

Final Decision

**Power and Water Corporation
Electricity Distribution
Determination 2024 to 2029
(1 July 2024 to 30 June 2029)**

**Attachment 1
Annual revenue requirement**

April 2024

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List of attachments

This attachment forms part of the AER's final decision on the distribution determination that will apply to Power and Water Corporation for the 2024–29 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 final decision attachments have been numbered consistently with the equivalent attachments to our draft decision. In these circumstances, our draft decision reasons form part of this final decision.

The final decision includes the following documents:

Overview

Attachment 1 – Annual revenue requirement

Attachment 2 – Regulatory asset base

Attachment 4 – Regulatory depreciation

Attachment 5 – Capital expenditure

Attachment 6 – Operating expenditure

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1 Annual revenue requirement

This attachment sets out our final decision on Power and Water Corporation’s annual revenue requirement (ARR) and expected revenues for the provision of standard control services (SCS) over the 2024–29 regulatory control period (period). Specifically, it sets out our final decision on:¹

- the ARRs (unsmoothed), which are the sum of the annual building block costs
- the total revenue requirement, which is the sum of the ARRs
- the annual expected revenues (smoothed)
- the X factors.

We determine Power and Water Corporation’s ARRs using a building block approach. We determine the X factors by smoothing the ARRs over the 2024–29 period. The X factor is used in the CPI–X methodology to determine the annual expected revenue (smoothed).

1.1 Final decision

We determine a total ARR of \$1,051.5 million (\$ nominal, unsmoothed) for Power and Water Corporation over the 2024–29 period. This is an increase of \$6.0 million (\$ nominal) or 0.6% to Power and Water Corporation’s revised proposal. The increase is largely driven by our final decision approving a higher regulatory depreciation building block.

We determine the annual expected revenue (smoothed) and X factor for each regulatory year of the 2024–29 period by smoothing the ARRs. Our final decision is to approve total expected revenues of \$1,054.8 million (\$ nominal, smoothed) for Power and Water Corporation for the 2024–29 period. Our approved X factors are –7.44% per annum for 2025–26 to 2027–28, followed by –1.69% for the remaining year of 2028–29.²

Table 1.1 sets out our final decision on the building block costs, the ARR, annual expected revenue and X factors for Power and Water Corporation over the 2024–29 period.

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

² Power and Water Corporation is not required to apply an X factor for 2024–25 because we set the 2024–25 expected revenue in this decision.

Table 1.1 AER’s final decision on Power and Water Corporation’s ARR, annual expected revenue and X factor for the 2024–29 period (\$ million, nominal)

| | 2024–25 | 2025–26 | 2026–27 | 2027–28 | 2028–29 | Total |
|-------------------------------------------|------------------|--------------|--------------|--------------|--------------|----------------|
| Return on capital | 72.9 | 78.1 | 83.7 | 88.4 | 95.6 | 418.7 |
| Regulatory depreciation ^a | 37.7 | 39.0 | 42.0 | 48.1 | 52.4 | 219.1 |
| Operating expenditure ^b | 77.9 | 81.0 | 83.7 | 87.1 | 89.8 | 419.5 |
| Revenue adjustments ^c | -1.1 | -1.1 | -1.2 | -1.2 | -1.2 | -5.8 |
| Cost of corporate income tax | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Annual revenue requirement (unsmoothed) | 187.3 | 197.0 | 208.2 | 222.4 | 236.6 | 1,051.5 |
| Annual expected revenue (smoothed) | 174.0 | 191.9 | 211.7 | 233.5 | 243.7 | 1,054.8 |
| X factor ^d | n/a ^e | -7.44% | -7.44% | -7.44% | -1.69% | 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 capital expenditure sharing scheme (CESS) and the demand management innovation allowance mechanism (DMIAM).
- (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) Power and Water Corporation is not required to apply an X factor for 2024–25 because we set the 2024–25 expected revenue in this decision. The expected revenue for 2024–25 is around 7.4% higher than the approved total annual revenue for 2023–24 in real terms, or 10.3% higher in nominal terms.

1.2 Power and Water Corporation’s revised proposal

Power and Water Corporation’s revised proposal included a total expected revenue (smoothed) of \$1,048.4 million (\$ nominal) for the 2024–29 period.

