Control mechanism for standard control and alternative control services
Attachment 16.2

April 2018

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1. Introduction

The AER's Framework and Approach paper (F&A paper) for the 2019-24 regulatory control period sets out the AER's proposed control mechanisms and associated formulae for standard control services and alternative control services.[1]

Essential Energy accepts the proposed control mechanisms and associated formulae. This attachment and other supporting documents demonstrate how we intend to apply them.

1.1 NER requirements

In making its draft and final distribution determinations, Clauses 6.12.1(11) and (12) of the National Electricity Rules (the NER) require the AER to decide on the form of control mechanisms (including the X factor) for standard control services and alternative control services, as well as the formulae that give effect to its chosen mechanisms.

Clause 6.8.2(c)(3) of the NER requires Essential Energy's Regulatory Proposal to include for services classified as alternative control services, a demonstration of the application of the control mechanism, as set out in the F&A paper, and the necessary supporting information.

1.2 AER's F&A paper for the 2019-24 regulatory period

In its F&A paper, the AER decided to apply the following control mechanisms:

- for services classified as Standard Control Services, an annual revenue cap control applied to smoothed annual revenues
- for services classified as Alternative Control Services, annual caps on the prices of individual services.

Further to the F& A paper, Paragraph 3 of schedule 1 of the AER's Reset Regulatory Information Notice (RIN) requires Essential Energy to provide the following information:

> For the proposed forecast revenues that Essential Energy's estimates to recover from providing direct control services over the forthcoming regulatory control period provide:
>
> a) formulaic expressions for the basis of control mechanisms for standard control services and for alternative control services; and
>
> b) a detailed explanation and justification for each component that makes up the formulaic expression."
>
> Also demonstrate:
>
> a) how Essential Energy considers the control mechanisms are compliant with the F&A paper; and
>
> b) for standard control services, how Essential Energy considers the control mechanisms are also compliant with clause 6.2.6 and Part C of Chapter 6 of the NER.

2. Compliance with control mechanism for standard control services

The AER determined that the basis of control for standard control services for the 2019-24 regulatory control period should be an annual revenue cap and of the CPI-X form consistent with the ER. The F&A paper sets out the formulae to give effect to this revenue cap control mechanism.

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[1] AER (2017), Framework and Approach, Ausgrid, Endeavour Energy and Essential Energy, Regulatory control period commencing 1 July 2019, July

2.1 AER formulae for standard control services

The AER's proposed revenue cap formulae for standard control services is set out below.

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

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

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

4. $AAR_t = AAR_{t-1} \times (1 + \Delta CPI_t) \times (1 - X_t) \times (1 + S_t)$ t = 2,...,5

Where:

TAR_t $\quad$ is the total allowable revenue in year t.

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

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

t $\quad$ is the regulatory year.

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

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

I_t $\quad$ is the sum of incentive scheme adjustments in year t.

B_t $\quad$ is the sum of annual adjustment factors in year t.

C_t $\quad$ is the sum of approved cost pass through amounts (positive or negative) with respect to regulatory year t, and any end-of-period adjustments in year t.

S_t $\quad$ is the s-factor for regulatory year t. As it currently stands, the s-factor will incorporate any adjustments required due to the application of the AER's STPIS.

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

$$\Delta CPI_t = \left[\frac{CPI_{Mar,t-2} + CPI_{Jun,t-2} + CPI_{Sep,t-1} + CPI_{Dec,t-1}}{CPI_{Mar,t-3} + CPI_{Jun,t-3} + CPI_{Sep,t-2} + CPI_{Dec,t-2}} \right] - 1$$

X_t $\quad$ is the X-factor in year t, incorporating annual adjustments to the PTRM for the trailing cost of debt where necessary.

2.2 Demonstrating compliance with revenue cap control mechanism

In demonstrating Essential Energy's compliance with the F&A paper and Clause 6.2.6 and Part C of Chapter 6 of the NER, we note the following:

- Essential Energy accepts the AER's proposed formulae to apply to standard control services to give effect to the AER's proposed revenue cap control mechanism.

