



DRAFT DECISION
Ausgrid
Distribution determination

2019–24

**Attachment 1 – Annual revenue
requirement**

November 2018

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Note

This attachment forms part of the AER's draft decision on the distribution determination that will apply to Ausgrid for the 2019–24 regulatory control period. It should be read with all other parts of the draft decision.

The draft decision includes the following attachments:

Overview

Attachment 1 – Annual revenue requirement

Attachment 2 – Regulatory asset base

Attachment 3 – Rate of return

Attachment 4 – Regulatory depreciation

Attachment 5 – Capital expenditure

Attachment 6 – Operating expenditure

Attachment 7 – Corporate income tax

Attachment 8 – Efficiency benefit sharing scheme

Attachment 9 – Capital expenditure sharing scheme

Attachment 10 – Service target performance incentive scheme

Attachment 11 – Demand management incentive scheme

Attachment 12 – Classification of services

Attachment 13 – Control mechanism

Attachment 14 – Pass through events

Attachment 15 – Alternative control services

Attachment 16 – Negotiated services framework and criteria

Attachment 17 – Connection policy

Attachment 18 - Tariff structure statement

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Shortened forms

Shortened form	Extended form
AER	Australian Energy Regulator
ARR	annual revenue requirement
capex	capital expenditure
CESS	capital expenditure sharing scheme
CPI	consumer price index
distributor	distribution network service provider
DMIAM	demand management innovation allowance mechanism
kWh	kilowatt-hour
MWh	megawatt-hour
NER	National Electricity Rules
NSW	New South Wales
opex	operating expenditure
PTRM	post-tax revenue model
RAB	regulatory asset base
RIN	regulatory information notice

1 Annual revenue requirement

This attachment sets out our draft decision on Ausgrid's annual revenue requirements (ARRs) and expected revenues for the 2019–24 regulatory control period for its distribution and transmission (dual function assets) networks. Ausgrid's dual function assets are high voltage assets which support the broader NSW/ACT transmission network owned and operated by TransGrid. The AER has decided to apply transmission pricing to these assets.¹

The ARR is the sum of the various building block costs for each year of the regulatory control period before smoothing. The ARRs are smoothed across the period to reduce fluctuations between years and to determine expected revenues for each year. The expected revenues are the amounts that Ausgrid will target for annual pricing purposes and recover from customers for the provision of standard control services for each year of the regulatory control period.

1.1 Draft decision

We do not accept Ausgrid's proposed total ARR of \$7981.9 million and \$948.5 million (\$ nominal) over the 2019–24 regulatory control period for its distribution and transmission networks respectively. This is because we have not accepted the building block costs in Ausgrid's proposal. We determine a total ARR for Ausgrid for the 2019–24 regulatory control period, reflecting our draft decision on the various building block costs, of:²

- \$7433.4 million (\$ nominal) for its distribution network. This is a reduction of \$548.5 million (\$ nominal) or 6.9 per cent to Ausgrid's proposal.
- \$549.8 million (\$ nominal) for its transmission network. This is a reduction of \$398.8 million (\$ nominal) or 42.0 per cent to Ausgrid's proposal.

Our draft decision includes an estimated net total of \$288.0 million (\$ 2018–19) being returned to customers over the 2019–24 regulatory control period, as proposed in Ausgrid's remittal proposal for the 2014–19 period.³ This amount is:

- Based on the difference between the revenues Ausgrid recovered during the 2014–19 period (where it set network charges in accordance with enforceable

¹ AER, *Framework and approach Ausgrid, Endeavour Energy and Essential Energy Regulatory control period commencing 1 July 2019*, July 2017, p. 13.

² This comparison is made to Ausgrid's proposal for the 2019–24 regulatory control period. Our draft decision also includes a –\$288 million revenue adjustment (at 30 June 2019) reflecting Ausgrid's remittal proposal for the 2014–19 regulatory control period, which was made subsequent to lodgement of its proposal for the 2019–24 period. Therefore, this negative revenue adjustment was not included in Ausgrid's proposal for the 2019–24 period.

³ Ausgrid, *Proposal for the remake of Ausgrid's 2014–19 distribution determination*, 15 August 2018, p. 1.

undertakings during 2016–17 to 2018–19)⁴ and the revenues in Ausgrid's remittal proposal.⁵

- Comprised of our estimate of \$38.1 million to be included in the total revenues for Ausgrid's distribution network. We treat this as a positive revenue adjustment in establishing the 2019–20 ARR for Ausgrid's distribution network and we smooth this out as part of setting the expected revenues over the 2019–24 regulatory control period.
- Comprised of our estimate of \$326.1 million to be removed from the total revenues for Ausgrid's transmission network. We treat this as a negative revenue adjustment in establishing the 2019–20 ARR for Ausgrid's distribution network and we smooth this out as part of setting the expected revenues over the 2019–24 regulatory control period.

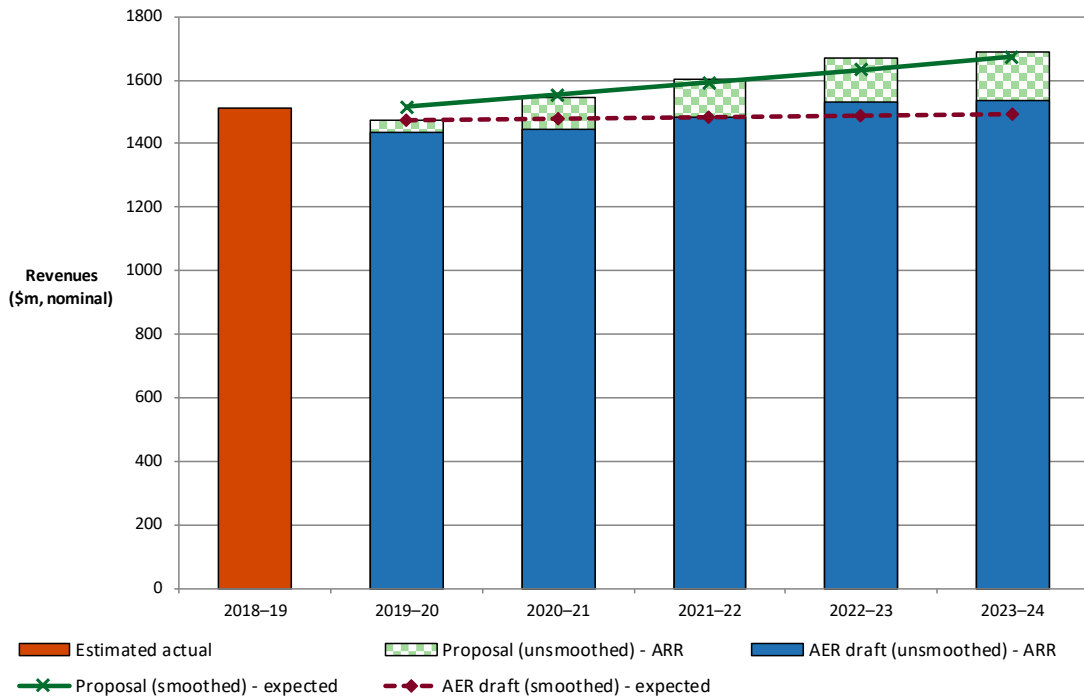
We determine the annual expected revenue (smoothed) and X factor for each regulatory year of the 2019–24 regulatory control period by smoothing the ARR. Our draft decision is to approve total expected revenues (smoothed) of \$7420.7 million and \$519.7 million (\$ nominal) for the 2019–24 regulatory control period for Ausgrid's distribution and transmission networks respectively.

