Final decision

ElectraNet transmission determination
1 July 2023 to 30 June 2028

Attachment 1 – Maximum allowed revenue

April 2023

AUSTRALIAN
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1 Maximum allowed revenue

This attachment sets out our final decision on ElectraNet's maximum allowed revenue (MAR) for the provision of prescribed transmission services over the 2023–28 regulatory control period. Specifically, we set out our final decision on:[1]

- the estimated total revenue cap, which is the sum of the annual expected MAR
- the annual building block revenue requirement
- the annual expected MAR
- the X factor.

We determine ElectraNet's annual building block revenue requirement using a building block approach. We determine the X factors by smoothing the annual building block revenue requirement over the regulatory control period. The X factor is used in the CPI–X methodology to determine the annual expected MAR (smoothed).

1.1 Final decision

We determine a total annual building block revenue requirement for ElectraNet of $2,213.8 million ($ nominal, unsmoothed) for the 2023–28 period. This is an increase of $34.0 million ($ nominal) or 1.6% to ElectraNet's revised proposal. This is largely driven by our final decision approving a higher regulatory depreciation building block, which is $86.1 million higher than that proposed by ElectraNet. The regulatory depreciation amount is the net total of the straight-line depreciation, less the inflation indexation of the RAB. Our final decision straight-line depreciation and indexation component are both lower than the revised proposal by $13.9 million and $100.0 million respectively. The lower indexation has more than offset the decrease in straight-line depreciation due to a lower expected inflation rate applied in our final decision compared to the revised proposal. This results in a net impact of a higher regulatory depreciation amount compared to the revised proposal. See attachment 4 for further details.

We determine the annual expected MAR and X factor for each regulatory year of the 2023–28 period by smoothing the annual building block revenue requirement. Our final decision is to approve an estimated total revenue cap of $2,214.9 million ($ nominal) for ElectraNet for the 2023–28 period. Our approved X factor is –6.74% for 2024–25, followed by 0% X factors per annum over the remaining years of 2025–26 to 2027–28.[2]

Table 1.1 sets out our final decision on ElectraNet's annual building block revenue requirement, the X factor, the annual expected MAR and the estimated total revenue cap for the 2023–28 period.

1 NER, cll. 6A.4.2(a) (1)-(3), 6A.5.3(c), 6A.5.4 and 6A.6.8.

2 ElectraNet is not required to apply an X factor for 2023–24 because we set the 2023–24 MAR in this decision.

Table 1.1 AER's final decision on ElectraNet's annual building block revenue requirement, annual expected MAR, estimated total revenue cap and X factor ($million, nominal)

	2023–24	2024–25	2025–26	2026–27	2027–28	Total
Return on capital	213.9	224.9	235.9	246.3	256.0	1,177.0
Regulatory depreciation[a]	48.8	62.9	63.3	74.3	64.7	313.9
Operating expenditure[b]	142.6	150.9	142.7	149.3	148.8	734.3
Revenue adjustments[c]	–8.6	0.6	3.6	–0.1	–11.9	–16.4
Net tax amount	0.0	0.0	0.0	1.0	4.0	5.0
Annual building block revenue requirement (unsmoothed)	396.7	439.4	445.4	470.6	461.6	2,213.8
Annual expected MAR (smoothed)	**396.2**	**435.3**	**448.0**	**461.0**	**474.5**	**2,214.9**[d]
X factors[e]	n/a[f]	–6.74%	0.00%	0.00%	0.00%	n/a

Source: AER analysis.

(a) Regulatory depreciation is straight-line depreciation net of the inflation indexation on the opening regulatory asset base (RAB).

(b) Includes debt raising costs.

(c) Includes revenue adjustments from the efficiency benefit sharing scheme (EBSS), the capital expenditure sharing scheme (CESS) and the demand management innovation allowance mechanism (DMIAM).

(d) The estimated total revenue cap is equal to the total annual expected MAR.

(e) The X factors will be revised to reflect the annual return on debt update. Under the CPI–X framework, the X factor measures the real rate of change in annual expected revenue from one year to the next. A negative X factor represents a real increase in revenue. Conversely, a positive X factor represents a real decrease in revenue.

(f) ElectraNet is not required to apply an X factor for 2023–24 because we set the 2023–24 MAR in this decision. The MAR for 2023–24 is around 6.7% higher than the MAR for 2022–23 in real terms, or 9.9% higher in nominal terms.

