Final decision

Murraylink transmission determination
1 July 2023 to 30 June 2028

Attachment 1 – Maximum allowed revenue

April 2023

AUSTRALIAN
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REGULATOR

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1 Maximum allowed revenue

This attachment sets out our final decision on Murraylink'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 Murraylink'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 Murraylink of $91.2 million ($ nominal, unsmoothed) for the 2023–28 period. This is an increase of $1.3 million ($ nominal) or 1.4% to Murraylink's revised proposal. This is driven by our final decision approving a higher regulatory depreciation building block, which is $2.1 million higher than that proposed by Murraylink. 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 $2.1 million and $4.2 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 regulatory control period by smoothing the annual building block revenue requirement. Our final decision is to approve an estimated total revenue cap of $90.9 million ($ nominal) for Murraylink for the 2023–28 period. Our approved X factor for 2024–25 to 2027–28 is –1.30% per annum.[2]

Table 1.1 sets out our final decision on Murraylink'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 Murraylink 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 Murraylink'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	7.1	7.3	7.5	7.5	7.3	36.8
Regulatory depreciation[a]	3.4	4.1	5.6	6.2	6.5	25.7
Operating expenditure[b]	5.1	5.3	5.5	5.6	5.8	27.4
Revenue adjustments[c]	–0.6	–0.1	0.1	0.1	0.1	–0.5
Net tax amount	0.3	0.3	0.2	0.4	0.6	1.8
Annual building block revenue requirement (unsmoothed)	15.3	16.8	18.8	19.8	20.3	91.2
Annual expected MAR (smoothed)	**16.7**	**17.4**	**18.1**	**18.9**	**19.7**	**90.9**[d]
X factors[e]	n/a[f]	–1.30%	–1.30%	–1.30%	–1.30%	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) and capital expenditure sharing scheme (CESS).

(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) Murraylink 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 10.4% lower than the MAR for 2022–23 in real terms, or 7.8% lower in nominal terms.

1.2 Murraylink's revised proposal

Murraylink's revised proposal included a total (smoothed) revenue cap of $89.5 million ($ nominal) for the 2023–28 period. Table 1.2 sets out Murraylink's revised proposed annual building block revenue requirement, the X factor, the annual expected MAR and the estimated total revenue cap.

Table 1.2 Murraylink'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	7.4	7.7	7.9	7.9	7.8	38.7
Regulatory depreciation[a]	2.7	3.4	4.9	5.9	6.7	23.6
Operating expenditure[b]	5.2	5.4	5.6	5.8	6.0	27.8
Revenue adjustments[c]	–0.6	–0.2	0.0	0.1	–1.0	–1.6
Net tax amount	0.2	0.2	0.1	0.3	0.5	1.3
Annual building block revenue requirement (unsmoothed)	14.9	16.4	18.5	20.0	20.1	89.9
Annual expected MAR (smoothed)	**16.7**	**17.3**	**17.9**	**18.5**	**19.1**	**89.5**[d]
X factors[e]	n/a[f]	0.00%	0.00%	0.00%	0.00%	n/a

Source: Murraylink, 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.
(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) Murraylink 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 (section 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) in nominal dollar terms. 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 Murraylink's return on debt annually.[4] This means the actual MAR from the second year onwards will also

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[3] AER, *Draft decision, Murraylink Transmission Determination 2023 to 2028, Attachment 1 Maximum allowed revenue*, September 2022, pp. 4–7.

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

be adjusted 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 $16.7 million for Murraylink. Murraylink 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)).

