



FINAL DECISION

Directlink Transmission Determination 2020 to 2025

Attachment 1 Maximum allowed revenue

June 2020

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Inquiries about this publication should be addressed to:

Australian Energy Regulator
GPO Box 520
Melbourne Vic 3001

Tel: 1300 585 165

Email: AERInquiry@aer.gov.au

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Note

This attachment forms part of the AER's final decision on Directlink's 2020–25 transmission determination. It should be read with all other parts of the final decision.

The final decision includes the following attachments:

Overview

Directlink's transmission determination 2020–2025

Attachment 1 – Maximum allowed revenue

Attachment 2 – Regulatory asset base

Attachment 4 – Regulatory depreciation

Attachment 5 – Capital expenditure

Attachment 6 – Operating expenditure

Attachment 7 – Corporate income tax

Attachment A – Pricing methodology

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1 Maximum allowed revenue

This attachment sets out our final decision on Directlink's maximum allowed revenue (MAR) for the provision of prescribed transmission services over the 2020–25 regulatory control period. Specifically, it sets out our final decision on:¹

- the annual building block revenue requirements (unsmoothed)
- the annual expected MARs (smoothed)
- the estimated total revenue cap, which is the sum of the annual expected MARs
- the X factors.

We determine Directlink'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 of \$77.4 million (\$nominal, unsmoothed) for Directlink for the 2020–25 regulatory control period. Our determination represents a reduction of \$5.1 million (\$nominal) or 6.2 per cent to Directlink's revised proposal and reflects the impact of our final decisions on the various building block costs. For the reasons discussed in the attachments to this final determination, our decisions on Directlink's revised proposed building block costs have a consequential impact on its annual building block revenue requirement.

We determine the annual expected MAR (smoothed) and X factor for each regulatory year of the 2020–25 regulatory control period by smoothing the annual building block revenue requirement. Our final decision is to approve an estimated total revenue cap of \$77.3 million (\$nominal) for Directlink for the 2020–25 regulatory control period. Our approved X factor for 2021–22 to 2024–25 is –1.57 per cent per annum.²

Table 1.1 sets out our final decision on Directlink's annual building block revenue requirement, the X factor, the annual expected MAR and the estimated total revenue cap for the 2020–25 regulatory control period.

¹ NER, cl. 6A.4.2(a)(1)–(3), 6A.5.3(c) and 6A.6.8.

² Directlink is not required to apply an X factor for 2020–21 because we set the 2020–21 MAR in this decision.

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

	2020–21	2021–22	2022–23	2023–24	2024–25	Total
Return on capital	6.6	6.6	6.5	6.4	6.3	32.4
Regulatory depreciation ^a	3.6	4.0	4.5	4.9	5.4	22.4
Operating expenditure ^b	4.7	4.8	5.0	5.2	5.3	25.0
Revenue adjustments ^c	-0.8	-1.5	-0.7	-0.3	0.0	-3.3
Net tax allowance	0.2	0.2	0.1	0.1	0.2	0.8
Annual building block revenue requirement (unsmoothed)	14.3	14.1	15.5	16.4	17.2	77.4
Annual expected MAR (smoothed)	14.3	14.9	15.4	16.0	16.7	77.3^d
X factor (%) ^e	n/a ^f	-1.57%	-1.57%	-1.57%	-1.57%	n/a

Source: AER analysis.

- (a) Regulatory depreciation is straight-line (SL) depreciation net of the inflation indexation on the opening RAB.
- (b) Includes debt raising costs.
- (c) Includes revenue adjustments from the efficiency benefit sharing scheme (EBSS) and the 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) Directlink is not required to apply an X factor for 2020–21 because we set the 2020–21 MAR in this decision. The MAR for 2020–21 is around 4.44 per cent lower than the approved MAR for 2019–20 in real terms, or 2.26 per cent lower in nominal terms.

1.2 Directlink's revised proposal

Directlink's revised proposal included a total (smoothed) revenue cap of \$82.5 million (\$nominal) for the 2020–25 regulatory control period.