- Essential Energy's proposed revenues in this Regulatory Proposal assume a revenue cap control is based on applying the AER's approved post-tax revenue model (PTRM), which generates the revenue outputs in the AER's proposed revenue cap formulae, including the annual smoothed revenue requirement (ARt).

- Our calculation of annual revenue adjustments (It, St and Bt) in the revenue cap control formulae is in accordance with:
  - the formulaic expressions provided by the AER under each of the relevant incentive schemes;
  - formulaic expressions applied in our Annual Pricing Proposals in the current regulatory control period (as approved by the AER), including the application of the approved distribution use of system (DUOS) revenue unders and overs mechanism.[2]

- Indicative prices for standard control services for each regulatory year, which are included in our Tariff Structure Statement, are based on adjusted annual smoothed revenues (AARt) generated by the PTRM;

- Each year of the regulatory control period, our Annual Pricing Proposal will demonstrate that forecast annual revenue (in year t) based on our proposed network tariffs (in year t) is equal to the approved adjusted annual smoothed revenue (AARt), calculated in accordance with the AER's revenue cap formulae, including to account annually for the trailing average cost of debt adjustment.

2.3 Other compliance considerations

Essential Energy's network use of system (NUOS) charges include the transmission use of system (TUOS) charges of NSW transmission network service provider, TransGrid, as well as payments to other DNSPs and avoided TUOS charges paid to eligible embedded generators. The charges we make to TransGrid and others are termed 'designated pricing proposal charges' and are defined in Chapter 10 of the NER.

Essential Energy is also required to recover through its NUOS charges, revenue associated with certain programs implemented by the NSW Government that place legislative obligations on distribution networks.

Finally, Essential Energy's NUOS charges at the tariff class level are subject to what are known as side-constraints, in terms of the size of allowable annual price increases, to prevent price shocks for customers.

Our proposed approach to each of these issues is outlined below.

2.3.1 Transmission charging matters and designated pricing proposal charges

Clause 6.12.1(19) of the NER requires the AER to decide how Essential Energy is to report on the recovery of designated pricing proposal charges for each regulatory year of the 2019-24 regulatory control period, and on adjustments to account for under or over recovery of these charges.

Further, Clause 6.18.7 of the NER requires us to specify in our Annual Pricing Proposal how designated pricing proposal charges are to be recovered from customers.

To meet these requirements, we propose to use the AER's approved mechanism for recovering these charges that is in place during the 2014-19 regulatory control period.[3]

This will entail reporting to the AER on the recovery of designated pricing proposal charges as part of our Annual Pricing Proposal, including the revenue adjustments made through the associated unders and overs account for designated pricing proposal charges.

Specifically, we will set out in our Annual Pricing Proposal:

- the forecast level of designated pricing proposal charges that will apply for the relevant regulatory year;

- how those designated pricing proposal charges will be passed onto customers; and

- detailed information regarding the unders and overs account for designated pricing proposal charges.

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[2] AER (2015), Essential Energy distribution determination 2015−16 to 2018−19, Attachment 14 – Control Mechanism, Final Decision, pp 18-19

[3] AER (2015), Essential Energy distribution determination 2015−16 to 2018−19, Attachment 14 – Control Mechanism, Final Decision, pp 20-21

These charges include amounts paid to:

- transmission companies such as TransGrid and Powerlink for transmission use of system (TUoS) charges;
- charges paid to other DNSPs for inter distributor transfers; and
- payments of Avoided TUoS to large embedded generators.

2.3.2 Jurisdictional scheme payments

Essential Energy is required to make what are known as jurisdictional scheme payments to the NSW Government under relevant NSW legislation. These payments are beyond our control and are treated separately to the AER's approved maximum allowable revenue and charges for our direct control services.

These jurisdictional schemes include the schemes set out under Clause 6.18.7A(e) of the NER, as well as those determined by the AER to be jurisdictional schemes under clause 6.18.7A(i), and include payments to the NSW government's Climate Change Fund and payments to customers for the QLD solar scheme

Clause 6.12.1(20) of the NER requires the AER to make a constituent decision on how a DNSP is to report the recovery of revenue mounts associated with a jurisdictional scheme for each regulatory year of the regulatory control period and on the adjustments to be made to subsequent pricing proposals to account for over or under recovery of those amounts. The AER's constituent decision only relates to jurisdictional scheme obligations in place at the time the final revenue determination is made.