Murraylink 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 Murraylink

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

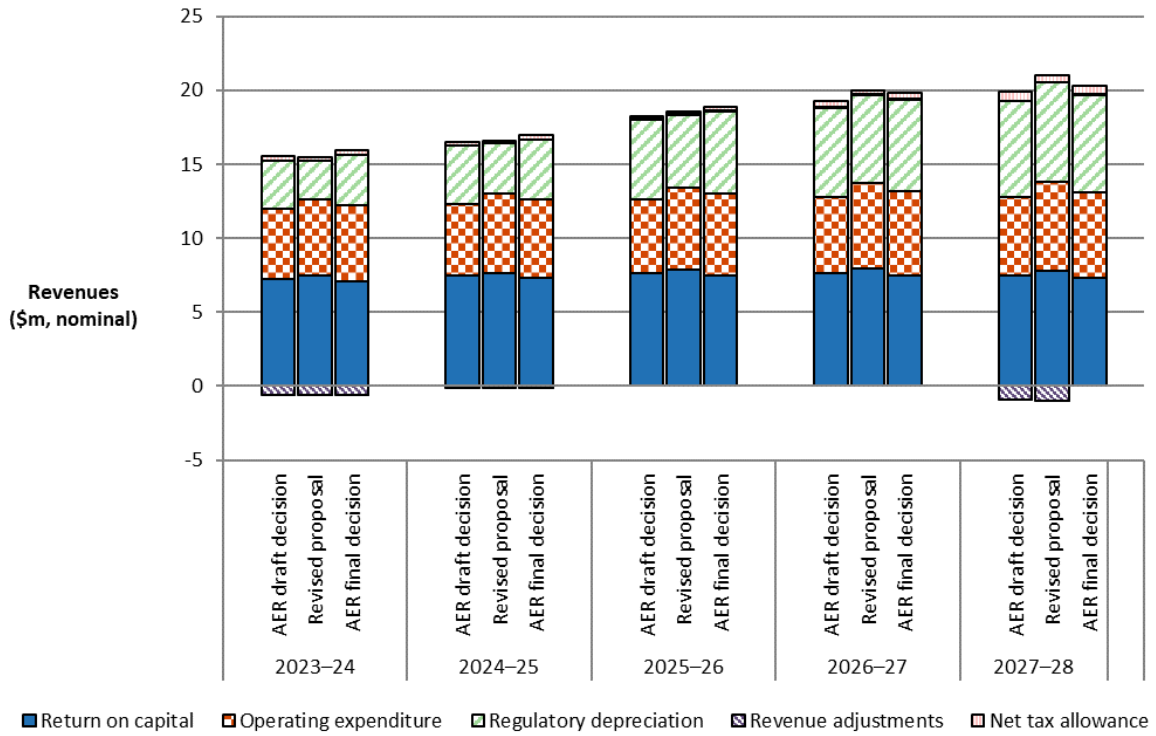
For this final decision, we determine a total annual building block revenue requirement of $91.2 million ($ nominal) for Murraylink for the 2023–28 period. This is an increase of $1.3 million ($ nominal) or 1.4% to Murraylink's revised proposed total annual building block revenue requirement of $89.9 million ($ 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 Murraylink, and the corresponding components from its revised proposal and our draft decision. The changes made to Murraylink's revised proposal ($ nominal) include:

- a decrease in the return on capital of $2.0 million (5.1%) (Attachments 2 and 3, and section 2.4 of the Overview to this final decision)
- an increase in the regulatory depreciation of $2.1 million (8.9%) (Attachment 4)
- a decrease in forecast operating expenditure (opex) of $0.5 million (1.7%) (section 2.5 of the Overview)[10]
- an increase in revenue adjustments of $1.2 million (71.6%) (section 2.6 of the Overview to this final decision)
- an increase in the cost of corporate income tax of $0.5 million (34.6%) (Attachment 7).

[10] We have accepted Murraylink's revised proposed opex. Any difference between our final decision and Murraylink's revised proposed opex building block is due to an update for expected inflation in our final decision.

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



Source: AER analysis; Murraylink, *Murraylink – Attachment 5 – PTRM Revised Proposal – 2 December 2022*, AER, Murraylink 2023-28 – Draft Decision – PTRM – September 2022, AER, Murraylink 2023-28 – Final Decision – PTRM – April 2023.

