FINAL DECISION
Essential Energy
Distribution Determination

2019 to 2024

Attachment 1
Annual revenue requirement

April 2019

AUSTRALIAN ENERGY REGULATOR

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Note

This attachment forms part of the AER's final decision on the distribution determination that will apply to Essential Energy for the 2019-2024 regulatory control period. It should be read with all other parts of the final decision.

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

The final decision includes the following attachments:

Overview

Attachment 1 – Annual revenue requirement

Attachment 2 – Regulatory asset base

Attachment 4 – Regulatory depreciation

Attachment 7 – Corporate income tax

Attachment 9 – Capital expenditure sharing scheme

Attachment 10 – Service target performance incentive scheme

Attachment 12 – Classification of services

Attachment 13 – Control mechanisms

Attachment 15 – Alternative control services

Attachment 18 – Tariff structure statement

Attachment A – Negotiating framework

Contents

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
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

The annual revenue requirement (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 Essential Energy (Essential) 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. This attachment sets out our final decision on Essential's ARRs and expected revenues for the 2019–24 regulatory control period.

1.1 Final decision

We determine a total ARR of $5089.6 million ($nominal) for Essential for the 2019–24 regulatory control period, reflecting our final decision on the various building block costs. This is a decrease of $133.4 million ($nominal) or 2.6 per cent to Essential's revised proposal of $5222.9 million.

Our final decision includes an estimated $33.0 million ($2018–19) being returned to customers over the 2019–24 regulatory control period, as confirmed in our remade final decision for the 2014–19 period which accepted Essential's remittal proposal.[1] This amount is:

- Based on the difference between the revenues Essential recovered during the 2014–19 period (where it set network charges in accordance with enforceable undertakings during 2016–17 to 2018–19) and the revenues we approved in our remade decision.[2]
- Treated as a negative revenue adjustment in establishing the 2019–20 ARR 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 final decision is to approve total expected revenues (smoothed) of $5079.3 million ($nominal) for Essential for the 2019–24 regulatory control period.

Figure 1.1 shows the difference between Essential's revised proposal and our final decision.

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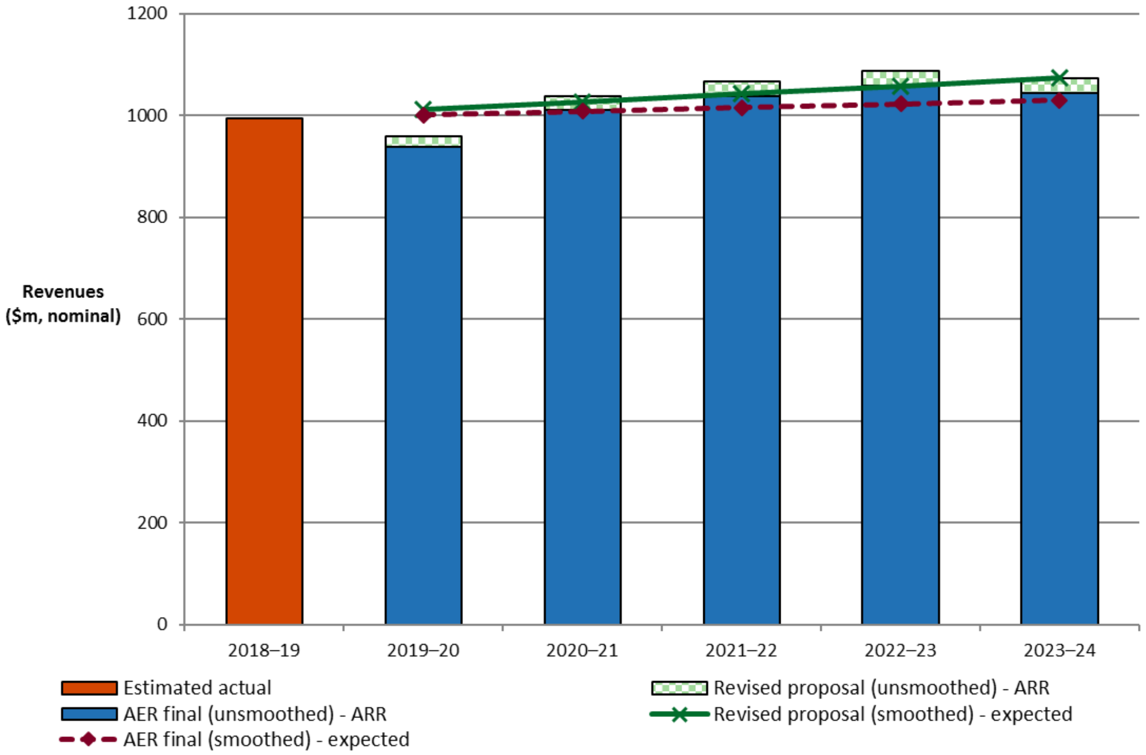
1 This amount has been updated for actual 2017–18 revenue, which was still an estimate at the time of the remade decision. See AER, *Final decision, Essential Energy 2014–19 electricity distribution determination*, September 2018. p. 4.