Table 1.2 sets out Power and Water Corporation’s revised proposed building block costs, the ARR, annual expected revenue and X factor for each year of the 2024–29 period.

Table 1.2 Power and Water Corporation’s proposed ARR, annual expected revenue and X factor for the 2024–29 period (\$ million, nominal)

| | 2024–25 | 2025–26 | 2026–27 | 2027–28 | 2028–29 | Total |
|-------------------------------------------|------------------|--------------|--------------|--------------|--------------|----------------|
| Return on capital | 72.1 | 77.8 | 83.8 | 89.1 | 96.9 | 419.7 |
| Regulatory depreciation ^a | 36.0 | 37.3 | 40.2 | 46.3 | 50.7 | 210.5 |
| Operating expenditure ^b | 78.0 | 81.2 | 84.0 | 87.5 | 90.4 | 421.2 |
| Revenue adjustments ^c | -1.1 | -1.1 | -1.2 | -1.2 | -1.2 | -5.9 |
| Cost of corporate income tax | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Annual revenue requirement (unsmoothed) | 184.9 | 195.1 | 206.9 | 221.8 | 236.7 | 1,045.5 |
| Annual expected revenue (smoothed) | 173.5 | 190.7 | 209.7 | 230.7 | 243.8 | 1,048.4 |
| X factor | n/a ^d | -6.97% | -6.97% | -6.97% | -2.83% | n/a |

Source: PWC, *2024–29 Revised Proposal Post Tax Revenue Model*, November 2023.

- (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 CESS and DMIAM.
- (d) Power and Water Corporation is not required to apply an X factor for 2024–25 because we set the 2024–25 expected revenue in this decision.

1.3 Assessment approach

We did not change the building block approach we use to determine the expected revenue 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 ARR of \$1,051.5 million (\$ nominal, unsmoothed) for Power and Water Corporation over the 2024–29 period. This is an increase of \$6.0 million (0.6%) to Power and Water Corporation’s revised proposed total ARR of \$1,045.5 million 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 in this final determination that comprise the ARR for Power and Water Corporation, and the corresponding components from its revised proposal and our draft decision.

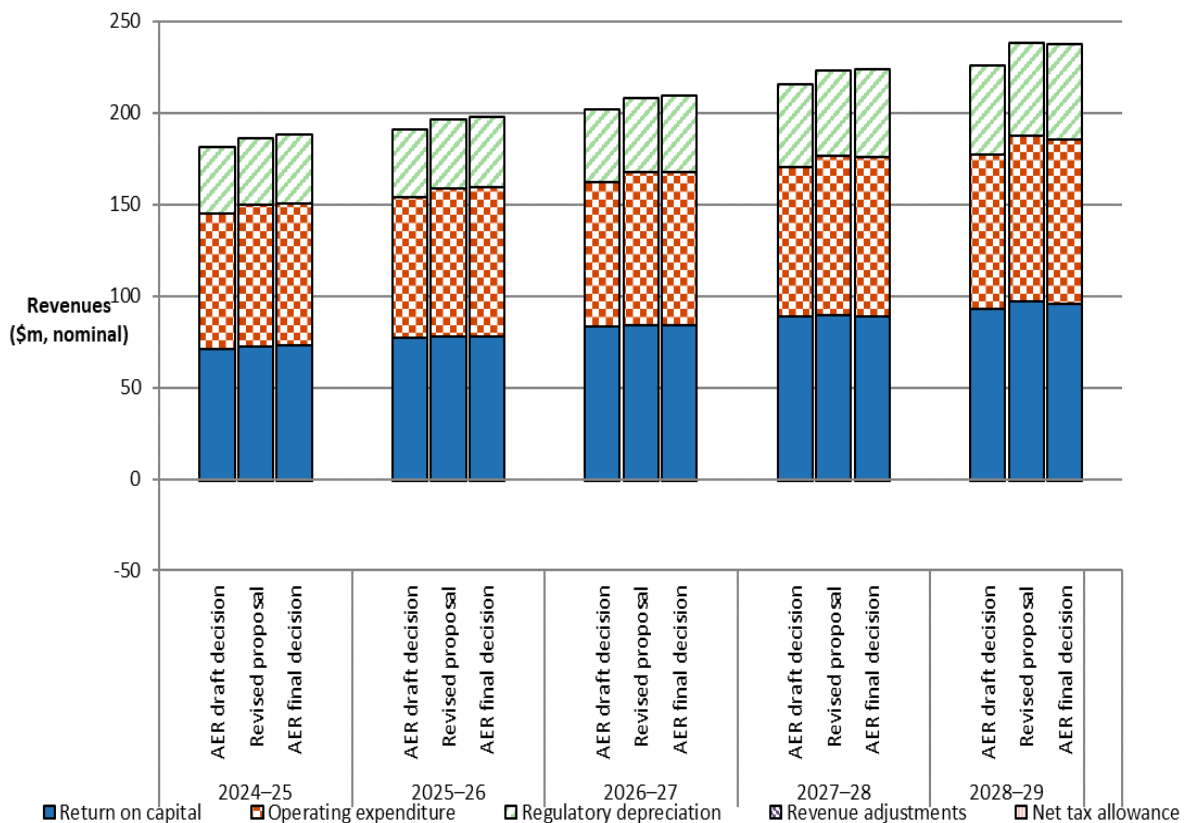
The changes we made to Power and Water Corporation’s revised proposal are (in nominal terms):⁴