Figure 1.1 and Figure 1.2 show the difference between Ausgrid's proposal and our draft decision for Ausgrid's distribution and transmission networks respectively.

⁴ The undertakings from Ausgrid addressed pricing uncertainties arising from limited merits and judicial review processes.

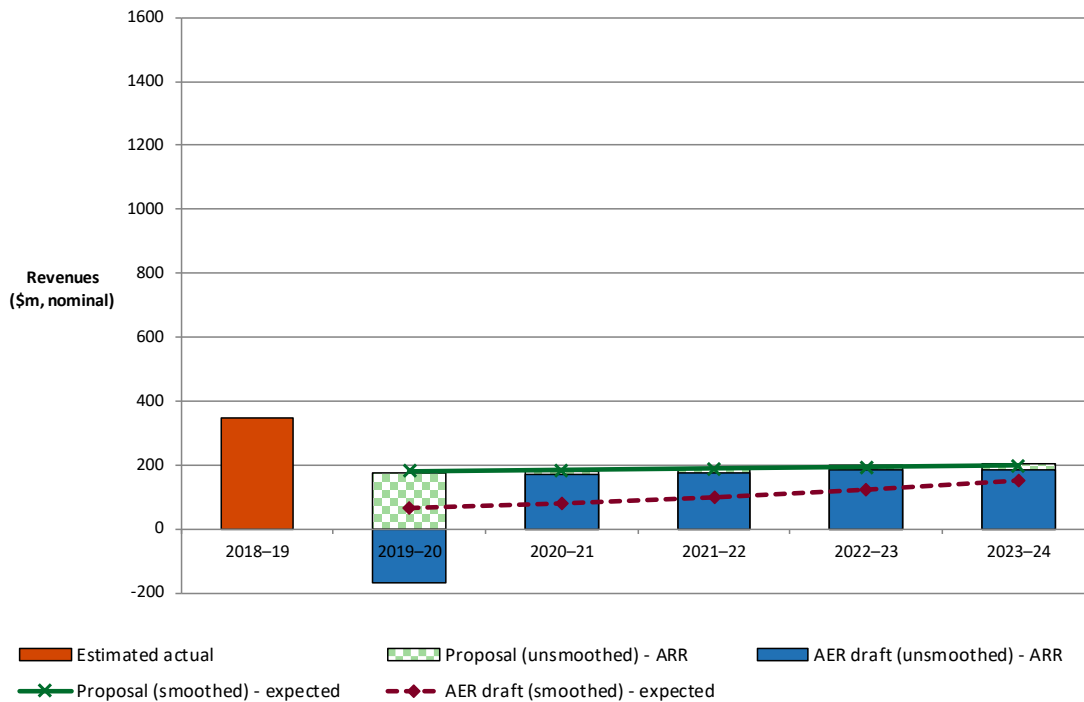
⁵ The AER will need to make an 'Adjustment determination' for Ausgrid under clause 8A.14.5 of the NER.

Figure 1.1 AER's draft decision on Ausgrid's revenue for the 2019–24 regulatory control period – distribution (\$million, nominal)



Source: AER analysis; Ausgrid, *Attachment 4.02 – Distribution PTRM*, April 2018.

Figure 1.2 AER's draft decision on Ausgrid's revenue for the 2019–24 regulatory control period – transmission (\$million, nominal)



Source: AER analysis; Ausgrid, *Attachment 4.05 – Transmission PTRM*, April 2018.

Table 1.1 and Table 1.2 show our draft decision on the building block costs, the ARR, annual expected revenue and X factor for each year of the 2019–24 regulatory control period for Ausgrid's distribution and transmission networks respectively.

Table 1.1 AER's draft decision on Ausgrid's revenues for the 2019–24 regulatory control period – distribution (\$million, nominal)

	2019–20	2020–21	2021–22	2022–23	2023–24	Total
Return on capital	820.0	825.8	826.4	824.8	820.5	4117.5
Regulatory depreciation ^a	92.2	111.8	132.7	152.9	147.8	637.4
Operating expenditure ^b	431.1	445.9	464.6	483.5	501.6	2326.6
Revenue adjustments ^c	59.5	20.8	21.3	21.8	22.3	145.8
Net tax allowance	34.1	38.8	40.4	48.5	44.2	206.1
Annual revenue requirement (unsmoothed)	1436.9	1443.1	1485.4	1531.5	1536.5	7433.4
Annual expected revenue (smoothed)	1473.0	1478.6	1484.1	1489.7	1495.3	7420.7
X factor ^d	n/a ^e	2.00%	2.00%	2.00%	2.00%	n/a

Source: AER analysis.

- (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 the capital expenditure sharing scheme (CESS), demand management innovation mechanism (DMIAM) and an amount resulting from Ausgrid's remittal proposal for the 2014–19 regulatory control period.
- (d) 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. An X factor of 0% means the revenue is unchanged in real terms from year to year.
- (e) Ausgrid is not required to apply an X factor for 2019–20 because we set the 2019–20 expected revenue in this decision. The expected revenue for 2019–20 is around 4.8 per cent lower than the expected revenue for 2018–19 in real terms or 2.4 per cent lower in nominal terms.