1.2 ElectraNet's revised proposal

ElectraNet's revised proposal included a total (smoothed) revenue cap of $2,178.9 million ($ nominal) for the 2023–28 period. Table 1.2 sets out ElectraNet's revised proposed annual building block revenue requirement, the X factor, the annual expected MAR and the estimated total revenue cap.

Table 1.2 ElectraNet's revised proposed annual building block revenue requirement, annual expected MAR, estimated total revenue cap and X factor ($million, nominal)

	2023–24	2024–25	2025–26	2026–27	2027–28	Total
Return on capital	214.6	227.0	239.3	251.2	262.6	1,194.7
Regulatory depreciation[a]	32.1	45.9	46.0	56.9	47.0	227.8
Operating expenditure[b]	151.7	161.0	147.7	156.4	157.0	773.8
Revenue adjustments[c]	–8.6	0.7	3.6	–0.1	–12.1	–16.5
Net tax amount	0.0	0.0	0.0	0.0	0.0	0.0
Annual building block revenue requirement (unsmoothed)	389.8	434.6	436.6	464.4	454.4	2,179.8
Annual expected MAR (smoothed)	**407.4**	**421.1**	**435.3**	**450.0**	**465.2**	**2,178.9**[d]
X factors[e]	n/a[f]	0.00%	0.00%	0.00%	0.00%	n/a

Source: ElectraNet, 2023-28 Revised Revenue Proposal, Post Tax Revenue Model, December 2022.
(a) Regulatory depreciation is straight-line depreciation net of the inflation indexation on the opening RAB.
(b) Includes debt raising costs.
(c) Includes revenue adjustments from EBSS, CESS and the DMIAM.
(d) The estimated total revenue cap is equal to the total annual expected MAR.
(e) The X factors will be revised to reflect the annual return on debt update. Under the CPI–X framework, the X factor measures the real rate of change in annual expected revenue from one year to the next. A negative X factor represents a real increase in revenue. Conversely, a positive X factor represents a real decrease in revenue.
(f) ElectraNet is not required to apply an X factor for 2023–24 because we set the 2023–24 MAR in this decision.

1.3 Assessment approach

We did not change the building block approach we use to determine the expected MAR from our draft decision. Attachment 1 (sections 1.3.1 and 1.3.2) of our draft decision details that approach.[3]

1.3.1 Annual revenue adjustment process

We use an expected inflation rate in our post-tax revenue model (PTRM) to calculate the expected MAR (as shown in Table 1.1). The calculation of the actual MAR will therefore require an adjustment for actual inflation. To this end, the actual MAR from the second year onwards is adjusted for actual inflation. As discussed in the *Rate of return instrument*, the MAR is also subject to adjustment to reflect our update of ElectraNet's return on debt annually.[4] This means the actual MAR from the second year onwards will also be adjusted

3 AER, *Draft decision, ElectraNet Transmission Determination 2023–2028, Attachment 1 Maximum allowed revenue*, September 2022, pp. 3–6.

4 AER, *Rate of return instrument*, February 2023, cl. 24, Note 29.

for revised X factors after the annual return on debt update. This annual revenue adjustment process is set out below.

To enable the formula for the annual revenue adjustment process to operate correctly, we will refer to the expected MAR determined in this decision using the building block costs as the allowed revenue (AR). This is because the expected MAR determined using the building block costs does not incorporate performance incentive scheme revenue adjustments and pass through amounts that may apply to each regulatory year.

We determine the 2023–24 AR of $396.2 million for ElectraNet. ElectraNet then applies an annual adjustment to determine its AR for each subsequent year of the 2023–28 period, based on the previous year's AR and using the CPI–X methodology.[5] That is, the subsequent year's allowed revenue is determined by adjusting the previous year's AR for actual inflation and the X factor determined after the annual return on debt update:

$$\mathrm{AR}_t = \mathrm{AR}_{t-1} \times (1 + \Delta\mathrm{CPI}) \times (1 - \mathrm{X}_t)$$

where:

AR	=	the allowed revenue
t	=	time period/financial year (for *t* = 2 (2024–25), 3 (2025–26), 4 (2026–27), 5 (2027–28))
$\Delta\mathrm{CPI}$	=	the annual percentage change in the ABS Consumer price index all groups, weighted average of eight capital cities from December in year *t* – 2 to December in year *t* – 1
X	=	the smoothing factor determined in accordance with the PTRM as approved in the AER's final decision, and annually revised for the return on debt update in accordance with the formula specified in the *Rate of return instrument* calculated for the relevant year.[6]

The MAR used for transmission pricing is determined annually as part of the annual revenue adjustment process in accordance with the National Electricity Rules (NER). The MAR is determined each year by adding to (or deducting from) the allowed revenue:

- the service target performance incentive scheme revenue increment (or revenue decrement)[7]
- any approved pass through amounts.[8]

5 In the case of making the annual adjustment for year 2, the previous year's AR would be the same as the approved expected MAR for year 1 as contained in the PTRM.