2 The undertakings from Essential addressed pricing uncertainties arising from limited merits and judicial review processes. They also mostly tracked the original AER decision for 2014–19 and so the difference in revenue is less pronounced.

Table 1.1 shows our final decision on the building block costs, the ARR, annual expected revenue and X factor for each year of the 2019–24 regulatory control period.

Figure 1.1 AER's final decision on Essential's revenue for the 2019–24 regulatory control period ($million, nominal)



Source: Essential, *Post Tax Revenue Model (PTRM) Distribution,* December 2018.
AER analysis.

Table 1.1 AER's final decision on Essential's revenues for the 2019–24 regulatory control period ($million, nominal)

	2019–20	2020–21	2021–22	2022–23	2023–24	Total
Return on capital	466.6	480.9	488.1	493.6	496.9	2426.1
Regulatory depreciation[a]	89.6	120.4	144.1	170.5	170.9	695.4
Operating expenditure[b]	384.6	380.3	376.4	360.0	341.7	1842.9
Revenue adjustments[c]	–18.9	15.5	15.8	16.2	16.6	45.3
Net tax allowance	16.7	13.7	14.1	17.8	17.6	79.9
Annual revenue requirement (unsmoothed)	938.5	1010.8	1038.4	1058.2	1043.7	5089.6
Annual expected revenue (smoothed)	**1001.7**	**1008.7**	**1015.8**	**1022.9**	**1030.1**	**5079.3**
X factor[d]	n/a[e]	1.68%	1.68%	1.68%	1.68%	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 demand management innovation allowance mechanism (DMIAM) and an amount resulting from the remittal decision 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.

(e) Essential 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 1.7 per cent lower than the approved expected revenue for 2018–19 in real terms, or 0.7 per cent higher in nominal terms.

1.2 Essential Energy's revised proposal

Essential's revised proposal included a total expected revenue of $5215.9 million ($nominal) for the 2019–24 regulatory control period. Table 1.2 shows Essential's revised proposed building block costs, the ARR, expected revenue and X factor for each year of the 2019–24 regulatory control period.

Table 1.2 Essential's revised proposed revenues for the 2019–24 regulatory control period ($million, nominal)

	2019–20	2020–21	2021–22	2022–23	2023–24	Total
Return on capital	485.7	500.8	508.4	514.3	517.8	2526.9
Regulatory depreciation[a]	90.0	120.9	144.6	171.2	171.5	698.3
Operating expenditure[b]	384.6	380.3	376.4	360.0	341.7	1842.9
Revenue adjustments[c]	–20.1	15.5	15.9	16.3	16.6	44.2
Net tax allowance	19.3	20.1	21.2	25.2	24.8	110.6
Annual revenue requirement (unsmoothed)	959.5	1037.5	1066.5	1086.9	1072.5	5222.9
Annual expected revenue (smoothed)	**1012.3**	**1027.5**	**1043.0**	**1058.6**	**1074.6**	**5215.9**
X factor	n/a[d]	0.90%	0.90%	0.90%	0.90%	n/a

Source: Essential, *Post-Tax Revenue Model*, December 2018.