Further, Clause 6.18.7A of the NER sets out the requirements for recovery of jurisdictional scheme amounts.

Having regard to these NER requirements, there are currently two jurisdictional schemes currently operating that are relevant to Essential Energy, the NSW Climate Change Fund, and the QLD Solar Scheme, which both satisfy Rule 6.18.7A(e)(3). For the 2019-24 regulatory control period, we will have a continuing obligation to make payments to the NSW Government to support this Fund and to pay those customers entitled to the QLD solar scheme.

We propose the same mechanism for reporting on recovery of jurisdictional scheme amounts to that in place during the 2014-19 regulatory control period, including the approved mechanism for revenue under or over recovery adjustments.[4] This information will be reported in our Annual Pricing Proposals. The unders and overs account mechanism will ensure amounts for each jurisdictional scheme are passed through to customers in a manner that ensures they pay no more or less than required as per the requirements under Clause 6.18.7A of the NER.

2.3.3 Side constraints

Clause 6.18.6(b) of the NER requires the expected weighted average revenue to be raised from a Standard Control Services tariff class to not exceed the corresponding expected weighted average revenue from the preceding year by more than a permissible percentage (the tariff side constraint).

The F&A paper did not endorse a network tariff side-constraint formula. However, Essential Energy proposes that the existing approved side constraint formula should be maintained in the 2019-24 regulatory control period.[5] This side constraint formula is expressed as follows:

$$\frac{(\sum_{j=1}^{m} d_t^j q_t^j)}{(\sum_{j=1}^{m} d_{t-1}^j q_t^j)} \leq (1 + \Delta CPI_t)(1 - X_t)(1 + 2\%)(1 + S_t) \pm B_t \pm DUoS_t$$

where each tariff class has up to 'm' components, and where:

d_t^j is the proposed price for component 'j' of the tariff class for year t.

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[4] AER (2015), Essential Energy distribution determination 2015−16 to 2018−19, Attachment 14 – Control Mechanism, Final Decision, pp 22-23

[5] AER (2015), Essential Energy distribution determination 2015−16 to 2018−19, Attachment 14 – Control Mechanism, Final Decision, p16

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

q_t^j is the forecast quantity of component 'j' of the tariff class in year t.

CPI means the all groups index number for the weighted average of eight capital cities as published by the ABS, or if the ABS does not or ceases to publish the index, then CPI will mean an index which the AER considers is the best estimate of the index.

X_t the smoothing factor determined in accordance with the PTRM as approved in the AER's final decision, and annually revised for the return on debt update in accordance with the formula specified in the return on debt appendix I 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 approved pass through amounts (positive or negative) with respect to regulatory year t, as determined by the AER.

S_t is the STPIS factor sum of the raw s-factors for all reliability of supply and customer service parameters (as applicable) to be applied in year t. S_t for 2019–20 and 2020–21 are set at zero.

$DUoS_t$ is an annual adjustment factor related to the balance of the DUoS unders and overs account with respect to regulatory year t.

Except for the CPI and X factors, 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).

We will demonstrate in our Annual Pricing Proposals over the 2019-24 regulatory control period that proposed DUOS prices for each pricing year (t) satisfy the side-constraint formula for each tariff class.

3. Compliance with control mechanism for alternative control services

An Alternative Control Service is a service we provide to customers on a discretionary or infrequent basis and for which the costs of the specific service can be directly attributed to the requesting customer. Alternative control service revenues do not form part of the DUOS revenue allowance approved by the AER.

The F&A paper proposed the following Alternative Control Service classification groups for the 2019-24 regulatory period:

- Public lighting services.
- Type 5 and 6 metering services.
- Ancillary network services.

Chapter 17 of our Regulatory Proposal provides details on the nature of each of these services.

In its F&A paper the AER noted that the NSW distributors' alternative control services are currently subject to price cap regulation. The AER considered that the continuation of these individual service price caps over the 2019-24 regulatory control period best meets the factors set out under clause 6.2.5(d) of the NER.

