

# Final Decision

## SA Power Networks Electricity Distribution Determination 2025 to 2030 (1 July 2025 to 30 June 2030)

### Attachment 14 Control mechanisms

April 2025

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### **Amendment record**

Version	Date	Pages
1	30 April 2025	21

# List of attachments

This attachment forms part of the Australian Energy Regulator's (AER's) final decision on the distribution determination that will apply to SA Power Networks for the 2025–30 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. Where an attachment has not been prepared, our draft decision reasons form part of this final decision. The final decision attachments have been numbered consistently with the equivalent attachments to our draft decision.

The final decision includes the following attachments:

Overview

Attachment 1 – Annual revenue requirement

Attachment 2 – Regulatory asset base

Attachment 4 – Regulatory depreciation

Attachment 5 – Capital expenditure

Attachment 7 – Corporate income tax

Attachment 10 – Service target performance incentive scheme

Attachment 13 – Classification of services

**Attachment 14 – Control mechanisms**

Attachment 16 – Alternative control services

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# 14 Control mechanisms

Control mechanisms impose limits over the prices of direct control services (standard and alternative control services) and/or the revenues that distribution network service providers (distributors) can recover from customers for these services. For standard control services, the National Electricity Rules (NER) require the control mechanism be of the prospective CPI-X form (or some incentive-based variant).<sup>1</sup>

The forms of the control mechanisms that will apply to a distribution determination and the formulae that give effect to those control mechanisms are considered during the framework and approach (F&A) stage. There are limited circumstances where the AER may depart from the control mechanisms set out in the F&A paper.<sup>2</sup> For example, we can only depart from the formulae if we consider there has been a material change in circumstances.

This attachment discusses:

- the form and formulae of the control mechanisms for standard control services<sup>3</sup>
- the form and formulae of the control mechanisms for alternative control services<sup>4</sup>
- how compliance with the control mechanisms is to be demonstrated, including the mechanism through which SA Power Networks will recover distribution revenues and account for revenue under or over recovery<sup>5</sup>
- how SA Power Networks is to report on their recovery of designated pricing proposal charges (largely from transmission networks) and jurisdictional scheme amounts, including adjustments for under or over recovery of these amounts<sup>6</sup>
- other mechanisms that support the control mechanisms and compliance with regulatory settings.

We apply the mechanisms addressed in this attachment, including all related formulae and interpretations, through our standardised annual pricing models.

## 14.1 Final decision

Our final decision for SA Power Networks is as follows:

- The form of control mechanism for standard control services is a revenue cap. Section 14.4 provides our final decision including the revenue cap formulae (Figure 14.1), which now include legacy metering services (Figure 14.2 and Figure 14.3).
- The form of control mechanism for alternative control services is a price cap. Section 14.5 provides our final decision which includes:

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<sup>1</sup> NER, cl. 6.2.6(a).

<sup>2</sup> NER, cll. 6.12.3(c) and (c1).

<sup>3</sup> NER, cl. 6.12.1(11).

<sup>4</sup> NER, cl. 6.12.1(12).

<sup>5</sup> NER, cl. 6.12.1(13).

<sup>6</sup> NER, cll. 6.12.1(19) and (20).

- The price cap formulae for fee-based ancillary network services and public lighting services (Figure 14.4).
- The price cap formula for quoted ancillary network services (Figure 14.5).
- The mechanism and formulae to demonstrate compliance with the side constraint are provided in Appendix A (Figure A.1).
- The mechanisms to demonstrate compliance with the revenue cap are the unders/overs statement and account. These mechanisms are provided in Appendix B.
- The mechanisms to demonstrate compliance with reporting of designated pricing proposal charges and jurisdictional scheme amounts are the relevant unders/overs statements and accounts. These mechanisms are provided in Appendix B.
- The templates for demonstrating compliance using these mechanisms are the standardised pricing models. This template is addressed in Appendix C.
- Other rules and notes relating to the demonstration of compliance within these mechanisms, including rounding, are provided in Appendix D.

Where our final decision is unchanged from the draft decision, we do not repeat our reasoning in the final decision.<sup>7</sup>

## 14.2 SA Power Networks' revised proposal

SA Power Networks did not provide a response to our draft decision in relation to control mechanisms in its revised proposal. SA Power Networks' initial proposal accepted the decisions in our final F&A to:<sup>8</sup>

- Apply revenue caps to standard control services.
- Apply price caps to alternative control services.

The initial proposal also included:

- The formulae that give effect to the revenue caps for standard control services. This included updates to the F&A formulae to account for the reclassification of legacy metering services to standard control services, based on our November 2023 guidance note.<sup>9</sup>
- The formulae that give effect to the price caps for alternative control services. This included the addition of margin and tax components in its quoted services formula.
- The application of the AER's final position on the side constraint mechanism.

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<sup>7</sup> AER, *Draft Decision Attachment 14 - Control mechanisms - SA Power Networks - 2025-30 Distribution revenue proposal*, September 2024.

<sup>8</sup> SA Power Networks, *Attachment 1 - Annual revenue requirement and control mechanism*, January 2024, pp. 9–10, 16–17; SA Power Networks, *Attachment 15 - Alternative Control Services*, January 2024, pp. 27–28.

<sup>9</sup> AER, *Legacy metering services - guidance for revised proposals*, November 2023.

## 14.3 Assessment approach

Our approach to assessing the form of control mechanisms is unchanged from our final F&A and draft decision, which has regard to the requirements set out in the NER.<sup>10</sup>

The final F&A sets the form of control mechanism and binds our determination. However, some parameters of the formulae were left open so they can be better defined in our determination.<sup>11</sup> The draft decision clarified our position regarding these parameters.<sup>12</sup>

We may only make changes to the formulae specified in the F&A where we are satisfied that there has been a material change in circumstances.<sup>13</sup> If we are satisfied that a material change in circumstances has occurred, then we would either propose changes or consider the merits of proposed changes to the formulae as relevant.

