DRAFT DECISION

Essential Energy Distribution Determination

2019 to 2024

Overview

November 2018

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Note

This overview forms part of the AER's draft decision on the distribution determination that will apply to Essential Energy for the 2019–24 regulatory control period. It should be read with all other parts of the draft decision.

The draft 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

Attachment 9 – Capital expenditure sharing scheme

Attachment 10 – Service target performance incentive scheme

Attachment 11 – Demand management incentive scheme

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Attachment 15 – Alternative control services

Attachment 16 – Negotiated services framework and criteria

Attachment 17 – Connection policy

Attachment 18 – Tariff structure statement

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Shortened forms

Shortened form	Extended form
AEMC	Australian Energy Market Commission
AER	Australian Energy Regulator
capex	capital expenditure
CCP/CCP10	Consumer Challenge Panel, sub-panel 10
CESS	Capital expenditure sharing scheme
CPI	Consumer price index
DMIA/DMIAM	Demand management innovation allowance (mechanism)
DMIS	Demand management incentive scheme
EBSS	Efficiency benefit sharing scheme
NEL	National Electricity Law
NEM	National Electricity Market
NEO	National Electricity Objective
NER	National Electricity Rules
opex	operating expenditure
RAB	regulatory asset base
RBA	Reserve Bank of Australia
STPIS	Service target performance incentive scheme
TSS	tariff structure statement

About this decision

The Australian Energy Regulator (AER) works to make all Australian energy consumers better off, now and in the future. We regulate energy networks in all jurisdictions except Western Australia. We set the amount of revenue that network businesses can recover from customers for using these networks.

The National Electricity Law and Rules (NEL and NER) provide the regulatory framework governing electricity transmission and distribution networks. Our work under this framework is guided by the National Electricity Objective (NEO):[1]

> "…to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to—
>
> (a) price, quality, safety, reliability and security of supply of electricity; and
>
> (b) the reliability, safety and security of the national electricity system."

Essential Energy (Essential) is the electricity distribution network service provider for customers in rural and regional NSW. On 30 April 2018, Essential submitted its regulatory proposal for the five years commencing 1 July 2019.

The key component of our distribution determination for Essential will be the total revenue it can recover from customers for the provision of common distribution services (standard control services): those used by most, if not all, of Essential's customers. This is our building block determination, and will form the basis of Essential's distribution tariffs for the 2019–24 regulatory control period. Essential's tariff structure statement (TSS) sets out the tariff structure through which it will recover its regulated revenue for standard control services from customers.

Essential also provides alternative control services, the costs of which are recovered from users of those services only, through a capped price on the individual service. These costs are considered separately to our revenue determination. We discuss Essential's alternative control services in attachment 15 to this draft decision. Essential has not proposed to provide any services on a negotiated basis in the 2019–24 regulatory control period.[2]

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1 NEL, s. 7.

2 Our distribution determination for Essential includes an approved negotiating framework and negotiated distribution service criteria, as required by the NER. Because Essential has not included any negotiated services in its proposal, these elements of our determination will be inactive for the 2019-24 regulatory control period.

Invitation for submissions

This is our draft decision on Essential's distribution determination for the 2019–24 regulatory control period. Essential will now have the opportunity to submit a revised proposal in response to this draft decision by 8 January 2019.

Submissions from interested stakeholders on both this draft decision and Essential’s revised proposal are invited by 5 February 2019. We will consider and respond to all submissions received by that date in our final determination, which is due to be made by 30 April 2019.

Submissions should be sent to: NSW2019-24@aer.gov.au. Alternatively, submissions can be sent to:

Sebastian Roberts
General Manager
Australian Energy Regulator
GPO Box 520
Melbourne VIC 3001

Submissions should be in Microsoft Word or another text readable document format.

We prefer that all submissions be publicly available to facilitate an informed and transparent consultative process.

Submissions will be treated as public documents unless otherwise requested. Parties wishing to submit confidential information should:

(1) clearly identify the information that is the subject of the confidentiality claim

(2) provide a non-confidential version of the submission in a form suitable for publication.

All non-confidential submissions will be placed on our website.[3]

[3] For further information regarding our use and disclosure of information provided to us, see the *ACCC/AER Information Policy* (June 2014), which is available on our website: https://www.aer.gov.au/publications/corporate-documents/accc-and-aer-information-policy-collection-and-disclosure-of-information

1 Our draft decision

Our draft decision would allow Essential to recover $5292.1 million ($nominal, smoothed) from its customers from 1 July 2019 to 30 June 2024. We estimate that this draft decision, if implemented, would mean that by the end of the 2019–24 regulatory control period:

- Essential's average distribution network tariff would increase (in nominal terms) by about 10.1 per cent[4]
- Holding all other components of the bill constant, the average annual electricity bill for a residential or small business customer on Essential's distribution network would increase by 3.7 per cent.[5]

For Essential's residential and small business customers, this suggests that the average annual electricity bill would be $70 and $314 higher, respectively, by the end of the 2019–24 regulatory control period.

Essential's proposal was well received by stakeholders, including the AER's Consumer Challenge Panel (CCP10) and Energy Consumers Australia (ECA), each of which concluded that in their view Essential's proposal was one that, from a consumer perspective, was capable of acceptance.[6] This result followed an extensive program of consumer engagement that commenced almost two years prior to submission of Essential's proposal, and focussed on consumer priorities of affordability, reliability and safety and how best to address them.

Over the current period we have seen Essential make significant progress in improving its efficiency. Our last decision expressed concerns that its operating expenditure (opex) in particular was materially above efficient levels. This draft decision, which largely accepts Essential's revenue proposal, reflects not only the considerable efficiency gains it has achieved over the current period, but also the strategies and initiatives it now proposes to deliver further efficiencies in expenditure and improvements in productivity over 2019–24.

The total revenue under this draft decision includes Essential's proposed forecasts of opex and capital expenditure (capex).[7] Those areas of difference that remain relate to our ongoing consultations on the rate of return and corporate income tax allowance,

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4 An average increase of 1.9 per cent per annum from 1 July 2018.

5 An average increase of 0.7 per cent per annum from 1 July 2018. We estimate the expected bill impact by varying the distribution network charges in accordance with our draft decision, while holding all other components constant. This approach isolates the effect of our draft decision on the core distribution network charges, and does not imply that other components will remain unchanged across the regulatory control period.

6 CCP10 - Submission - 8 August 2018, p. 92; ECA - Submission - Essential - 14 August 2018, p. 5.

7 Subject to correction of a modelling error in Essential's capex forecast, which we discuss in Attachment 5 to this draft decision.

conclusions on which we expect will be reached before Essential submits its revised proposal.

In making this draft decision we have had regard to a range of sources including Essential's proposal, submissions received as well as additional analysis undertaken and published by us.

We will continue to work with Essential and stakeholders to ensure that our final decision, which will determine the revenue Essential can recover from its customers for the 2019–24 regulatory control period, is in the long term interests of consumers and that Essential's customers are paying no more than they should for safe and reliable electricity.

Our remade decision on Essential's revenue for 2014–19

Our draft decision on Essential's revenue from 1 July 2019 also includes the impact of our remade decision on its 2014–19 revenues.