6 AER, *Rate of Return Instrument*, February 2023, cl. 9.

7 NER, cl. 6A.7.4.

8 NER, cll. 6A.7.2 and 6A.7.3.

The annual MAR is established according to the following formula:

MAR_t	=	(allowed revenue) + (performance incentive) + (pass through)
	=	$\mathrm{AR}_t + \left(\left(\mathrm{AR}_{t-2} \times \frac{1}{2}\right) + \left(\mathrm{AR}_{t-1} \times \frac{1}{2}\right)\right) \times \mathrm{S}_{ct} + \mathrm{P}_t$

where:

MAR	=	the maximum allowed revenue
AR	=	the allowed revenue
S	=	the percentage revenue increment or decrement determined in accordance with the service target performance incentive scheme
P	=	the pass through amount (positive or negative) that the AER has determined in accordance with clauses 6A.7.2 and 6A.7.3 of the NER
t	=	time period/financial year (for *t* = 2 (2024–25), 3 (2025–26), 4 (2026–27), 5 (2027–28))
ct	=	time period/calendar year (for *ct* = 2 (2023), 3 (2024), 4 (2025), 5 (2026)).

ElectraNet may also adjust the MAR for under- or over-recovery amounts.[9] That is, if the revenue amounts earned from providing prescribed transmission services in previous regulatory years are higher or lower than the sum of the approved MAR for those years, the difference can be included in the subsequent year's MAR. In the case of an under-recovery, the amount is added to the subsequent year's MAR. In the case of an over-recovery, the amount is subtracted from the subsequent year's MAR.

Table 1.3 sets out the timing of the annual calculation of the AR and performance incentive.

9 NER, cl. 6A.23.3(e)(5).

Table 1.3 Timing of the calculation of allowed revenues and the performance incentive for ElectraNet

t	Allowed revenue (financial year)	*ct*	Performance incentive (calendar year)
2	1 July 2024 – 30 June 2025	2	1 January 2023 – 31 December 2023
3	1 July 2025 – 30 June 2026	3	1 January 2024 – 31 December 2024
4	1 July 2026 – 30 June 2027	4	1 January 2025 – 31 December 2025
5	1 July 2027 – 30 June 2028	5	1 January 2026 – 31 December 2026

Note: The performance incentive for the period 1 January 2022 to 31 December 2022 is to be applied to the AR determined for 2023–24 (AR_1).

1.4 Reasons for final decision

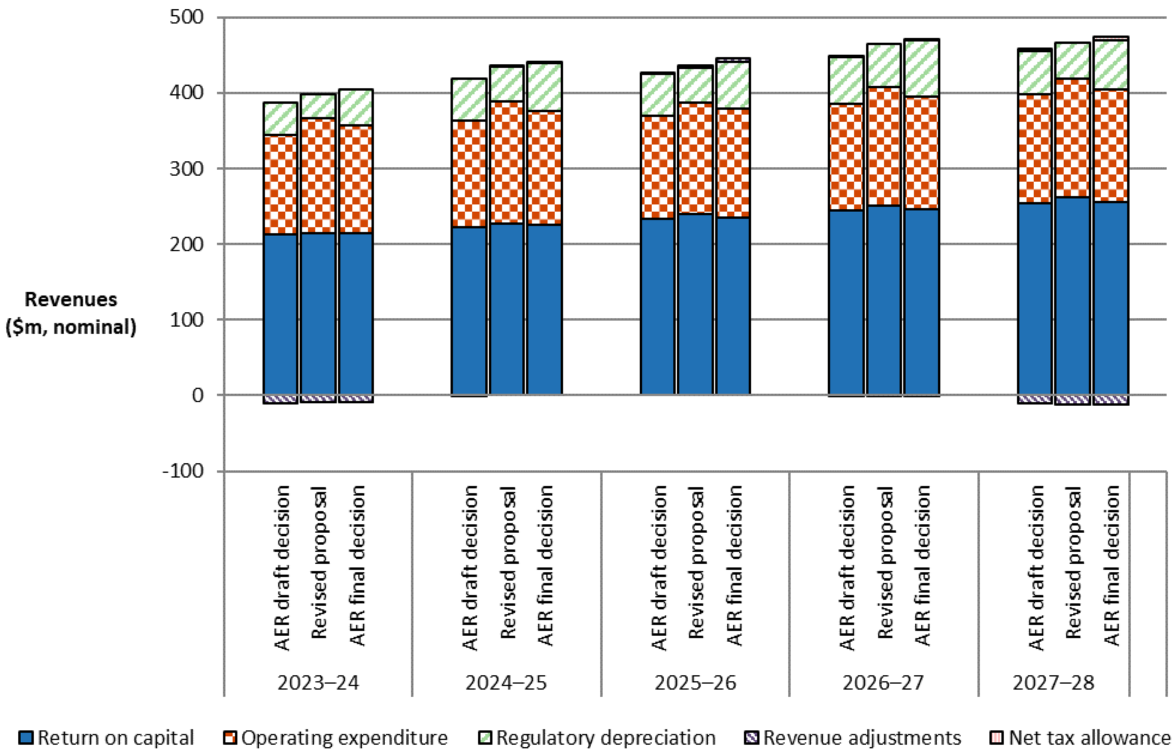
For this final decision, we determine a total annual building block revenue requirement of $2,213.8 million ($ nominal) for ElectraNet for the 2023–28 period. This is an increase of $34.0 million ($ nominal) or 1.6% to ElectraNet's revised proposed total annual building block revenue requirement of $2,179.8 million ($ nominal) for this period. This reflects the impact of our final decision on the various building block costs.