Consistency of regulatory arrangements for similar services is a consideration the AER must have regard to when considering control mechanisms as described in the NER. We consider there are benefits in maintaining a consistent approach to the control mechanisms across distributors within the same jurisdiction and across jurisdictions where possible, subject to specific circumstances and new information that becomes available over time. The benefits of consistency in approach include accessibility for stakeholders, and the ability to benchmark and report.

## 14.4 Final decision for standard control services

The following sets out our final decision on the control mechanism formulae for standard control services. It also sets our decision in relation to:

- deliberately under-recovered revenue
- unpaid network charges from retailer of last resort events
- the reporting of designated pricing proposal charges
- the reporting of jurisdictional scheme amounts
- the rounding of inputs in annual pricing proposals.

Where our decision is unchanged from the draft decision, we do not repeat our reasoning in the final decision.<sup>14</sup>

### 14.4.1 Control mechanism formulae for standard control services

Our final decision on the formulae gives effect to the control mechanism set out in the final F&A. There are no changes since the draft decision. Figure 14.1 sets out revenue cap formulae and definitions for variables for non-metering ('main') standard control services. Figure 14.2 sets out for certain variables the alternate definitions for metering standard

<sup>10</sup> NER, cll. 6.2.5(c) and (d).

<sup>11</sup> AER, *Final Framework and Approach, SA Power Networks 2025-30*, July 2023, pp. 13–18.

<sup>12</sup> AER, *Draft Decision Attachment 14 - Control mechanisms - SA Power Networks - 2025-30 Distribution revenue proposal*, September 2024.

<sup>13</sup> NER, cll. 6.12.3(c) and (c1).

<sup>14</sup> AER, *Draft Decision Attachment 14 - Control mechanisms - SA Power Networks - 2025-30 Distribution revenue proposal*, September 2024.

control services which use the formulae in Figure 14.1, noting where there is no alternate definition the same definition applies as for the main standard control services.

**Figure 14.1 Revenue cap formulae**

Formula	Equation	where
1.	$TAR_t \geq \sum_{i=1}^n \sum_{j=1}^m p_t^{ij} q_t^{ij}$	$i = 1, \dots, n$ $j = 1, \dots, m$ $t = 1, 2, 3, 4, 5$
2.	$TAR_t = AAR_t + I_t + B_t + C_t$	$t = 1, 2, 3, 4, 5$
3.	$AAR_t = AR_t$	$t = 1$
4.	$AAR_t = AAR_{t-1} \times (1 + \Delta CPI_t) \times (1 - X_t)$	$t = 2, 3, 4, 5$
5.	$B_t = b_t + A_t$	$t = 1, 2, 3, 4, 5$
6.	$b_t = -O_t \times (1 + WACC_t)^{0.5}$	$t = 1, 2, 3, 4, 5$
7.	$A_t = a_t^1 + a_{t-1}^2 \times (1 + WACC_t) + a_{t-2}^3 \times (1 + WACC_{t-1}) \times (1 + WACC_t)$	$t = 1, 2, 3, 4, 5$
8.	$WACC_t = (1 + rvWACC_t) \times (1 + CPI_t) - 1$	$t = 1, 2, 3, 4, 5$

where:

Variable	Represents
$t$	the relevant regulatory year, with $t = 1$ being the 2025–26 financial year.
$TAR_t$	the total annual revenue for year $t$ , calculated as per formula 2 above.
$p_t^{ij}$	the price of component 'j' of tariff 'i' for year $t$ .
$q_t^{ij}$	the forecast quantity of component 'j' of tariff 'i' for year $t$ .
$AR_t$	the annual smoothed revenue requirement in the Post Tax Revenue Model (PTRM) for year $t$ .
$AAR_t$	the adjusted annual smoothed revenue requirement for year $t$ , calculated as per formulae 3 and 4 above.
$I_t$	the sum of incentive scheme adjustments for year $t$ . Where applicable, incorporates revenue adjustments relating to the outcomes of: <ul style="list-style-type: none"> <li>the service target performance incentive scheme (STPIS) (S-factor) in relation to regulatory year <math>t-2</math>.</li> <li>the demand management incentive scheme (DMIS) in relation to regulatory year <math>t-2</math></li> <li>the demand management innovation allowance mechanism (DMIAM) relating to the 2020–25 regulatory control period to be applied in regulatory year <math>t = 2</math> only</li> <li>the customer service incentive scheme (CSIS) (H-factor) in relation to regulatory year <math>t-2</math></li> <li>the export service incentive scheme (ESIS) (E-factor) in relation to the regulatory year <math>t-2</math></li> <li>any other related incentive schemes as applicable that are to be applied in year <math>t</math>.</li> </ul>



Variable	Represents
$B_t$	the sum of annual adjustment factors for year t, calculated as per formula 5 above. It includes: <ul style="list-style-type: none"> <li>the true-up of any under or over recovery of actual revenue (b-factor) collected through distribution use of system (DUoS) charges calculated using the method outlined in formula 6.</li> <li>any other bespoke adjustments the AER deems necessary (A-factor). These include but are not limited to: residuals of jurisdictional scheme amounts upon cessation, applicable licence fee payments, or other true-ups not provided for elsewhere. These adjustments will apply the time value of money where appropriate, calculated as per formula 7 above.</li> </ul>
$C_t$	the approved pass-through amounts (positive or negative) for year t, as determined by the AER. It will also include any annual or end of period adjustments for year t.
$\Delta CPI_t$	the annual percentage change in the Australian Bureau of Statistics' (ABS) Consumer Price Index (CPI) All Groups, Weighted Average of Eight Capital Cities <sup>15</sup> from December in year t–2 to December in year t–1. For example, for 2025–26, t–2 is December 2023 and t–1 is December 2024.
$X_t$	the X factor in year t, incorporating annual adjustments to the PTRM for the trailing cost of debt.
$b_t$	the true-up for the balance of the DUoS unders and overs account in year t, calculated as per formula 6 above.
$O_t$	the opening balance of the DUoS unders and overs account in year t as calculated by the method in Appendix B.
$WACC_t$	the approved weighted average cost of capital (WACC) used in regulatory year t in the DUoS unders and overs account in Appendix B. The WACC is updated annually to apply actual inflation, calculated as per formula 8 above. It is also applied to true-up mechanisms to adjust for the time value of money.
$A_t$	the sum of bespoke adjustments, including the application of the time value of money where appropriate, calculated as per formula 7 above.
$a_t^1$	the bespoke adjustment '1' for year t. Formula 7 above demonstrates the application of the time value of money for different bespoke adjustments relating to different regulatory years, and is not intended to be limited to these adjustments.
$rvWACC_t$	the real vanilla WACC provided in the annually updated PTRM for year t.