Essential appealed our 2015 determination of its revenue allowance for the current, 2014–19, regulatory control period. The Australian Competition Tribunal set aside our decision and directed us to remake it. We completed that process in May 2018,[8] shortly after Essential submitted its 2019–24 proposal.

Our remade decision for 2014–19 will impact Essential's network tariffs for 2019–24. The difference between what Essential will recover over the 2014–19 period under interim tariff undertakings and the total revenue we have approved in our remade final decision will be returned to customers from 1 July 2019.

To that end, Essential included a downward adjustment in its 2019–24 proposal reflecting the expected outcomes of its remade decision. In this draft decision we have now incorporated the final outcomes of the remittal process.

1.1 How would our draft decision affect electricity bills?

The distribution network tariffs that will be set by reference to our final decision are only one contributor to electricity bills, and make up around 37 per cent of the total retail electricity bills Essential's customers pay.[9] Other contributors to the total retail bill are:

- Wholesale costs incurred by retailers in purchasing electricity from the National Electricity Market (or of generation as relevant in the case of vertically integrated gentailers), and of managing hedging and price exposure.

8 AER - Final decision Essential Energy's 2014–19 distribution determination - May 2018

9 Essential Energy - R1a Final RIN - 1 - Reset_MASTER - 30 April 2018.

- Costs charged by TransGrid as the coordinating transmission network service provider for NSW (which we regulate under our transmission determination for TransGrid[10]).
- Costs of complying with environmental (green) schemes, including Commonwealth and State-based schemes and feed-in tariff schemes.
- The costs of running a retail electricity business, such as billing, marketing and customer assistance costs.
- A retail margin (or profit) returned to shareholders of the retail electricity business.

Each of these costs contributes to the retail prices charged to customers by their chosen electricity retailer.

Table 1 shows the estimated average annual impact of our draft decision for the 2019–24 regulatory control period on electricity bills for residential and small business customers. These estimates suggest a nominal increase of 3.7 per cent over the five year period.

We estimate the expected bill impact by varying the distribution charges in accordance with our draft decision, while holding all other components constant. This approach isolates the effect of our draft decision on distribution tariffs only. However, this does not imply that other components will remain unchanged across the regulatory control period.[11]

We estimate the impact of this draft decision would be to increase the average annual residential electricity bill in 2023–24 by about $70 or 3.7 per cent ($ nominal) from the current, 2018–19 level. By comparison, had we accepted Essential's proposal in full, the expected impact would have been an increase of about $148 or 7.8 per cent.

Similarly, for an average small business customer on Essential's network, we estimate the average annual electricity bill in 2023–24 would increase by about $314 or 3.7 per cent ($ nominal) from the current 2018–19 level. By comparison, had we accepted Essential's proposal in full, the expected impact would have been an increase of about $660 or 7.8 per cent.

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[10] https://www.aer.gov.au/networks-pipelines/determinations-access-arrangements/transgrid-determination-2018-23.

[11] It also assumes that actual energy consumption will equal the forecast adopted in our draft decision. Since Essential operates under a revenue cap, changes in energy consumption will also affect annual electricity bills across the 2019–24 regulatory control period.

Table 1 Estimated contribution to annual electricity bills for the 2019–24 regulatory control period ($ nominal)

	2018–19	2019–20	2020–21	2021–22	2022–23	2023–24
AER draft decision						
Residential annual bill[a]	1900[a]	1914	1929	1944	1957	1970
Annual change[c]		14 (0.7%)	15 (0.8%)	16 (0.8%)	13 (0.7%)	13 (0.7%)
Small business annual bill[b]	8490[b]	8551	8618	8688	8745	8804
Annual change[c]		61 (0.7%)	67 (0.8%)	70 (0.8%)	57 (0.7%)	59 (0.7%)
Essential's proposal						
Residential annual bill[a]	1900[a]	1927	1957	1988	2017	2048
Annual change[c]		27 (1.4%)	30 (1.5%)	31 (1.6%)	29 (1.5%)	30 (1.5%)
Small business annual bill[b]	8490[b]	8613	8745	8885	9015	9150
Annual change[c]		123 (1.4%)	133 (1.5%)	140 (1.6%)	130 (1.5%)	136 (1.5%)

Source: AER analysis; AER, Energy Made Easy website (standing offer); Essential Energy, *R1a Final RIN – 1 – Reset master*, 30 April 2018.

(a) Annual bill for 2018–19 is sourced from Energy Made Easy and reflects the average consumption of 5000 kWh for residential customers in NSW (postcode 2650).

(b) Annual bill for 2018–19 is sourced from Energy Made Easy and reflects the average consumption of 23000 kWh for small business customers in NSW (postcode 2650).

(c) Annual change amounts and percentages are indicative. They are derived by varying the network tariff contribution to the 2018–19 bill amounts in proportion to yearly expected revenue divided by forecast energy as proposed by Essential. Actual bill impacts will vary depending on electricity consumption and tariff class.

1.2 What is driving revenue?

The changing impact of inflation over time makes it difficult to compare revenue from one period to the next on a like-for-like basis. To do this we use 'real' values based on a common year (in this case 2018–19[12]), which have been adjusted for the impact of inflation.

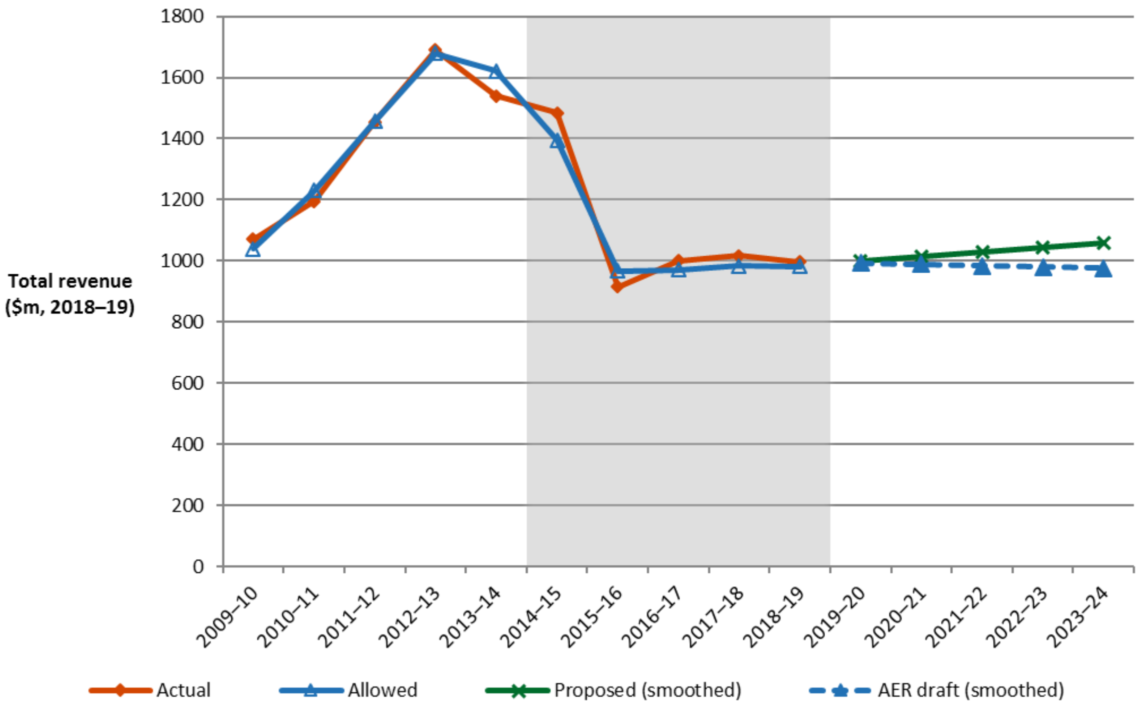
In real terms, the total revenue allowance in this draft decision is 7.1 per cent lower than total allowed revenue for the current period.[13] As Figure 1 shows, this would result in real revenue decreases of 0.4 per cent per annum over 2019–24.[14]

12 i.e. 30 June 2019 dollar terms.