³ AER, *Draft decision, Attachment 01 – Annual revenue requirement – Power and Water Corporation – 2024 Distribution revenue proposal*, September 2023, pp. 3–6.

⁴ There was no change required to the cost of corporate income tax of zero (Attachment 7).

- a reduction in the return on capital of \$1.0 million (0.2%) (Attachments 2 and 5, and section 2.2 of the Overview). This is driven primarily by a lower forecast RAB which more than offsets the higher rate of return in our final decision
- an increase in the regulatory depreciation of \$8.6 million (4.1%) (Attachment 4). This is driven primarily by the lower expected inflation rate in our final decision than at the time of Power and Water Corporation’s revised proposal, which reduces the indexation adjustment to regulatory depreciation
- minor reduction in the operating expenditure (opex) forecast of \$1.8 million (0.4%) (Attachment 6). This is driven by a lower expected inflation applied in this final decision compared to Power and Water Corporation’s revised proposal. Our final decision has accepted Power and Water Corporation’s revised proposed total opex in real 2023–24 dollar terms
- an increase in the revenue adjustments of \$0.1 million (2.4%) (section 2.6 of the Overview). This is driven by a lower CESS penalty to reflect updates for actual capex and lower expected inflation applied in our final decision.

Figure 1.1 AER's draft and final decisions, and Power and Water Corporation's revised proposed ARR (\$ million, nominal)



Source: AER analysis; PWC, 2024–29 Revised Proposal PTRM, November 2023.

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

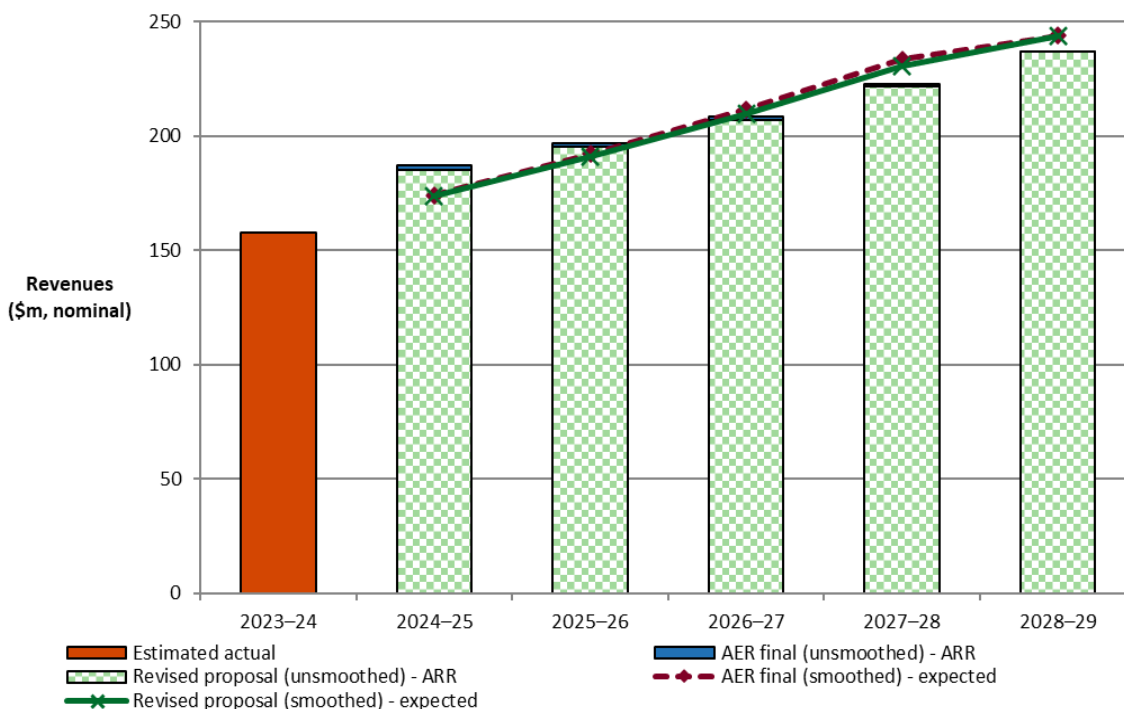
1.4.1 X factor and annual expected revenue

