DRAFT DECISION

SA Power Networks Distribution Determination 2020 to 2025

Attachment 13 Control mechanisms

October 2019

AUSTRALIAN ENERGY REGULATOR

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Note

This attachment forms part of the AER's draft decision on the distribution determination that will apply to SA Power Networks for the 2020–2025 regulatory control period. It should be read with all other parts of the draft determination.

The draft determination includes the following attachments:

Overview

Attachment 1 – Annual revenue requirement

Attachment 2 – Regulatory asset base

Attachment 3 – Rate of return

Attachment 4 – Regulatory depreciation

Attachment 5 – Capital expenditure

Attachment 6 – Operating expenditure

Attachment 7 – Corporate income tax

Attachment 8 – Efficiency benefit sharing scheme

Attachment 9 – Capital expenditure sharing scheme

Attachment 10 – Service target performance incentive scheme

Attachment 11 – Demand management incentive scheme

Attachment 12 – Classification of services

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Shortened forms

Shortened form	Extended form
AER	Australian Energy Regulator
CESS	capital expenditure sharing scheme
CPI	consumer price index
distributor	distribution network service provider
DMIS	demand management incentive scheme
DPPC	designated pricing proposal charges
DUoS	distribution use of system
EBSS	efficiency benefit sharing scheme
F&A	framework and approach
NEL	national electricity law
NEM	national electricity market
NER or the rules	national electricity rules
NSP	network service provider
PTRM	post-tax revenue model
RIN	regulatory information notice
STPIS	service target performance incentive scheme
TAR	total allowable revenue
WACC	weighted average cost of capital

13 Control mechanisms

A control mechanism imposes limits over the prices of both direct control services and alternative control services and/or the revenues that a distribution network service provider 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).[1]

We will regulate SA Power Networks' standard control services under a revenue cap control mechanism and alternative control services under a price cap control mechanism for the 2020–25 regulatory control period. This is consistent with the position in our Framework and Approach for SA Power Networks published in July 2018.[2] It is also consistent with the current approach.

This attachment discusses:

- the application of the revenue cap and price cap
- compliance with the price controls[3]
- the mechanism through which SA Power Networks will recover distribution use of system (DUoS) charges including adjustments for revenue under or over recovery[4]
- reporting of recovery of designated pricing proposal charges and jurisdictional scheme amounts.[5]

13.1 Draft decision

Our draft determination for SA Power Networks is as follows:

- The control mechanism for standard control services is a revenue cap.
- The control mechanism for alternative control services is a price cap.
- Section 13.4.6 contains the revenue cap formulae.
    - The revenue cap for any given regulatory year is the total allowed revenue, or TAR, calculated using the formula in Figure 13.1.
    - The side constraints applying to price movements for each of SA Power Networks' tariff classes must be consistent with the formula in Figure 13.2.
- Section 13.5.3 contains the price cap formulae.
    - The cap on SA Power Networks' prices for services for legacy metering, public lighting and ancillary services (fee based) are defined in Figure 13.3.

1 NER, cl. 6.2.6(a).

2 AER, *Final framework and approach for SA Power Networks 2020–25 regulatory control period*, July 2018.

3 NER, cl. 6.12.1(13).

4 NER, cl. 6.12.1(11).

5 NER, cll. 6.12.1(19) and 6.12.1(20).

- The price cap applying to SA Power Networks' quoted services is included in Figure 13.4. We accept SA Power Networks' proposal to include a margin component to the quoted services formula, but reject SA Power Networks' proposed definition of the margin (equal to 6 percent of the total cost of Labour, Contract Services and Materials). We substituted this component of the formula with a margin defined as 'an amount equal to SA Power Networks' nominal vanilla WACC applied to the total cost of Labour, Contractor Services and Materials'.

- SA Power Networks' pricing proposal must demonstrate compliance with the revenue cap—in accordance with Figure 13.1—by including adjustments for DUoS revenue under or over recovery in accordance with appendix A of this attachment.[6]
- SA Power Networks must submit as part of its annual pricing proposal, a record of the amount of revenue recovered from designated pricing proposal charges and associated payments in accordance with appendix B of this attachment.
- SA Power Networks must submit as part of its annual pricing proposal, a record of any jurisdictional scheme amounts it recovers and associated payments in accordance with appendix C of this attachment.
- Appendix D of this attachment details rules about how rounding is to be handled in the annual pricing approval process.

13.2 SA Power Networks' proposal

SA Power Networks accepted the decisions in our final Framework and Approach (F&A) to:[7]

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

SA Power Networks requested that the application of the S-factor be clarified.[8] SA Power Networks accepted the AER's proposed revenue cap formula subject to clarification on the application of the S-factor.

SA Power Networks accepted the AER's proposed formulas that give effect to the price caps for:

- type 5 and 6 metering services (legacy metering services)
- public lighting services
- non-standard connection services
- ancillary network services - fee-based.

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6 NER, cl. 6.18.2(b)(7).

7 SA Power Networks, *Attachment 1 - Annual Revenue Requirement and Control Mechanism*, January 2019, p. 8.

8 SA Power Networks, *Attachment 1 - Annual Revenue Requirement and Control Mechanism*, January 2019, p. 8.

SA Power Networks proposed a margin (equal to six percent of the total cost of Labour, Contractor Services and Materials) be included in the price cap formula for ancillary network services provided on a quotation basis.[9]

SA Power Networks also proposed that new prices that are introduced during the 2020–25 regulatory control period could be charged on a fixed-fee or quoted basis.[10]

13.3 Assessment approach

Our assessment of the control mechanism was set out in our final Framework and Approach. The final Framework and Approach sets the control mechanism for standard control services as a revenue cap, which is binding on our determination.[11] The basis of the revenue cap must be of the prospective CPI–X form (or some incentive based variant).[12]

Our final Framework and Approach deliberately set out a generic formula to give effect to the control mechanism for standard control services.[13] The generic formula requires the control mechanism parameters be specified with more precision in order to be implemented. This draft determination clarifies our position regarding the control mechanism formula and its respective parameters.