13 This comparison is between the total revenue allowed under this draft decision and that in our remade decision on Essential's total revenue allowance for 2014–19 (https://www.aer.gov.au/networks-pipelines/determinations-access-arrangements/essential-energy-determination-2014-19-remittal).

14 These real revenue decreases per annum over the 2019–24 period are relative to Essential Energy's estimated actual revenue for 2018–19.

Figure 1 Revenue over time ($million, 2018–19)



Source: AER analysis

Essential's allowed revenue for 2009–14 included provision for significant increases in capital investment to improve network security and reliability of supply in line with licence conditions imposed by the NSW Government at the time. Over that period Essential's regulatory asset base (RAB) grew by 38.9 per cent. In a challenging investment environment during the global financial crisis, the rate of return (a forecast of the financing costs Essential would require to attract efficient investment in its network) was set at 10.02 per cent. When applied to the growing RAB this resulted in substantial increased revenues and higher prices for customers.

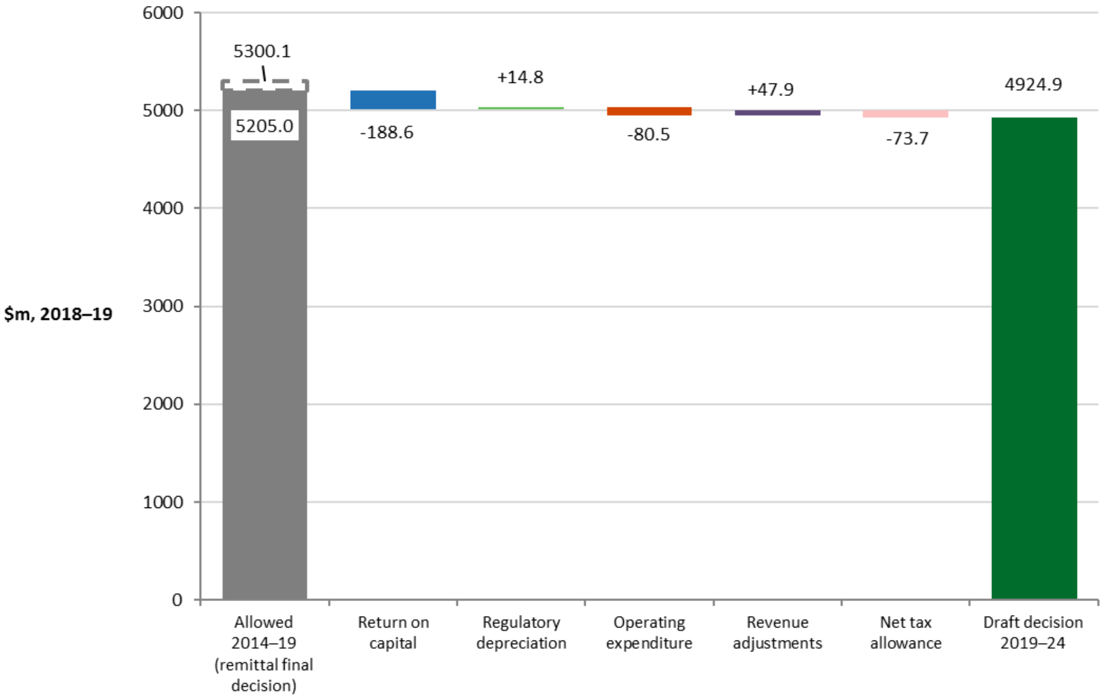
Lower approved revenues for the current, 2014–19 period[15] reflected an improved investment environment. Approved rates of return fell from 10.02 per cent to 6.74 per cent. Evidence also suggested that distribution services could be provided at substantially lower cost than historical expenditure suggested, while still maintaining safety and complying with reliability obligations. In addition, flatter demand forecasts meant that Essential was under less pressure to expand and augment its network to meet the needs of additional customers or any increased demand from existing customers. Growth in the RAB fell to 10.1 per cent.

Our draft decision for 2019–24 reflects a continuation of many of these trends. Figure 2 below highlights the key drivers of the change in Essential's revenues from the current

15 AER - Final decision Essential Energy's 2014–19 distribution determination - May 2018

period to this draft decision for 2019–24, by reference to the revenue 'building blocks' that form the basis of our assessment.

Figure 2 Change in revenue from 2014–19 to 2019–24 ($m, 2018–19 - unsmoothed)



Source: AER analysis

Note: The 'Allowed 2014–19 (remittal final decision)' column shows an additional $95.1 million (in dashed grey outline) on top of the $5205.0 million total. The $5205.0 million is the sum of the revenue building blocks in the remittal PTRM, and incorporates the return on debt updates. The additional $95.1 million comprises $56.3 million for metering, Ancillary Network Services (ANS) and Emergency Recoverable Works (ERW), and $38.8 million representing further changes in the remittal PTRM calculations including: service target performance financial incentives, negotiated cap settlement amounts and difference in CPI adjustments.[16] 'Revenue adjustments' include increments or decrements accrued under incentives schemes such as the CESS and DMIAM. These are discussed in section 2.6. It also includes a return to customers of $22.5 million arising from our remade decision for 2014–19.