Figure 1.1 shows the building block components from our final determination that make up the annual building block revenue requirement for ElectraNet, and the corresponding components from its revised proposal and our draft decision. The changes we made to ElectraNet's revised proposal ($ nominal) include:

- a decrease in the return on capital of $17.8 million (1.5%) (Attachments 2 and 3, and section 2.4 of the Overview)
- an increase in the regulatory depreciation of $86.1 million (37.8%) (attachment 4)
- a decrease in forecast operating expenditure (opex) of $39.5 million (5.1%) (Attachment 6)
- an increase in revenue adjustments of $0.1 million (0.9%) (section 2.6 of the Overview)[10]
- an increase in the cost of corporate income tax of $5.0 million from the revised proposed amount of zero (attachment 7).

[10] In real terms ($2022–23), revenue adjustments decreased by $0.1 million reflecting our final decision updates.

Figure 1.1 AER's draft and final decision, and ElectraNet's revised proposed annual building block revenue requirement ($million, nominal)



Source: AER analysis; ElectraNet, 2023-28 Revised Revenue Proposal, Post Tax Revenue Model, December 2022.

Note: Revenue adjustments include EBSS, CESS and DMIAM amounts. Opex includes debt raising costs.

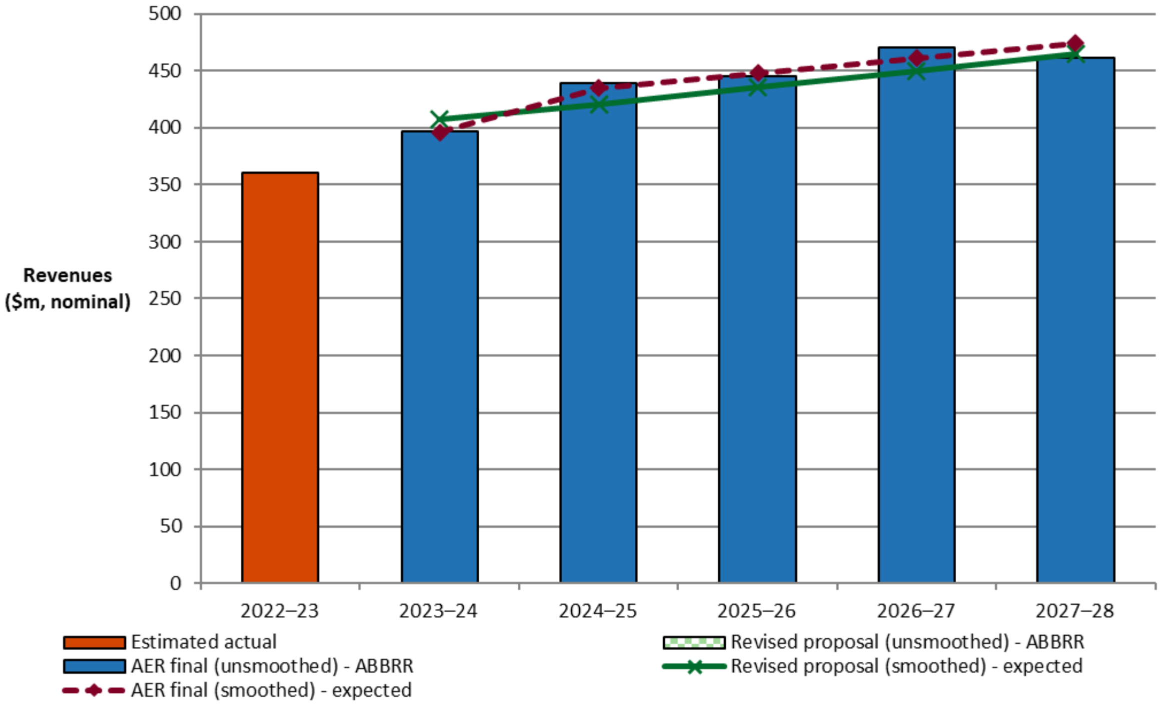
1.4.1 X factor, annual expected MAR and estimated total revenue cap