**Figure 14.2 Revenue cap formulae definitions for legacy metering services**

Variable	Represents
$AR_t$	the annual smoothed revenue requirement in the Metering PTRM for year t.
$I_t$	equals 0 for metering as there are no applicable incentive schemes.
$B_t$	the sum of annual adjustment factors for year t, calculated as per formula 5 above. It includes:

<sup>15</sup> If the ABS does not or ceases to publish the index, then CPI will mean an index which the AER considers is the best available alternative index.

Variable	Represents
	<ul style="list-style-type: none"> <li>the true-up of any under or over recovery of actual revenue (b-factor) collected through metering charges calculated using the method outlined in formula 6.</li> <li>the true-up of metering operating expenditure (opex) for variations in metering volumes as a result of legacy metering retirement plans (see section 14.4.1.1 and Figure 14.3 below).</li> <li>any other bespoke adjustments the AER deems necessary (A-factor). These include other true-ups not provided for elsewhere. These adjustments will apply the time value of money where appropriate, calculated as per formula 7 above.</li> </ul>
$C_t$	the approved metering pass-through amounts (positive or negative) for year t, as determined by the AER. It will also include any annual or end of period adjustments for year t.
$X_t$	the X factor in year t, incorporating annual adjustments to the metering PTRM for the trailing cost of debt.
$b_t$	the true-up for the balance of the metering unders and overs account in year t, calculated as per formula 6 above.
$O_t$	the opening balance of the metering unders and overs account in year t as calculated by the method in Appendix B.
$WACC_t$	the approved weighted average cost of capital (WACC) used in regulatory year t in the metering unders and overs account in Appendix B. The WACC is updated annually to apply actual inflation, calculated as per formula 8 above. It also applies to true-up mechanisms to adjust for the time value of money.
$rvWACC_t$	the real vanilla WACC provided in the annually updated metering PTRM for year t.

#### 14.4.1.1 Metering services true-up mechanism

Figure 14.3 sets out the annual true-up mechanism to allow SA Power Networks to recover its reasonable costs and reduce the risks involved in the smart meter rollout (due to the significant degree of uncertainty relating to rollout forecasts over the 2025–30 period). The outcome of applying this true-up mechanism must be included in the A factor (i.e. Formula 7 in Figure 14.1).

**Figure 14.3 Metering true-up mechanism**

Formula	Equation	where
1.	$a_t^{\text{metering}} = \frac{(b_{t-1}^{\text{metering}} + b_{t-2}^{\text{metering}})}{(AR_t^{\text{metering}})}$	$t = 2, 3, 4, 5$
2.	$b_{t-1}^{\text{metering}} = (O_{t-1}^{\text{estimate}} - O_{t-1}^{\text{forecast}}) \times (1 + WACC_t)$	$t = 2, 3, 4, 5$
3.	$b_{t-2}^{\text{metering}} = (O_{t-2}^{\text{actual}} - O_{t-2}^{\text{estimate}}) \times (1 + WACC_{t-1}) \times (1 + WACC_t)$	$t = 2, 3, 4, 5$
4.	$WACC_t = (1 + rvWACC_t) \times (1 + CPI_t) - 1$	$t = 2, 3, 4, 5$

where:

Variable	Represents
$a_t^{\text{metering}}$	the calculated adjustment to true-up metering operating expenditure for year $t$ , calculated as per formula 1 above.
$a_{t-1}^{\text{metering}}$	the calculated adjustment to true-up metering operating expenditure for year $t-1$ , as applied in the previous year's annual pricing proposal. In year 2 (2026–27) the value is zero.
$b_{t-1}^{\text{metering}}$	the balancing adjustment for year $t-1$ , calculated as per formula 2 above. This reflects the true-up of estimated opex against forecast opex.
$b_{t-2}^{\text{metering}}$	the balancing adjustment for year $t-2$ , calculated as per formula 3 above. This reflects the true-up of actual opex against the previously estimated opex. In year 2 (2026–27) the value is zero.
$O_{t-1}^{\text{forecast}}$	the forecast opex as included in the metering PTRM for year $t-1$ .
$O_{t-1}^{\text{estimate}}$	the estimated opex for year $t-1$ , provided by the distributor in its annual pricing proposal.
$O_{t-2}^{\text{estimate}}$	the estimated opex for year $t-2$ , as previously provided by the distributor in its previous annual pricing proposal.
$O_{t-2}^{\text{actual}}$	the actual opex for year $t-2$ , as reported in the regulatory information notices (or similar).
$WACC_t$	The approved weighted average cost of capital (WACC) used in regulatory year $t$ in the DUoS unders and overs account in Appendix B. The WACC reflects actual inflation, calculated as per formula 4 above. For the avoidance of doubt, this WACC will be the annually updated WACC used for SCS.

#### 14.4.2 Deliberately under-recovered revenue

We accept there are times when SA Power Networks may decide to deliberately recover less than their allowed revenue. This contrasts with unintentional under recovery due to a clerical error or a natural variation between forecast quantities of a service offered and actual quantities achieved. In the event of a deliberate under-recovery, this revenue will not be counted as an under recovery for the purpose of the unders and overs mechanism and by extension will therefore subsequently not be allowed to be recovered from customers in future years, i.e. it will not increase the total allowable revenue in future years.