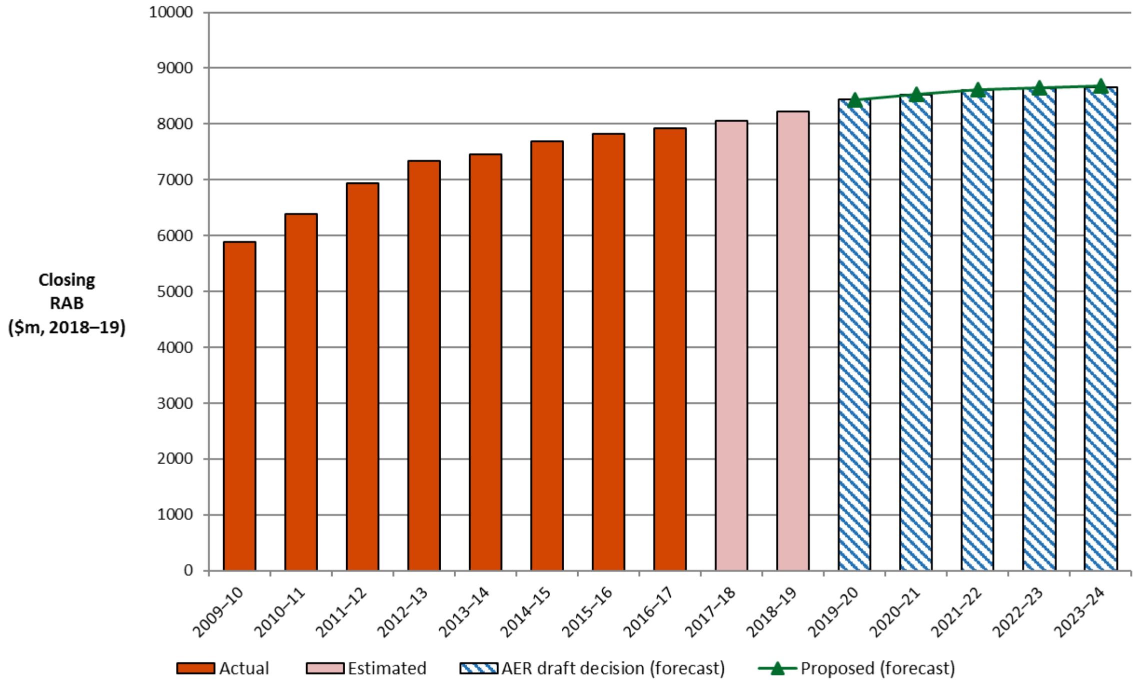
The largest component of Essential's regulated revenue is its return on capital (the product of the size of the RAB and the allowed rate of return). The value of the RAB substantially impacts Essential's revenue requirement, and the price consumers ultimately pay. This makes it a key issue for many stakeholders. Essential invests capital in large assets to provide electricity network services to its customers. The costs of these assets are recovered over the asset's useful life, which in many cases

16 Building block revenues are converted from nominal to real $2018-19 using both forecast and actual CPI, the ‘Allowed 2014-19 (remittal final decision)’ amount is converted from nominal to real $2018-19 only using actual CPI.

can be 50 or more years. This means only a small part of the cost of such assets are recovered from customers upfront or in any year. The greater proportion is recovered over time through the regulatory depreciation allowance.

Our draft decision includes forecast capex to maintain the existing network by refurbishing and replacing assets that are reaching the end of their useful lives. While Essential has and continues to seek efficiencies, over 2019–24 the amount of capex that will be added to the RAB is greater than expected depreciation, so that the total value of Essential's RAB will continue to grow. However, as Figure 3 shows, projected RAB growth of 5.5 per cent over the 2019–24 period is significantly below its peak in 2009–14. We are encouraged by Essential's continued commitment to work with consumers on this important issue.

Figure 3 Value of Essential's RAB over time ($m, 2018-19)



Source: AER analysis.

Despite continued RAB growth, the return on capital for 2019–24 under this draft decision is significantly lower than in the current period. Over the 2019–24 period, the lower rate of return on Essential's RAB of 5.96 per cent we have adopted for this draft decision is offsetting the impact of RAB growth on regulated revenues, resulting in an overall reduction in the return on capital from period to period. This placeholder rate of return, which compares to the 6.74 per cent we set at the start of the current period, is consistent with the approach set out in our draft 2018 rate of return guideline, consultation on which is ongoing.

As we noted above, Essential has made significant progress in improving its operating efficiency over the current period. We are now in a position to accept Essential's revealed (actual) opex at the end of the current period as a starting point for its forecast expenditure for the next five years. In this way Essential's revenue under this draft decision passes the significant operating efficiencies it has achieved in the current period on to customers in the form of lower opex going forward, and adds to these Essential's further projected efficiency and productivity gains for 2019-24. This is reflected in a real opex reduction of 5.5 per cent from period to period.

Revenue adjustments from incentives schemes are slightly higher than the current period. This outcome is driven largely by the Capital Expenditure Sharing Scheme (CESS), which applied to Essential for the first time in the current period. Benefits accruing to Essential under the CESS as a result of the capex efficiencies it has achieved over the 2014–19 period are partly offset by the $22.6 million that we have determined will be returned to customers under our final remade revenue decision for that period.[17]

1.3 Key differences between our draft decision and Essential’s proposal

Our draft decision on Essential's revenue for 2019–24 includes its forecast opex and (subject to some modelling corrections identified in the course of our review) its forecast capex. However, our draft decision does not reflect the total revenue proposed by Essential.

The biggest contributor to the 4.6 per cent difference between our draft decision and Essential's proposal is our proposed change to the rate of return (and therefore the return on capital). Our draft decision adopts the approach proposed in our draft 2018 rate of return guideline to calculate a placeholder rate of return of 5.96 per cent. This is lower than the 6.34 per cent placeholder Essential applied in its proposal based on our current, 2013 guideline.

Also reflecting our draft 2018 rate of return guideline, our draft decision adopts a value of imputation credits (gamma) of 0.5 compared to Essential's proposed 0.4 (again based on the application of our current, 2013 guideline), which has contributed to the reduction in the corporate income tax allowance relative to Essential's proposal.

The possibility that we would change our approach to the rate of return and gamma as part of our rate of return guideline review was contemplated in Essential's proposal. Consultation on our draft 2018 guideline is ongoing,[18] and is expected to conclude in December 2018. Legislation before the South Australian Parliament at the time of this draft decision will (if passed) make our final 2018 rate of return guideline binding on this and other decisions.[19] In that context, Essential's proposal noted that it was "therefore anticipating that we will need to change our proposed rate of return once the 2018 Rate of Return Guideline is finalised".[20]

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17 AER - Final decision Essential Energy's 2014-19 distribution determination - May 2018

18 https://www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/review-of-rate-of-return-guideline.

19 Statutes Amendment (National Energy Laws) (Binding Rate of Return Instrument) Bill 2018

20 Essential Energy - 2019-24 Regulatory Proposal - 20180430 - Public, p. 83.

We are also currently consulting on our approach to the corporate income tax allowance.[21] It is possible that, as a result of that consultation, changes to our approach to the tax allowance could be decided before our final decision on Essential's revenue for 2019–24 is made. If this is the case, our final decision on Essential's corporate income tax allowance for 2019–24 may change from this draft decision.

1.4 Essential's consumer engagement

The NEO puts the long term interests of consumers at the centre of our decisions as a regulator and the way Essential operates its network. An important part of this is ensuring the regulatory proposal Essential puts to us for approval reflects the NEO, and that Essential has engaged with its consumers to determine how best to provide services that align with their long term interests.

Consumer engagement in this context is about Essential working openly and collaboratively with consumers and providing opportunities for their views and preferences to be heard and to influence Essential's decisions. In the regulatory process, stronger consumer engagement can help us test service providers' expenditure proposals, and can raise alternative views on matters such as service priorities, capex and opex proposals and tariff structures.

Essential's consumer engagement in the preparation of its 2019-24 proposal was well received by stakeholders, with ECA, the Public Interest Advocacy Centre (PIAC) and CCP10 each noting that:

> "There has been real improvement in the way Essential Energy has engaged with consumers and other stakeholders, compared with the previous period."[22]

Essential's engagement on its 2019–24 proposal commenced in June 2016, with consultation on its forward-looking stakeholder engagement framework.[23] The three-phase program that followed is summarised in Table 2 below.