For this final decision, we determine an X factor for Power and Water Corporation of –7.44% per annum for the three years of the regulatory control period from 2025–26 to 2027–28. This

is followed by a lower X factor of -1.69% in the final year of the period (2028–29).⁵ The net present value (NPV) of the ARR is \$884.3 million (\$2023–24) as at 1 July 2024. Based on this NPV and applying the CPI-X framework, we determine that the expected revenue (smoothed) for Power and Water Corporation is \$174.0 million in 2024–25 increasing to \$243.7 million in 2028–29 (\$ nominal). The resulting total expected revenue for Power and Water Corporation is \$1,054.8 million (\$ nominal, smoothed) for the 2024–29 period.

Figure 1.2 shows our final decision on Power and Water Corporation’s annual expected revenue (smoothed revenue) and the ARR (unsmoothed revenue) for the 2024–29 period.

Figure 1.2 AER’s final decision on Power and Water Corporation’s revenue for the 2024–29 period (\$ million, nominal)



Source: AER analysis; PWC, 2024–29 Revised Proposal PTRM, November 2023.

To determine the profile of expected revenue for Power and Water Corporation over the 2024–29 period, we have set the expected revenue for the first regulatory year at \$174.0 million (\$ nominal). This is \$13.3 million lower than the ARR for that first year. We then apply an expected inflation rate of 2.66% per annum and a profile of X factors to determine the expected revenue in subsequent years.⁶ We consider that our profile of X factors results in an expected revenue in the last year of the period that is as close as reasonably possible to the ARR for that year.⁷ We did not receive any stakeholder submissions on revenue smoothing.

⁵ Power and Water Corporation is not required to apply an X factor for 2024–25 because we set the 2024–25 expected revenue in this decision.

⁶ NT NER, cl. 6.5.9(a).