(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 CESS, DMIAM and an amount resulting from the remittal decision for the 2014–19 regulatory control period.

(d) Essential is not required to apply an X factor for 2019–20 because we set the 2019–20 expected revenue in this decision.

1.3 Assessment approach

We did not change our assessment approach for the ARR from our draft decision. 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 ARR of $5089.6 million ($nominal) for Essential over the 2019–24 regulatory control period. This is a reduction of $133.4 million ($nominal) or 2.6 per cent to Essential's revised proposed total ARR of $5222.9 million ($nominal) for this period. This reflects the impact of our final decision on the various building block costs.

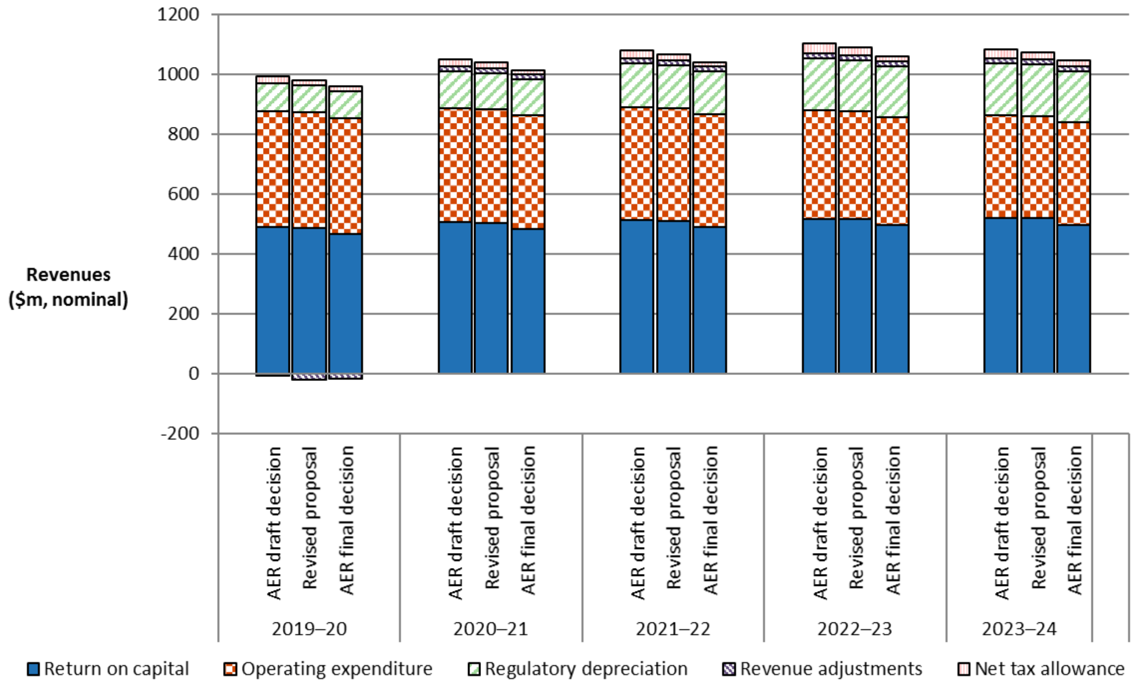
Figure 1.2 final determination that make up the ARR for Essential, and the corresponding components from its revised proposal and our draft decision.

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

[3] AER, *Essential Energy 2019–24 – Distribution – Draft decision – Attachment 1 – Annual revenue requirement*, November 2018, pp. 8–10.

- a reduction in the return on capital allowance of $100.9 million or 4.0 per cent (attachment 2 and section 2.2 of the Overview)
- a reduction in the regulatory depreciation allowance of $2.8 million or 0.4 per cent (attachments 2 and 4)
- a reduction in the cost of corporate income tax allowance of $30.7 million or 27.8 per cent (attachment 7)
- an increase in the revenue adjustments of $1.1 million or 2.4 per cent arising from changes to DMIAM (section 3.4 of the Overview) and updates made to the (negative) adjustment for the remittal decision in respect of the 2014–19 regulatory control period.[4]

Figure 1.2 AER's draft and final decisions, and Essential's revised proposed annual revenue requirement ($million, nominal)



Source: Essential, *Post Tax Revenue Model (PTRM) Distribution,* December 2018.
AER analysis.