Phase 3, which followed our agreement to extend the date for submission of Essential's regulatory proposal from 31 January 2018 to 30 April 2018, included the release of a draft proposal for consultation in February 2018 to:[24]

> "…'close the loop' with customers and stakeholders, testing what [it] had heard and the accuracy of [its] interpretation into the 2019–24 Regulatory Proposal."

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21 https://www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/review-of-regulatory-tax-approach-2018.

22 ECA - Submission - Essential - 14 August 2018, p. 6. See also CCP10 - Submission - 8 August 2018, p. 79; PIAC, *PIAC Evaluation of Consumer Engagement by NSW DNSPs 2017–18*, 8 August 2018, p. 2. (This report was provided as Attachment A to PIAC's submission on the three NSW proposals.)

23 Essential Energy - 4.2 How engagement informed our proposal - 20180430 - Public, p. 5.

24 Essential Energy - 4.2 How engagement informed our proposal - 20180430 - Public, p. 37.

Table 2 Essential's three-phase engagement program

Phase 1: Understanding customers January-June 2017	Phase 2: Deep dive July-December 2017	Phase 3: Testing January-March 2018
• Interviews and deliberative forums to understand what matters to customers • Learned the key themes and values that customers recognise as important • Launched Essential Engagement, an online forum for people to 'have YourSay' on key initiatives in the regulatory proposal • Launched a Discussion Paper and captured feedback in the Woolcott Engagement Programme Summary Report – Phase 1	• Delivered a range of engagement activities for deeper consultation on customer issues that will impact the regulatory proposal • Priorities and needs were defined by customers and stakeholders • Developed an Engagement Focus paper to support customer consultation and discussion • Captured customer and stakeholder feedback in the Woolcott Engagement Programme Summary Report – Phase 2 and Farrier Swier Pricing working group engagement report	• Testing 'what we heard' by continuing deliberative consultation activities across distribution network footprint in NSW • Publish draft Regulatory Proposal in February for public feedback • Captured customer and stakeholder feedback in the Woolcott Closing the Loop Report – Phase 3 Engagement • An evaluation of the engagement program was reported in the Woolcott Regulatory Proposal Stakeholder Engagement Evaluation Report • Finalise Regulatory Proposal and submit to the AER 30 April 2018

Source: Essential Energy - 4.2 How engagement informed our proposal - 20180430 - Public, Figure 3.2, p. 8.

Essential commissioned its own evaluations of its engagement program at each stage of its process, and in its proposal notes the "overwhelmingly positive feedback from customers about the approach taken and their involvement in the engagement process".[25] This feedback was reinforced in submissions to us from key stakeholders in response to Essential's proposal and our issues paper.

CCP10 observed that Essential had benefited both from its early start to engagement, and from trying a number of different engagement methods.[26] Its advice to us was that Essential:

> "…[was] proactive in addressing consumer concerns and they responded more holistically to consumer and stakeholder input, as well as being prepared to have the 'tough conversations' and to seek solutions."[27]
>
> "…has effectively integrated consumer and stakeholder input into all aspects of its regulatory proposal and has effectively applied input that they have sought and heard".[28]

25 Essential Energy - 4.2 How engagement informed our proposal - 20180430 – Public, p. 37.
26 CCP10 - Submission - 8 August 2018, p. 86.
27 CCP10 - Submission - 8 August 2018, p. 6.

In its *Evaluation of Consumer Engagement by NSW DNSPs* PIAC concluded that Essential's consumer engagement had been "the best of the three NSW DNSPs"[29] and found that:

> "Overall, Essential Energy was transparent about its business plans and sought to reflect consumer preferences in its regulatory proposal. In particular, Essential Energy responded to consumer concern about energy affordability by proposing to significantly reduce its capital and operating expenditure in the 2019-24 [regulatory control period]."[30]

Perhaps the highest commendation of Essential's engagement are submissions from CCP10, ECA and the Energy Users Association of Australia (EUAA) that from a consumer perspective Essential's proposal for 2019–24 is capable (or close to capable) of acceptance.[31]

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28 CCP10 - Submission - 8 August 2018, p. 89

29 PIAC, *PIAC Evaluation of Consumer Engagement by NSW DNSPs 2017–18*, 8 August 2018, p. 3.

30 PIAC, *PIAC Evaluation of Consumer Engagement by NSW DNSPs 2017–18*, 8 August 2018, p. 20.

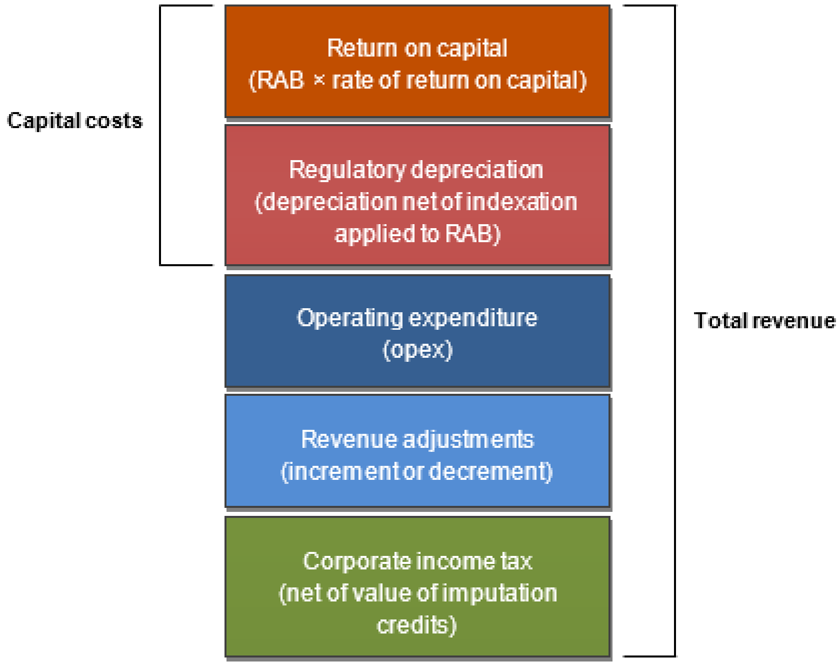
31 CCP10 - Submission - 8 August 2018, p. 92; ECA - Submission - Essential - 14 August 2018, p. 5; EUAA - Submission - 10 August 2018, p. 1.

2 Key components of our draft decision on revenue

The total revenue Essential has proposed reflects its forecast of the efficient cost of providing network services over the 2019–24 regulatory control period. Essential's proposal, and our assessment of it under the NEL and NER, are based on a building block approach to determining a total revenue allowance (see Figure 4) which looks at five cost components:

- a return on the RAB (or return on capital, to compensate investors for the opportunity cost of funds invested in this business)
- depreciation of the RAB (or return of capital, to return the initial investment to investors over time)
    - The forecast capex approved in our decisions affects the projected size of the RAB and therefore the revenue generated from the return on capital and depreciation building blocks.
- forecast opex—the operating, maintenance and other non-capital expenses incurred in the provision of network services
- revenue adjustments, including revenue increments or decrements resulting from the application of incentive schemes, such as the Capital Expenditure Sharing Scheme (CESS) that applied to Essential for the 2014–19 regulatory control period and the Demand Management Innovation Allowance Mechanism (DMIAM) allowance for 2019–24.
- the estimated cost of corporate income tax.