Our final Framework and Approach set the control mechanism for alternative control services as a price cap.[14] This is detailed below in section 13.5.

13.4 Draft decision for standard control services

The following discusses the reasons for our draft decision for each parameter of the revenue cap control mechanism, including the reporting on designated pricing proposal charges and jurisdictional scheme amounts.

13.4.1 Reasons for draft decision for standard control services

Total allowable revenue

In this draft determination, the revenue cap for any given regulatory year is the TAR for distribution services. Section 13.4.6 contains the formula that gives effect to the revenue cap.

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9 SA Power Networks, *Attachment 14 - Alternative Control Services*, January 2019, pp. 17-18 and p. 36.

10 SA Power Networks, *Attachment 14 - Alternative Control Services*, January 2019, p. 37.

11 AER, *Framework and approach for SA Power Networks control period commencing 1 July 2020*, July 2018, p. 42; NER, cl. 6.12.3(c).

12 NER, cl. 6.2.6(a).

13 AER, *Framework and approach for SA Power Networks control period commencing 1 July 2020*, July 2018, pp. 54–55.

14 AER, *Framework and approach for SA Power Networks control period commencing 1 July 2020*, July 2018, p. 42; NER, cl. 6.12.3(c).

Intra-period adjustment to the weighted average cost of capital

Changes to the TAR resulting from the trailing average cost of debt update will be implemented through annual revisions to the X factors. Further discussion on this adjustment can be found in attachment 3—rate of return—which discusses the WACC annual adjustment and attachment 1—annual revenue requirement—which details issues relating to X factors.

Incentive scheme adjustments (I factor)

The I factor parameter is for annual TAR adjustments relating to a service provider's performance against the incentive schemes. This factor now captures the efficiency benefit sharing scheme, the capital expenditure sharing scheme, and the service target performance incentive scheme.[15]

The service target performance incentive scheme component of the I factor is to be applied as a percentage adjustment to annual revenue, as determined by the AER.[16] SA Power Networks will submit a compliance report for year t-2 before the start of year t. We will then determine the percentage adjustment for year t-2 to be applied in the year t annual pricing proposal.

The details of the demand management innovation allowance mechanism, and of the new demand management incentive scheme, were proposed by the AER in November 2017.[17]

The current demand management innovation allowance applies to SA Power Networks in the current regulatory control period. The operation of this mechanism requires that we determine and apply any carryover amount from underspending the allowance as a deduction from the distributor's revenue requirement in the subsequent regulatory control period.[18]

As a consequence, it is necessary to include a factor adjusting for the carryover amount for this mechanism in the next regulatory control period.

For the new demand management incentive scheme, as part of the annual pricing process, SA Power Networks will submit a compliance report for year t-2 eight months

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15 AER, *Electricity distribution service providers: Service target performance incentive scheme*, November 2018, pp. 34-35.

16 AER, *Electricity distribution network service providers: Service target performance incentive scheme: Appendix C*, 1 November 2009, p. 32.

17 AER, *Demand management incentive scheme*, November 2017; AER, *Explanatory Statement, Demand management incentive scheme*, November 2017; AER, *Demand management innovation allowance mechanism*, November 2017; AER, *Explanatory statement, Demand management innovation allowance mechanism*, November 2017; AER, *Demand management incentive scheme, Electricity distribution network service providers*, December 2017.

18 AER, *Demand Management Innovation Allowance Mechanism; Electricity distribution network service providers*, December 2017, p.7.

before the start of year t. We will then determine the total financial incentive recoverable for year t-2 four months before the start of year t. This amount will then be included in SA Power Networks' annual pricing proposal and be recoverable by DUoS charges in year t.[19]

For this reason, we will include an adjustment in the I factor accounting for this incentive.

These adjustments are consistent with SA Power Networks' proposal, except for the service target performance incentive scheme. SA Power Networks further requested clarity that these adjustments occur on a two year lag (t-2) which we have addressed in Figure 13.1 (revenue cap formula).

Annual adjustments (B factor)

The B factor parameter is for annual TAR adjustments required within the 2020–25 regulatory control period. Consistent with our final F&A the B factor will include 'true-up' adjustments for DUoS revenue under or over recovery.[20]

In the F&A we noted that the B factor was likely to include adjustments for the unders and overs account. Our draft determination is that the B factor will include a true-up for the net present value of under or over recovered revenue. This true-up will be calculated based upon the DUoS unders and overs account kept in accordance with the method in appendix A.

Under a revenue cap, SA Power Networks' revenues in year t will be adjusted annually to clear (or true-up) any under or over recovery of actual revenue collected through DUoS charges in year t–2 and any estimated under or over recovery of revenues in year t–1. In regulatory year t, we will therefore base the level of this adjustment on the opening balance of the DUoS unders and overs account.

As the under or over recovery in regulatory year t will have six months of nominal WACC applied to it during the regulatory year, while the opening balance of the DUoS unders and overs account will have one year of nominal WACC applied during the regulatory year, we consider that the true-up requires an adjustment by six months of WACC to be on a common basis. As the purpose is to offset the opening balance, we further consider that the sign of the true-up should be the reverse of the sign of the opening balance. For clarity, if SA Power Networks recovered below its allowable revenue prior to year t, this balance will be negative and this true-up should be positive to allow SA Power Networks to recover that revenue in year t to bring the balance of the unders and overs account to zero.

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19 AER, *Demand Management Incentive Scheme; Electricity distribution network service providers*, December 2017, p. 7.

20 AER, *Framework and approach for SA Power Networks control period commencing 1 July 2020*, July 2018, p. 55.

The B factor used in the unders/overs account for the calculation of TAR excludes the true-up for DUoS revenue under/over recovery for the regulatory year, and is therefore expected to be zero where there are no defined annual adjustments.