Table 1.2 AER's draft decision on Ausgrid's revenues for the 2019–24 regulatory control period – transmission (\$million, nominal)

	2019–20	2020–21	2021–22	2022–23	2023–24	Total
Return on capital	114.1	115.0	114.9	115.7	116.3	576.0
Regulatory depreciation ^a	11.2	14.7	18.5	22.0	22.5	88.9
Operating expenditure ^b	36.2	37.5	39.0	40.5	42.1	195.3
Revenue adjustments ^c	-333.5	2.2	2.3	2.3	2.4	-324.3
Net tax allowance	2.0	2.3	2.5	3.3	3.6	13.8
Annual revenue requirement (unsmoothed)	-170.0 ^d	171.8	177.2	183.8	187.0	549.8
Annual expected revenue (smoothed)	66.6	81.6	99.8	122.2	149.5	519.7
X factor ^e	n/a ^f	-19.50%	-19.50%	-19.50%	-19.50%	n/a

Source: AER analysis.

- (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 the capital expenditure sharing scheme (CESS) and an amount resulting from Ausgrid's remittal proposal for the 2014–19 regulatory control period.
- (d) This negative ARR is due to the inclusion of a large negative revenue adjustment in 2019–20 arising from Ausgrid's remittal proposal for the 2014–19 regulatory control period and will be smoothed out in setting the annual expected revenues.
- (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) Ausgrid is not required to apply an X factor for 2019–20 because we set the 2019–20 expected revenue in this decision. The expected revenue for 2019–20 is around 81.2 per cent lower than the expected revenue for 2018–19 in real terms or 80.7 per cent lower in nominal terms.

1.2 Ausgrid's proposal

Ausgrid proposed a total revenue requirement of \$7981.9 million and \$948.5 million (\$ nominal) for the 2019–24 regulatory control period for its distribution and transmission networks respectively. These did not include a (net negative) revenue adjustment expected to occur from a remittal process for the 2014–19 regulatory control period. Subsequent to the lodgement of its proposal, Ausgrid submitted a remittal proposal setting out a net total amount of \$288.0 million at 30 June 2019 to be returned to customers in the 2019–24 regulatory control period.⁶

⁶ Ausgrid, *Proposal for the remake of Ausgrid's 2014–19 distribution determination*, 15 August 2018, p. 1.

Table 1.3 and Table 1.4 show Ausgrid's proposed building block costs, the ARR, expected revenue and X factor for each year of the 2019–24 regulatory control period for its distribution and transmission networks respectively.

Table 1.3 Ausgrid's proposed revenues for the 2019–24 regulatory control period – distribution (\$million, nominal)

	2019–20	2020–21	2021–22	2022–23	2023–24	Total
Return on capital	873.3	892.9	905.7	914.8	920.8	4507.4
Regulatory depreciation	82.7	106.9	130.0	153.8	152.4	625.7
Operating expenditure ^a	445.3	464.0	485.8	507.1	527.4	2429.6
Revenue adjustments ^b	20.3	20.7	21.2	21.8	22.3	106.2
Net tax allowance	52.4	58.8	61.3	72.8	67.6	313.0
Annual revenue requirement (unsmoothed)	1473.9	1543.3	1604.0	1670.2	1690.5	7981.9
Annual expected revenue (smoothed)	1516.6	1554.5	1593.4	1633.2	1674.1	7971.9
X factor	n/a ^c	0.00%	0.00%	0.00%	0.00%	n/a

Source: Ausgrid, *Attachment 4.02 - Distribution PTRM*, April 2018.

- (a) Includes debt raising costs.
- (b) Includes revenue adjustments from CESS and DMIAM.
- (c) Ausgrid is not required to apply an X factor for 2019–20 because we set the 2019–20 expected revenue in this decision.

Table 1.4 Ausgrid's proposed revenues for the 2019–24 regulatory control period – transmission (\$million, nominal)

	2019–20	2020–21	2021–22	2022–23	2023–24	Total
Return on capital	121.2	123.7	124.8	126.8	129.9	626.3
Regulatory depreciation	9.3	13.8	18.1	22.2	23.3	86.8
Operating expenditure ^a	37.5	39.1	40.9	42.7	44.4	204.7
Revenue adjustments ^b	2.6	2.7	2.7	2.8	2.9	13.7
Net tax allowance	2.4	2.7	3.1	4.1	4.7	17.1
Annual revenue requirement (unsmoothed)	173.1	182.0	189.6	198.6	205.2	948.5
Annual expected revenue (smoothed)	180.1	184.6	189.2	193.9	198.8	946.5
X factor	n/a ^c	0.00%	0.00%	0.00%	0.00%	n/a

Source: Ausgrid, *Attachment 4.05 - Transmission PTRM*, April 2018.

- (a) Includes debt raising costs.
- (b) Includes revenue adjustments from CESS.
- (c) Ausgrid is not required to apply an X factor for 2019–20 because we set the 2019–20 expected revenue in this decision.

1.3 AER's assessment approach

In this section, we describe the approach used to determine the ARR and expected revenue for Ausgrid for each year of the 2019–24 regulatory control period.⁷

In this determination we first calculate the ARR for each year of the 2019–24 regulatory control period. To do this we consider the various costs facing the distributor and the trade-offs and interactions between these costs, service quality and across years. This reflects our holistic assessment of the distributor's proposal.

The ARR for each year is the sum of the building block costs. These building block costs are set out in section 1.3.1. The AER's post-tax revenue model (PTRM) brings together these building block costs and calculates the resulting ARRs.

We understand the trade-offs that occur between building block costs and test the sensitivity of these costs to their various driver elements. These trade-offs are discussed in the interrelationships section of the various attachments to this draft decision and are reflected in the calculations made in the PTRM.⁸ Such understanding allows us to exercise judgement in determining the final inputs into the PTRM and the ARRs that result from this modelling.