For this final decision, we determine an X factor for ElectraNet of –6.74% for 2024–25, followed by X factors of 0% per annum over the remaining years of 2025–26 to 2027–28.[11] The net present value (NPV) of the annual building block revenue requirement is $1873.2 million ($ nominal) as at 1 July 2023. Based on this NPV and applying the CPI–X method, we determine that the annual expected MAR (smoothed) for ElectraNet is $396.2 million in 2023–24 increasing to $474.5 million in 2027–28 ($ nominal). The resulting estimated total revenue cap for ElectraNet is $2,214.9 million for the 2023–28 period.

Figure 1.2 shows our final decision on ElectraNet's annual expected MAR (smoothed revenue) and the annual building block revenue requirement (unsmoothed revenue) for the 2023–28 period.

11 ElectraNet is not required to apply an X factor for 2023–24 because we set the 2023–24 MAR in this decision.

Figure 1.2 AER's final decision on ElectraNet's revenue for the 2023–28 period ($million, nominal)



Source: AER analysis.

Note: Annual building block revenue requirement (ABBRR).

To determine the expected MAR for ElectraNet, we have set the MAR for the first regulatory year at $396.2 million ($ nominal) which is $0.5 million lower than the annual building block revenue requirement in 2023–24. We then apply an expected inflation rate of 2.92% per annum and an X factor of –6.74% for 2024–25 followed by 0% per annum for 2025–26 to 2027–28 to determine the expected MAR in subsequent years.[12] We consider that our profile of X factors results in an expected MAR in the last year of the regulatory control period that is as close as reasonably possible to the annual building block revenue requirement for that year.[13]

Our final decision results in an average increase of 5.6% per annum ($ nominal) in the expected MAR over the 2023–28 period.[14] This consists of an initial increase of 9.9% from 2022–23 to 2023–24, followed by an increase of 9.9% in 2023–24 and average annual increases of 2.9% during the remainder of the 2023–28 period.[15]

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12 NER, cl. 6A.5.3(c)(3).

13 NER, cl. 6A.6.8(c)(2). We consider a divergence of up to 3% between the expected MAR and annual building block revenue requirement for the last year of the regulatory control period is appropriate, if this can achieve smoother price changes for users over the regulatory control period. In the present circumstances, based on the X factors we have determined for ElectraNet, this divergence is around 2.8%.