#### 14.4.3 Unpaid network charges resulting from retailer of last resort events

During the 2020–25 period, we have seen an increase in retailer of last resort (ROLR) events. These events generally involve the insolvency of a retailer, resulting in an unpaid balance of network charges that are not recovered from that retailer.

In such events, distributors can recover these amounts through a cost pass-through. However, due to the substantial number of qualifying cost pass-through events in recent years, we have introduced a line item in the unders and overs mechanism to account for these events (see Table 1 in Appendix B). This removes the administrative burden to both distributors and the AER of a cost pass-through application. We consider the recovery of these amounts to be minor in nature.

#### 14.4.4 Side constraint mechanism

For standard control services, the NER provides for additional consumer protections through the operation of a side constraint on tariffs.<sup>16</sup> In Appendix A, we outline how the mechanism operates to ensure that any annual increases in revenues for a particular tariff class do not exceed increases provided under the control mechanism by more than 2%.

#### 14.4.5 Reporting on designated pricing proposal charges

We must decide how SA Power Networks will report on the recovery of designated pricing proposal charges for each year of the 2025–30 period and how to account for any under or over recovery of revenue associated with those charges.<sup>17</sup>

We apply a mechanism, set out in Appendix B, to facilitate this reporting and account for the annual true-up of under and over recovery of revenue. This approach is similar to the DUoS revenue unders and overs mechanism and is consistent with the NER requirements.<sup>18</sup> It is also consistent with the approach applied to distributors in other jurisdictions.

#### 14.4.6 Reporting on jurisdictional scheme amounts

We must decide how SA Power Networks will report on the recovery of jurisdictional scheme amounts for each year of the 2025–30 period and how to account for any under or over recovery of revenue associated with those charges.<sup>19</sup>

We apply a mechanism, set out in Appendix B, to facilitate this reporting and account for the annual true-up of under and over recovery of revenue. This approach is similar to the DUoS revenue under and over recovery mechanism and is consistent with the NER requirements.<sup>20</sup> It is also consistent with the approach applied to distributors in other jurisdictions.

#### 14.4.7 Rounding of inputs in annual pricing proposal process

When reporting on compliance as part of the annual pricing proposal process each year of the 2025–30 period, we require that certain calculation inputs be used on an unrounded basis while others may be used on a rounded basis. The process for rounding and the specific inputs to be rounded are detailed in Appendix D.

### 14.5 Final decision for alternative control services

The following sets out our final decision on the control mechanism formulae for alternative control services.

#### 14.5.1 Control mechanism formulae for alternative control services

Our final decision on the formulae gives effect to the control mechanism set out in the final F&A. There are no changes since the draft decision. Figure 14.4 and Figure 14.5 set out the

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<sup>16</sup> NER, cl. 6.18.6.

<sup>17</sup> NER, cl. 6.12.1(19).

<sup>18</sup> NER, cl. 6.18.7.

<sup>19</sup> NER, cl. 6.12.1(20).

<sup>20</sup> NER, cl. 6.18.7A.

price cap formulae to apply for alternative control services (where applicable) in the 2025–30 period.

**Figure 14.4 Price cap formulae (fee-based ancillary network services and public lighting)**

Formula	Equation	where
1.	$\bar{p}_t^i \geq p_t^i$	$i = 1, \dots, n$ $t = 1, 2, 3, 4, 5$
2.	$\bar{p}_t^i = \bar{p}_{t-1}^i \times (1 + \Delta CPI_t) \times (1 - X_t^i) \times (1 + A_t^i)$	$i = 1, \dots, n$ $t = 2, 3, 4, 5$

where:

Variable	Represents
$t$	the regulatory year with $t = 1$ being the 2025–26 financial year.
$\bar{p}_t^i$	the cap on the price of service ‘i’ for year $t$ .
$p_t^i$	the price of service ‘i’ in year $t$ . The initial value is to be decided in the distribution determination.
$\bar{p}_{t-1}^i$	the cap on the price of service ‘i’ for year $t-1$ .
$\Delta CPI_t$	the annual percentage change in the Australian Bureau of Statistics’ (ABS) Consumer Price Index (CPI) All Groups, Weighted Average of Eight Capital Cities <sup>21</sup> from December in year $t-2$ to December in year $t-1$ . For example, for 2025–26, $t-2$ is December 2023 and $t-1$ is December 2024.
$X_t^i$	the X-factor for service ‘i’ in year $t$ . The value of this factor is as specified in Attachment 16 – Alternative control services.
$A_t^i$	the sum of any adjustments for service ‘i’ in year $t$ . This includes any bespoke adjustments the AER deems necessary, applying the time value of money where appropriate.

**Figure 14.5 Price cap formulae (quoted services)**

Formula	Equation	Where
1.	$\bar{p}_t = \text{Labour}_t + \text{Contractor Services}_t + \text{Materials}_t + \text{Margin}_t + \text{Tax}_t$	$t = 1, 2, 3, 4, 5$
2.	$\text{Labour}_t = \text{Labour}_{t-1} (1 + \Delta CPI_t) \times (1 - X_t^i)$	$t = 2, 3, 4, 5$
3.	$\text{Margin}_t = 6\% \times (\text{Labour}_t + \text{Contractor Services}_t + \text{Materials}_t)$	$t = 1, 2, 3, 4, 5$

where:

<sup>21</sup> If the ABS does not or ceases to publish the index, then CPI will mean an index which the AER considers is the best available alternative index.