Having calculated the total revenue requirement for the 2019–24 regulatory control period, we smooth the ARRs for each regulatory year across that period. This step reduces revenue variations between years, and calculates the expected revenue and X factor for each year.⁹ The X factors equalise (in net present value terms) the total expected revenues to be earned by the distributor with the total revenue requirement for the 2019–24 regulatory control period.¹⁰ They must usually minimise, as far as reasonably possible, the variance between the expected revenue and ARR for the last regulatory year of the period.¹¹ By minimising this divergence, it helps to manage the prospect of a significant revenue change (and consequently prices) between the last year of the 2019–24 regulatory control period, and first year of the following 2024–29 regulatory control period. We therefore consider a divergence of up to 3 per cent between the expected revenue and ARR for the last year of the regulatory control period is reasonable, if this can promote smoother price changes over the regulatory control period.

⁷ NER, cl. 6.3.2(a)(1) and 6.5.9(b)(2).

⁸ There are trade-offs that are not modelled in the PTRM but are reflected in the inputs to the PTRM. For example, service quality is not explicitly modelled in the PTRM, but the trade-offs between service quality and price are reflected in the forecast capex and opex inputs to the model. Other trade-offs are obvious from the calculations in the PTRM. For example, while someone may expect a lower regulatory asset base to also lower revenues, the PTRM shows that this will not occur if the reduction in the regulatory asset base is due solely to an increase in the depreciation rate. In such circumstances, revenues increase as the increased depreciation allowance more than offsets the reduction in the return on capital caused by the lower regulatory asset base.

⁹ NER, cl. 6.5.9(a).

¹⁰ NER, cl. 6.5.9(b)(3)(i). The X factors represent the real revenue path over the 2019–24 regulatory control period under the CPI-X framework.

¹¹ NER, cl. 6.5.9(b)(2).

The building block costs (and the elements that drive those costs) used to determine the unsmoothed ARR are set out in section 1.3.1.

1.3.1 The building block costs

The efficient costs to be recovered by a distributor can be thought of as being made up of various building block costs. Our draft decision assesses each of the building block costs and the elements that drive these costs. The building block costs are approved reflecting trade-offs and interactions between the cost elements, service quality and across years.

Table 1.5 shows the building block costs that form the ARR for each year and where discussion on the elements that drive these costs can be found within this draft decision.

Table 1.5 Building block costs

Building block costs	Attachments where elements are discussed
Return on capital	Regulatory asset base (attachment 2)
	Rate of return (attachment 3)
	Capital expenditure (attachment 5)
Regulatory depreciation (return of capital)	Regulatory asset base (attachment 2)
	Regulatory depreciation (attachment 4)
	Capital expenditure (attachment 5)
Operating expenditure	Operating expenditure (attachment 6)
Estimated cost of corporate tax	Corporate income tax (attachment 7)
Other revenue adjustments	
Adjustment for shared assets	Annual revenue requirement (attachment 1)
Operating efficiency benefits/penalties	Efficiency benefit sharing scheme (attachment 8)
Capital efficiency benefits/penalties	Capital expenditure sharing scheme (attachment 9)
Demand management innovation allowance	Demand management incentive scheme (attachment 11)

1.4 Reasons for draft decision

We determine a total ARR of \$7433.4 million and \$549.8 million (\$ nominal) for Ausgrid over the 2019–24 regulatory control period for its distribution and transmission networks respectively. This is a reduction of \$548.5 million (\$ nominal) or 6.9 per cent to Ausgrid's proposal for its distribution network, and \$398.8 million (\$ nominal) or 42.0 per cent to Ausgrid's proposal for its transmission network.¹² This reflects the impact of our draft decision on the various building block costs.

¹² This comparison is made to Ausgrid's proposal for the 2019–24 regulatory control period. Our draft decision also includes a –\$288 million revenue adjustment (at 30 June 2019) reflecting Ausgrid's remittal proposal for the 2014–

Figure 1.3 and

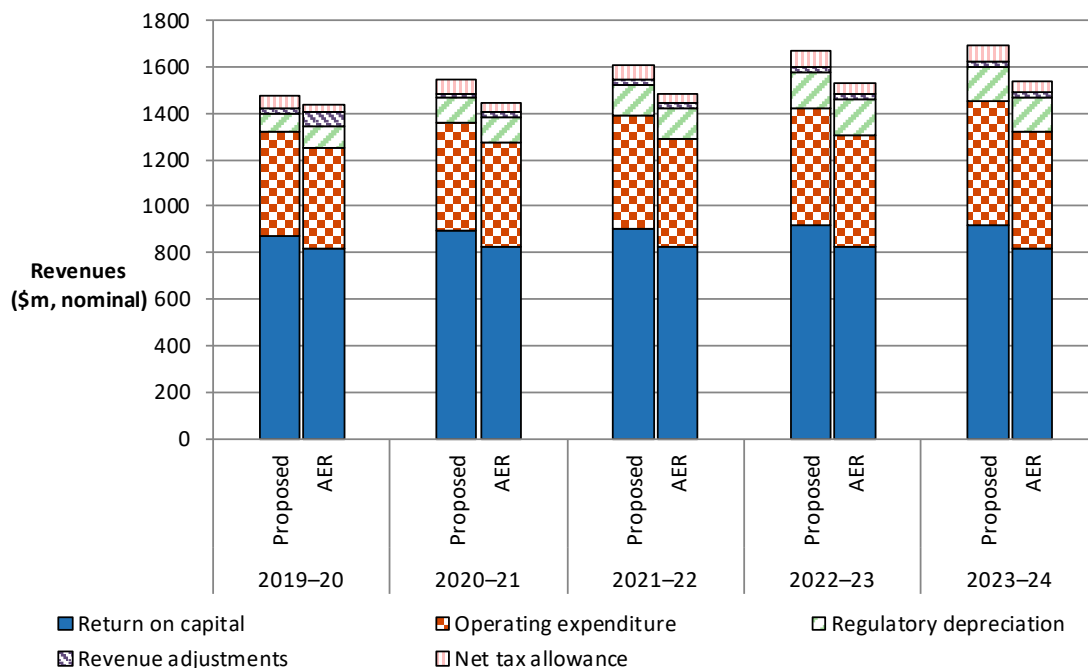
19 regulatory control period, which was made subsequent to lodgement of its proposal for the 2019–24 period. Therefore, this negative revenue adjustment was not included in Ausgrid's proposal for the 2019–24 period.

Figure 1.4 show the building block components from our determination that make up the ARR for Ausgrid, and the corresponding components from its proposal for the distribution and transmission networks respectively.