Figure 4 The building block approach for determining total revenue



We use an incentive approach where, once regulated revenues are set for a five year period, networks who keep actual costs below the regulatory forecast of costs retain part of the benefit. This benchmark incentive framework is a foundation of our regulatory approach and promotes the delivery of the NEO. Service providers have an incentive to become more efficient over time, as they retain part of the financial benefit from improved efficiency. Consumers also benefit when efficient costs are revealed and a lower cost benchmark is set in subsequent regulatory periods.

In the sections below we discuss the key components of our draft decision on Essential's revenue for 2019–24 in turn.

2.1 Regulatory asset base

The RAB is the value of assets used by Essential to provide regulated distribution network services. As we noted above, the value of the RAB substantially impacts Essential's revenue requirement, and the price consumers ultimately pay. Other things being equal, a higher RAB would increase both the return on capital and depreciation (return of capital) components of the revenue determination.

As part of our decision on Essential's revenue for 2019–24, we make a decision on its opening RAB as at 1 July 2019. We use the RAB at the start of each regulatory year to determine the return of capital (regulatory depreciation) and return on capital building block allowances.

For our draft decision, we have determined:

- an opening RAB value of $8215.2 million ($ nominal) as at 1 July 2019, consistent with Essential's proposal

- a forecast closing RAB value of $9767.1 million ($ nominal) as at 30 June 2024.

Both our draft decision and Essential's proposal adopt our approved Roll Forward Model (RFM) to calculate Essential's opening RAB as at 1 July 2019, and to project its closing RAB at 30 June 2024 in our approved Post-Tax Revenue Model. The key determinants of the projected RAB outcome in this draft decision—and of the difference between our draft decision and this element of Essential's proposal—are our related draft decisions on:

- updates to the estimation of inflation to reflect the most recent data from the Reserve Bank of Australia (RBA). Our draft decision applies a lower expected inflation rate of 2.42 per cent, compared to 2.5 per cent in Essential's proposal
- the forecast of capex to be added to the RAB over the 2019–24 period, which as we discuss in section 2.4 below has been corrected to address an escalation error in Essential's capex model.

2.2 Rate of return and value of imputation credits

The return each business will receive on its RAB (return on capital) continues to be a key driver of proposed revenues. We calculate the regulated return on capital by applying a rate of return to the value of the RAB.

We estimate the rate of return by combining the returns of the two sources of funds for investment: equity and debt. The allowed rate of return provides the business with a return on capital to service the interest on its loans and give a return on equity to investors.

A good estimate of the rate of return is necessary to promote efficient prices in the long term interests of consumers. If the rate of return is set too low, the network business may not be able to attract sufficient funds to be able to make the required investments in the network and reliability may decline. Alternatively, if the rate of return is set too high, the network business may seek to spend too much and consumers will pay inefficiently high tariffs.

Our draft decision is for an allowed rate of return of 5.96 per cent (nominal vanilla, indicative) for the first year of the 2019–24 regulatory control period. We will annually update the return on debt and overall rate of return for the remaining regulatory years.

This means we have not accepted the 6.34 per cent rate of return in Essential's proposal. Essential's proposal adopted a placeholder rate of return based on our current, 2013 guideline but acknowledged that guideline was subject to review and that its final rate of return would be determined under the new, 2018 guideline.

We estimated our draft decision allowed rate of return using the approach set out in our draft 2018 rate of return guidelines. This reflects a departure from the current (2013) guideline. After considering all the material submitted to us, we consider that this departure will, for the reasons set out in the draft 2018 guideline,[32] contribute to the achievement of the NEO and allowed rate of return objective[33] to the greatest degree.

Table 3 Draft decision on Essential's rate of return (% nominal)

	Essential final decision (2014–19)	Essential proposal (2019–24)	AER draft decision (2019–24)	Allowed return over regulatory control period
Nominal risk free rate	2.55%	2.68%[a]	2.66%[b]	
Market risk premium	6.5%	6.5%	6%	
Equity beta	0.7	0.7	0.6	
Return on equity (nominal post–tax)	7.1%	7.2%	6.3%	Constant (%)
Return on debt (nominal pre–tax)	6.51%[c]	5.77%	5.73%[d]	Updated annually
Gearing	60%	60%	60%	Constant (60%)
Nominal vanilla WACC	6.74%	6.34%	5.96%	Updated annually for return on debt
Forecast inflation	2.38%	2.5%	2.42%	Constant (%)

Source: AER analysis

a Essential's placeholder risk free rate

b AER placeholder averaging period of 20 business days ending 31 July 2018

c AER return on debt for 2014–15

d AER placeholder trailing average return on debt for 2019-20 (the first year of the 2019-24 period). Our draft decision reflects a trailing average return on debt that assumes the annual return on debt (for the remaining years) is the placeholder annual return on debt estimated for 2019-20.

Our rate of return of 5.96 per cent in this draft decision represents a reduction from the 6.74[34] per cent we set in the previous regulatory control period. This is driven by lower returns on equity and debt.

We continue to apply the foundation model approach for estimating the return on equity and estimate a (placeholder) return on equity of 6.3 per cent. This is based on an equity beta estimate of 0.6 and a market risk premium estimate of 6 per cent, which reflect the current market conditions and recent analysis outlined in the draft 2018 guideline.[35]

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32 AER, Draft rate of return guidelines explanatory statement, July 2018, p. 17.

33 NER, cl. 6.5.2(c).

34 Based on first year of the 2014–19 regulatory period.

35 AER, Draft rate of return guidelines explanatory statement, July 2018.

Our draft decision is to maintain the current transition path for Essential and estimate a placeholder return on debt of 5.73 per cent.[36] We have maintained our benchmark credit rating and term of debt from the 2013 guideline. However, for reasons outlined in the draft 2018 guideline, we have updated the implementation of our approach:

- to more accurately reflect the BBB+ benchmark credit rating for reasons outlined in the draft 2018 guideline.[37]
- to include an additional debt data series, the Thomson Reuters debt curve, to be evenly averaged with the RBA and Bloomberg debt curves.[38]

Essential proposed a value of 0.4 for imputation credits (gamma), based on our current 2013 guideline and approach. Our draft decision is to apply a gamma of 0.5 for reasons outlined in the draft 2018 guideline. These reasons include analysis of data provided to us by the Australian Tax Office and Australian Bureau of Statistics, and observing the distribution rate of the top 20 ASX-listed firms.[39]

Consultation on our draft 2018 guideline is ongoing, and is expected to conclude in December 2018. As we noted above, legislation currently before the South Australian Parliament will (if passed) make our final 2018 rate of return guidelines binding on this and other decisions.