Variable	Represents
$t$	the regulatory year with $t = 1$ being the 2025–26 year.
$\bar{p}_t$	the applicable price cap for the requested service.
Labour	the labour costs directly incurred in the provision of the service which may include labour on-costs, fleet on-costs and overheads. Labour is escalated annually by CPI-X, calculated as per formula 2 above.
$\Delta CPI_t$	the annual percentage change in the Australian Bureau of Statistics' (ABS) Consumer Price Index (CPI) All Groups, Weighted Average of Eight Capital Cities <sup>22</sup> from December in year $t-2$ to December in year $t-1$ . For example, for 2025–26, $t-2$ is December 2023 and $t-1$ is December 2024.
$X_t^i$	the X factor for labour rate 'i' in year t. The value of this factor is as specified in Attachment 16 – Alternative control services.
Contractor Services	the costs associated with the use of external labour including overheads and any direct costs incurred. The contracted services charge applies the rates under existing contractual arrangements. Direct costs incurred are passed on to the customer.
Materials	the cost of materials directly incurred in the provision of the service, material storage and logistic on-costs and overheads.
Margin	6% multiplied by the sum of labour, contractor services, and materials, calculated as per formula 3 above.
Tax	the tax payable at the company tax rate of 30% on the capital component of the expenditure (revenue less expenses) that incurs a tax liability.

### 14.5.2 Addition of new alternative control services

Distributors should propose changes to their alternative control services as a part of their regulatory proposals. However, we understand there are times where a distributor cannot foresee a specific new service at the time of the regulatory determination. This is especially relevant in public lighting where new technologies are emerging, including more advanced light-emitting diode (LED) lamps and the integration of smart devices in public lighting infrastructure.

During the 2025–30 period, we will allow distributors to propose new services. New services should only be introduced because customers want them (customer driven) or need them (replacing other services that are no longer available). Our assessment of new services will include consideration of the extent customers have transparency over the costs of the service as well as the likely benefits to customers from the service.

Where new services are to be introduced that clearly fall within one of the established service groupings, such as public lighting, a quoted price approach is to be adopted with the price to be based on a relevant service within that same service grouping. For example, the price for a new type of public lighting would be based on a relevant public lighting service.

<sup>22</sup> If the ABS does not or ceases to publish the index, then CPI will mean an index which the AER considers is the best available alternative index.

Prices for new services will be formalised as a part of the annual pricing process. However, we encourage distributors to engage with us as early as possible on any proposed new service.

Prior to submitting their annual pricing proposal, the distributors must submit to the AER:

- a detailed description of the service along with how the new service will be charged
- the proposed quoted price setting out each cost component consistent with the price cap formulae for quoted services above and
- demonstration of customer engagement and support.

The AER will consider the proposal for inclusion in the relevant annual pricing proposal. This is consistent with our F&A, and regulatory determinations across all NEM jurisdictions.<sup>23</sup>

### **14.5.3 Transparency of quoted services**

Our final decision includes requirements around transparency of billing for quoted services. Prior to the customer agreeing to receive the services:

- Distributors must provide itemised invoices to the customer or the service recipient. The itemised invoices must show all cost components. At a minimum, invoices must contain information on the cost components to demonstrate compliance with the control mechanism formula for quoted services.
- The charges must be consistent with good industry practice in terms of the resource requirements.

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<sup>23</sup> See for example, AER, *Final Decision Attachment 14 - Control mechanisms - NSW, ACT, NT and Tas - 2024–29 Distribution revenue proposal*, April 2024, p. 13.

## A Side constraint mechanism

Figure A.1 sets out the side constraint formulae to apply for the 2025–30 period. These formulae apply when year  $t = 2, 3, 4$  and  $5$ . Similar to the revenue cap formulae, these formulae will each apply to the main SCS component and the metering SCS component in parallel.

**Figure A.1 Side constraint formulae**

Formula	Equation
1.	$PP_t \geq \frac{SCR_t}{SCR_{t-1}}$
2.	$PP_t = ((1 + \Delta CPI_t) \times (1 - X_t) \times (1 + 2\%) - 1) \times D_t + AA_t + Q_t + 1$
3.	$SCR_t = \sum_{i=1}^m \sum_{j=1}^n p_t^{ij} q_t^{ij}$
4.	$SCR_{t-1} = \sum_{i=1}^m \sum_{j=1}^n p_{t-1}^{ij} q_t^{ij}$
5.	$D_t = \frac{AAR_{t-1}}{SCR_{t-1}}$
6.	$AA_t = \frac{(I_t + C_t + B_t) - (I_{t-1} + C_{t-1} + B_{t-1})}{SCR_{t-1}}$
7.	$Q_t = \left( \frac{TAR_{t-1}}{SCR_{t-1}} - 1 \right)$

where each tariff class has “n” tariffs, with each up to “m” components, and where:

Variable	Represents
$PP_t$	the permissible percentage for year $t$ , calculated as per formula 2 above.
$SCR_t$	the side constraint revenue for year $t$ , calculated as the sum of the products of proposed prices and forecast quantities for year $t$ , calculated as per formula 3 above.
$SCR_{t-1}$	the side constraint revenue for year $t-1$ , calculated as the sum of the products of prices charged for year $t-1$ and forecast quantities for year $t$ , calculated as per formula 4 above.
$\Delta CPI_t$	the annual percentage change in the Australian Bureau of Statistics’ (ABS) Consumer Price Index (CPI) All Groups, Weighted Average of Eight Capital Cities <sup>24</sup> from December in year $t-2$ to December in year $t-1$ . For example, for 2025–26, $t-2$ is December 2023 and $t-1$ is December 2024. This is as per the change in CPI used in the revenue cap formulae in Figure 14.1 above.
$X_t$	the X-factor for each year of the regulatory control period as determined in the post-tax revenue model, and annually revised for the return of debt update. This is as per the X-factor used in the

<sup>24</sup> If the ABS does not or ceases to publish the index, then CPI will mean an index which the AER considers is the best available alternative index.