Table 1.2 sets out Directlink's revised proposed annual building block revenue requirement, the X factor, the annual expected MAR and the estimated total revenue cap.

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

	2020–21	2021–22	2022–23	2023–24	2024–25	Total
Return on capital	6.7	6.6	6.6	6.5	6.4	32.9
Regulatory depreciation ^a	3.6	3.9	4.4	4.8	5.3	22.0
Operating expenditure ^b	5.7	5.9	6.0	6.2	6.3	30.0
Revenue adjustments ^c	-0.8	-1.5	-0.6	-0.3	0.1	-3.1
Net tax allowance	0.2	0.2	0.1	0.1	0.1	0.7
Annual building block revenue requirement (unsmoothed)	15.3	15.1	16.5	17.4	18.3	82.5
Annual expected MAR (smoothed)	15.3	15.9	16.5	17.1	17.7	82.5^d
X factor (%)	n/a ^e	-1.45%	-1.45%	-1.45%	-1.45%	n/a

Source: Directlink, *Revised revenue proposal 2020-25*, 10 December 2019, pp. 31–32.

- (a) Regulatory depreciation is SL depreciation net of the inflation indexation on the opening RAB.
- (b) Includes debt raising costs.
- (c) Includes revenue adjustments from EBSS and CESS.
- (d) The estimated total revenue cap is equal to the total annual expected MAR.
- (e) Directlink is not required to apply an X factor for 2020–21 because we set the 2020–21 MAR in this decision.

1.3 Assessment approach

We did not change our assessment approach for the MAR from our draft decision. Attachment 1 (section 1.3) of our draft decision details that approach.³

1.4 Reasons for final decision

For this final decision, we determine a total annual building block revenue requirement of \$77.4 million (\$nominal, unsmoothed) for Directlink for the 2020–25 regulatory control period. This is a reduction of \$5.1 million (\$nominal) or 6.2 per cent to Directlink's revised proposed total annual building block revenue requirement of \$82.5 million (\$nominal) for this period. This reflects the impact of our final decision on the various building block costs.

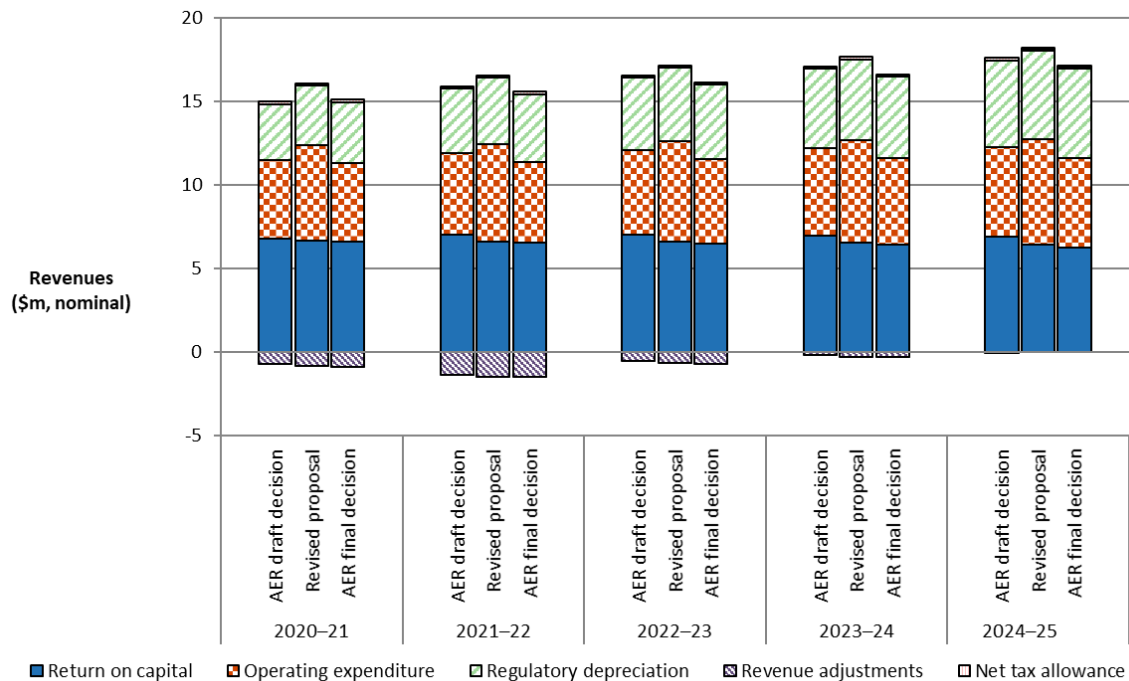
Figure 1.1 shows the building block components from our determination that make up the annual building block revenue requirement for Directlink, and the corresponding components from its revised proposal and our draft decision.