Cost pass through adjustments (C factor)

The C factor is for annual TAR adjustments relating to AER approved cost pass through amounts, and can also include AER approved end-of-period adjustments. These could include once off adjustments to revenue required during the 2020–25 regulatory control period, which are not able to be accounted for in the other factors of the revenue cap formula.

We consider this factor acts in a complementary manner with the B factor which makes annual adjustments to TAR. Should the B factor fail to capture all of the revenue adjustments required in the 2020–25 regulatory control period through its annual function, true-up adjustments in the final year of the 2020–25 regulatory control period may be required. The C factor provides an avenue for this to be done.

The wording of the phrase end-of-period adjustments is intentionally broad to allow the distributor to propose any such adjustments it considers would be required. However, it is not a catch-all factor and so would only apply if specific end-of-period adjustments were identified by SA Power Networks and approved by the AER.

Greater clarity around the types of costs that can be included as a cost pass through are set out in attachment 14—pass through events.

Calculation of the consumer price index escalation

We will apply the annual movement between the Australian Bureau of Statistics' (ABS) published December quarter data for calculating the consumer price index (CPI) escalation.

Use of the December quarter data will mean SA Power Networks will apply an actual CPI escalation (rather than an estimated or 'placeholder' CPI escalation) when it submits its pricing proposals. The use of an actual CPI escalation will allow the process for setting prices to be more transparent which is consistent with the intent of the pricing rule provisions.[21]

The application of this calculation is set out in Figure 13.1 (revenue cap formula).

13.4.2 Deliberately under-recovered revenue

We accept there are times when SA Power Networks may decide to recover below its allowed level of revenue. This is in contrast to unintentional under recovery due to a natural variation between forecast quantities of a service offered and actual quantities

[21] NER, cl. 6.18.5 (g)(3).

achieved. In the event of intentional under-recovery, this revenue will not be counted as an under recovery for the purpose of the under and overs account and by extension will therefore not subsequently increase the total allowable revenue in future years.

13.4.3 Reporting on designated pricing proposal charges

We must decide how SA Power Networks will report on the recovery of designated pricing proposal charges[22] for each year of the 2020–25 regulatory control period and how to account for any under or over recovery of revenue associated with those charges.[23]

We apply an under and over recovery mechanism to facilitate this reporting and account for the true-up of under and over recovery of revenue. This approach is the same as the DUoS revenue under and over recovery mechanism and is consistent with the requirements of the NER.[24] The operation of this method is detailed in appendix B.

13.4.4 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 2020–25 regulatory control period and how to account for any under or over recovery of revenue associated with those charges.[25]

Our draft decision jurisdictional scheme amounts under and over recovery mechanism approach is consistent with the requirements of the NER.[26] It is also consistent with the approach applied to electricity distributors in other jurisdictions. The operation of this method is detailed in appendix C.

13.4.5 Rounding of inputs in annual pricing proposal process

When reporting on compliance as part of the annual pricing proposal process each year of the 2020–25 regulatory control 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.

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[22] Designated pricing proposal charges are charges related to: designated pricing proposal services (prescribed exit fees, prescribed common transmission services and prescribed transmission use of system services); avoided customer transmission use of system charges; charges provided by another distributor (but only to the extent they comprise of designated pricing proposal services or standard control services); and charges or payments related specified in NER, cl. 11.39.

[23] NER, cl. 6.12.1 (19).

[24] NER, cll. 6.12.1(19), 6.18.7.

[25] NER, cl. 6.12.1 (20).

[26] NER, cl. 6.18.7A.

13.4.6 Control mechanism for standard control services

Our decision on the formulae that give effect to the control mechanism must be as set out in the F&A unless we consider that a material change in circumstances occurs which justifies departing from that approach.[27] Figure 13.1 sets out the revenue cap formula for distribution services.

The formula in the F&A included an Adjusted Annual Revenue (AAR) factor, which represented the adjusted annual smoothed revenue requirement. This factor allowed for the adjustment to revenue requirements for the STPIS. In our F&A, we stated that we would apply the version of the STPIS that was current at that time. The revenue cap formula was based on that version of the STPIS. We noted in the F&A paper that we were, at that time, undertaking a review of the STPIS. After the final F&A was published, the AER finalised the STPIS review and released its new STPIS guideline.

Now that we have completed our review and published the revised STPIS, our draft decision is to apply the revised STPIS. STPIS outcomes will now be specified as a fixed monetary amount, rather than a percentage adjustment.[28] This causes the need to adjust how we account for STPIS in the revenue cap control formula. We consider that there has been a material change in circumstances which requires us to depart from the F&A and apply the revised STPIS to this revenue determination process.[29] As a result of the new application of the STPIS under the I factor, the revenue cap formula has been simplified and no longer requires this AAR factor.

Figure 13.1 Revenue cap formula[30]

1. $TAR_t \geq \sum_{i=1}^{n} \sum_{j=1}^{m} p_t^{ij} q_t^{ij}$ i = 1,…,n and j = 1,…,m and t = 1, 2…,5

2. $TAR_t = AR_t + I_t + B_t + C_t$ t = 1, 2...,5

3. $AR_t = AR_{t-1} \times (1 + \Delta CPI_t) \times (1 - X_t)$ t = 2,…,5

where:

TAR_t is the total allowable revenue in year t.

p_t^{ij} is the price of component 'j' of tariff 'i' in year t.

27 NER, cl. 6.12.3(c1).

28 AER, *Amendment to the Service Target Performance Incentive Scheme - Explanatory Statement*, November 2018, p. 3.

29 NER, cl. 6.12.3(c1).

30 All parameters are in nominal terms unless otherwise specified.

q_t^{ij} is the forecast quantity of component 'j' of tariff 'i' in year t.

t is the regulatory year.