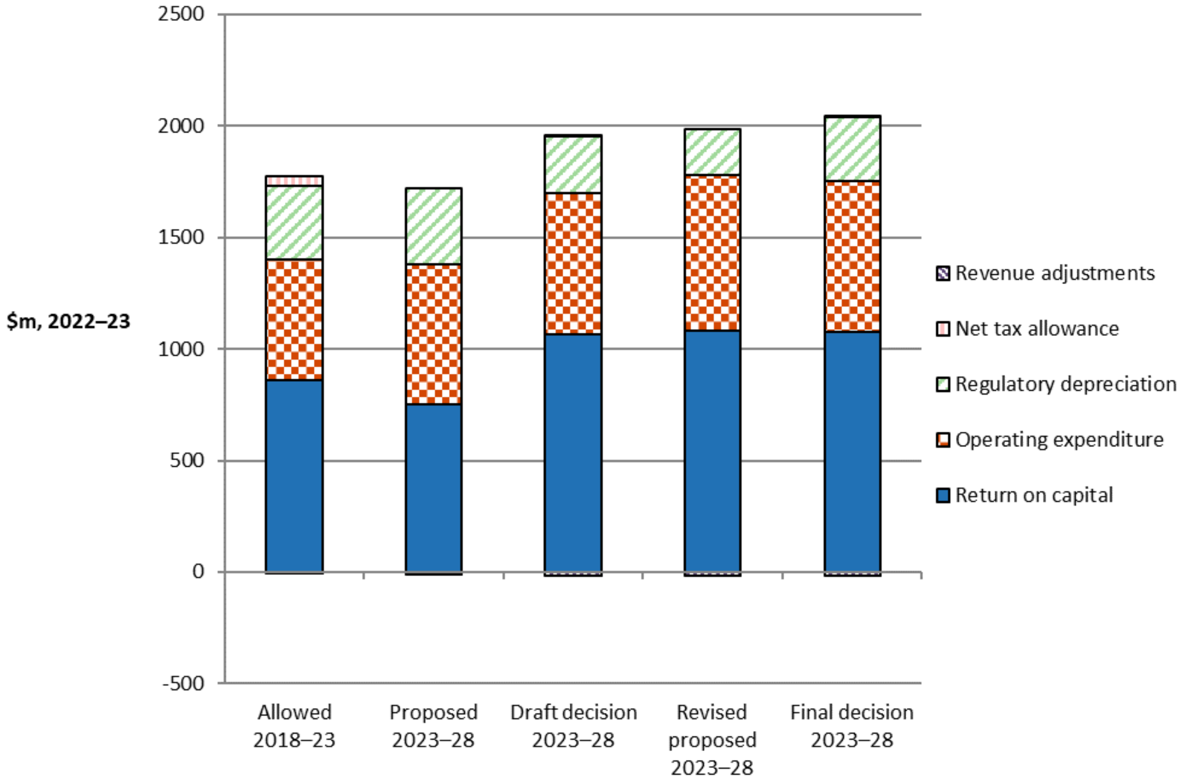
14 In real 2022–23 dollar terms, the average increase in our approved expected MAR for ElectraNet is 2.6% per annum over the 2023–28 period.

15 In real 2022–23 dollar terms, this consists of an initial increase of 6.7% from 2022–23 to 2023–24, followed by an increase of 6.7% in 2023–24 and no change during the remainder of the 2023–28 period.

Our final decision also results in the average annual unsmoothed revenue to be 14.7% higher than that allowed in the 2018–23 period, in real terms ($2022–23). This is because we have determined a higher return on capital and opex amount in this final decision for the 2023–28 period than that approved in the 2018–23 determination.

Figure 1.3 compares our final and draft decision building blocks for ElectraNet's 2023–28 period with ElectraNet's proposed and revised proposed revenue requirement for the same period, and the approved revenue for the 2018–23 period.

Figure 1.3 Total revenue by building block components ($million, 2022–23)



Source: AER analysis.

1.4.2 Shared assets

Our final decision is not to apply a shared assets revenue adjustment to ElectraNet's total expected MAR for the 2023–28 period.

In our draft decision, we did not apply a shared asset revenue adjustment to ElectraNet's revenues because we estimated that the unregulated revenues were less than 1% of its expected revenues in each year of the 2023–28 period. Therefore, the materiality threshold was not met in any year of the 2023–28 period.[16] Using the same assessment approach as the draft decision, we consider that this materiality threshold is also not met in any year of the 2023–28 period for this final decision, and therefore we do not apply a shared asset revenue adjustment.

16 AER, *Draft decision, ElectraNet Transmission Determination 2023–2028, Attachment 1 Maximum allowed revenue*, September 2022, pp. 12–13.

1.4.3 Indicative transmission charges

ElectraNet is the transmission network service provider for South Australia. Therefore, our final decision on ElectraNet's expected MAR will ultimately affect the annual electricity bills paid by customers in South Australia. Other than ElectraNet, Murraylink also operates an interconnector linking Victoria and South Australia which makes up a small component of the broader transmission networks that serves South Australia and Victoria.[17] We are currently assessing Murraylink's revenue proposal for the 2023–28 period, which coincides with ElectraNet's period. For this reason, in this attachment we provide an estimate of the combined effect of the final decisions for the ElectraNet and Murraylink transmission determinations on forecast average transmission charges in South Australia over the 2023–28 period.