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

4 Our final decision 2019–24 PTRM for Essential contains a revenue adjustment of –$33.0 million ($2018–19) in 2019–20 to account for the outcome of the remittal decision for the 2014–19 regulatory control period.

1.4.1 Revenue smoothing

We have taken into account the building block costs determined in this decision when smoothing the expected revenues for Essential over the 2019–24 regulatory control period. In doing so, we first set the expected revenue for the first regulatory year (2019–20) at $1001.7 million ($nominal). This is higher than the 2019–20 ARR (unsmoothed) of $938.5 million we determined. It is also $7.0 million higher than the approved expected revenue for 2018–19. We then applied a profile of X factors to determine the expected revenue in subsequent years.

To smooth the revenue increases from the second regulatory year (2020–21) onwards, we have applied a constant X factor over the entire length of the 2019–24 period. This allows for a relatively predictive 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 higher revenues at a rate below expected inflation over the 2019–24 regulatory control period.

Based on the X factors we have determined for Essential, the difference between the expected revenue and ARR for 2023–24 is 1.3 per cent. This divergence is within our target band of 3 per cent. Therefore, we consider that our profile of X factors results 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.[5]

1.4.2 Shared assets

Our final decision is not to apply a shared asset revenue adjustment to Essential's total revenue requirement because the materiality threshold is not met in any year of the 2019–24 regulatory control period.

Distributors, such as Essential, may use assets to provide both the standard control services we regulate and other unregulated services. These assets are called 'shared assets'.[6] 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.[7]

The shared asset principles establish that use of shared assets should be material before cost reductions are applied.[8] The NER do 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 distributor's

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5 NER, cl. 6.5.9(b)(2). We 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 appropriate, if this can achieve smoother price changes for users over the regulatory control period.

6 NER, cl. 6.4.4.

7 AER, *Shared asset guideline*, November 2013

8 NER, cl. 6.4.4(c)(3).

annual average unregulated revenue from shared assets is expected to be greater than one per cent of its expected revenue for that regulatory year.[9]

In our draft decision, we did not apply a shared asset revenue adjustment to Essential's total revenue requirement as the materiality threshold of one per cent was not met in any year of the 2019–24 regulatory control period.[10] We considered Essential's forecast unregulated revenues from shared assets for the 2019–24 regulatory control period to be reasonable because they were comparable with its historical unregulated revenues from shared assets.

Based on the expected revenues determined in this final decision, we estimate that the unregulated revenues will be about 0.5 per cent of Essential's expected revenues in each year of the 2019–24 regulatory control period. Hence, the materiality threshold of one per cent 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. We will monitor Essential's shared asset unregulated revenues for future regulatory control periods.

1.4.3 Indicative average distribution price impact

Our final decision on Essential'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 Essential's standard control services under a revenue cap form of control. This means our final decision on Essential's expected revenues do not directly translate to price impacts. This is because Essential'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. We are not required to establish the distribution prices for Essential as part of this determination. However, we will assess Essential'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 this distribution determination.

For this final decision, we have estimated some indicative average distribution price impacts flowing from our determination on the expected revenues for Essential over the 2019–24 regulatory control period. In this section, our estimates only relate to standard control services (that is, the core electricity distribution 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