2.3 Regulatory depreciation (return of capital)

Regulatory depreciation is the allowance provided so capital investors recover their investment over the economic life of the asset (return of capital). Essential invests capital in large assets to provide electricity network services to its customers. The costs of these assets are recovered over the asset's useful life, which in many cases can be 50 or more years. This means only a small part of the cost of such assets are recovered from customers upfront or in any year. The greater proportion is recovered over time through the regulatory depreciation allowance: the net total of the straight-line depreciation less the inflation indexation adjustment of the RAB.

Our draft decision on Essential's revenue for 2019–24 includes a regulatory depreciation allowance of $716.1 million ($nominal). This is $30.3 million (4.4 per cent) higher than Essential's proposal. We have adopted the same approach to depreciation as Essential, including its proposed asset lives which determine how quickly an asset class is depreciated (removed from the RAB). The difference between our draft decision depreciation allowance and that proposed by Essential reflects other, related parts of our draft decision including:

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[36] AER placeholder trailing average return on debt for 2019–20 (the first year of the 2019–24 period). Our draft decision reflects a trailing average return on debt that assumes the annual return on debt (for the remaining years) is the placeholder annual return on debt estimated for 2019–20.

[37] AER, Draft rate of return guidelines explanatory statement, July 2018.

[38] AER, Draft rate of return guidelines explanatory statement, July 2018.

[39] AER, Draft rate of return guidelines explanatory statement, July 2018.

- the expected inflation rate, which is lower than the rate used in Essential's proposal and explains the increase in depreciation allowance compared to the proposal
- minor corrections to Essential's initial capex forecast, which have reduced total capex and therefore the projected RAB over the 2019–24 regulatory control period.[40]

The combined effect of these changes is to increase the depreciation allowance relative to Essential's proposal.

2.4 Capital expenditure

Capex—the capital costs and expenditure incurred in the provision of network services—mostly relates to assets with long lives, the costs of which are recovered over several regulatory control periods. Capex is added to Essential's RAB, which is used to determine the return on capital and return of capital (regulatory depreciation) building block allowances. All else being equal, higher forecast capex will lead to a higher projected RAB value and higher return on capital and regulatory depreciation allowances.

Our draft decision addresses a modelling error in Essential's capex forecast, but otherwise includes its corrected total forecast capex of $2081.2 million ($2018–19) for 2019–24.[41]

The forecast capex in this draft decision includes reductions in forecast augmentation capex and capitalised overheads relative to the current period. Forecast asset replacement and connections capex are also lower than for the current regulatory control period.

Essential's capex proposal also includes capital investment in its strategic initiatives program, which it forecasts will lead to ongoing capex and opex savings. This proposed investment includes:[42]

- "investing in research and new technology to improve asset monitoring, analysis and risk management;
- risk-based asset planning to meet long-term customer needs; and
- automation of manual processes to reduce operational costs and drive efficiencies."

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40 Capex enters the RAB net of forecast disposals and capital contributions. It includes equity raising costs (where relevant) and the half-year WACC to account for the timing assumptions in the PTRM. Our draft decision on the RAB also reflects our updates to the WACC for the 2019–24 regulatory control period.

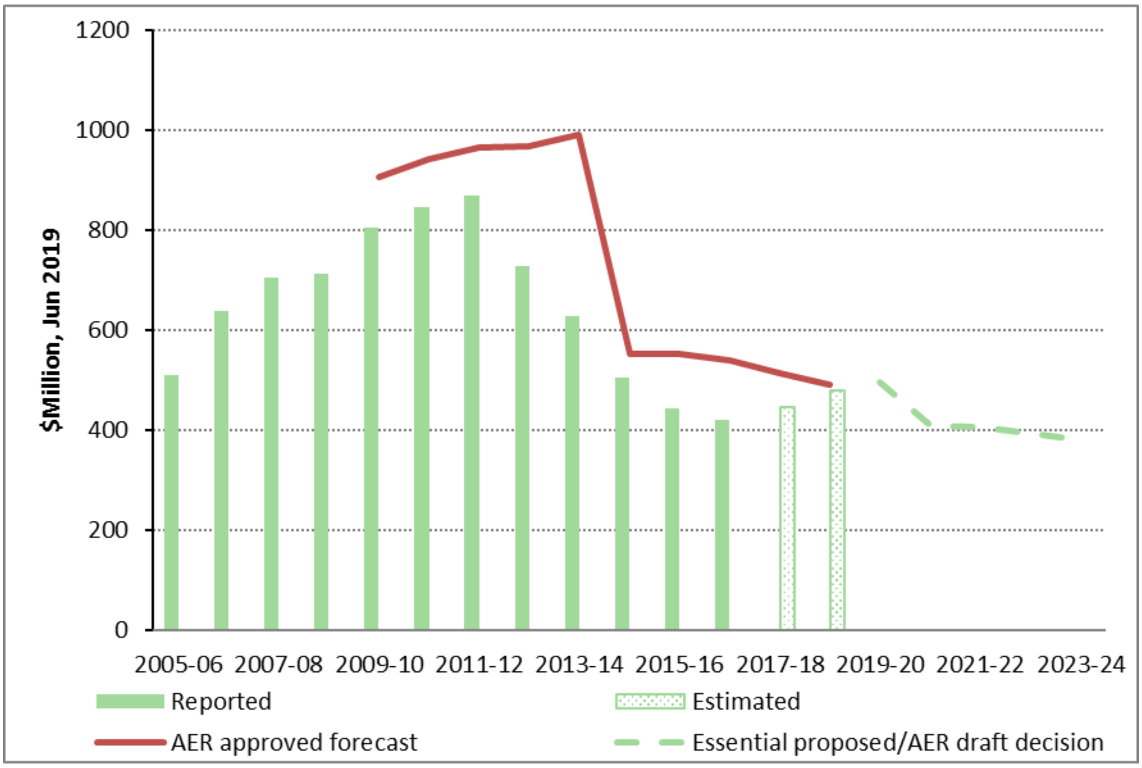
41 NER, cl, 6.12.1(3)(i). In its April 2018 proposal, Essential presented a total capex forecast of $2,100 million. We subsequently identified that Essential had used incorrect CPI figures in one of its models. We have rectified this error in consultation with Essential, which has resulted in a small adjustment to total forecast capex

42 Essential Energy - 2019–24 Regulatory Proposal - April 2018, p. 7.

In its proposal and in additional information provided to us, Essential has clearly indicated where its investment in these strategic initiatives will result in savings over the next regulatory control period and beyond. For example, Essential has quantified the benefits of the strategic transformation program in its augmentation and capitalised overheads forecasts. The projected benefits of this expenditure have also been reflected in forecast opex for 2019-24, which we discuss below.

Figure 5 highlights the peak in Essential's capex over the 2009–14 regulatory control periods and the subsequent reduction in both forecast and actual capex in 2014–19.

Figure 5 Essential's Capex over time ($m, Jun 2019)



Source: AER analysis

The primary driver of Essential's capex for 2019–24 will be asset replacement. Our own predictive modelling results indicate that Essential's proposed replacement capex performs very well against the comparative modelled threshold and against the NEM benchmark average on both replacement lives and unit rates for most asset categories. We also note that Essential's top-down challenge, undertaken by Cutler Mertz to test its bottom-up forecast for the purposes of its proposal, resulted in an 18 per cent reduction to its initial bottom up replacement capex estimate ($990 million).