AR_t is the annual smoothed revenue requirement in the Post Tax Revenue Model (PTRM) for year t.

I_t is the sum of the service target performance incentive scheme, efficiency benefit sharing scheme, capital expenditure sharing scheme, demand management incentive scheme, and innovation allowance adjustments as they relate to year t-2, applied in year t.

B_t is the sum of annual adjustment factors for year t and includes the true-up for any under or over recovery of actual revenue collected through DUoS charges calculated using the following method:

$$DUoS\ Under\ and\ Overs\ True - Up_t = -(Opening\ Balance_t)(1 + WACC_t)^{0.5}$$

where:

$DUoS\ Under\ and\ Overs\ True - Up_t$ is the true-up for the balance of the DUoS unders and overs account in year t.

$Opening\ Balance_t$ is the opening balance of the DUoS unders and overs account in year t as calculated by the method in appendix A.

$WACC_t$ is the approved weighted average cost of capital used in regulatory year t in the DUoS unders and overs account in appendix A. This WACC figure will be a nominal WACC figure that reflects actual inflation rather than forecast inflation.

C_t is the sum of approved cost pass through amounts (positive or negative) with respect to regulatory year t, as determined by the AER. It will also include any end-of-period adjustments in regulatory year t.

ΔCPI_t is the annual percentage change in the ABS CPI All Groups, Weighted Average of Eight Capital Cities[31] from the December quarter in year t–2 to the December quarter in year t–1, calculated using the following method:

The ABS CPI All Groups, Weighted Average of Eight Capital Cities for the December quarter in regulatory year t–1

divided by

31 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.

The ABS CPI All Groups, Weighted Average of Eight Capital Cities for the December quarter in regulatory year t–2

minus one.

For example, for 2020–21, year t–2 is the December quarter 2018 and year t–1 is the December quarter 2019.

X_t is the X factor for each year of the 2020–25 regulatory control period as determined in the PTRM, and annually revised for the return on debt update in accordance with the formula specified in attachment 3—rate of return—calculated for the relevant year.

Side constraints

Figure 13.2 sets out the side constraints formula. For each regulatory year after the first year of a regulatory control period, side constraints apply to the weighted average revenue raised from each tariff class. In accordance with the NER, the permissible percentage increase is the greater of CPI–X plus 2 per cent or CPI plus 2 per cent.[32] Recovery of certain revenues, such as those to accommodate pass throughs and incentive schemes, are disregarded in deciding whether the permissible percentage has been exceeded.[33]

Figure 13.2 Side constraints formula[34]

$$\frac{\left(\sum_{i=1}^{n}\sum_{j=1}^{m} d_t^{ij} q_t^{ij}\right)}{\left(\sum_{i=1}^{n}\sum_{j=1}^{m} d_{t-1}^{ij} q_t^{ij}\right)} \le (1+\Delta CPI_t)\times(1-X_t)\times(1+2\%)+B_t'$$

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

d_t^{ij} is the proposed price for component 'j' of tariff 'i' for year t.

d_{t-1}^{ij} is the price charged for component 'j' of tariff 'i' in year t–1.

q_t^{ij} is the forecast quantity of component 'j' of tariff 'i' in year t.

ΔCPI_t is the annual percentage change in the ABS CPI All Groups, Weighted Average of Eight Capital Cities[35] from the December quarter in year t–2 to the December quarter in year t–1, calculated using the following method:

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32 NER, cl. 6.18.6(c).

33 NER, cl. 6.18.6(d).

34 All parameters are in nominal terms unless otherwise specified.

The ABS CPI All Groups, Weighted Average of Eight Capital Cities for the December quarter in regulatory year t–1

divided by

The ABS CPI All Groups, Weighted Average of Eight Capital Cities for the December quarter in regulatory year t–2

minus one.

For example, for 2020–21, year t–2 is the December quarter 2018 and year t–1 is the December quarter 2019.

X_t is the X factor for each year of the 2020–25 regulatory control period as determined in the PTRM, and annually revised for the return on debt update in accordance with the formula specified in attachment 3—rate of return—calculated for the relevant year. If X>0, then X will be set equal to zero for the purposes of the side constraint formula.

$B_t^{'}$ is the annual percentage change from the sum of annual adjustment factors for year t and includes true-up for any under or over recovery of actual revenue collected through DUoS charges calculated using the method in Figure 13.1.

With the exception of the CPI and X factor, the percentage for each of the other factors above can be calculated by dividing the incremental revenues (as used in the total annual revenue formula) for each factor by the expected revenues for regulatory year t–1 (based on the prices in year t–1 multiplied by the forecast quantities for year t).

13.5 Draft decision for alternative control services

In our final Framework and Approach, we set out our decision to apply price caps to alternative control services. SA Power Networks' proposed formulae for alternative control services for the 2020–25 regulatory control period reflect the Framework and Approach paper.[36] The only exception is that SA Power Networks proposed to include a margin component in the price cap formula applicable to ancillary network services provided on a quotation basis.[37] While we accept the inclusion of a margin component in the formula, we substituted SA Power Networks' definition of this component with our own, as outlined below.

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[35] 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.

[36] AER, *Framework and approach SA Power Networks Regulatory control period commencing 1 July 2020*, July 2018, pp. 58-60.

[37] SAPN also proposed that a margin be applied to fee-based services. However, this relates to the price build up rather than the control mechanism and is therefore considered in attachment 15 - alternative control services.