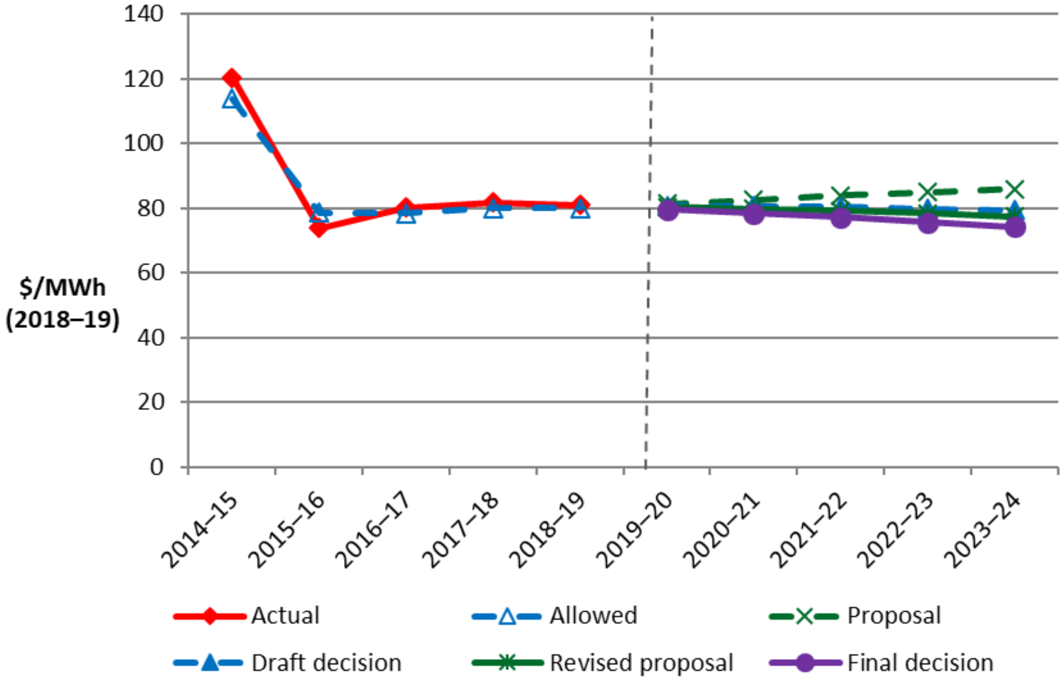
[9] AER, *Shared asset guideline*, November 2013, p. 8.

[10] AER, *Essential Energy 2019–24 – Distribution – Draft decision – Attachment 1 – Annual revenue requirement*, November 2018, pp. 12–13.

matches Essential's forecast energy consumption, which we have adopted for this final decision.

Figure 1. shows Essential's indicative price path over the period 2014–15 to 2023–24 in real 2018–19 dollar terms based on the expected revenues established in our final decision compared to Essential's revised proposed revenue requirement.

Figure 1.3 Indicative distribution price path for Essential ($/MWh, 2018–19)



Source: AER analysis.

We estimate that our final decision on Essential's annual expected revenue will result in a decrease to average distribution charges by about 1.7 per cent per annum over the 2019–24 regulatory control period in real 2018–19 dollar terms.[11] This compares to the real average decrease of approximately 0.9 per cent per annum in Essential's revised proposal for the 2019–24 regulatory control period.[12] 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 1.3 displays in nominal terms the comparison of the revenue and price impacts of Essential's revised proposal and our final decision.

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[11] In nominal terms we estimate average distribution charges to increase by 0.7 per cent per annum, compared to an increase of 1.5 per cent proposed by Essential in its revised proposal. This amount reflects an expected inflation rate of 2.42 per cent per annum as determined in this final decision.

[12] This amount reflects an expected inflation rate of 2.42 per cent per annum as proposed by Essential in its revised proposal.

