FINAL DECISION

Energex
Distribution Determination
2020 to 2025

Attachment 13
Control mechanisms

November 2021

AUSTRALIAN ENERGY REGULATOR

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Note

This attachment forms part of the AER's final decision on the distribution determination that will apply to Energex for the 2020–25 regulatory control period. It should be read with all other parts of the final decision.

The final decision includes the following attachments:

Overview

Attachment 1 – Annual revenue requirement

Attachment 2 – Regulatory asset base

Attachment 3 – Rate of return

Attachment 4 – Regulatory depreciation

Attachment 5 – Capital expenditure

Attachment 6 – Operating expenditure

Attachment 7 – Corporate income tax

Attachment 8 – Efficiency benefit sharing scheme

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Attachment 13 – Control mechanisms

Attachment 14 – Pass through events

Attachment 15 – Alternative control services

Attachment 18 – Tariff structure statement

Attachment A – Negotiating framework

Contents

Shortened forms

Shortened form	Extended form
AER	Australian Energy Regulator
ATO	Australian Tax Office
CESS	capital expenditure sharing scheme
CPI	consumer price index
distributor	distribution network service provider
DUoS	distribution use of system
EBSS	efficiency benefit sharing scheme
F&A	framework and approach
NER	National Electricity Rules
PTRM	post-tax revenue model
RIN	regulatory information notice
STPIS	service target performance incentive scheme
WACC	weighted average cost of capital

13 Control mechanisms

A control mechanism imposes limits over the prices of direct control services (standard and alternative control services) and/or the revenues that a distribution network service provider can recover from customers for these services.

Energex largely accepted our draft decision, however its revised proposal suggested a change to the side constraints mechanism for standard control services.

In our final decision we have made minor amendments to the standard control services control mechanism formula to better reflect the transition of the revised service target performance incentive scheme (STPIS) and to the side constraint formula to better reflect the intent of the relevant clause of the National Electricity Rules (NER).

13.1 Final decision

Our final determination for Energex is the same as our draft decision, except that we have also:

- adjusted the standard control service control mechanism formula to better reflect the transition of the revised STPIS
- adjusted the standard control service side constraint formula to better reflect the intent of the NER
- amended the description of the I factor in the standard control service formulae to correct an error
- provided further clarifications, including in relation to the WACC calculation to apply to unders and overs.

The control mechanism for standard control services is a revenue cap. The revenue cap formula for standard control services is set out in Figure 13.1. The side constraints applying to price movements for each of Energex's tariff classes are set out in Figure 13.2

The control mechanism for alternative control services is a price cap. The price cap formula for legacy metering, public lighting and ancillary services (fee based) is set out in Figure 13.3. The price cap applying to Energex's quoted services is set out in Figure 13.4.

Appendix A sets out how Energex must demonstrate compliance with the revenue cap. Appendices B and C set out how Energex is to report on the recovery of designated pricing proposal charges and jurisdictional scheme amounts, and how any under or over recovery of revenue associated with those charges is to be accounted for.

Appendix D sets out how rounding is to be handled in the annual pricing approval process.

13.2 Energex's revised proposal

Energex largely accepted our draft decision, however it proposed that the side constraint formula set in our draft decision should be amended to include factors to represent incentive schemes and cost pass-through amounts.[1]

13.3 Assessment approach

Our assessment approach is unchanged from the description set out in our draft decision.

13.4 Reasons for final decision for standard control services

Our final decision incorporates changes to the side constraint formula to address the recommendations in Energex's revised proposal. We consider that these changes better reflect the application of the NER.

We consider there are benefits to a consistent approach to control mechanisms and price control formulae across the National Electricity Market. To achieve this, our final decision also incorporates minor adjustments to the control mechanism and side control formulae that have resulted from engagement with other distributors through their own regulatory determination processes. We consider these changes set out below provide greater clarity on the operation of the formulae.

Application of revised STPIS

Our draft decision set out that the I factor parameter in the control mechanism formula would include the STPIS and that the STPIS component of the I factor would be applied as a fixed monetary amount adjustment to annual revenue, as determined by the AER.[2] Through our engagement with other distributors as part of their own regulatory determination processes we have reviewed the application of STPIS to the control mechanism formula and determined that amendments are necessary.

The STPIS component of the I factor was previously applied as a percentage adjustment to annual revenue (an S factor), as determined by the AER.[3] Under the new guideline[4] the STPIS component will be applied as a monetary amount adjustment to the annual revenue, in line with other incentive schemes.