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

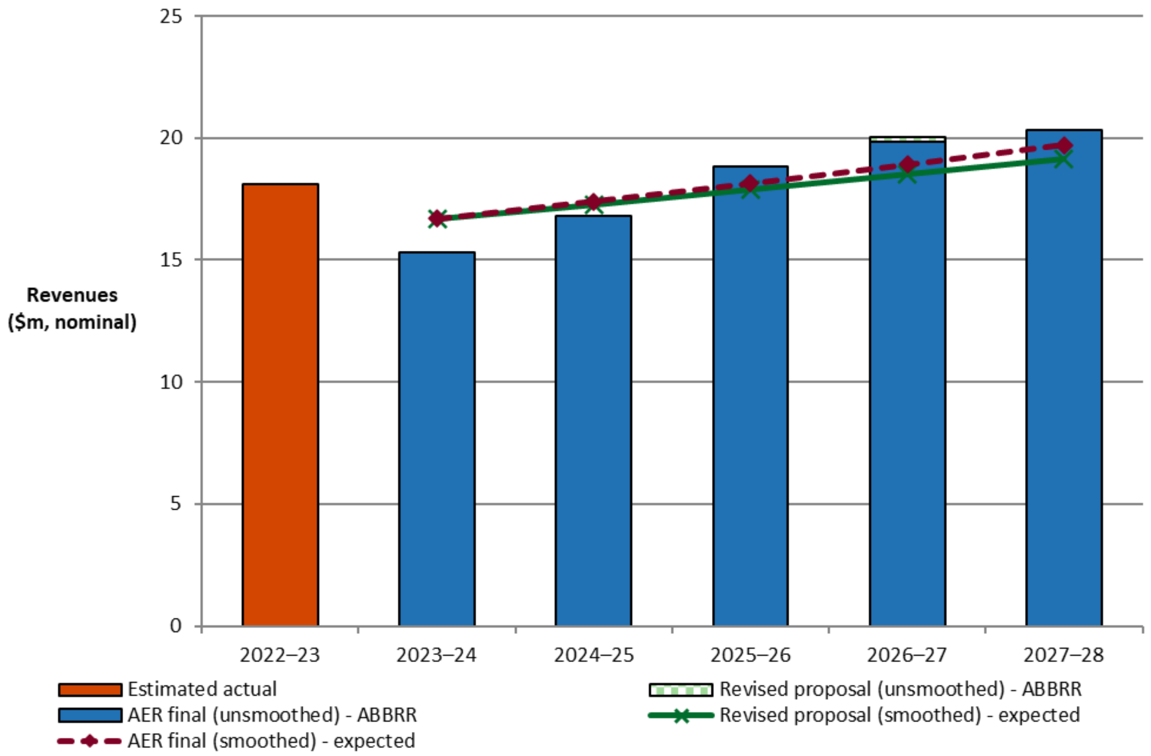
1.4.1 X factor, annual expected MAR and estimated total revenue cap

For this final decision, we determine an X factor for Murraylink of –1.30% per annum for the four years of the regulatory control period from 2024–25 to 2027–28.[11] The net present value (NPV) of the annual building block revenue requirement is $77.0 million ($ 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 Murraylink is $16.7 million in 2023–24 increasing to $19.7 million in 2027–28 ($ nominal). The resulting estimated total revenue cap for Murraylink is $90.9 million for the 2023–28 period.

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

11 Murraylink 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 Murraylink'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 Murraylink, we have set the MAR for the first regulatory year at $16.7 million ($ nominal) which is $1.4 million higher 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 –1.30% per annum 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 1.7% per annum ($ nominal) in the expected MAR over the 2023–28 period.[14] This consists of an initial decrease of 7.8% from 2022–23 to 2023–24, followed by average annual increases of 4.3% 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 Murraylink, this divergence is around 3.0%.