³ AER, *Directlink 2020–25 Transmission Determination – Draft Decision – Attachment 1 – Maximum allowed revenue*, October 2019, pp. 7–12.

The changes we made to Directlink's revised proposed building blocks include (in nominal terms):

- a reduction in the return on capital allowance of \$0.5 million or 1.4 per cent (section 2.2 of the Overview and attachments 2 and 5)
- an increase in the regulatory depreciation allowance of \$0.4 million or 1.8 per cent (attachment 4)
- a reduction in the operating expenditure (opex) allowance of \$5.0 million or 16.6 per cent (attachment 6)
- a marginal increase in the cost of corporate income tax of 6.8 per cent (attachment 7)
- a reduction in the revenue adjustments of \$0.1 million or 3.9 per cent (sections 3.1 and 3.2 of the Overview).

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



Source: Directlink, *Revised revenue proposal 2020-25, Attachment 8-1 - Post Tax Revenue Model*, 10 December 2019; AER analysis.

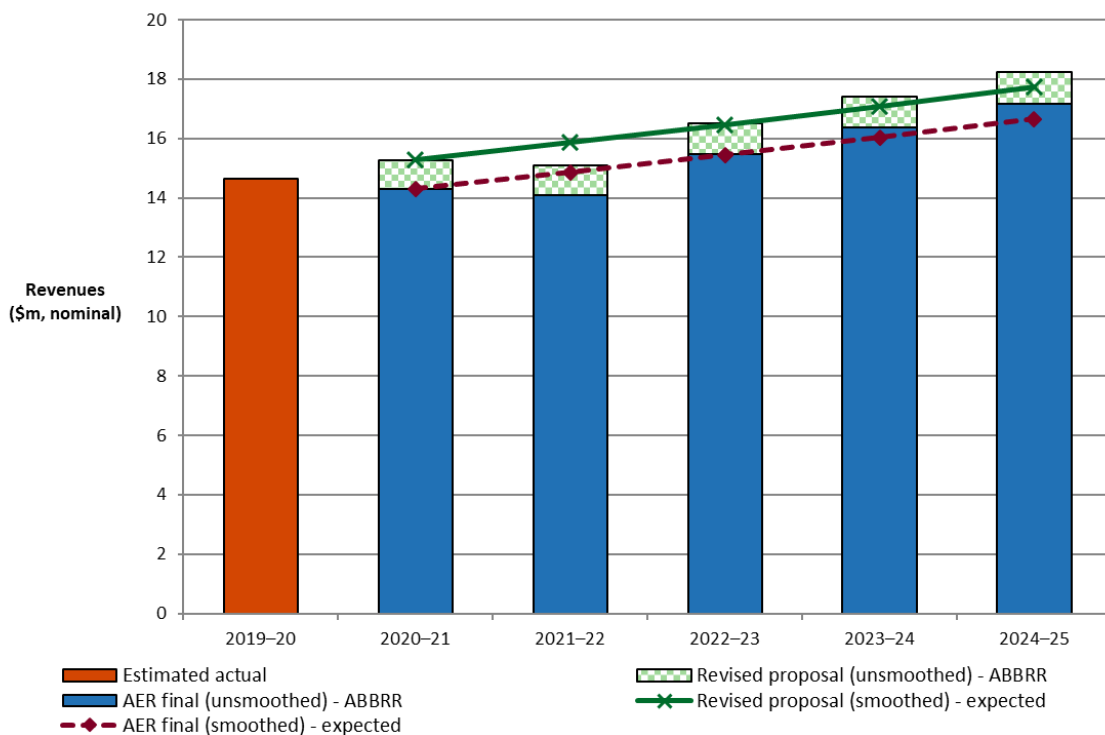
Note: Revenue adjustments include EBSS and CESS amounts. Opex includes debt raising costs.