13.5.1 Reasons for draft decision for alternative control services

SA Power Networks submitted that including a margin in the price cap formula for ancillary network services provided on a quotation basis is consistent with the principle of competitive neutrality, and the revenue and pricing principles in the NEL, meaning that customers pay a price similar to that in a competitive market.[38] It noted that we accepted the inclusion of a margin in the control mechanism formula for services provided on a quotation basis in our TasNetworks' distribution determination for the 2019–24 regulatory control period.[39] SA Power Networks also referred to a report by Marsden Jacob obtained by the AER to support our recent decisions for the NSW distributors, Evoenergy and Power and Water Corporation, which accepted a margin, although it was captured as part of the total overhead rate allowed for the labour component of ancillary network services.[40] For these reasons, we accept SA Power Networks' proposal to include a margin component in the quoted services formula.

However, we reject the margin component as defined by SA Power Networks. Specifically, SA Power Networks proposed that the margin be equal to six per cent of the total cost of Labour, Contractor Services and Materials.

In response to an information request, SA Power Networks submitted that a margin based on WACC is suitable for capital intensive standard control services, but not for less capital intensive quoted services.[41] SA Power Networks also noted that CitiPower, Powercor and United Energy proposed a 7 per cent margin in their 2016–20 regulatory proposal and that we approved a margin of 5.89 per cent in our decision for TasNetworks for the 2019–24 regulatory period.[42]

We accept that quoted services are likely to be less capital intensive than standard control services, however we consider that applying the proposed margin of 6 per cent (fixed) is somewhat arbitrary. The WACC, in comparison, was based on an extensive consultation process culminating in the 2018 Rate of Return Instrument.[43] While we approved a margin for TasNetworks equal to the nominal vanilla WACC, it was adopted as a proxy for a profit margin on these services rather than a strict application of a cost of capital on regulated assets, which is the formal definition of the WACC.[44] Finally, the margin applied by Citipower, Powercor, and United Energy was only to the

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38 SA Power Networks, *Attachment 14 - Alternative Control Services*, January 2019, p. 37.

39 AER, *Draft Decision - TasNetworks Distribution Determination 2019 to 2024 - Attachment 13 - Control Mechanisms*, September 2018, p. 13-18.

40 SA Power Networks, *Response to information request #013 - ancillary network services*, 28 March 2019; See for example, AER, *Ausgrid distribution determination, Draft decision, Attachment 15 - Alternative control services*, November 2018, pp. 15-13 and 15-14.

41 SA Power Networks, *Response to information request #013 - ancillary network services*, 28 March 2019.

42 SA Power Networks, *Response to information request #013 - ancillary network services*, 28 March 2019.

43 AER, *Rate of return instrument*, December 2018.

44 AER, *Draft Decision - TasNetworks Distribution Determination 2019 to 2024 - Attachment 13 - Control Mechanisms*, September 2018, p. 13-21.

cost build up for fee-based services. Our final decision on the price cap formula for quoted services for these businesses did not include a separate margin.[45] Therefore, we do not accept SA Power Networks proposed margin of 6 per cent of the total cost of Labour, Contractor Services and Materials. Instead, our draft decision is to include a margin component, which is equal to SA Power Networks' nominal vanilla WACC applied to the total cost of Labour, Contractor Services and Materials, in the price cap formula for quoted services at Figure 13.4. Further discussion of how this margin interacts with our decision on labour prices to avoid double-counting is in attachment 15. SA Power Networks may wish to make further submissions on this matter in its revised proposal.

In making a change to the control mechanism formula for quoted services, the NER requires us to be satisfied that there was a material change in circumstances justifying a departure from the position in our final Framework and Approach (F&A) for SA Power networks. The definitions of the price cap formulas were set out in the F&A, however, SA Power Networks did not propose including a margin component in the control mechanism formula for quoted services at the time of publishing our final F&A in July 2018. Instead, SA Power Networks assumed a margin would be included as part of the cost build-up of overheads to be applied to individual price components. This method was consistent with the approach supported by our consultant, Marsden Jacob, for the NSW, ACT, NT and TAS proposals.[46] However, TasNetworks proposed including a margin as an explicit component to the control mechanism formula for services provided on a quotation basis, which, after being provided with new evidence, we accepted in our draft decision for TasNetworks in September 2018. This means that, at the time of the F&A, our determination for TasNetworks to include a margin as an explicit additional factor within the control mechanism formula had not been made. We consider that this material change in circumstances warrants a different approach to that set out in our final F&A for SA Power Networks.[47]

Further, following feedback we received throughout the NSW 2019–24 regulatory determinations, particularly from Accredited Service Providers, with regards to a lack of transparency around invoices received, we consider it appropriate to introduce requirements around transparency of billing. This will aid in achieving consistency between regulatory arrangements for similar services across all jurisdictions.[48]

When charging for quoted services:

1. SA Power Networks must provide itemised invoices to the customer or the service recipient.

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[45] See for example, AER, *CitiPower distribution determination, Final decision, attachment 16 - alternative control services*, May 2016, p. 16-9.

[46] SA Power Networks, *Response to information request #072 - ANS - Justification of margin for quoted services*, 14 August 2019.

[47] NER, cl. 6.12.3(c1).

[48] NER, cl. 6.2.5(d)(4).

2. The charges must be consistent with good industry practice in terms of the resource requirements.

13.5.2 New services introduced during the regulatory control period

SA Power Networks proposed that new services created within the regulatory control period could be priced on either fixed-fee or quoted basis.[49] We do not accept this proposal.

Our draft decision is that where new services are introduced during the regulatory control period, and where such services were not identified at the time of our determination but for which the service clearly falls within one of the established service groupings, a quoted price approach is to be adopted based on a similar service within that same service grouping.[50] SA Power Networks can then propose to price this service differently at the time of the next regulatory determination. This is consistent with our Framework and Approach, and regulatory determinations across all NEM jurisdictions.

For example, SA Power Networks indicated that the majority of its public lighting customers are interested in new public lighting technology like smart controls. However most of this technology is not fully developed.[51] Therefore, we consider it in the best interests of consumers that all new services created within a regulatory control period are prices on a time and materials (quoted) basis until we can approve them as part of the annual pricing process. Its proposal should provide a detailed description of the service along with how the new service will be charged. We consider that this approach provides SA Power Networks additional flexibility to introduce new services while offering consumers the protections associated with price regulation.