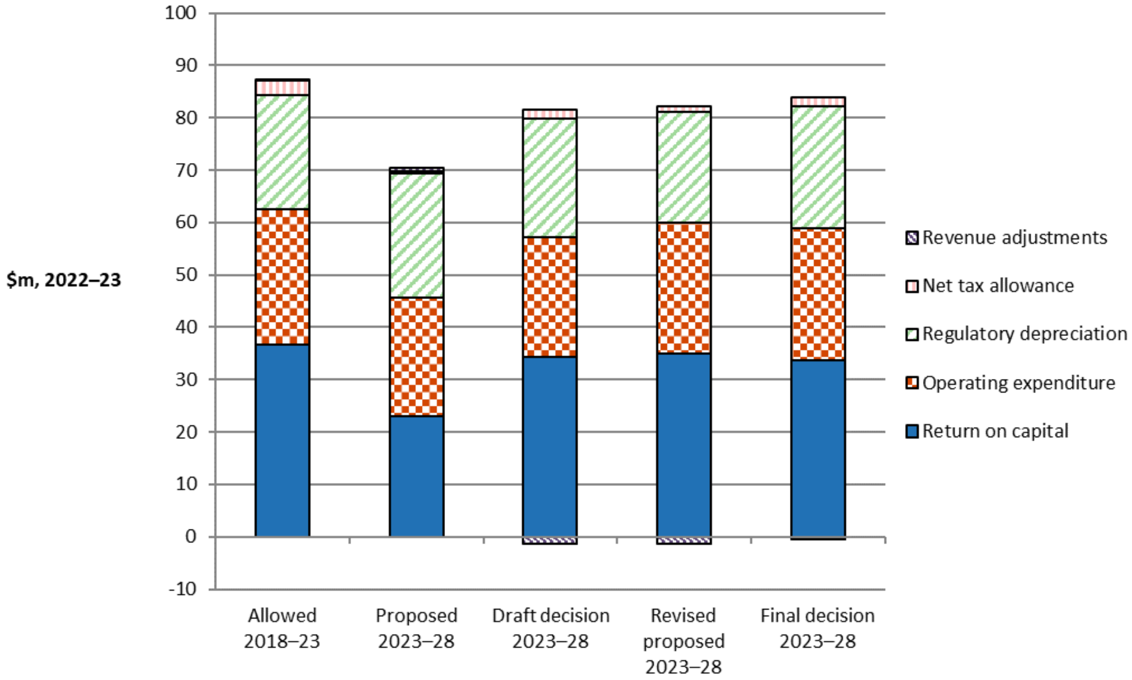
14 In real 2022–23 dollar terms, the average decrease in our approved expected MAR for Murraylink is 1.2% per annum over the 2023–28 period.

15 In real 2022–23 dollar terms, this consists of an initial decrease of 10.4% from 2022–23 to 2023–24, followed by an annual average increases of 1.3% during the remainder of the 2023–28 period.

Our final decision also results in the average annual unsmoothed revenue to be 4.5% lower than that allowed in the 2018–23 period, in real terms ($2022–23). This is mainly because we have determined a lower return on capital amount, due to a declining RAB 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 Murraylink's 2023–28 period with Murraylink'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

Murraylink does not have any shared assets.[16] Consistent with our draft decision, we confirm our assessment that Murraylink does not provide any unregulated services and therefore does not earn unregulated revenue.

1.4.3 Indicative transmission charges

Murraylink is an interconnector that delivers electricity between the South Australian and Victorian regions of the National Electricity Market. Its regulated revenue is recovered through transmission charges in South Australia and Victoria established by the coordinating network service providers.[17] Charges are allocated according to the value of Murraylink's assets in each State. Therefore, our draft decision on Murraylink's expected MAR will

16 Murraylink, Murraylink – Attachment 5 – PTRM Revised Proposal – 2 December 2022

17 The respective coordinating network service providers in South Australia and Victoria are ElectraNet and AEMO.

ultimately have some effect on the annual electricity bills paid by customers in South Australia and Victoria.

We are currently assessing ElectraNet's revenue proposal for the 2023–28 period, which coincides with Murraylink's regulatory control period.[18] Therefore, we have provided an estimate of the combined effect of the final decisions for the ElectraNet and Murraylink's transmission determinations on forecast average transmission charges in South Australia over the 2023–28 period. This is included in our final decision for ElectraNet's 2023–28 transmission determination.[19]

18 ElectraNet is the main transmission network service provider for South Australia. AusNet Services is the main transmission network service provider for Victoria. AusNet Services' transmission determination for the 2022–27 regulatory control period was completed in January 2022, and therefore does not align with Murraylink's regulatory control period. As a result, the bill impact for Victorian customers in AusNet Services' transmission determination published in January 2022 did not incorporate this final decision for Murraylink.

19 AER, *Final Decision, ElectraNet 2023–28 – Attachment 1 – Maximum Allowed Revenue*, April 2023, pp. 12–15.

Glossary

Term	Definition
ABS	Australian Bureau of Statistics
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
AR	Allowed revenue
Capex	Capital expenditure
CESS	Capital expenditure sharing scheme
CPI	Consumer price index
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