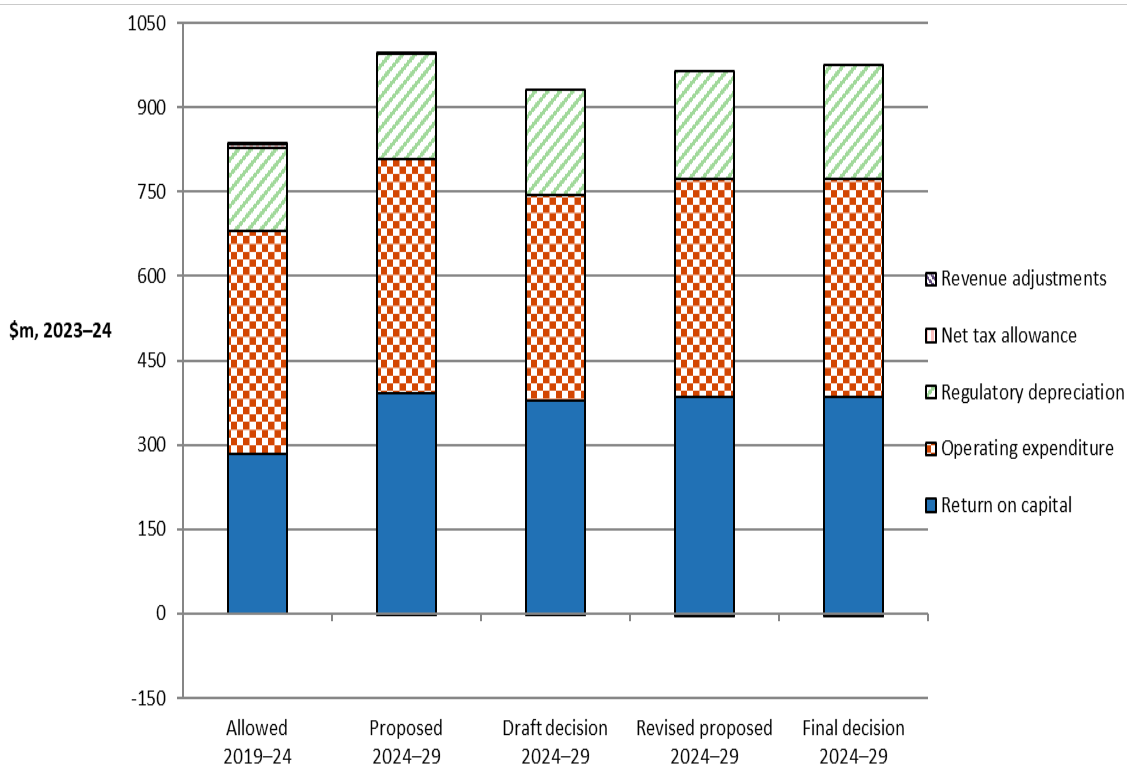
⁷ NT NER, cl. 6.5.9(b)(2). We consider a divergence of up to 3% between the expected revenue and ARR for the last year of the regulatory control period is appropriate, if this can achieve smoother price changes for users over the regulatory control period. In the present circumstances, based on the X factors we have determined for Power and Water Corporation, the divergence is around 3.0%.

Our final decision results in an average increase of 9.1% per annum (nominal) in the expected revenue over the 2024–29 period.⁸ This consists of average increases of 10.3% per annum from 2023–24 to 2027–28, followed by an increase of 4.4% in the final year of the 2024–29 period.⁹

Our final decision also results in an increase of 16.0% in real terms (\$2023–24) to Power and Water Corporation’s total ARR relative to that in the 2019–24 period. This is largely due to a higher rate of return (and therefore higher return on capital) and higher regulatory depreciation in this final decision for the 2024–29 period than that approved in the 2019–24 determination.

Figure 1.3 compares our final and draft decision building blocks for Power and Water Corporation’s 2024–29 period with its proposed and revised proposed revenue requirements for the same period, and the approved unsmoothed revenue for the 2019–24 period.

Figure 1.3 Total revenue by building block components (\$ million, 2023–24)



Source: AER analysis.

1.4.2 Shared assets

Our final decision is not to apply a shared asset revenue adjustment to Power and Water Corporation’s total expected revenue for the 2024–29 period.

⁸ In real 2023–24 dollar terms, our approved expected revenue for Power and Water Corporation results in an average increase of 6.3% per annum over the 2024–29 period.

⁹ In real 2023–24 dollar terms, this consists of increases of 7.4% per annum from 2023–24 to 2027–28, followed by an increase of 1.7% in the final year of the 2024–29 period.

In our draft decision, we did not apply a shared asset revenue adjustment to Power and Water Corporation’s revenues because we estimated that the unregulated revenues were less than 1% of its expected revenues in each year of the 2024–29 period. Therefore, the materiality threshold was not met in any year of the 2024–29 period.¹⁰ Using the same assessment approach as the draft decision, we consider that this materiality threshold is also not met in any year of the 2024–29 period for this final decision, and therefore we do not apply a shared asset revenue adjustment.

1.4.3 Indicative average distribution price impact

Our final decision on Power and Water Corporation’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 Power and Water Corporation’s SCS under a revenue cap form of control. This means our final decision on Power and Water Corporation’s expected revenues does not directly translate to price impacts. This is because Power and Water Corporation’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.