Variable	Represents
	revenue cap formulae. If $X > 0$ , then $X$ will be set equal to zero for the purposes of the side constraint formula.
2%	the additional 2% threshold defined in cl. 6.18.6(c) of the NER.
$D_t$	the adjustment to create a common revenue base, calculated as per formula 5 above.
$AA_t$	the annual percentage change in the sum of all annual adjustment factors (I, B and C factors). This is calculated by dividing the total incremental revenues (the difference between the factors used in the total annual revenue formula for regulatory year $t$ and year $t-1$ ) by the expected revenues for year $t-1$ ( $SCR_{t-1}$ ). This calculation is provided at formula 6 above.
$Q_t$	the adjustment made each year to account for changes in quantities from the preceding year. The Q factor calculation is provided at formula 7 above.
$p_t^{ij}$	the proposed price for component 'j' of tariff 'i' for year $t$ .
$q_t^{ij}$	the forecast quantity for component 'j' of tariff 'i' for year $t$ .
$p_{t-1}^{ij}$	the price charged for component 'j' of tariff 'i' for year $t-1$ .
$AAR_{t-1}$	the adjusted annual revenue requirement for year $t-1$ , as used in the revenue cap formulae in Figure 14.1 above in the preceding and current years.
$I_t$	the sum of incentive scheme adjustments in year $t$ , as per the revenue cap formulae in Figure 14.1 above.
$C_t$	the sum of approved cost pass through amounts (positive or negative) in year $t$ , as determined by the AER. It will also include any end-of-period adjustments to be made in year $t$ , as per the revenue cap formulae in Figure 14.1 above.
$B_t$	the sum of annual adjustment factors for year $t$ , as per the revenue cap formulae in Figure 14.1 above. It includes adjustments to balance the unders/overs account, relating to previous under/over-recoveries of revenue.
$I_{t-1}$	the sum of incentive scheme adjustments in year $t-1$ . This is as per the approved $t-1$ pricing proposal.
$C_{t-1}$	the sum of approved cost pass through amounts (positive or negative) in year $t-1$ , as determined by the AER. This is as per the approved $t-1$ pricing proposal.
$B_{t-1}$	the sum of annual adjustment factors for year $t$ . It includes adjustments to balance the unders/overs account, relating to previous under/over-recoveries of revenue. This is as per the approved $t-1$ pricing proposal. For the avoidance of doubt, the B factor for $t-1$ should be equal to that used to calculate $t-1$ revenue in the previous pricing proposal and should not be updated for movements in the unders/overs accounts in the year $t$ pricing proposal.
$TAR_{t-1}$	the total allowable revenue for year $t-1$ , calculated using the revenue cap control formula in the preceding year.
$t$	the forecast regulatory year.

## B Unders and overs mechanism

To demonstrate compliance with the distribution determination applicable to it during the 2025–30 period, distributors must comply with the unders and overs mechanism in their annual pricing proposals.

Separate unders and overs mechanisms must be maintained for each of the following:

- Distribution use of system (DUoS) charges
- Metering services
- Designated pricing proposal charges (DPPC)<sup>25 26</sup>
- Jurisdictional scheme amounts (JSA).<sup>27 28</sup>

The unders and overs mechanism incorporates both an unders and overs statement and an unders and overs account. The unders and overs statement provides the revenues and expenditures (or allowed revenues for revenue caps) and calculates under or over-recoveries. The unders and overs account carries forward under and over-recoveries from previous years, applies the time value of money, and calculates the balancing adjustment to be applied to the revenue cap to balance the account each year.

The unders and overs statement must include the following entries for the most recently completed regulatory year (t–2), the current regulatory year (t–1) and the next (or forecast) regulatory year (t). An example of an unders and overs statement is provided in Table 1.

- Forecast/estimated/actual revenue:
  - For DPPC, this will include cross-boundary revenue.
  - To include any deliberate under-recoveries, which will be added to recovered revenue, as this is not able to be recovered in future years (see section 14.4.2).
  - To include any unpaid network charges resulting from ROLR events (see section 14.4.3).
- Applicable revenue caps for DUoS charges (and metering services where applicable) – these revenue caps are fixed over time and are not updated in subsequent years.
- Forecast/estimated/actual expenditure for DPPC and JSA – these items should be itemised as provided for in the annual pricing proposal template.
- The balancing adjustment (b-factor) for each year – these adjustments are fixed over time and are not updated in subsequent years.

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<sup>25</sup> DPPC generally related to amounts passed through by a distributor in relation to the transmission of electricity from or to networks outside of their own. DPPC are specified in more detail in NER clause 11.39.

<sup>26</sup> NER, cll. 6.18.2(b)(6), 6.12.1(19), 6.18.7.

<sup>27</sup> Jurisdictional scheme amounts are amounts passed through under a jurisdictional scheme approved by the AER or prescribed in the NER.

<sup>28</sup> NER, cll. 6.12.1(20), 6.18.2(b)(6A), 6.18.7A(b) and (c).

**Table 1** Example unders and overs statement (\$'000, nominal)

		Year t–2 (actual)	Year t–1 (estimate)	Year t (forecast)
Revenue from charges	i	100 000	103 000	92 266
Cross-boundary revenue (DPPC only)	ii			
Deliberate under-recoveries	lii	50	50	50
Unpaid network charges (ROLR)	iv	10		
<b>Total revenue</b>	<b>i + ii + lii - iv = A</b>	<b>100 040</b>	<b>103 050</b>	<b>92 316</b>
Total allowable revenue <sup>a</sup> /DPPC or JSA expenditure <sup>b</sup>		98 000	99 000	100 000
<b>Total allowable revenue/Total DPPC expenditure/Total JSA expenditure</b>	<b>B</b>	<b>98 000</b>	<b>99 000</b>	<b>100 000</b>
<b>Total under/over recovery of revenue for regulatory year</b>	<b>A - B = C</b>	<b>2 040</b>	<b>4 050</b>	<b>-7 684</b>
Balancing adjustment (b-factor) made when year was 't' <sup>c</sup>	D	5 000	5 000	-7 684 <sup>d</sup>
<b>Net under/over recovery of revenue for regulatory year</b>	<b>C - D = E</b>	<b>-2 960</b>	<b>-950</b>	<b>0</b>

Notes: (a) Total allowable revenue for a revenue cap should exclude the balancing adjustment applied for revenue under/over recovery for the regulatory year and are therefore expected to equal the sum of the remaining annual adjustments, excluding  $b_t$ , as set out in Figure 14.1.