The changes we made to Ausgrid's proposed building blocks for its combined distribution and transmission networks include:

- a reduction in the return on capital allowance of \$440.2 million or 8.6 per cent (attachments 2, 3 and 5)
- an increase in the regulatory depreciation allowance of \$13.8 million or 1.9 per cent (attachments 2, 4 and 5)
- a reduction in the opex allowance of \$112.3 million or 4.3 per cent (attachment 6)
- a reduction in the cost of corporate income tax allowance of \$110.2 million or 33.4 per cent (attachment 7 and section 2.2 of the overview)
- a reduction in revenue adjustments of \$298.3 million, mainly due to the inclusion of an (negative) adjustment based on Ausgrid's remittal proposal for the 2014–19 regulatory control period.¹³ Changes to CESS (attachment 9) and DMIAM (attachment 11) did not have a material impact on the revenue adjustments.

Figure 1.3 AER's draft decision and Ausgrid's proposed annual revenue requirement – distribution (\$million, nominal)

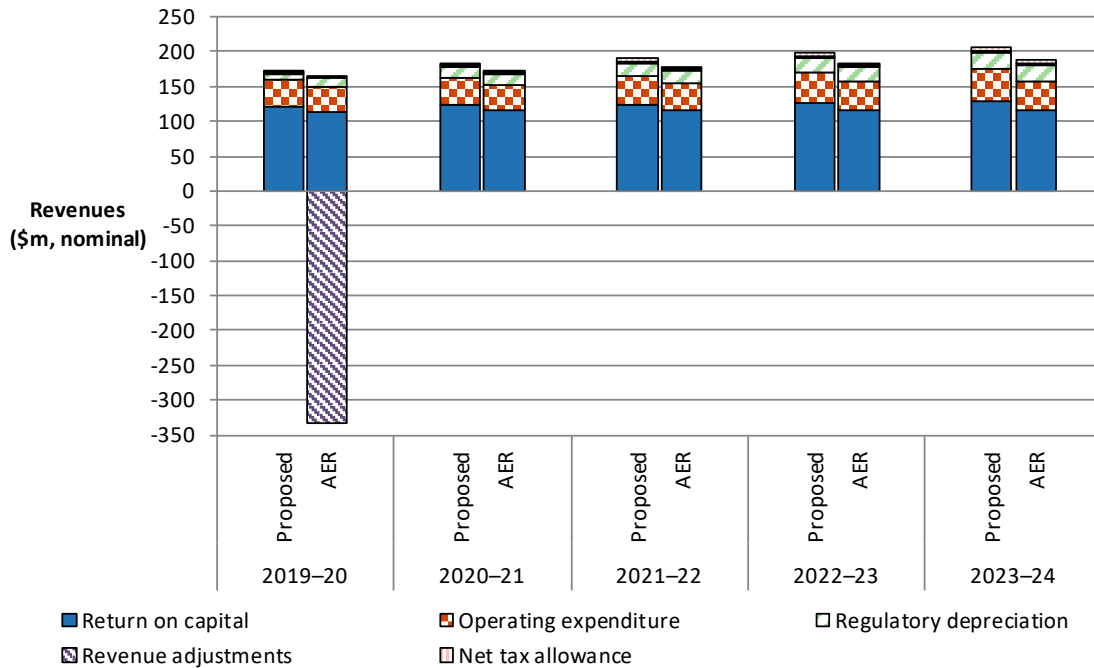


¹³ Our draft decision 2019–24 PTRMs for Ausgrid's distribution and transmission networks contain a revenue adjustment net total amount of –\$288 million (\$2018–19) in 2019–20 to reflect Ausgrid's remittal proposal for the 2014–19 regulatory control period. Our final decision 2019–24 PTRMs will account for the outcome of the remittal process for the 2014–19 regulatory control period currently underway.

Source: Ausgrid, *Attachment 4.02 - Distribution PTRM*, April 2018.
AER analysis.

Note: Revenue adjustments include CESS, DMIAM and an amount resulting from Ausgrid's remittal proposal for the 2014–19 regulatory control period. Opex includes debt raising costs.

Figure 1.4 AER's draft decision and Ausgrid's proposed annual revenue requirement – transmission (\$million, nominal)



Source: Ausgrid, *Attachment 4.05 - Transmission PTRM*, April 2018. AER analysis.

Note: Revenue adjustments include CESS and an amount resulting from Ausgrid's remittal proposal for the 2014–19 regulatory control period. Opex includes debt raising costs.

1.4.1 Revenue smoothing

We have taken into account the building block costs determined in this decision when smoothing the expected revenues for Ausgrid over the 2019–24 regulatory control period. For this draft decision, we have also adopted Ausgrid's remittal proposal for the 2014–19 regulatory control period which provides for a revenue adjustment to be made in the 2019–24 regulatory control period.¹⁴ We have employed a revenue smoothing approach in setting the expected revenues over the 2019–24 regulatory control period.

In doing so, we first set the expected revenue for the first regulatory year (2019–20) at \$1473.0 million and \$66.6 million (\$ nominal) for Ausgrid's distribution and transmission networks respectively. These are higher than the 2019–20 ARR (unsmoothed) of \$1436.9 million and –\$170.0 million¹⁵ we determined for Ausgrid's distribution and transmission networks respectively. We then applied a profile of X factors to determine the expected revenue in subsequent years.

¹⁴ The net revenue adjustment is –\$288 million (\$2018–19) comprising of \$38.1 million for Ausgrid's distribution network and –\$326.1million for Ausgrid's transmission network.

¹⁵ This negative ARR is due to the inclusion of a large negative revenue adjustment in 2019–20 arising from Ausgrid's remittal proposal for the 2014–19 regulatory control period.

For Ausgrid's distribution network, we have applied a constant X factor over the entire length of the period to smooth the revenue movements from the second regulatory year (2020–21) onwards. This allows for a relatively predictable price movement over the regulatory control period, and provides a stable trend moving forward. This approach smooths the revenues by allowing for a more gradual path for revenues over the 2019–24 regulatory control period that increase at a rate below expected inflation.

Based on the X factors we have determined for Ausgrid's distribution network, the difference between the expected revenue and ARR for 2023–24 is 2.7 per cent. The divergence is within our target band of 3 per cent. Therefore, we consider that our profile of X factors result in an expected revenue in the last year of the regulatory control period that is as close as reasonably possible to the ARR for that year.¹⁶ We will review this smoothing for the final decision.