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1 Energy Queensland, *Energex revised regulatory proposal 2020–25*, December 2019, p. 52.

2 AER, *Draft Decision: Energex distribution determination 2020 to 2025 - Attachment 13 - Control mechanisms*, October 2019, p. 13-12.

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

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

As the STPIS is applied to revenue on a two-year lag, there will be a transitional phase in the 2020–25 regulatory control period. In years 1 and 2 of the regulatory control period, the S factor will be applied as a percentage adjustment to annual revenue. In subsequent years, any revenue adjustment related to the STPIS will be included in the I factor. In year 3, the STPIS amounts from years 1 and 2 will need to be backed out of the revenue path. The application of this is set out in Figure 13.1 (revenue cap formula).

As part of our final decision we require Energex to submit a compliance report for year t-2 before the start of year t. We will then determine the adjustment for year t-2 to be applied in the year t annual pricing proposal.

Incentive scheme adjustments (I factor)

In our draft decision, we set out the definition of the I factor parameter as incorporating the efficiency benefit sharing scheme, the capital expenditure sharing scheme, and the STPIS.[5] Our final decision corrects an error that was made in these inclusions. As the efficiency benefit sharing scheme and the capital expenditure sharing scheme are dealt with exclusively through the AER's regulatory determinations, including relevant true-ups, they are not to be incorporated in the I factor. Our final decision amends the I factor description in the standard control services formulae to correct this error.

Clarification of WACC calculation to apply to unders and overs accounts

To provide greater certainty on the application of the weighted average cost of capital (WACC) value to under and over recovery amounts, we have clarified the calculation of the WACC in the control mechanism formula. As set out in our draft decision, the WACC applied in the unders and overs account will reflect actual inflation. We have clarified that the nominal WACC is to be calculated using the real vanilla WACC from the annual update Post Tax Revenue Model (PTRM) adjusted for actual inflation.

We have also made minor amendments in appendices A, B and C to reflect the clarification in the calculation of the unders and overs accounts for distribution use of system (DUoS), designated pricing proposal charges and jurisdictional scheme amounts.

Deliberately under-recovered revenue

As noted in our draft decision,[6] we accept there are times when Energex may decide to recover below its allowed level of revenue. This is in contrast to unintentional under-

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5 AER, *Draft Decision: Energex distribution determination 2020 to 2025 - Attachment 13 - Control mechanisms*, October 2019, p. 13-8.

6 AER, *Draft Decision: Energex distribution determination 2020 to 2025 - Attachment 13 - Control mechanisms*, October 2019, p. 13-10.

recovery due to a natural variation between forecast quantities of a service offered and actual quantities 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.

Control mechanism for standard control services

Our decision on the formula that gives effect to the control mechanism must be as set out in the Framework and approach (F&A) unless we consider that a material change in circumstances occurs which justifies departing from that approach.[7]

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, we finalised the STPIS review and released our new STPIS guideline.

Now that we have completed our review and published the revised STPIS, our final determination will apply the revised STPIS. Future STPIS outcomes will now be specified as a fixed monetary amount, rather than a percentage adjustment.[8] Hence, we 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.[9] As a result of the new application of the STPIS as a monetary amount, we can now include this under the I factor, rather than an escalation to create the AAR factor. As the STPIS operates on a two-year lag, this revised revenue cap formula will operate from year 4 of the 2020–25 regulatory control period, with a transitionary revenue cap formula applying in year 3.

We have also clarified the method to be used to calculate the WACC to be applied to unders and overs to arrive at the B factor, and which incentive schemes are included in the I factor.

Figure 13.1 sets out the revenue cap formula for distribution services.

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7 NER, cl. 6.12.3(c1).

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

9 NER, cl. 6.12.3(c1).

Figure 13.1 Revenue cap formula[10]

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

3. $$AAR_t = AR_t \times (1 + S_t)$$ t = 1

4. $$AAR_t = AAR_{t-1} \times (1 + \Delta CPI_t) \times (1 - X_t) \times (1 + S_t)$$ t = 2

5. $$AAR_t = AAR_{t-1} \times (1 + \Delta CPI_t) \times (1 - X_t) \div (1 + S_{t-1}) \div (1 + S_{t-2})$$ t = 3

6. $$AAR_t = AAR_{t-1} \times (1 + \Delta CPI_t) \times (1 - X_t)$$ t = 4, 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.

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.

AAR_t is the adjusted annual smoothed revenue requirement for year t.

I_t is the sum of payments relating to:

- the STPIS version 2.0[11][12] (applicable from year t = 3 onwards (2022/23, 2023/24 and 2024/25));

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10 All parameters are in nominal terms unless otherwise specified.