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

For this final decision, we determine an X factor for Directlink of -1.57 per cent per annum for the four years of the regulatory control period from 2021–22 to 2024–25.⁴ The net present value (NPV) of the annual building block revenue requirement is \$67.9 million (\$nominal) as at 1 July 2020. Based on this NPV and applying the CPI-X method, we determine that the annual expected MAR (smoothed) for Directlink is \$14.3 million in 2020–21 increasing to \$16.7 million in 2024–25 (\$nominal). The resulting estimated total revenue cap for Directlink is \$77.3 million for the 2020–25 regulatory control period.

Figure 1.2 shows our final decision on Directlink's annual expected MAR (smoothed revenue) and the annual building block revenue requirement (unsmoothed revenue) for the 2020–25 regulatory control period.

Figure 1.2 AER's final decision on Directlink's revenue for the 2020–25 regulatory control period (\$million, nominal)



Source: AER analysis.

Note: Annual building block revenue requirement (ABBRR).

⁴ Directlink is not required to apply an X factor for 2020–21 because we set the 2020–21 MAR in this decision.

To determine the estimated total revenue cap for Directlink, we have set the MAR for the first regulatory year at \$14.3 million (\$nominal) which is approximately equal to the annual building block revenue requirement for that year. We then apply an expected inflation rate of 2.27 per cent per annum and an X factor of –1.57 per cent per annum to determine the expected MAR in subsequent years.⁵ 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.⁶

Our final decision results in an average increase of 2.62 per cent per annum (\$nominal) in the expected MAR over the 2020–25 regulatory control period.⁷ This consists of an initial decrease of 2.26 per cent from 2019–20 to 2020–21, followed by average annual increases of 3.88 per cent during the remainder of the 2020–25 regulatory control period.⁸ Our final decision also results in an increase of 3.1 per cent in real terms (\$2019–20) to Directlink's average annual allowed revenue relative to that in the 2015–20 regulatory control period. This is primarily due to a marginal increase in the RAB over the current regulatory control period and an increased regulatory depreciation amount largely offset by a lower capex allowance and rate of return in this final decision for the 2020–25 regulatory control period than that approved in the 2015–20 determination.

Figure 1.3 compares our final decision building blocks for Directlink's 2020–25 regulatory control period with Directlink's revised proposed revenue requirement for the same period, and the approved revenue for the 2015–20 regulatory control period.