There are several steps required to translate our revenue decision into indicative transmission charges, and then to estimate the bill impact. Since we regulate ElectraNet's prescribed transmission services under a revenue cap, changes in the consumption of electricity will affect the transmission charges ultimately paid by customers. Our approach to estimate the indicative effect of our final decision on forecast average transmission charges in South Australia is set out in our draft decision.[18] Based on our approach, we estimate that this final decision will result in a nominal increase in annual average transmission charges from 2022–23 to 2027–28.[19]

Figure 1.4 shows the indicative average transmission charges for the 2023–28 period compared to actual transmission charges over the current period in in real terms ($2022–23). Based on the expected revenue determined in our final decision, the average transmission charges are expected to decrease from around $31.2 per MWh in 2022–23[20] to $31.0 per MWh in 2027–28.

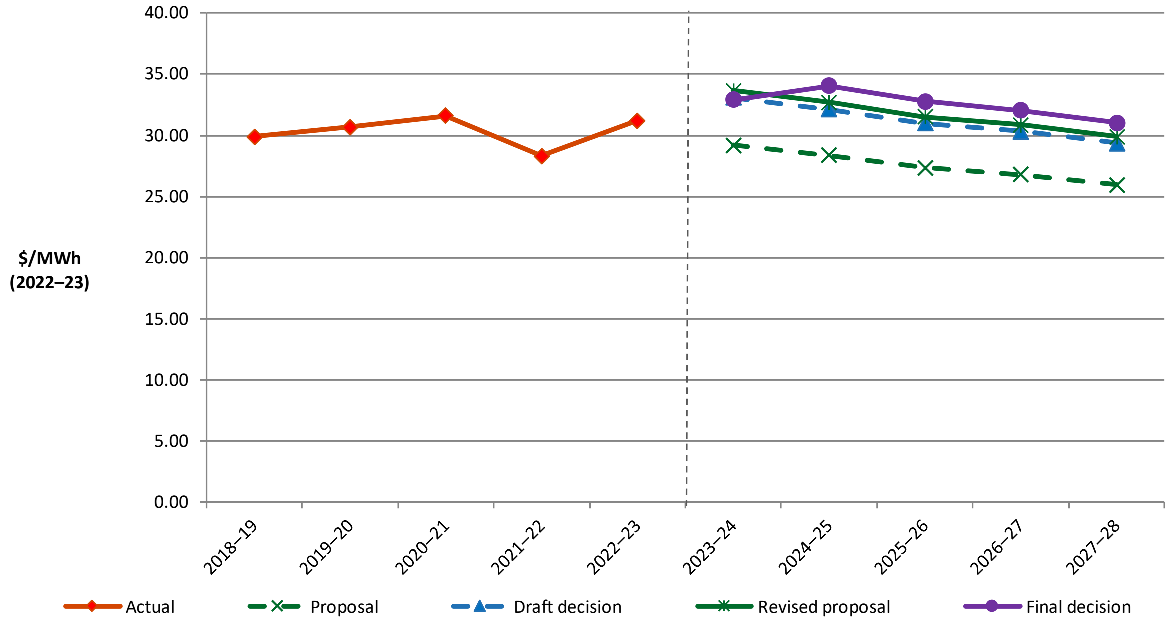
17 AusNet Services is the main transmission network service provider for Victoria. Its transmission determination for the 2022–27 regulatory control period was completed earlier in January 2022 and does not align with Murraylink's period. As a result, the bill impacts for Victorian customers in AusNet Service's transmission determination do not incorporate the final decision for Murraylink.

18 AER, *Draft decision, ElectraNet Transmission Determination 2023 to 2028, Attachment 1 Maximum allowed revenue*, September 2022, pp. 13–14. Our final decision updated the forecast annual energy delivered in NSW using AEMO's 'central scenario' forecast in the NEM Electricity Statement of Opportunities (ESOO) 2022, version: 20/09/2022, Category: operational (sent out), available here.

19 On average, the final decision transmission revenues will increase by 5.6% ($ nominal) per annum from 2022–23 to 2027–28. The forecast energy delivered in South Australia is expected to increase by an average of 2.6% per annum across that period. Overall, the indicative transmission charge is expected to increase by 2.9% ($ nominal) per annum from 2022–23 to 2027–28.

20 Transmission charges for 2018–19 to 2021–22 are based on the actual revenue, whereas 2022–23 transmission charges are based on estimated revenue.

Figure 1.4 Indicative transmission price path for South Australia ($/MWh, $2022–23)



Source: AER analysis.

Notes: The price path for the transmission network is based on actual and 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.
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.