11 The service target performance incentive scheme (STPIS) version 2.0 applies for the 2020-25 regulatory control period. The first payments relating to STPIS version 2.0 will occur in 2022/23. See *AER, Electricity distribution network Service Providers - Service target performance incentive scheme (Version 2.0)*, November 2018.

12 The STPIS 2.0 guideline uses the annual smoothed revenue AR(t-2) in the calculation of the s-factor, however AR is only applicable to revenue in the first year of the regulatory control period when revenue is sourced from the PTRM. AR(t-2) will apply to the s-factor calculations in year t=3, as this refers to the first year revenue. In other

- demand management incentive scheme and innovation allowance adjustments as they relate to year t-2, applied in year t; and
- any other related incentive schemes[13] to be 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. To calculate this nominal WACC, the real vanilla WACC from the annual update PTRM will be escalated for actual 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[15] 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

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years where STPIS 2.0 applies (in this regulatory control period, years t=4 and 5), AAR(t-2) will be used to ensure the correct revenue is used, inclusive of actual CPI movements, and with any previous year s-factors backed out.

13 This does not reflect those incentive schemes that are calculated and applied through our regulatory determination, such as the capital expenditure sharing scheme (CESS) or efficiency benefit sharing scheme (EBSS).

15 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.

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.

S_t is the s-factor for regulatory year t relating to payments for the application of the STPIS version 1.2 in the 2015–20 regulatory control period.[16] This s-factor will only apply in years t = 1 and 2, with new STPIS version 2.0 providing for a change in the application of STPIS payments from year t = 3 onwards.[17] In year t=3, the adjusted smoothed revenue will be calculated including the backing out of previous year s-factors. This will revert the revenue path to a CPI-X format, and ensure that rewards or penalties related to STPIS in previous years are not carried forward in allowed revenue.

Side constraint mechanism

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.[18]

In its revised proposal Energex proposed the AER amend the side constraint formula to include the incentive schemes and cost pass through factors.[19] This was in response to our draft decision in which we removed these factors to be in line with the NER.[20]

The NER states that recovery of certain revenues, such as those to accommodate cost pass throughs and incentive schemes, are disregarded in deciding whether the permissible percentage has been exceeded.[21] In considering Energex's revised proposal, we have determined that reinstating the incentive schemes and cost pass through factors upholds the intent expressed in the NER. An alternative approach to disregarding cost pass throughs and incentive schemes would be challenging to

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16 The meaning for year “t” under this formula is different to that in Appendix C of STPIS. Year “t+1” in Appendix C of STPIS version 1.2 is equivalent to year “t” in this formula.

17 AER, *Electricity distribution network Service Providers – service target performance incentive scheme*, 1 November 2009.

18 NER, cl. 6.18.6(c).

19 Energy Queensland, *Energex revised regulatory proposal 2020–25*, December 2019, p. 52.

20 AER, *Draft Decision: Energex distribution determination 2020 to 2025 - Attachment 13 - Control mechanisms*, October 2019, p.14.

21 NER, cl. 6.18.6(d).

implement in practice as it would require separate tariffs to be provided to calculate weighted average revenues of a tariff class, net of incentive schemes and cost pass throughs, to ensure compliance with the permissible percentage.

To ensure the intent of the NER is upheld, we have therefore included the incentive schemes and cost pass through factors in the side constraint formula. These factors will be applied in the side constraints mechanism as annual percentage changes. This will provide a permissible percentage that will reflect the changes in incentive scheme and cost pass through amounts from the previous year, to reflect the calculated weighted average revenues being inclusive of these amounts.

In line with the approach taken for the revenue cap formula, the STPIS will be applied under the I factor from year 3 onwards. We consider that any discrepancy that will occur between year 2 and year 3 tariffs as a result of the new STPIS guideline will be immaterial, and will not have any substantial impact on the side constraint mechanism.

For consistency with the revenue cap formula, we have also represented proposed prices and prices charged as 'p', as opposed to the 'd' used previously. We have also clarified which incentive schemes are included in the I factor.