(b) DPPC and JSA expenditure will be itemised in their respective unders and overs statement in line with the annual pricing proposal template.

(c) The balancing adjustment applied in the revenue cap for each relevant regulatory year. This is as approved in the relevant pricing proposal and should remain unchanged.

(d) Approved DUoS revenue under/over recovery for regulatory year t.

The unders and overs account must include the following entries for the most recently completed regulatory year (t–2), the current regulatory year (t–1) and the next (or forecast) regulatory year (t). An example unders and overs account is provided in Table 2.

1. Opening balances for each regulatory year (reflecting the closing balance of the previous year).
2. An interest charge for one year on the opening balance for each regulatory year.
3. The net under or over recovery calculated in the unders and overs statement for each regulatory year, and any applicable adjustment to remove under or over recovery amounts from the account.<sup>29</sup>

<sup>29</sup> These adjustments include, but are not limited to, bespoke smoothing arrangements set in our Determination in response to significant unforeseen events, jurisdictional schemes that treat under or over recoveries within the scheme, removal of residual true-ups after jurisdictional schemes have ceased.

4. An interest charge for 6 months on the net under or over recovery for each regulatory year.
5. The total sum of items 1–4 to derive the closing balance for each regulatory year.

**Table 2 Example unders and overs account (\$'000, nominal)**

		Year t–2 (actual)	Year t–1 (estimate)	Year t (forecast)
Adjusted nominal WACC (per cent)	F	5.00%	5.50%	6.00%
Opening balance	G	1 000	3 140 <sup>a</sup>	7 463
Interest on opening balance	$F \times G = H$	50	173	448
Under/over recovery of revenue for regulatory year	E (from statement)	2 040	4 050	-7 684
Adjustment	I	0	0	0
Interest on under/over recovery for regulatory year	$(E - I) \times F^{0.5} = J$	50	100	-227
<b>Closing balance</b>	$G + H + E + I + J = K$	<b>3 140</b>	<b>7 463</b>	<b>0<sup>b</sup></b>

Notes: (a) Opening balance is the previous year's closing balance.

(b) Distributors are expected to achieve a closing balance as close to zero as practicable (and less than or equal to 0) in their unders and overs accounts in each forecast year in their annual pricing proposals.

Interest charges are to be calculated using the relevant adjusted nominal WACC. The adjusted nominal WACC applied for each year will be the real vanilla WACC approved by the AER in the relevant annual update, escalated for actual inflation for the relevant year.<sup>30</sup> This is as applied in the revenue cap formulae set out in Figure 14.1.

Distributor's annual pricing proposals must provide details of calculations in the format set out in Table 1 and Table 2. In general:

- Amounts provided for the most recently completed regulatory year (t–2) must be audited.<sup>31</sup>
- Amounts provided for the current regulatory year (t–1) will be regarded as an estimate.
  - Generally, these estimates would reflect the approved prices for year t-1 multiplied by the estimated quantities for year t-1.
  - If not, supporting information should be provided as to how those estimates are calculated and why they should be considered the best estimate of expected revenue for the year.

<sup>30</sup> If circumstances require, alternative adjustments for an appropriate cost of capital may be applied following consultation between the AER and relevant distributor(s).

<sup>31</sup> A reasonable assurance report sufficiently meets these auditing requirements. Where amounts provided match other audited submissions to the AER, further assurance is not required (e.g. RINs), and should be referenced.

- Amounts for the next regulatory year (t) will be regarded as a forecast.
  - Generally, these estimates would reflect the prices for year t multiplied by the forecast quantities for year t.
  - If not, supporting information should be provided as to how those forecasts are calculated and why they should be considered reasonable.

In exceptional circumstances, the unders and overs accounts can accommodate additional years, such as year t–3.<sup>32</sup>

To ensure compliance with the NER and the revenue cap form of control, a closing balance as close to zero as practicable, and below zero, is expected to be achieved in each forecast year t.

### **Jurisdictional scheme amounts**

Jurisdictional scheme amounts are currently mostly made up of amounts related to premium feed-in-tariff schemes. These schemes involve distributors paying premium feed-in-tariff rates for eligible customers. Distributors recover amounts to fund these schemes through network tariffs.

Over the coming years, a number of these premium feed-in-tariff schemes will cease. As a result, annual true-ups of the recovered revenues may continue in perpetuity in smaller and smaller amounts.

However, the AER has recently determined that the Small Compensation Claims Scheme, as it applies to SA Power Networks, is a jurisdictional scheme.<sup>33</sup> Therefore, it will also be subject to the unders and overs requirements.

We consider it appropriate that if in a particular year, there is no forecast jurisdictional scheme amounts for that year, or for future years, that any residual amounts in that year will be moved out of the unders and overs account. These amounts will be applied as an adjustment in the distribution revenue control mechanism and allow the jurisdictional scheme unders and overs account to balance to 0. For the avoidance of doubt, this adjustment will occur in the year following the cessation of a jurisdictional scheme, being the first year that the forecast jurisdictional scheme amounts are \$0, and where there are no continuing jurisdictional scheme amounts forecast for future years.

If at any point jurisdictional schemes are subsidised, subsidy amounts will be considered to be revenues for the purpose of the unders and overs mechanism. These amounts will still need to be ‘trued-up’, to ensure the distributor does not recover more or less than they otherwise should.

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<sup>32</sup> Subject to AER approval. Any amounts provided for additional years prior to t-2 must be audited.

<sup>33</sup> AER, *Letter to SA Power Networks Approving Jurisdictional Scheme*, 9 April 2025.

## C Annual pricing proposals

In line with our approach established through the annual pricing process review,<sup>34</sup> the AER will provide pre-filled standardised pricing proposal models for distributors to use in submitting their annual pricing proposals.