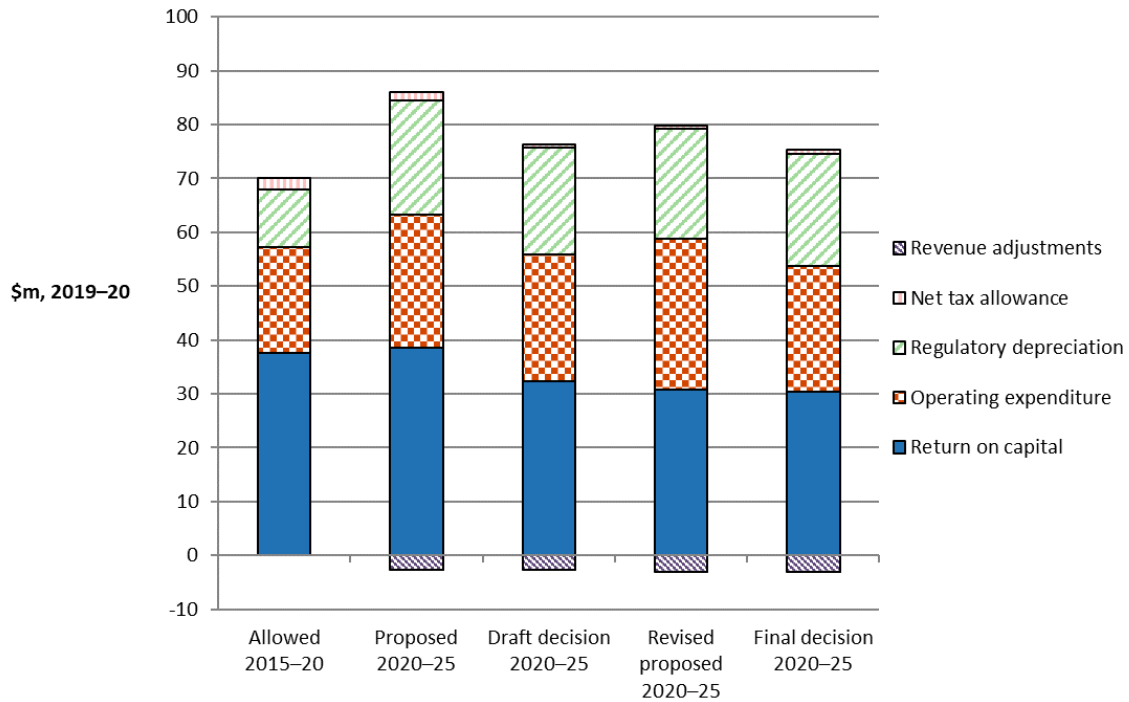
⁵ NER, cl. 6A.5.3(c)(3).

⁶ NER, cl. 6A.6.8(c)(2). We consider a divergence of up to 3 per cent 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 Directlink, this divergence is around 3.0 per cent.

⁷ In real 2019–20 dollar terms, our approved expected MAR for Directlink results in an average decrease of 0.34 per cent per annum over the 2020–25 regulatory control period.

⁸ In real 2019–20 dollar terms, this consists of an initial decrease of 4.44 per cent from 2019–20 to 2020–21, followed by annual average increases of 1.57 per cent during the remainder of the 2020–25 regulatory control period.

Figure 1.3 Total revenue by building block components (\$million, 2019–20)



Source: AER analysis.

1.4.2 Shared assets

Our final decision is not to apply a shared asset revenue adjustment to Directlink's total revenue cap for the 2020–25 regulatory control period.

Service providers, such as Directlink, may use assets to provide both prescribed transmission services we regulate and unregulated services. These assets are called 'shared assets'.⁹ If the revenue from shared assets is material, ten per cent of the unregulated revenues that a service provider earns from shared assets will be used to reduce the service provider's revenue for prescribed transmission services.¹⁰

The shared asset principles state that use of the asset other than for prescribed transmission services should be material before a shared asset cost reduction is applied.¹¹ The NER does not define materiality in this context. Our approach to what constitutes a material use of shared assets is that unregulated use of shared assets in a specific regulatory year is material when a service provider's annual average

⁹ NER, cl. 6A.5.5.

¹⁰ AER, *Shared asset guideline*, November 2013, p. 15.

¹¹ NER, cl. 6A.5.5(c)(3).

unregulated revenue from shared assets is expected to be greater than one per cent of its MAR for that regulatory year.¹²

In our draft decision, we did not apply a shared asset revenue adjustment to Directlink's total revenue cap because it forecast zero unregulated shared asset revenues in each year of the 2020–25 regulatory control period.¹³ This continues to be the case in our final decision. We note that unregulated revenues from shared assets may in future become material. We will monitor Directlink's shared asset unregulated revenues.