13.5.3 Form of control for alternative control services

Consistent with our final Framework and Approach, the price cap formula that will apply to SA Power Networks' alternative control services (except for quoted services) is below.[52]

Figure 13.3 Price cap formula to apply to SA Power Networks' legacy metering, public lighting and ancillary services (fee based)

$$\bar{p}_t^i \geq p_t^i \qquad i=1,...,n \text{ and } t=1, 2,\dots,5$$

49 SA Power Networks, *Attachment 14 - Alternative Control Services*, January 2019, p. 37.

50 AER, *Framework and approach SA Power Networks Regulatory control period commencing 1 July 2020*, July 2018, p. 56.

51 SA Power Networks, *Attachment 14 - Alternative Control Services*, January 2019, p. 37.

52 AER, *Framework and approach SA Power Networks Regulatory control period commencing 1 July 2020*, July 2018, p. 58.

$$\overline{p}_t^i = \overline{p}_{t-1}^i \times (1 + \Delta CPI_t) \times (1 - X_t^i) + A_t^i$$

Where:

$\overline{p}_t^i$ is the cap on the price of service i in year t.

p_t^i is the price of service i in year t. For the first year of the regulatory control period, the cap on the price of service i will be as per the schedule of approved charges set out in Attachment 15.

$\overline{p}_{t-1}^i$ is the cap on the price of service i in year t–1.

t is the regulatory year.

ΔCPI_t is the annual percentage change in the ABS consumer price index (CPI) All Groups, Weighted Average of Eight Capital Cities[53] from the December quarter in year t–2 to the December quarter in year t–1, calculated using the following method:

> The ABS CPI All Groups, Weighted Average of Eight Capital Cities for the December quarter in regulatory year t–1
>
> divided by
>
> The ABS CPI All Groups, Weighted Average of Eight Capital Cities for the December quarter in regulatory year t–2
>
> minus one.

For example, for 2020–21, year t–2 is the December quarter 2018 and year t–1 is the December quarter 2019.

X_t^i is the X factor for service i in year t. The value of this factor is as specified in Attachment 15 – Alternative Control Services.

A_t^i is the sum of any adjustments for service i in year t. Likely to include, but not limited to adjustments for any approved cost pass through amounts (positive or negative) with respect to regulatory year t, as determined by the AER.

[53] 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.

Quoted services

Figure 13.4 Price cap formula to apply to SA Power Networks' quoted services

$$Price = Labour + Contractor\ Services + Materials + Margin$$

Where:

$Labour$ consists of all 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 $(1+\Delta CPI_t)(1-X_t^i)$ where:

ΔCPI_t is the annual percentage change in the ABS CPI All Groups, Weighted Average of Eight Capital Cities[54] from the December quarter in year t–2 to the December quarter in year t–1, calculated using the following method:

> The ABS CPI All Groups, Weighted Average of Eight Capital Cities for the December quarter in regulatory year t–1
>
> divided by
>
> The ABS CPI All Groups, Weighted Average of Eight Capital Cities for the December quarter in regulatory year t–2
>
> minus one.

For example, for 2020–21, year t–2 is the December quarter 2018 and year t–1 is the December quarter 2019.

X_t^i is the X factor for service i in year t. The value of this factor is as specified in Attachment 15 – Alternative Control Services.

$Contractor\ Services$ reflect all 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.

$Materials$ reflect the cost of materials directly incurred in the provision of the service, material storage and logistics on-costs and overheads.

$Margin$ is an amount equal to SA Power Networks' nominal vanilla WACC applied to the total cost of *Labour*, *Contractor Services* and *Materials*.

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54 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.

A DUoS unders and overs account

To demonstrate compliance with the distribution determination applicable to it during the 2020–25 regulatory control period, SA Power Networks must maintain a DUoS unders and overs account in its annual pricing proposal.[55]

SA Power Networks must provide the amounts for the following entries in its DUoS unders and overs account for the most recently completed regulatory year (t–2), the current regulatory year (t–1) and the next regulatory year (t):[56]

1. An opening balance for year t–2, year t–1 and year t.
2. An interest charge for one year on the opening balance for each regulatory year (t–2, t–1 and t). These adjustments are to be calculated using the respective nominal weighted average cost of capital (WACC) for each intervening year between regulatory year t–2 and year t.[57] The WACC applied for each year will be that approved by the AER for the relevant year.
3. The amount of revenue recovered from DUoS charges in respect of that year, less the total annual revenue for the year in question.
4. An adjustment to the net amount in item 3 by six months of interest. These adjustments are to be calculated using the approved nominal WACC.
5. The total sum of items 1–4 to derive the closing balance for each year.

SA Power Networks must provide details of calculations in the format set out in Table 13.1. Amounts provided for the most recently completed regulatory year (t–2) must be audited.[58] Amounts provided for the current regulatory year (t–1) will be regarded as an estimate. Amounts for the next regulatory year (t) will be regarded as a forecast.

In proposing variations to the amount and structure of DUoS charges, SA Power Networks is expected to achieve a closing balance as close to zero as practicable in its DUoS unders and overs account in each forecast year in its annual pricing proposals during the 2020–25 regulatory control period.

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55 NER, cl. 6.18.2(b)(7).

56 In exceptional circumstances, the DUoS unders and overs account can accommodate additional years—such as year t–3. If available, amounts provided for additional years must be audited where they depart from the annual RIN.

57 The WACC for each year will be that approved by the AER for the respective year and as calculated as set out in Figure 13.1.

58 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.