Each January of the 2025–30 period, we will provide distributors with pre-filled pricing proposal models to be used when submitting pricing proposals. These pre-filled models will include annual adjustments, revenue and cost true-up amounts from regulatory information notices or other sources, CPI and annual return on debt updates, and other components known by the AER. Pre-filling this data allows for the AER to verify inputs prior to the short timelines allowed within the pricing approval process.

We will also use these models during our pre-lodgement engagement process with distributors during February and March. This process is used to confirm pre-filled inputs and engage on other inputs known to the distributor at this time such as consumption forecasts. This process will also allow us to confirm the correct application of the price cap mechanisms for alternative control services in advance of the pricing proposal submissions.

These processes will lead to annual pricing proposals that are more likely to be capable of approval without revision and able to be approved in a timely manner.

In their pricing proposals, distributors should also:

- provide a completed ‘Statement of Compliance’ using the AER’s template
- provide a confidentiality template using the AER’s template
- provide public versions of any confidential models or documents for publication
- use version numbers in filenames for easy identification of revision by stakeholders (in the format of v1, v2, v3, etc.) and
- provide details on methodologies and any supporting information for any forecasts provided (e.g., consumption forecasts).

The AER will set expectations prior to each process, which may outline further factors for the distributors to consider when submitting pricing proposals.

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<sup>34</sup> AER, *Annual pricing process review – Final position paper*, December 2022.

## D Rounding

The following sets out our final decision on how distributors should use calculation inputs (i.e. whether on a rounded or unrounded basis) in their annual pricing proposals to demonstrate compliance.

### Unrounded inputs to be used in calculations

'Unrounded', for this purpose, will be taken to mean at least 15-digit floating point precision (the level of accuracy at which numbers will be stored in Microsoft Excel workbooks of .XLS, .XLSX, .XLSM or .XLSB). This definition accepts that numbers with fewer than fifteen floating digits may not require 15 digits to express (such as 2.25 being equivalent to 2.250000000000000) but will meet the definition of 15-digit floating point precision.

Unrounded values should be maintained throughout calculations. Where a calculation produces an output which is to be used as an input in another calculation, rounding should not occur. Rounding should be applied to final outputs only, unless otherwise specified.

Unrounded inputs should be taken from approved Excel models where appropriate. X-factors should be unrounded inputs taken from the approved model. Where appropriate, inputs should be calculated as an alternative to using a rounded value.

For example, inflation should be calculated based around the CPI tables as provided by the ABS, or the AER's nominated best available substitute should this index cease to be calculated. The result of this calculation should be taken as is, not rounded before use. Table 3 sets out the required level of precision for an inflation calculation.

**Table 3**      **Demonstration of inflation calculation**

	Required precision
The ABS CPI All Groups, Weighted Average of Eight Capital Cities for the December quarter in regulatory year t-2 (example)	112.1
The ABS CPI All Groups, Weighted Average of Eight Capital Cities for the December quarter in regulatory year t-1 (example)	114.6
$\Delta CPI_t$	2.23015165031222%

Unrounded inputs include all those not specified below as suitable to be rounded in a given situation.

### Instances where rounding is acceptable

In general, rounding in calculations must be done on a 'nearest' basis. Rounding to two decimal places means rounding to the nearest two decimal places, not rounding up automatically or down automatically. This accepts the convention that if a number falls precisely between two points, it can be rounded up (e.g. 2.245 can be rounded to 2.25 rather than 2.24). An exception to this for prices charged by the distributor is noted below, as these must be less than or equal to the price cap.

Prices under a price cap or a revenue cap should be input as billed. That is, if billing systems calculate charges based on a value rounded to 4 decimal places, then the input into the pricing proposal for actual or proposed prices should also be rounded to 4 decimal places to reflect the actual prices charged.

### Price cap control mechanism formulae

When applying a price cap, the value should be rounded to the nearest two decimal places each year. When calculating the value of the price cap for the following period, the rounded value of the previous year's price cap must be used to determine the value of the new price cap to ensure consistency in the price cap from year-to-year.

**Table 4**      **Demonstration of price cap calculation (with rounding)**

	Required precision
$\bar{p}_{t-1}^i$	\$23.28
X factor (example: should be taken from model)	-7.12546236955321%
$\Delta CPI_t$	2.23015165031222%
$\bar{p}_t^i$ (unrounded)	\$25.4938708296164
$\bar{p}_t^i$ (rounded)	\$25.49

Prices charged by the distributor can be rounded to as few or as many decimal places as required, subject to being less than or equal to the two decimal place value of the price cap. In the above table, this would mean a price of \$25.49 would be acceptable, as would a price of \$25.4899. However, a price of \$25.493 would not be compliant.

For the avoidance of ambiguity, where a price is expressible as a rate for a period of time, rounding of the price cap, and the demonstration of compliance, will apply to the largest relevant time period. So the price of an hourly service will be capped on an hourly basis. However, a service which can be priced either on a daily rate or an annual rate will have rounding apply to the cap on the annual rate. The daily rate should then represent the annual rate divided by 365, or 366 if the regulatory year to which the price applies is a leap year. This resulting daily rate may be expressed on a rounded basis (with discretion on the appropriate level of decimal places to apply) but must be based on a rounding to the nearest decimal place.



## Shortened forms

Term	Definition
ABS	Australian Bureau of Statistics
ACS	alternative control services
AEMC	Australian Energy Market Commission
AER	Australian Energy Regulator
CPI	consumer price index
CSIS	customer service incentive scheme
distributor	distribution network service provider
DMIAM	demand management innovation allowance (mechanism)
DMIS	demand management incentive scheme
DPPC	designated pricing proposal charges
DUoS	distribution use of system
ESIS	export service incentive scheme
F&A	framework and approach
JSA	jurisdictional scheme amounts
LED	light-emitting diode
NEM	national electricity market
NER or the rules	national electricity rules
opex	operating expenditure
PTRM	post-tax revenue model
RAB	regulatory asset base
SCS	standard control services
STPIS	service target performance incentive scheme
TAR	total allowable revenue
WACC	weighted average cost of capital