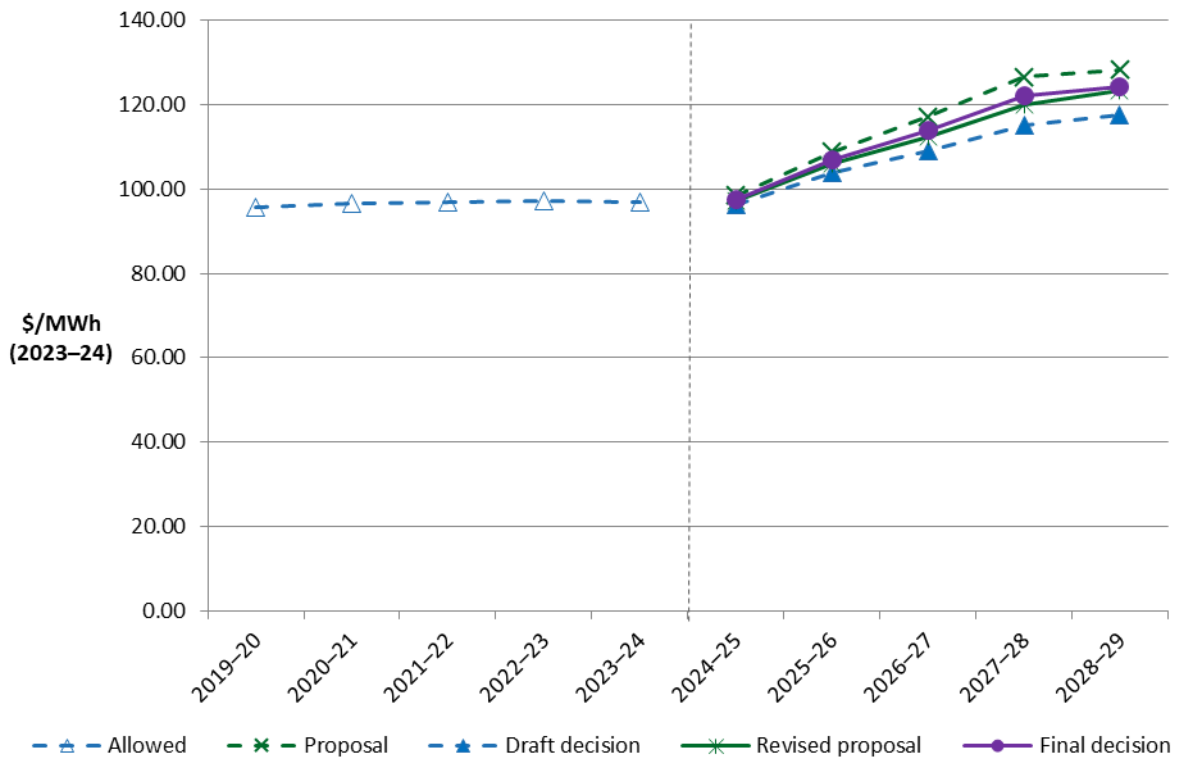
For these reasons, we are not required to establish the distribution prices for Power and Water Corporation as part of this determination. However, we will assess Power and Water Corporation’s annual pricing proposals before the commencement of each regulatory year within the 2024–29 period. In each 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 Power and Water Corporation over the 2024–29 period. In this section, our estimates only relate to SCS (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 2024–29 period matches Power and Water Corporation’s forecast energy consumption, which we have adopted for this final decision. We also have not factored in any changes arising from incentive scheme amounts, cost pass throughs or unders/overs reconciliation that usually occur in the annual pricing process to come up with the total allowed revenue.

Figure 1.4 shows Power and Water Corporation’s indicative average price path over the period 2019–20 to 2028–29 in real 2023–24 dollar terms based on the expected revenues established in our final decision, compared to Power and Water Corporation’s revised proposed revenue requirement. The indicative price path is estimated using the approved expected revenue and dividing by forecast energy consumption for each year of the 2024–29 period.

¹⁰ AER, *Draft decision, Attachment 01 – Annual revenue requirement – Power and Water Corporation – 2024 Distribution revenue proposal*, September 2023, pp. 9–10.