Table 1.3 Comparison of revenue and price impacts of Essential's revised proposal and the AER's final decision ($nominal)

	2018–19	2019–20	2020–21	2021–22	2022–23	2023–24
AER final decision						
Revenue ($million)	994.8	1001.7	1008.7	1015.8	1022.9	1030.1
Price path ($/MWh)[a]	80.96	81.52	82.20	82.93	83.30	83.70
Revenue (change)		0.7%	0.7%	0.7%	0.7%	0.7%
Price path (change)		0.7%	0.8%	0.9%	0.4%	0.5%
Essential revised proposal						
Revenue ($million)	994.8	1012.3	1027.5	1043.0	1058.6	1074.6
Price path ($/MWh)[a]	80.96	82.37	83.73	85.15	86.21	87.31
Revenue (change)		1.8%	1.5%	1.5%	1.5%	1.5%
Price path (change)		1.7%	1.6%	1.7%	1.2%	1.3%

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 Essential's network 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 distribution charges for standard control services, which represent approximately 34.5 per cent on average for residential and small business customers' annual electricity bill in Essential's network area.[13]

We estimate the expected bill impact by varying the distribution charges in accordance with our final decision, while holding all other components—including the metering component—constant. This approach isolates the effect of our final decision on the core distribution charges only. However, this does not imply that other components will remain unchanged across the regulatory control period.[14]

Based on this approach in our final decision, we expect that the distribution component of the average annual residential electricity bill in 2023–24 to increase by about

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13 Essential Energy, *R1a Final RIN - 1 - Reset master*, April 2018.

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

$24 ($ nominal) from the 2018–19 total bill level.[15] By comparison, under Essential's revised proposal, the expected distribution component of the average annual residential electricity bill in 2023–24 would increase by about $56 ($ nominal) from the 2018–19 total bill level.[16]

Similarly, for an average small business customer in Essential's network, we expect the distribution component of the average annual small business electricity bill in 2023–24 to increase by about $111 ($ nominal) from the 2018–19 total bill level.[17] By comparison, under Essential's revised proposal, the expected distribution component of the average small business customer electricity bill in 2023– 24 would increase by about $258 ($ nominal) from the 2018–19 total bill level.[18]

Our estimated impact is based on an average annual electricity usage of around 5000 kWh per annum for residential households and 23000 kWh for small businesses.[19] 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.

Table 1.4 shows our estimated impact of our final decision and Essential's revised proposal on the average annual electricity bills for residential and small business customers in its network over the 2019–24 regulatory control period.

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15 This equates to a 1.2 per cent increase in the average residential customer's total electricity bill over five years.

16 This equates to a 2.7 per cent increase in the average residential customer's total electricity bill over five years.

17 This equates to a 1.2 per cent increase in the average small business customer's total electricity bill over five years.

18 This equates to a 2.7 per cent increase in the average small business customer's total electricity bill over five years.

19 Essential Energy, *R1a Final RIN - 1 - Reset master, April 2018.*

Table 1.4 Estimated impact of Essential's revised proposal and the AER's final decision on annual electricity bills for the 2019–24 regulatory control period ($nominal)

	2018–19	2019–20	2020–21	2021–22	2022–23	2023–24
AER final decision						
Residential annual bill	2060	2065	2071	2077	2081	2084
Annual change[c]		5 (0.2%)	6 (0.3%)	6 (0.3%)	3 (0.2%)	3 (0.2%)
Small business annual bill	9530	9553	9580	9610	9625	9641
Annual change[c]		23 (0.2%)	28 (0.3%)	30 (0.3%)	15 (0.2%)	16 (0.2%)
Essential revised proposal						
Residential annual bill	2060[a]	2072	2084	2097	2106	2116
Annual change[c]		12 (0.6%)	12 (0.6%)	12 (0.6%)	9 (0.4%)	10 (0.5%)
Small business annual bill	9530[b]	9587	9642	9700	9743	9788
Annual change[c]		57 (0.6%)	55 (0.6%)	58 (0.6%)	43 (0.4%)	45 (0.5%)

Source: AER analysis; AER, Energy Made Easy website (standing offer); Essential Energy, *R1a final RIN – 1 – Reset master*, April 2018.

(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 2650).

(b) Annual bill for 2018–19 is sourced from Energy Made Easy and reflects the average consumption of 23000 kWh for small business customers in NSW (postcode 2650).

(c) Annual change amounts and percentages are indicative. They are derived by varying the distribution component of the 2018–19 bill amounts in proportion to yearly expected revenue divided by forecast energy as provided by Essential. Actual bill impacts will vary depending on electricity consumption and tariff class.