For Ausgrid's transmission network, the revenue smoothing profile has been significantly affected by the large negative revenue adjustment resulting from Ausgrid's remittal proposal for the 2014–19 regulatory control period. Our approach for this draft decision is to allow for a large drop in transmission expected revenue in the first regulatory year (2019–20) followed by a constant X factor over the entire length of the period to bring the expected revenue in the final regulatory year (2023–24) to be closer to the ARR for that year. As a result, the expected revenues from the second regulatory year (2020–21) onwards are well below the respective ARRs for the 2019–24 regulatory control period. Our draft decision smoothing profile results in a difference between the expected revenue and ARR for 2023–24 of around 20 per cent. Given the circumstances affecting the revenue smoothing for Ausgrid's transmission network, we consider it is reasonable to allow this difference to diverge more than usual. We will review this smoothing for the final decision.

1.4.2 Shared assets

Distributors, such as Ausgrid, may use assets to provide both the standard control services we regulate and other unregulated services. These assets are called 'shared assets'.¹⁷ If the revenue from shared assets is material, ten per cent of the unregulated revenues that a distributor earns from shared assets will be used to reduce the distributor's revenue for standard control services.¹⁸

The shared asset principles establish that use of shared assets should be material before cost reductions are applied.¹⁹ 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

¹⁶ NER, cl. 6.5.9(b)(2).

¹⁷ NER, cl. 6.4.4.

¹⁸ AER, *Shared asset guideline*, November 2013.

¹⁹ NER, cl. 6.4.4(c)(3).

distributor's annual average unregulated revenue from shared assets is expected to be greater than one per cent of its expected revenue for that regulatory year.²⁰

Ausgrid submitted that its total revenue requirement is not subject to a shared asset adjustment because its forecast annual unregulated revenue from shared assets does not exceed the AER's materiality threshold.²¹

We consider Ausgrid's forecast unregulated revenues from shared assets for the 2019–24 regulatory control period are reasonable because they are comparable with its historical unregulated revenues from shared assets. However, Ausgrid's forecast unregulated revenues must be compared to the regulated revenues we determine, rather than those proposed by Ausgrid. Our draft decision sets lower expected revenues than Ausgrid's proposal, so we estimate that the unregulated revenues will be about 0.9 per cent of its expected revenues in each year of the 2019–24 regulatory control period. Hence, the materiality threshold is not met in any year of the 2019–24 regulatory control period and we do not apply a shared asset revenue adjustment.

We note unregulated revenues from shared assets may in future become material.²² We will monitor Ausgrid's shared asset unregulated revenues for future regulatory control periods.

1.4.3 Indicative average distribution price impact

Our draft decision on Ausgrid's expected revenues ultimately affects the prices consumers pay for electricity. There are several steps required in translating our revenue decision into indicative distribution price impact.

We regulate Ausgrid's standard control services for its distribution and transmission networks under a revenue cap form of control. This means our draft decision on Ausgrid's expected revenues does not directly translate to price impacts. This is because Ausgrid's revenue is fixed under the revenue cap form of control, so changes in the consumption of electricity will affect the prices ultimately charged to consumers.

For Ausgrid's distribution network, we are not required to establish the distribution prices as part of this determination. However, we will assess Ausgrid's annual pricing proposals before the commencement of each regulatory year within the 2019–24 regulatory control period. In each assessment we will administer the pricing requirements set in in this distribution determination.

For Ausgrid's transmission networks, the charges are collected with regard to the entire transmission network across NSW/ACT because Ausgrid's dual function assets are a small, embedded component of the broader transmission network. TransGrid,

²⁰ AER, *Shared asset guideline*, November 2013, p. 8.

²¹ Ausgrid, *Regulatory proposal*, April 2018, p. 59.

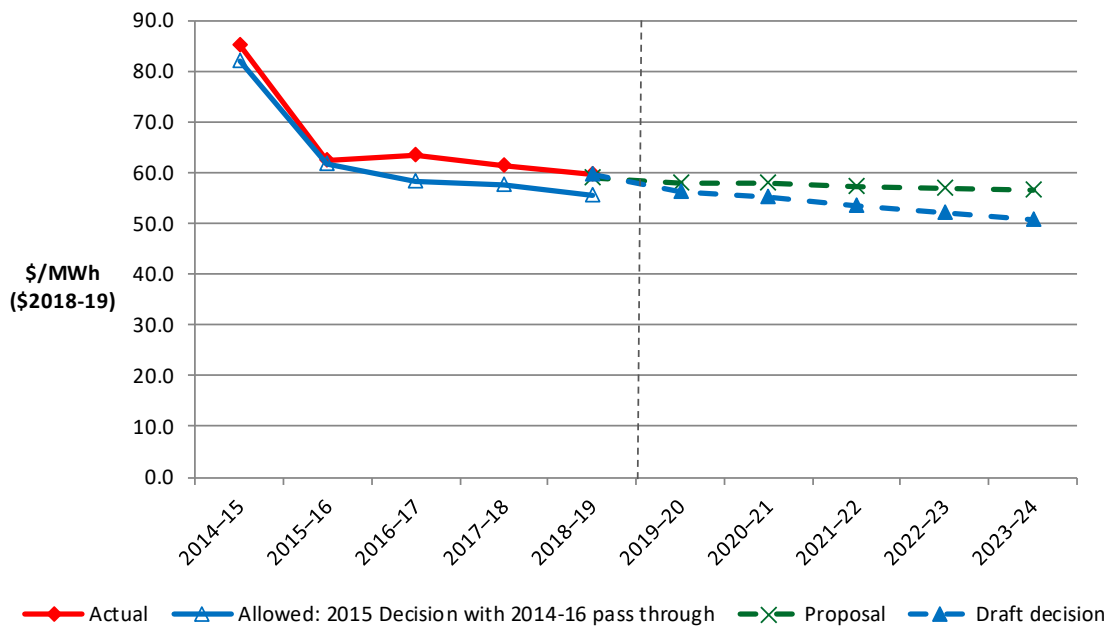
²² We will reassess the materiality of the forecast shared asset unregulated revenues for our final decision.

which is the coordinating TNSP for this network region, establishes transmission charges and then provides Ausgrid with its portion of revenues.