Figure 1.4 Indicative distribution price path for Power and Water Corporation (\$/MWh, 2023–24)



Source: AER analysis.

We estimate that our final decision on Power and Water Corporation’s annual expected revenue will result in an increase to average distribution charges by about 5.6% per annum over the 2024–29 period in real 2023–24 dollar terms.¹¹ Power and Water Corporation’s revised proposal provided for an average real increase of approximately 5.5% per annum over the 2024–29 period for its distribution charges.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 Power and Water Corporation’s revised proposal and our final decision.

¹¹ In nominal terms, we estimate average distribution charges to increase by 8.4% per annum. This amount reflects an expected inflation rate of 2.66% per annum as determined in this final decision.

¹² In nominal terms, Power and Water Corporation’s revised proposal would increase distribution charges by 8.5% per annum. This amount reflects an expected inflation rate of 2.80% per annum as proposed by Power and Water Corporation in its revised proposal.

Table 1.3 Comparison of revenue and price impacts of Power and Water Corporation’s revised proposal and the AER’s final decision (\$ nominal)

| | 2023–24 | 2024–25 | 2025–26 | 2026–27 | 2027–28 | 2028–29 |
|-----------------------------------------------------|---------|---------|---------|---------|---------|---------|
| AER final decision | | | | | | |
| Revenue (\$m, nominal) | 157.7 | 174.0 | 191.9 | 211.7 | 233.5 | 243.7 |
| Price path (\$/MWh) ^a | 94.4 | 100.2 | 112.6 | 123.3 | 135.6 | 141.6 |
| Revenue (change %) | – | 10.3% | 10.3% | 10.3% | 10.3% | 4.4% |
| Price path (change %) | – | 6.2% | 12.3% | 9.5% | 10.0% | 4.4% |
| Power and Water Corporation revised proposal | | | | | | |
| Revenue (\$m, nominal) | 157.7 | 173.5 | 190.7 | 209.7 | 230.7 | 243.8 |
| Price path (\$/MWh) ^a | 94.4 | 99.9 | 111.9 | 122.2 | 134.0 | 141.7 |
| Revenue (change %) | – | 10.0% | 10.0% | 10.0% | 10.0% | 5.7% |
| Price path (change %) | – | 5.8% | 12.0% | 9.2% | 9.7% | 5.7% |

Source: AER analysis; PWC, *2024–29 Revised Proposal PTRM*, November 2023.

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

1.4.4 Expected impact of final decision on electricity bills

The annual electricity bill for customers in the Northern Territory 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 Power and Water Corporation’s SCS, which represent approximately 45% on average for residential customers’ and 32% on average for small business customers’ annual electricity bills in the Northern Territory.¹³

We estimate the expected bill impact by varying the distribution charges in accordance with our final decision in this attachment, while holding all other components constant — including the metering component.¹⁴ This approach isolates the effect of our final decision on the core distribution charges only for Power and Water Corporation. However, this does not imply that other components will remain unchanged across the regulatory control period.¹⁵

Based on this approach, we expect that our final decision on the distribution component will increase the average annual residential electricity bill in 2028–29 by about \$579 (\$ nominal) or 22.3% from the 2023–24 total bill level.

¹³ AER analysis.

¹⁴ We also have not factored in any changes arising from incentive scheme amounts, cost pass throughs or unders/overs reconciliation that usually occur in the annual pricing process to come up with the total allowed revenue.

¹⁵ It also assumes that actual energy consumption will equal the forecast adopted in our final decision. Since Power and Water Corporation operates under a revenue cap, changes in energy consumption will also affect annual electricity bills across the 2024–29 period.

Similarly, we expect that our final decision will result in the distribution component of the average annual electricity bill for a small business customer in 2028–29 to increase by about \$1,661 (\$ nominal) or 16.1% from the 2023–24 total bill level.

Our estimated bill impact is based on the typical annual electricity usage of around 8,500 kWh and 30,000 kWh for residential and small business customers in the Northern Territory, respectively.¹⁶ Therefore, customers with different usage will experience different changes in their bills. We also note that there are other factors which we have not considered here, such as metering, wholesale and retail costs, which affect electricity bills.