1.4.4 Expected impact on electricity bills

The annual electricity bill for customers in South Australia reflects the combined cost of all the electricity supply chain components—wholesale energy generation, transmission, distribution, metering, and retail costs. This final decision primarily relates to the transmission charges for ElectraNet's prescribed transmission services, which represent approximately 11% on average for both residential customers' and small business customers' annual electricity bill in South Australia.[21]

We estimate the expected bill impact by varying ElectraNet's transmission charges in accordance with our final decision,[22] while holding all other component costs that make up the electricity bill constant. This approach isolates the effect of our final decision on the core transmission charges for ElectraNet only. However, this does not imply that other components will remain unchanged across the regulatory control period.[23] Our final decision determines higher revenues than ElectraNet's revised proposal—largely due to the impact of

21 AEMC, *Final report residential electricity price trends 2020*, November 2021, p. 15; AER analysis.

22 Includes the 45% portion of Murraylink's annual expected MAR.

23 It also assumes that actual energy consumption will equal the forecast adopted in our final decision. Since ElectraNet operates under a revenue cap, changes in energy consumption will also affect annual electricity bills across the 2023–28 period.

updated market data on expected inflation. As a result, expected bill increases are higher than ElectraNet's revised proposal, holding all else constant.

Based on this approach, we expect that the transmission component of the average annual residential electricity bill in 2027–28 to increase by about $31 ($ nominal) or 1.7% from the 2022–23 total bill level.

Our estimated bill impact is based on the typical annual electricity usage of 4,000 kWh and 10,000 kWh for residential and small business customers in South Australia, respectively.[24] Therefore, customers with different usage will experience different changes in their bills. We also note that there are other factors, such as metering, wholesale and retail costs, which affect electricity bills.

Similarly, we expect our final decision will result in the transmission component of the average annual electricity bill for a small business customer in 2027–28 to increase by about $76 ($ nominal) or 1.7% from the 2022–23 total bill level.

Table 1.4 shows our estimated impact of our final decision and ElectraNet's revised proposal on the average annual electricity bills for residential and small business customers in South Australia over the 2023–28 period.

24 AER, *Final determination – Default market offer prices 2022–23*, 26 May 2022, p. 7; Representative of residential and small business customers in South Australia supplied by retailers in the SAPN distribution network region.

Table 1.4 Estimated impact of ElectraNet's revised revenue proposal and the AER's final decision on average annual electricity bills for residential customers over the 2023–28 period ($ nominal)

	2022–23	2023–24	2024–25	2025–26	2026–27	2027–28
AER final decision						
Residential annual electricity bill	1,840[a]	1,857	1,872	1,870	1,871	1,871
Annual change[b]		17 (0.9%)	14 (0.8%)	–2 (–0.1%)	2 (0.1%)	–1 (–0.0%)
Small business annual electricity bill	4,539[a]	4,581	4,617	4,612	4,617	4,615
Annual change[b]		42 (0.9%)	36 (0.8%)	–5 (–0.1%)	4 (0.1%)	–1 (–0.0%)
ElectraNet revised proposal						
NSW residential annual electricity bill	1,840[a]	1,863	1,864	1,863	1,866	1,866
Annual change[b]		23 (1.3%)	1 (0.0%)	–1 (–0.0%)	3 (0.1%)	0 (0.0%)
ACT residential annual electricity bill	4,539[a]	4,596	4,599	4,596	4,603	4,604
Annual change[b]		57 (1.3%)	2 (0.0%)	–2 (–0.0%)	6 (0.1%)	1 (0.0%)

Source: AER analysis; ElectraNet, 2023-28 Revised revenue proposal, Post-Tax Revenue Model, December 2022.

(a) AER, Final determination – Default market offer prices 2022–23, 26 May 2022, p. 7.

(b) Annual change amounts and percentages are indicative. They are derived by varying the transmission component of the 2022–23 bill amounts in proportion to yearly expected revenue divided by ElectraNet's forecast energy. Actual bill impacts will vary depending on electricity consumption and tariff class.

Glossary

Term	Definition
ABS	Australian Bureau of Statistics
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
AR	Allowed revenue
Capex	Capital expenditure
CESS	Capital expenditure sharing scheme
CPI	Consumer price index
DMIAM	Demand management innovation allowance mechanism
EBSS	Efficiency benefit sharing scheme
MAR	Maximum allowed revenue
NER	National Electricity Rules
NPV	Net present value
Opex	Operating expenditure
PTRM	Post-tax revenue model
RAB	Regulatory asset base
TNSP	Transmission network service provider