The AER indicated the NER is not prescriptive about the basis of the control mechanism for alternative control services. Accordingly, the AER set out proposed formulae that will give effect to the individual price cap control mechanisms but noted that it is at the distributor's discretion as to the approach it undertakes to develop initial prices for the first year of the 2019-24 regulatory control period.

Further, the AER indicated that prices for certain ancillary services will be determined on a quoted rather than prescribed fee basis. Quoted services are non-standard and specific to an individual customer's needs, including the scope of required work. Consequently, the cost of these services will depend on the actual time required to perform the service. Because of this uncertainty, the AER's proposed price cap formula for quoted services differs to that proposed for legacy metering, public lighting and fee-based ancillary services.

3.1 AER formula for alternative control services

The AER's F&A paper sets out the proposed price cap formulae to apply to:

- Type 5 and 6 (legacy) metering, public lighting and fee-based ancillary services; and
- quoted services.

Essential Energy accepts the AER's proposed formula and will apply it to calculate the prices of these services during the 2019-24 regulatory control period. The formula is set out below.

3.1.1 Price cap formula to apply to legacy metering, public lighting and ancillary services (fee based)

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

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

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. The initial value is to be decided in the distribution determination.

$\overline{p}_{t-1}^i$ 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 CPI All Groups, Weighted Average of Eight Capital Cities from the December quarter in year t–2 to the December quarter in year t–1, calculated using the following method:

$$\Delta CPI_t = [\frac{CPI_{Mar,t-2} + CPI_{Jun,t-2} + CPI_{Sep,t-1} + CPI_{Dec,t-1}}{CPI_{Mar,t-3} + CPI_{Jun,t-3} + CPI_{Sep,t-2} + CPI_{Dec,t-2}}] - 1$$

X_t^i is the X factor for service i in year t. The X factors are to be decided in the distribution determination and will be based on the approach the distributor undertakes to develop its initial prices.

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.

Applying the above basis of control to public lighting services, annual labour cost escalation will mainly affect public lighting maintenance costs, whereas other cost components will be driven by CPI only. Nevertheless, the X factor for public lighting will be determined by the AER as part of its final determination. Further details of our public lighting tariffs are provided in Essential Energy's public lighting attachments and supporting documents.

Applying the above basis of control to ancillary services, annual escalation of charges will be due primarily to labour escalation. However, for some services other cost drivers will need to be reflected in the specific X factor.

3.1.2 Price cap formula to apply to quoted services

Price = Labour + Contractor Services + Materials

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 from the December quarter in year t–2 to the December quarter in year t–1, calculated using the following method:

$$\Delta CPI_t = \left[\frac{CPI_{Mar,t-2} + CPI_{Jun,t-2} + CPI_{Sep,t-1} + CPI_{Dec,t-1}}{CPI_{Mar,t-3} + CPI_{Jun,t-3} + CPI_{Sep,t-2} + CPI_{Dec,t-2}} \right] - 1$$

X_t^i is the X factor for service i in year t. The X factor is to be decided in the distribution determination and will be based on the approach Essential Energy undertakes to develop its initial prices.

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.

3.2 Demonstrating compliance with price cap control mechanism

Attachments 3, 4 and 5 to this Regulatory Proposal explain the basis of Essential Energy's proposed initial efficient prices for legacy metering, public lighting, and fee-based ancillary services for the first year of the 2019-24 regulatory control period.

The AER's proposed price cap formulae provide for these efficient starting prices to be escalated from one regulatory year to the next based on changes in the CPI and application of X and A factors. Our Annual Pricing Proposals from the second regulatory year of the 2019-24 regulatory control period onwards will include updated alternative control service prices escalated in accordance with the approved price cap formulae. Our published price lists will demonstrate compliance with the individual service price cap requirements.

In contrast, prices for quoted services are typically based on quantities of labour and materials with the quantities dependent on the nature of the specific service. Prices for Essential Energy's quoted services during the 2019-24 regulatory control period will reflect the AER's approved labour and material costs, with escalation applied annually in line with the approved formula.