For this draft decision, we have estimated some indicative average distribution and transmission price impacts flowing from our determination on the expected revenues for Ausgrid over the 2019–24 regulatory control period. In this section, our estimates only relate to standard control services (that is, the core electricity network charges), not alternative control services (such as metering charges). These indicative price impacts assume that actual energy consumption across the 2019–24 regulatory control period matches Ausgrid's forecast energy consumption, which we have adopted for this draft decision.

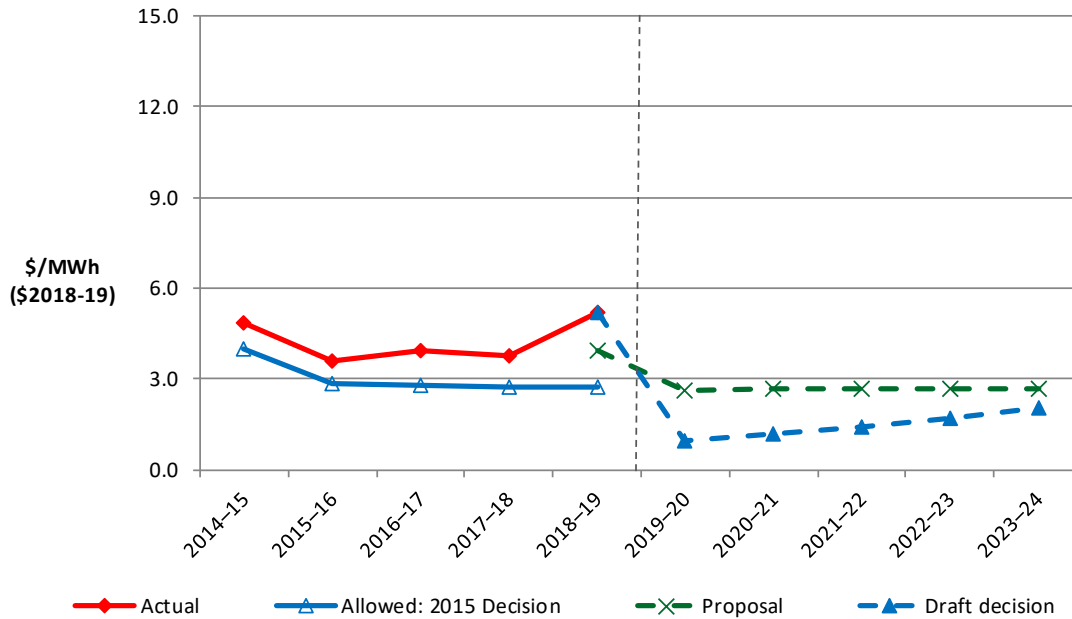
Figure 1.5 and Figure 1.6 show Ausgrid's indicative average price path over the period 2014–15 to 2023–24 in real 2018–19 dollar terms based on the expected revenues established in our draft decision compared to Ausgrid's proposed revenue requirement for its distribution and transmission networks respectively. The indicative price path is estimated using the approved expected revenue and dividing by forecast energy consumption for each year of the 2019–24 regulatory control period.

Figure 1.5 Indicative price path for Ausgrid – distribution (\$/MWh, 2018–19)



Source: AER analysis.

Figure 1.6 Indicative price path for Ausgrid – transmission (\$/MWh, 2018–19)



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. This reflects that Ausgrid's transmission network is a small, embedded component of the broader TransGrid transmission network.

We estimate that our draft decision on Ausgrid's annual expected revenue will result in a decrease to average network charges of about 3.1 per cent and 17.1 per cent per annum over the 2019–24 regulatory control period in real 2018–19 dollar terms for its distribution and transmission networks respectively.²³ This compares to the real average decreases of approximately 0.8 per cent and 7.4 per cent per annum proposed by Ausgrid over the 2019–24 regulatory control period for its distribution and transmission networks respectively. These high-level estimates reflect the aggregate change across the entire network and do not reflect the particular tariff components for specific end users.

Table 1.6 and Table 1.7 display in nominal terms the comparison of the revenue and price impacts of Ausgrid's proposal and our draft decision for the distribution and transmission networks respectively.

²³ In nominal terms we estimate average network charges to decline by 0.8 per cent and 15.1 per cent per annum for Ausgrid's distribution and transmission networks respectively. This compares to a 1.7 per cent per annum increase and 5.0 per cent per annum decrease proposed by Ausgrid for their distribution and transmission networks respectively. This amount reflects an expected inflation rate of 2.42 per cent per annum as determined in this draft decision.

Table 1.6 Comparison of revenue and price impacts of Ausgrid's proposal and the AER's draft decision – distribution

	2018–19	2019–20	2020–21	2021–22	2022–23	2023–24
AER draft decision						
Revenue (\$m, nominal)	1509.9	1473.0	1478.6	1484.1	1489.7	1495.3
Price path (\$, nominal/MWh) ^a	59.52	57.71	57.96	57.44	57.33	57.18
Revenue (change %)		-2.4%	0.4%	0.4%	0.4%	0.4%
Price path (change %)		-3.0%	0.4%	-0.9%	-0.2%	-0.3%
Ausgrid proposal						
Revenue (\$m, nominal)	1493.3	1516.6	1554.5	1593.4	1633.2	1674.1
Price path (\$, nominal/MWh) ^a	58.86	59.42	60.94	61.67	62.85	64.02
Revenue (change %)		1.6%	2.5%	2.5%	2.5%	2.5%
Price path (change %)		1.0%	2.6%	1.2%	1.9%	1.8%

Source: AER analysis.

(a) The price path is in nominal terms and is constructed by dividing nominal expected revenue for standard control services by forecast energy consumption for each year of the regulatory control period.

Table 1.7 Comparison of revenue and price impacts of Ausgrid's proposal and the AER's draft decision – transmission

	2018–19	2019–20	2020–21	2021–22	2022–23	2023–24
AER draft decision						
Revenue (\$m, nominal)	345.3	66.6	81.6	99.8	122.2	149.5
Price path (\$, nominal/MWh) ^a	5.17	1.00	1.23	1.51	1.86	2.28
Revenue (change %)		-80.7%	22.4%	22.4%	22.4%	22.4%
Price path (change %)		-80.6%	22.8%	22.6%	22.9%	22.7%
Ausgrid proposal						
Revenue (\$m, nominal)	262.3	180.1	184.6	189.2	193.9	198.8
Price path (\$, nominal/MWh) ^a	3.93	2.72	2.79	2.87	2.95	3.03
Revenue (change %)		-31.3%	2.5%	2.5%	2.5%	2.5%
Price path (change %)		-30.9%	2.8%	2.7%	2.9%	2.8%

Source: AER analysis.

