14.1(5C) of the NER, the AER's final decision is that the value of imputation credits as referred to in clause 6A.6.4 is 0.57. This is set out in Attachment 3 of this draft decision. |
| In accordance with clause 6A.14.1(5D) of the NER, the AER's draft decision, in accordance with clause 6A.6.1 and schedule 6A.2, is that the opening regulatory asset base (RAB) as at the commencement of the 2023–28 regulatory control period, being 1 July 2023, is $3,854.2 million ($ nominal). This is set out in Attachment 2 of this final decision. |
| In accordance with clause 6A.14.1(5E) of the NER, the AER's final decision is that the depreciation approach used to establish the RAB at the commencement of ElectraNet's regulatory control period as at 1 July 2028 is based on forecast capital expenditure (forecast depreciation). This is set out in Attachment 2 of this final decision. We also note that the |

| Constituent component |
|---|
| regulatory depreciation amount that is approved in this decision is $313.9 million ($ nominal) for the 2023–28 regulatory control period. |
| In accordance with clause 6A.14.1(8) of the NER, the AER's final decision is to approve ElectraNet's proposed pricing methodology. This is set out in this Overview of the final decision. |
| In accordance with clauses 6A.14.1(9) and 6A.6.9 of the NER, the AER's draft decision is to apply the following nominated pass through events to ElectraNet for the 2023–28 regulatory control period in accordance with clause 6A.7.3(a1)(5):<br>• terrorism<br>• natural disaster<br>• insurance coverage<br>• insurer's credit risk.<br>These events have the definitions set out in Attachment 13 of this draft decision. |

# B List of submissions

We received three submissions in response to our draft decision and ElectraNet's revised proposal. These are listed below.

| Submission | Date |
|---|---|
| ElectraNet Consumer Advisory Panel (CAP2) | 20 January 2023 |
| Consumer Challenge Panel, sub-panel 25 | 25 January 2023 |
| Department of Energy and Mining - SA | 24 January 2023 |

# Glossary

| Term | Definition |
|---|---|
| 2018 Instrument | 2018 Rate of Return Instrument |
| AEMC | Australian Energy Market Commission |
| AEMO | Australian Energy Market Operator |
| AER | Australian Energy Regulator |
| CAP2 | ElectraNet Consumer Advisory Panel |
| Capex | Capital expenditure |
| CESS | Capital expenditure sharing scheme |
| CPI | Consumer price index |
| CCP25 | Consumer Challenge Panel, sub-panel 25 |
| DMIAM | Demand management innovation allowance mechanism |
| EBSS | Efficiency benefit sharing scheme |
| Gamma | Value of imputation credits |
| ISP | Integrated system plan |
| MAR | Maximum allowed revenue |
| MWh | Megawatt hours |
| NEL | National Electricity Law |
| NEM | National Electricity Market |
| NEO | National Electricity Objective |
| NER | National Electricity Rules |
| Opex | Operating expenditure |
| PTRM | Post-tax revenue model |
| RAB | Regulatory asset base |
| RIN | Regulatory information notice |
| RFM | Roll forward model |
| STPIS | Service target performance incentive scheme |