Table 13.1 Example calculation of DUoS unders and overs account ($'000, nominal)

	Year t–2 (actual)	Year t–1 (estimate)	Year t (forecast)
(A) Revenue from DUoS charges	**45 779**	**40 269**	**39 510**
(B) Less TAR for regulatory year =	**43 039**	**41 427**	**44 429**
+ Annual smoothed revenues (AR_t)	40 189	41 393	44 393
+ Incentive scheme amounts (I_t) [a]	1 026	34	36
+ Annual adjustments (B_t)[b]	0	0	0
+ Cost pass through amount (C_t)	1 824	0	0
(C) Revenue deliberately under-recovered in year	**1 000**	**0**	**0**
(A minus B plus C) Under/over recovery of revenue for regulatory year	**3 740**	**–1 158**	**–4 919**[c]
DUoS unders and overs account			
Nominal WACC (per cent)	5.00%	5.50%	6.00%
Opening balance	1 737	5 656[d]	4 778
Interest on opening balance	87	311	287
Under/over recovery of revenue for regulatory year	3 740	–1 158	–4 919
Interest on under/over recovery for regulatory year	92	–31	–145
Closing balance	**5 656**	**4 778**	**0**[e]

Notes: (a) Incentive schemes can include STPIS, EBSS, CESS, DMIS, the Allowance Mechanism, and any other schemes as set out in our determination.

(b) Bt parameter calculations in the DUoS unders and overs account exclude the true-up for DUoS revenue under/over recovery for regulatory year and are therefore expected to be 0.

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

(d) Opening balance is the previous year's closing balance.

(e) SA Power Networks is expected to achieve a closing balance as close to zero as practicable in its DUoS unders and overs account in each forecast year in its annual pricing proposals in the 2020–25 regulatory control period.

B Designated pricing proposal charges[59] unders and overs account

To demonstrate compliance with the distribution determination applicable to it during the 2020–25 regulatory control period, SA Power Networks must maintain a designated pricing proposal charges unders and overs account in its annual pricing proposal.[60]

SA Power Networks must provide the amounts for the following entries in its designated pricing proposal charges unders and overs account for the most recently completed regulatory year (t–2), the current regulatory year (t–1) and the next regulatory year (t):[61]

1. An opening balance for year t–2, year t–1 and year t.
2. An interest charge for one year on the opening balance for each regulatory year (t–2, t–1 and t). These adjustments are to be calculated using the respective nominal weighted average cost of capital (WACC) for each intervening year between regulatory year t–2 and year t.[62] The WACC applied for each year will be that approved by the AER for the relevant year.
3. The amount of revenue recovered from designated pricing proposal charges in respect of that year, less the total annual revenue for the year in question.
4. An adjustment to the net amount in item 3 by six months of interest. These adjustments are to be calculated using the approved nominal WACC.
5. The total sum of items 1–4 to derive the closing balance for each year.

SA Power Networks must provide details of calculations in the format set out in Table 13.2. Amounts provided for the most recently completed regulatory year (t–2) must be audited.[63] Amounts provided for the current regulatory year (t–1) will be regarded as an estimate. Amounts for the next regulatory year (t) will be regarded as a forecast.

In proposing variations to the amount and structure of designated pricing proposal charges, SA Power Networks is expected to achieve a closing balance as close to zero

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[59] Designated pricing proposal charges are charges related to: designated pricing proposal services (prescribed exit fees, prescribed common transmission services and prescribed transmission use of system services); avoided customer transmission use of system charges; charges provided by another distributor (but only to the extent they comprise of designated pricing proposal services or standard control services); and charges or payments related specified in NER clause 11.39.

[60] NER, cll. 6.18.2(b)(6), 6.12.1(19), 6.18.7.

[61] In exceptional circumstances, the designated pricing proposal charges unders and overs account can accommodate additional years—such as year t–3. If available, amounts provided for additional years must be audited where they depart from the annual RIN.

[62] The WACC for each year will be that approved by the AER for the respective year and as calculated as set out in Figure 13.1.

[63] 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.

as practicable in its designated pricing proposal charges unders and overs account in each forecast year in its annual pricing proposals during the 2020–25 regulatory control period.

Table 13.2 Example calculation of designated pricing proposal charges unders and overs account ($'000, nominal)

	Year t–2 (actual)	Year t–1 (estimate)	Year t (forecast)
(A) Revenue from designated pricing proposal charges (DPPC)	**40 077**	**34 944**	**36 609**
(B) Less DPPC related payments for regulatory year =	**34 365**	**38 734**	**39 200**
+ DPPC to be paid to TNSP	33 672	37 933	38 000
+ Avoided TUoS/DPPC payments	572	734	800
+ Inter-distributor payments	121	67	400
(A minus B) Under/over recovery of revenue for regulatory year	**5 712**	**–3 790**	**–2 540**[a]
DPPC unders and overs account			
Nominal WACC (per cent)	5.00%	5.50%	6.00%
Opening balance	167	6 028[b]	2 467
Interest on opening balance	8	332	148
Under/over recovery of revenue for regulatory year	5 712	–3 790	–2 540[a]
Interest on under/over recovery for regulatory year	141	–103	–75
Closing balance	**6 028**	**2 467**	**0**[c]

Notes: (a) Approved DPPC revenue under/over recovery for regulatory year t.

(b) Opening balance is the previous year's closing balance.

(c) SA Power Networks is expected to achieve a closing balance as close to zero as practicable in its DPPC unders and overs account in each forecast year in its annual pricing proposals in the 2020–25 regulatory control period.