1.4.3 Indicative average transmission charges

Our final decision on Directlink's expected MAR ultimately affects the prices consumers pay for electricity. However, the adjustments we have made to Directlink's expected MAR do not directly translate to changes in consumers' electricity bills, principally because Directlink is a small component of the broader transmission network that serves NSW and the ACT. TransGrid is the main transmission network service provider (TNSP) in this region, and is the designated coordinating TNSP. Our 2018–23 transmission determination on TransGrid's expected MAR is the principal determinant of the estimated transmission charges, and therefore the estimated impact of transmission charges in NSW/ACT on consumers' electricity bills. Further, the transmission charges in this region are also affected by the 2019–24 revenue determinations for Ausgrid and Evoenergy's transmission assets.¹⁴ Directlink, just like Ausgrid and ActewAGL, collects its transmission revenues from TransGrid.

Transmission charges make up around 7 per cent of a typical total electricity bill in NSW¹⁵ and Directlink's revenue accounts for approximately 1.7 per cent of total NSW transmission revenues.¹⁶ Therefore, Directlink's revenue would be expected to account for 0.1 per cent of the total electricity bill in NSW.

We therefore estimate the forecast average transmission charges in NSW/ACT by:

- taking Directlink's annual expected MAR determined in this final decision, and
- dividing it by the forecast annual energy delivered in NSW/ACT as published by AEMO.¹⁷

¹² AER, *Shared asset guideline*, November 2013, p. 8.

¹³ Directlink, *Reset RIN final template 1 - Revenue determination transmission*, January 2019.

¹⁴ While Ausgrid and Evoenergy are predominantly electricity distribution businesses, they also own and operate some transmission assets. These assets operate in parallel and support TransGrid's transmission network to provide transmission network services to NSW and ACT.

¹⁵ Transmission proportion of total electricity bill as per AEMC's 2019 price trend report.

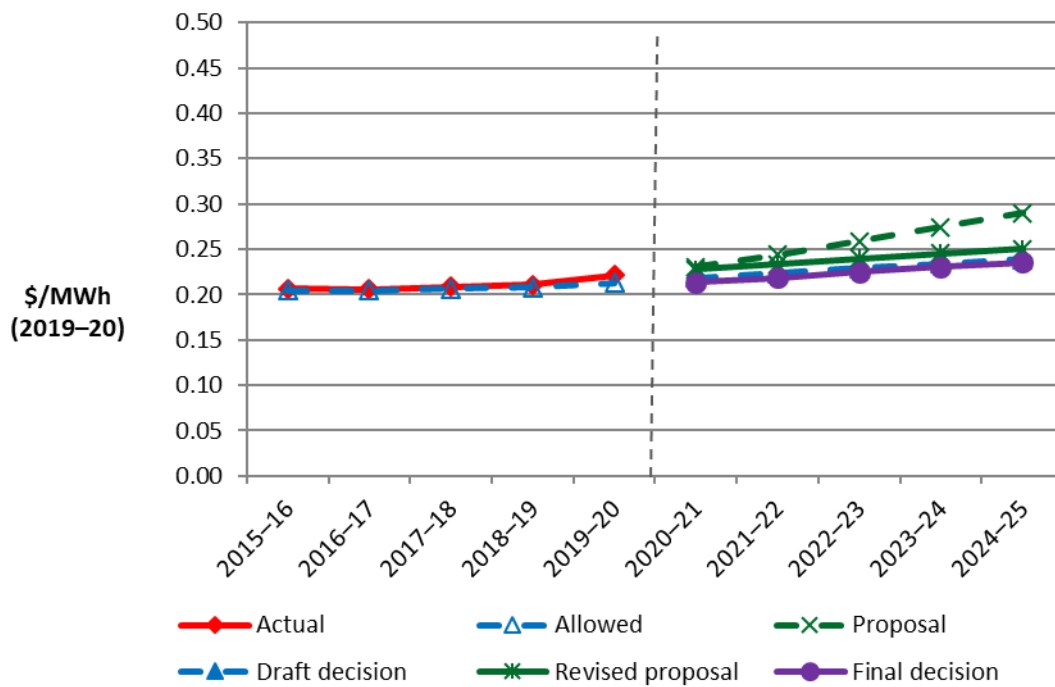
¹⁶ This represents Directlink's proportion of total transmission revenues in NSW, which consists of revenues from TransGrid, Ausgrid transmission, Evoenergy transmission and Directlink.