Figure 13.2 Side constraints formula[22]

For t=1, 2:

$$\frac{\left(\sum_{i=1}^{n}\sum_{j=1}^{m} p_t^{ij} q_t^{ij}\right)}{\left(\sum_{i=1}^{n}\sum_{j=1}^{m} p_{t-1}^{ij} q_t^{ij}\right)} \leq (1+\Delta CPI_t) \times (1-X_t) \times (1+2\%) \times (1+S_t) + I_t' + B_t' + C_t'$$

For year t=3:

$$\frac{\left(\sum_{i=1}^{n}\sum_{j=1}^{m} p_t^{ij} q_t^{ij}\right)}{\left(\sum_{i=1}^{n}\sum_{j=1}^{m} p_{t-1}^{ij} q_t^{ij}\right)} \leq (1+\Delta CPI_t) \times (1-X_t) \times (1+2\%) \div (1+S_{t-1}) \div (1+S_{t-2}) + I_t' + B_t' + C_t'$$

For t=4, 5:

[22] All parameters are in nominal terms unless otherwise specified.

$$\frac{\left(\sum_{i=1}^{n}\sum_{j=1}^{m} p_t^{ij} q_t^{ij}\right)}{\left(\sum_{i=1}^{n}\sum_{j=1}^{m} p_{t-1}^{ij} q_t^{ij}\right)} \leq (1 + \Delta CPI_t) \times (1 - X_t) \times (1 + 2\%) + I_t' + B_t' + C_t'$$

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

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

p_{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[23] 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 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.

S_t is the s-factor for regulatory year t relating to payments for the application of the STPIS version 1.2 in the 2015–20 regulatory control period.[24] This s-factor will only apply in years t = 1 and 2, with new STPIS version 2.0

[23] 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.

[24] The meaning for year "t" under this formula is different to that in Appendix C of STPIS. Year "t+1" in Appendix C of STPIS version 1.2 is equivalent to year "t" in this formula.

providing for a change in the application of STPIS payments from year t = 3 onwards.[25] In the side constraints for year t=3, the permissible percentage will be calculated including the backing out of previous year s-factors, to reflect the same adjustments made to the adjusted smoothed revenue in that year.

I'_t is the annual percentage change from the sum of payments relating to:

- the STPIS version 2.0[2627] (applicable from year t = 3 onwards (2022/23, 2023/24 and 2024/25));
- demand management incentive scheme and innovation allowance adjustments as they relate to year t-2, applied in year t; and
- any other related incentive schemes[28] to be applied in year t.

This percentage can be calculated by dividing the incremental revenues (the difference between the I-factor used in the total annual revenue formula for t and t-1) by the expected revenues for regulatory year t-1 (based on prices in year t-1 multiplied by the forecast quantities for year t).

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. This percentage can be calculated by dividing the incremental revenues (the difference between the B-factor used in the total annual revenue formula for t and t-1) 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).

C'_t is the annual percentage change from 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. This percentage can be calculated by dividing the incremental revenues (the difference between the C-factor

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25 AER, *Electricity distribution network Service Providers – service target performance incentive scheme*, 1 November 2009.

26 The service target performance incentive scheme (STPIS) version 2.0 applies for the 2020-25 regulatory control period. The first payments relating to STPIS version 2.0 will occur in 2022/23. See *AER, Electricity distribution network Service Providers - Service target performance incentive scheme (Version 2.0)*, November 2018.

27 The STPIS 2.0 guideline uses the annual smoothed revenue AR(t-2) in the calculation of the s-factor, however AR is only applicable to revenue in the first year of the regulatory control period when revenue is sourced from the PTRM. AR(t-2) will apply to the s-factor calculations in year t=3, as this refers to the first year revenue. In other years where STPIS 2.0 applies (in this regulatory control period, years t=4 and 5), AAR(t-2) will be used to ensure the correct revenue is used, inclusive of actual CPI movements, and with any previous year s-factors backed out.

28 This does not reflect those incentive schemes that are calculated and applied through our regulatory determination, such as the capital expenditure sharing scheme (CESS) or efficiency benefit sharing scheme (EBSS).

used in the total annual revenue formula for t and t-1) 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 Reasons for final decision for alternative control services

Our final decision on the control mechanisms for alternative control services is unchanged from our draft decision. For ease of reference, the relevant control mechanism formulae are set out below.

The price cap formula that will apply to Energex's alternative control services (except for quoted services) is shown at Figure 13.3. The price cap formula that will apply to Energex's quoted services is shown at Figure 13.4.

To demonstrate compliance with the distribution determination applicable to it during the 2020–25 regulatory control period, Energex must propose prices for alternative control services in its annual pricing proposal.[30]

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.[31] Energex must advise us of any new alternative control services created within the regulatory control period as part of its annual pricing proposal. Its proposal should provide a detailed description of the service along with how the new service will be charged.