C Jurisdictional scheme amounts[64] unders and overs account

To demonstrate compliance with the distribution determination applicable to it during the 2020–25 regulatory control period, SA Power Networks must maintain a jurisdictional scheme amounts unders and overs account in its annual pricing proposal.[65]

SA Power Networks must provide the amounts for the following entries in its jurisdictional scheme amounts unders and overs account for the most recently completed regulatory year (t–2), the current regulatory year (t–1) and the next regulatory year (t):[66]

1. An opening balance for year t–2, year t–1 and year t.
2. An interest charge for one year on the opening balance for each regulatory year (t–2, t–1 and t). These adjustments are to be calculated using the respective nominal weighted average cost of capital (WACC) for each intervening year between regulatory year t–2 and year t.[67] The WACC applied for each year will be that approved by the AER for the relevant year.
3. The amount of revenue recovered from jurisdictional scheme amounts charges in respect of that year, less the total annual revenue for the year in question;
4. An adjustment to the net amount in item 3 by six months of interest. These adjustments are to be calculated using the approved nominal WACC.
5. The total sum of items 1–4 to derive the closing balance for each year.

SA Power Networks must provide details of calculations in the format set out in Table 13.3. Amounts provided for the most recently completed regulatory year (t–2) must be audited.[68] Amounts provided for the current regulatory year (t–1) will be regarded as an estimate. Amounts for the next regulatory year (t) will be regarded as a forecast.

Where SA Power Networks receives a government subsidy for jurisdictional schemes in lieu of recovering these amounts directly from jurisdictional scheme charges (or part thereof), it will be required to record the subsidy amount received as revenue. This will

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64 Jurisdictional scheme amounts are amounts a distributor is required under a jurisdictional scheme obligation as defined by the NER to: pay a person; pay into a fund established under an Act of a participating jurisdiction; credit against charges payable by a person; or reimburse a person, less any amounts recovered by the distributor from any person in respect of those amounts other than under the NER.

65 NER, cll. 6.12.1(20), 6.18.2(b)(6A), 6.18.7A(b) and (c).

66 In exceptional circumstances, the jurisdictional scheme amounts unders and overs account can accommodate additional years—such as year t–3. If available, amounts provided for additional years must be audited.

67 The WACC for each year will be that approved by the AER for the respective year and as calculated as set out in Figure 13.1.

68 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.

not impact the operation of the unders/overs account, and where SA Power Networks receives a full government subsidy for jurisdictional schemes it will not recover any amounts from customers in relation to those jurisdictional schemes.

In proposing variations to the amount and structure of jurisdictional scheme charges, SA Power Networks is expected to achieve a closing balance as close to zero as practicable in its jurisdictional scheme amounts unders and overs account in each forecast year in its annual pricing proposal during the 2020–25 regulatory control period.

Table 13.3 Example calculation of jurisdictional scheme amounts unders and overs account ($'000, nominal)

	Year t–2 (actual)	Year t–1 (estimate)	Year t (forecast)
(A) Revenue from jurisdictional schemes	**19 777**	**23 121**	**26 965**
(B) Less jurisdictional scheme payments for regulatory year =	**20 272**	**20 959**	**28 641**
+ Jurisdictional scheme 1 payments	14 159	13 954	13 961
+ Jurisdictional scheme 2 payments	6 113	7 005	14 680
(A minus B) Under/over recovery of revenue for regulatory year	**–495**	**2162**	**–1 676**[a]
Jurisdictional scheme amount unders and overs account			
Nominal WACC (per cent)	5.00%	5.50%	6.00%
Opening balance	–52	–562[b]	1 628
Interest on opening balance	–3	–31	98
Under/over recovery of revenue for regulatory year	–495	2 162	–1 676[a]
Interest on under/over recovery for regulatory year	–12	59	–50
Closing balance	**–562**	**1 628**	**0**[c]

Notes: (a) Approved jurisdictional scheme amounts revenue under/over recovery for regulatory year t.

(b) Opening balance is the previous year's closing balance.

(c) SA Power Networks is expected to achieve a closing balance as close to zero as practicable in its jurisdictional scheme amount unders and overs account in each forecast year in its annual pricing proposals in the 2020–25 regulatory control period.

D Rounding of inputs in annual pricing proposals

The following sets out our draft determination around the requirement of how SA Power Networks must use calculation inputs, whether on a rounded or unrounded basis, in the annual pricing approval process.

'Unrounded', for this purpose, will be taken to mean at least fifteen 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 fifteen digits to express (such as 2.25 being equivalent to 2.25000000000000) but will meet the definition of fifteen digit floating point precision.

Rounding in calculations must be done on a ‘nearest’ basis. So 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).

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 necessary, inputs should be calculated as an alternative to using a rounded value. For example, inflation should be used as calculated based around the CPI tables as provided by the Australian Bureau of Statistics, 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 13.4 sets out the required level of precision for an inflation calculation.

Table 13.4 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
ΔCPI_t	2.23015165031222%

When applying a price cap, the value of $\overline{p}_t^i$ should be rounded to the nearest two decimal places each year.

Table 13.5 Demonstration of price cap calculation (with rounding)

	Required Precision
$\overline{p}_{t-1}^{i}$	$23.28
X factor (example: should be taken from model)	-7.125%
ΔCPI_t	2.23015165031222%
$\overline{p}_{t}^{i}$ (unrounded)	$25.4938708296164
$\overline{p}_{t}^{i}$ (rounded)	$25.49

Prices p_t^i can be rounded to as few or as many decimal places as required, subject to being less than or equal the two decimal place value of $\overline{p}_{t}^{i}$. 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 avoidance of ambiguity, where a price is expressible as a rate for a period of time, rounding of the price cap will apply to the largest relevant time period. So 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 should the regulatory year to which the price applies include 29 February 2024. This daily rate may be expressed on a rounded basis (with discretion from SA Power Networks on the appropriate level of decimal places to apply) but must be based on a rounding to the nearest decimal place.

The factors of the revenue cap formula, adjusted annual smoothed revenue requirement, sum of incentive scheme adjustments, sum of annual adjustment factors and sum of approved cost pass through amounts should be rounded to no fewer than two decimal places. Prices, quantities, X factors and CPI must be used unrounded in the revenue cap formula.

Unrounded inputs include all those not specified above as being rounded.