¹⁷ AEMO, *National Electricity and Gas forecasting - ISP 2019–20*, 7 January 2020.

Based on this approach, we estimate that this final decision will result in a negligible increase in annual average transmission charges from 2019–20 to 2024–25.¹⁸

Figure 1.4 shows the indicative average transmission charges over the period 2015–16 to 2024–25 in real 2019–20 dollar terms based on the expected revenues established in our final decision compared to Directlink's revised proposed revenue requirement. The average transmission charges are expected to increase from around \$0.22 per MWh in 2019–20 to \$0.24 per MWh in 2024–25.

Figure 1.4 Indicative transmission price path for Directlink (\$/MWh, \$2019–20)



Source: AER analysis.

Notes: The price path plots for the transmission network are based on actual and forecast energy throughput amounts for TransGrid's transmission network across NSW and ACT. This reflects that Directlink provides a small incremental transmission service to the broader TransGrid transmission network services.

1.4.4 Expected impact of combined decisions on electricity bills

The annual electricity bill for customers in NSW 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 Directlink's prescribed transmission services, which represent

¹⁸ On average, the final decision transmission revenues will increase by 2.6 per cent (\$nominal) per annum from 2019–20 to 2024–25. The forecast energy delivered in NSW will decrease by an average of 0.9 per cent per annum across that period. As a result, the indicative transmission charge will increase by 3.6 per cent (\$nominal) per annum from 2019–20 to 2024–25.

approximately 0.1 per cent on average for residential customers' and small business customers' annual electricity bill in NSW.

We estimate the expected bill impact by varying Directlink's transmission charges in accordance with our final decision, while holding all other components constant. This approach isolates the effect of our final decision on the core transmission charges for Directlink only. However, this does not imply that other components will remain unchanged across the regulatory control period.¹⁹

Based on this approach, we expect that our final decision on the transmission component will increase the average annual residential electricity bill in 2024–25 by about \$0.40 (\$nominal) or 0.02 per cent from the 2019–20 total bill level. By comparison, had we accepted Directlink's revised proposal, the expected change in the transmission component would increase the average annual residential electricity bill in 2024–25 by about \$0.50 (\$nominal) or 0.03 per cent from the 2019–20 total bill level.

Similarly, for an average small business customer in NSW, we expect that our final decision on the transmission component will increase the average annual small business electricity bill in 2024–25 by about \$1.70 (\$nominal) or 0.02 per cent from the 2019–20 total bill level. By comparison, had we accepted Directlink's revised proposal, the expected change in the transmission component would increase the average small business customer's electricity bill in 2024–25 by about \$2.40 (\$nominal) or 0.03 per cent from the 2019–20 total bill level.

Our estimated impact is based on an average annual electricity usage of around 4350 kWh per annum for residential households²⁰ and 20000 kWh per annum for small businesses.²¹ 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.

¹⁹ It also assumes that actual energy consumption will equal the forecast adopted in our final decision. Since Directlink operates under a revenue cap, changes in energy consumption will also affect annual electricity bills across the 2020–25 regulatory control period.

²⁰ AER, *Final determination, Default Market Offer Prices 2019-20*, April 2019, p. 8. This is a weighted average of the typical electricity consumption for residential customers in the Ausgrid, Endeavour and Essential networks, with the weights being the number of residential customers on each network.

²¹ AER, *Final determination, Default Market Offer Prices 2019-20*, April 2019, p. 8. This is an average of the typical electricity consumption for small business customers in the Ausgrid, Endeavour and Essential networks.

Shortened forms

Shortened form	Extended form
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
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
RIN	regulatory information notice
SL	straight-line
TNSP	transmission network service provider