As set out in our draft decision,[32] when charging for quoted services:

1. Energex must provide itemised invoices to the customer or the service recipient.
2. The charges must be consistent with good industry practice in terms of the resource requirements.

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

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

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

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

31 AER, *Framework and approach Energex and Ergon Energy Regulatory control period commencing 1 July 2020*, July 2018, p. 55.

32 AER, *Draft Decision: Energex distribution determination 2020 to 2025 - Attachment 13 - Control mechanisms*, October 2019, p. 13-18.

Where:

$\bar{p}_t^i$ 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.

$\bar{p}_{t-1}^i$ 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 CPI All Groups, Weighted Average of Eight Capital Cities[33] 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.

Figure 13.4 Price cap formula to apply to Energex's quoted services

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

Where:

[33] 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.

$Labour$

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[34] 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.

[34] 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, Energex must maintain a DUoS unders and overs account in its annual pricing proposal.[35]

Energex 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):[36]

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 WACC for each intervening year between regulatory year t–2 and year t. The WACC applied for each year will be the real vanilla WACC approved by the AER in the annual update, escalated for actual inflation for the relevant year.
3. The amount of revenue recovered from DUoS charges in respect of that year, less the total allowable 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 nominal WACC calculated as per step 2.
5. The total sum of items 1–4 to derive the closing balance for each year.

Energex 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.[37] 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, Energex 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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35 NER, cl. 6.18.2(b)(7).

36 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.

37 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**
+ Adjusted annual smoothed revenues (AAR_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) Includes incentive schemes as set out in our determination with the exception of those schemes that are calculated and applied through our regulatory determination (e.g. CESS and EBSS).

(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) Energex 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[38] unders and overs account

To demonstrate compliance with the distribution determination applicable to it during the 2020–25 regulatory control period, Energex must maintain a designated pricing proposal charges unders and overs account in its annual pricing proposal.[39]

Energex 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):[40]

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 WACC for each intervening year between regulatory year t–2 and year t. The WACC applied for each year will be the real vanilla WACC approved by the AER in the annual update, escalated for actual inflation for the relevant year.
3. The amount of revenue recovered from designated pricing proposal charges in respect of that year, less the total costs related to designated pricing proposal charges 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 nominal WACC calculated as per step 2.
5. The total sum of items 1–4 to derive the closing balance for each year.

Energex 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.[41] 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, Energex is expected to achieve a closing balance as close to zero as practicable in its designated pricing proposal charges unders and overs account in

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38 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.

39 NER, cll. 6.18.2(b)(6), 6.12.1(19), 6.18.7.

40 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.

41 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.

each forecast year in its annual pricing proposals during the 2020–25 regulatory control period.[42]

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) In addition to complying with clause 6.18.7(b) of the NER, Energex 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.

[42] The proposal must also comply with clause 6.18.7(b) of the NER.

C Jurisdictional scheme amounts[43] unders and overs account

To demonstrate compliance with the distribution determination applicable to it during the 2020–25 regulatory control period, Energex must maintain a jurisdictional scheme amounts unders and overs account in its annual pricing proposal.[44]

Energex 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):[45]

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 WACC for each intervening year between regulatory year t–2 and year t. The WACC applied for each year will be the real vanilla WACC approved by the AER in the annual update, escalated for actual inflation for the relevant year.
3. The amount of revenue recovered from jurisdictional scheme charges in respect of that year, less the total jurisdictional scheme payments 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 nominal WACC calculated as per step 2.
5. The total sum of items 1–4 to derive the closing balance for each year.

Energex 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.[46] 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 Energex 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 not impact the operation of the unders/overs account. Where Energex receives a full

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[43] 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.

[44] NER, cll. 6.12.1(20), 6.18.2(b)(6A), 6.18.7A(b) and (c).

[45] 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.

[46] 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.

government subsidy for jurisdictional schemes it will not recover any amounts from customers in relation to those jurisdictional schemes.[47]

In proposing variations to the amount and structure of jurisdictional scheme charges, Energex 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.[48]

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) In addition to complying with clause 6.18.7A(b) of the NER, Energex 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.

47 Energex currently receives a government subsidy for the Solar Bonus Scheme Feed-in tariff. This Queensland Government subsidy is active until 30 June 2020, with the Solar Bonus Scheme running until 2028.

48 The proposal must also comply with clause 6.18.7A(b) of the NER.

D Rounding of inputs in annual pricing proposals

The following sets out our final determination around the requirement of how Energex 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 $\bar{P}_t^i$ 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 a leap year (e.g. 29 February 2024). This daily rate may be expressed on a rounded basis (with discretion from Energex 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.