(a) The price path is in nominal terms and is constructed by dividing nominal expected revenue for standard control services by forecast energy consumption for each year of the regulatory control period.

1.4.4 Expected impact of decision on electricity bills

The annual electricity bill for customers in Ausgrid's network area will reflect the combined cost of all the electricity supply chain components—wholesale energy generation, transmission, distribution, metering, and retail costs. Our analysis is based on our calculation of Ausgrid's:

- distribution network charges, which are forecast to represent about 37.3 per cent of the average Ausgrid customer retail bill in 2018–19²⁴
- transmission network charges, which are forecast to represent an average of about 2.1 per cent of the average Ausgrid customer retail bill in 2018–19²⁵

We estimate the expected bill impact by varying the distribution and transmission networks charges in accordance with our draft decision, while holding all other components—including the metering component—constant. This approach isolates the effect of our draft decision on the core distribution and transmission network charges, and does not imply that other components will remain unchanged across the regulatory control period.²⁶

Based on this approach, we expect that our draft decision will decrease the average annual electricity bills for residential customers in Ausgrid's network. The networks component of the average annual residential electricity bill in 2023–24 is expected to decrease by about \$44 (\$ nominal) from the 2018–19 level. This equates to a 2.6 per cent decrease in the average customer's total bill over five years.

By comparison, had we accepted Ausgrid's proposal, the expected networks component of the average annual residential electricity bill in 2023–24 would increase by about \$47 from the 2018–19 level. This equates to a 2.8 per cent increase in the average customer's total bill over five years.

Our estimate of the potential impact our draft decision will have for Ausgrid's residential customers is based on an average annual electricity usage of around 5000 kWh per annum for a residential customer in Ausgrid's network.²⁷ Therefore, customers with different usage will experience different changes in their bills. We also note that there are other factors, such as metering costs, other transmission network costs, wholesale and retail costs, which affect electricity bills.

²⁴ Ausgrid, *11.3 – RIN – Consolidated*, April 2018.

²⁵ The AEMC's *Residential electricity price trends report 2017 – New South Wales* lists a transmission bill proportion of 9.9 per cent for NSW customers and this is based on total transmission revenue collected across NSW/ACT (TransGrid, Ausgrid, Directlink and Evoenergy). Our adopted bill proportion percentage for Ausgrid's transmission network charges is the approved 2018–19 forecast transmission network revenue for Ausgrid divided by the total forecast 2018–19 transmission revenue for NSW/ACT multiplied by the AEMC's transmission bill proportion of 9.9 per cent. AEMC *Residential electricity price trends report 2017 – New South Wales*, December 2017.

²⁶ It also assumes that actual energy consumption will equal the forecast adopted in our draft decision. Since Ausgrid operates under a revenue cap, changes in energy consumption will also affect annual electricity bills across the 2019–24 regulatory control period.

²⁷ Ausgrid, *11.3 – RIN – Consolidated*, April 2018.

Similarly, for an average small business customer in Ausgrid's network that uses approximately 10000 kWh of electricity per annum,²⁸ our draft decision for Ausgrid is expected to lead to lower average annual electricity bills. The networks component of the average annual small business electricity bill in 2023–24 is expected to decrease by about \$104 from the 2018–19 level. This equates to a 2.6 per cent decrease in the average customer's total bill over five years.

By comparison, had we accepted Ausgrid's proposal, the expected networks component of the average annual small business electricity bill in 2023–24 would increase by about \$110 from the 2018–19 level. This equates to a 2.8 per cent increase in the average customer's total bill over five years.

²⁸ Ausgrid, *11.3 – RIN – Consolidated*, April 2018.

Table 1.8 shows the estimated annual average impact of our draft decision for the 2019–24 regulatory control period and Ausgrid's proposal on the average residential and small business customers' annual electricity bills in its network. As explained above, these bill impact estimates are indicative only, and individual customers' actual bills will depend on their usage pattern and the structure of their tariffs.

Table 1.8 Estimated impact of Ausgrid's proposal and the AER's draft decision on average annual electricity bills for the 2019–24 regulatory control period (\$ nominal)

	2018–19	2019–20	2020–21	2021–22	2022–23	2023–24
AER draft decision						
Residential annual bill ^a	1680 ^a	1632	1637	1633	1634	1636
Annual change ^c		-48 (-2.8%)	4 (0.3%)	-4 (-0.2%)	1 (0.1%)	1 (0.1%)
Small business annual bill ^b	3940 ^b	3829	3838	3830	3833	3836
Annual change ^c		-111 (-2.8%)	10 (0.3%)	-9 (-0.2%)	3 (0.1%)	3 (0.1%)
Ausgrid proposal						
Residential annual bill ^a	1680 ^a	1675	1692	1700	1714	1727
Annual change ^c		-5 (-0.3%)	17 (1%)	8 (0.5%)	13 (0.8%)	13 (0.8%)
Small business annual bill ^b	3940 ^b	3928	3968	3988	4019	4050
Annual change ^c		-12 (-0.3%)	40 (1%)	20 (0.5%)	31 (0.8%)	31 (0.8%)

Source: AER analysis; AER, [Energy Made Easy](#) website (standing offer); Ausgrid, *11.3 – RIN – Consolidated*, April 2018; AEMC *Residential electricity price trends report 2017 – New South Wales*, December 2017.

- (a) Annual bill for 2018–19 is sourced from [Energy Made Easy](#) and reflects the average consumption of 5000 kWh for residential customers in NSW (postcode 2000).
- (b) Annual bill for 2018–19 is sourced from [Energy Made Easy](#) and reflects the average consumption of 10000 kWh for small business customers in NSW (postcode 2000).
- (c) Annual change amounts and percentages are indicative. They are derived by varying the networks components of the 2018–19 bill amounts in proportion to yearly expected revenue divided by AEMO's forecast energy delivered for NSW for transmission and forecast energy for distribution as proposed by Ausgrid. Actual bill impacts will vary depending on electricity consumption and tariff class.