Table 1.5 shows the estimated impact of our final decision and Power and Water Corporation’s revised proposal on the average annual electricity bills for residential and small business customers in the Northern Territory over the 2024–29 period.

We note the majority of customers in the Northern Territory are subject to the government’s Electricity Pricing Order (Pricing Order). This caps retail prices for customers using less than 750 MWh of electricity per annum.¹⁷ It is important to recognise that the impact of any changes to Power and Water Corporation’s revenue as a result of our decision is constrained by the Pricing Order. Therefore, the outcomes flowing from this draft decision may not affect the retail electricity bill under the Pricing Order for customers in the Northern Territory.

The Pricing Order stipulates a fixed charge and volume based tariff structure (including a time of use tariff) but does not account for demand based tariffs. The Pricing Order prevents price increases but allows prices to be set lower than prescribed. It is up to retailers to determine the price in accordance with the Pricing Order and pass on to customers the network revenues determined for Power and Water Corporation. This means only a small number of large customers are not covered by this retail price protection and they will be directly affected by the outcomes of this distribution determination.

¹⁶ PWC, *Reset RIN Workbook 5 Indicative Bill Impact*, January 2023.

¹⁷ The fixed daily charge and the charge for the volume of electricity consumed is not to exceed the amount specified in the Pricing Order (See clauses 4 and 5). The Pricing Order can be found at the [Utilities Commission’s website](#).

Table 1.4 Estimated impact of Power and Water Corporation’s revised proposal and AER’s final decision on annual electricity bills for the 2024–29 period (\$ nominal)

| | 2023–24 | 2024–25 | 2025–26 | 2026–27 | 2027–28 | 2028–29 |
|-----------------------------------------------------|---------------------|------------|------------|------------|------------|------------|
| AER final decision | | | | | | |
| Residential annual electricity bill | 2,592 ^a | 2,663 | 2,815 | 2,946 | 3,097 | 3,171 |
| Annual change ^b | – | 71 (2.8%) | 151 (5.7%) | 131 (4.7%) | 151 (5.1%) | 74 (2.4%) |
| Small business annual electricity bill | 10,313 ^a | 10,518 | 10,952 | 11,329 | 11,763 | 11,974 |
| Annual change ^b | – | 205 (2.0%) | 434 (4.1%) | 377 (3.4%) | 434 (3.8%) | 212 (1.8%) |
| Power and Water Corporation revised proposal | | | | | | |
| Residential annual electricity bill | 2,592 ^a | 2,660 | 2,806 | 2,932 | 3,077 | 3,171 |
| Annual change ^b | – | 68 (2.6%) | 147 (5.5%) | 126 (4.5%) | 145 (4.9%) | 94 (3.1%) |
| Small business annual electricity bill | 10,313 ^a | 10,507 | 10,928 | 11,290 | 11,705 | 11,976 |
| Annual change ^b | – | 194 (1.9%) | 421 (4.0%) | 362 (3.3%) | 415 (3.7%) | 271 (2.3%) |

Source: AER analysis; PWC, *Reset RIN Workbook 5 Indicative Bill Impact*, January 2023. Utilities Commission of the Northern Territory, *2023–24 Electricity Pricing order*, June 2023.

- (a) PWC, *Reset RIN Workbook 5 Indicative Bill Impact*, January 2023, Utilities Commission of the Northern Territory, *2023–24 Electricity Pricing order*, June 2023.
- (b) Annual change amounts and percentages are indicative. They are derived by varying the distribution component of the 2023–24 bill amounts in proportion to yearly expected revenue divided by forecast energy as provided by Power and Water Corporation. Actual bill impacts will vary depending on electricity consumption and tariff class.

Shortened forms

| Term | Definition |
|--------|--------------------------------------------------|
| AER | Australian Energy Regulator |
| ARR | annual revenue requirement |
| capex | capital expenditure |
| CESS | capital expenditure sharing scheme |
| CPI | consumer price index |
| DMIAM | demand management innovation allowance mechanism |
| NT NER | National Electricity Rules – Northern Territory |
| NPV | net present value |
| opex | operating expenditure |
| PTRM | post-tax revenue model |
| RAB | regulatory asset base |
| SCS | standard control services |