Our assessment of other elements of Essential's capex proposal has been informed by advice from our consultants, ARUP, which reinforces our view that Essential's total capex proposal is one we can accept.

In reaching this draft decision, we specifically considered the impact on the safety and reliability of Essential Energy's network. We consider this capex forecast should be sufficient for a prudent and efficient service provider in Essential's circumstances to be able to maintain the safety, service quality, security and reliability of its network, consistent with its current obligations. Our own assessment and analysis of Essential's capex forecast has also taken into account the early and extensive process of consumer engagement undertaken by Essential to ensure its revenue proposal adequately reflects the preferences of its customers.[43] In its advice to us, CCP10 was:[44]

> "…highly supportive of the aggressive approach that Essential Energy is taking in reducing capital expenditure whilst working to maintain service levels, safety and network performance. We recognise that Essential is underpinning these improvements through a significant investment in information technology and data analytics, which, by all indications, is a valid and reasonable approach."

The key categories of capex making up the total forecast in this draft decision are set out in Table 4 below.

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43 NER, cl.6.5.7(e)(5A)

44 CCP10, p. 6.

Table 4 Forecast capex by driver 2019–24 ($2019, million)

Category	$2019, million
Augmentation	163.3
Connections	466.5
Replacement	805.6
Non-Network	525.8[a]
Capitalised overheads	598.8
Gross Capex (includes capital contributions)	**2,559.9**
Less Capital Contributions	(447.2)[b]
Less Disposals	(31.6)
Net Capex (excluding capital contributions)	**2081.2**

Source: AER analysis.

Notes: (a) Gross of disposals

(b) Capital contributions in this table include an overheads component. Forecast capital contributions for 2019–24 are $441.8 million excluding overheads.

Numbers may not add due to rounding.

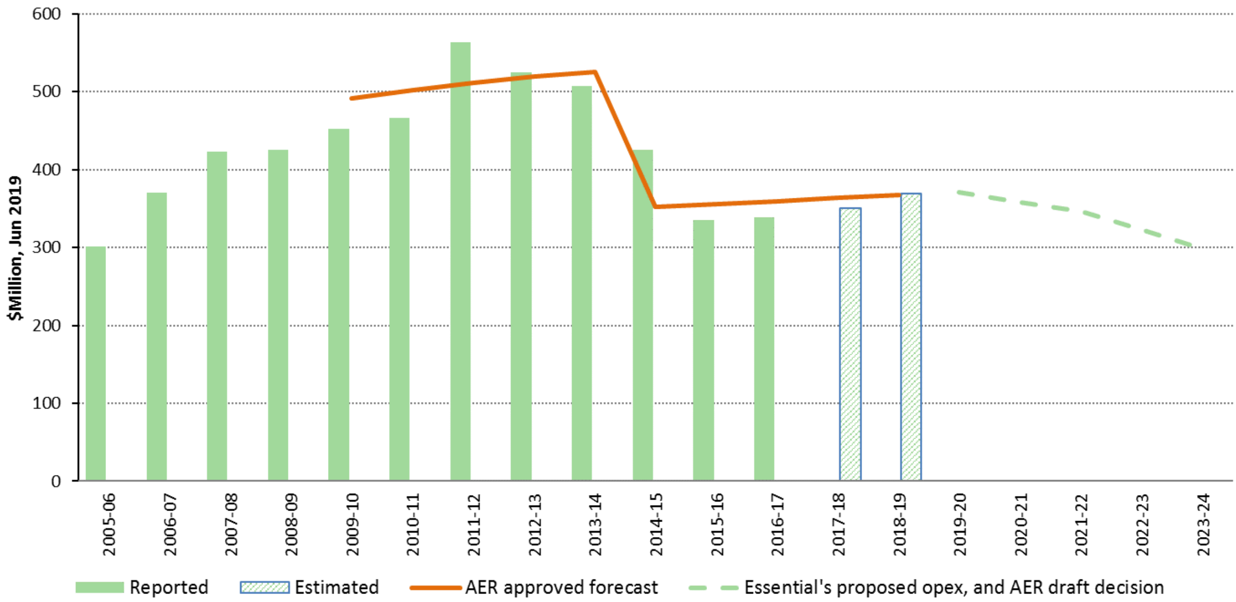
2.5 Operating expenditure

Our draft decision on Essential's revenue for the 2019–24 regulatory control period includes its proposed total forecast opex of $1,718.4 million ($2018–19).[45] This is a reduction of 5.5 per cent from Essential's opex in the current period.

Figure 6 shows the change in Essential's opex over the last three regulatory control periods, and highlights the reductions in opex achieved over the current period. It also shows the further reductions that would follow from our draft decision to accept Essential's forecast opex for 2019–24.

45 NER, cll. 6.5.6(c). 6.12.1(4)(i); Including debt raising costs; Essential Energy, PTRM.

Figure 6 Opex over time



Source: AER analysis; Essential Energy's PTRM.

Note: Excludes debt raising costs.

The effect of this draft decision would be to maintain the cost savings Essential achieved in the current period, by using Essential's actual opex for 2017–18 as a starting point for forecasting its future expenditure. Essential's total actual opex has decreased by approximately 30 per cent since 2012–13.[46] This reflects its various business reforms, including a 38 per cent reduction to its full time equivalent staff. Benchmarking analysis undertaken for this reset shows Essential's opex meeting the opex target set in our April 2015 decision, and a level that is consistent with efficient business practices in the NEM.

Our draft decision also takes into account the expected impact of planned strategic initiatives for 2019-24, such as an improved approach to vegetation management and the capital investment in new technology we discussed in section 2.4. These are intended to support on-going efficiencies by streamlining network and corporate support functions, and enabling key asset management and program delivery functions.[47] Stakeholder submissions were supportive of Essential's approach to its opex forecast. CCP10 considered:[48]

> "…the Essential Energy [opex] forecasts can be accepted as they have incorporated ongoing productivity gains that anticipate the benefits of the IT spending and business/process re-engineering proposed."

46 AER, *Draft decision Essential Energy distribution determination*, March 2018, p.27.

47 Essential Energy - 11.3 - *Standard control opex approach* - April 2018, p. 4.

48 CCP10 - Submission - 8 August 2018, p. 2.

As a result of these initiatives, Essential's forecast opex for 2019–24 includes:

- a net negative opex step change of $22.2 million, which reflects the upfront opex investment and corresponding benefits of implementing its strategic initiatives across its work streams[49]
- a productivity forecast of $101.1 million that offsets its forecast increase in input prices and output.[50]

The total opex forecast included in this draft decision is summarised in Table 5.

Table 5 Forecast opex for 2019–24 ($ million, 2018–19)

	2019–20	2020–21	2021–22	2022–23	2023–24	Total
Essential Energy's proposed opex, and AER draft decision	375.5	362.5	350.3	327.1	303.1	1718.4

Source: Essential Energy, *Revenue proposal*, *Standard Control Services Post tax revenue model (PTRM)*, April 2018; AER analysis

Note: Includes debt raising costs. Numbers may not add up to total due to rounding.

2.6 Revenue adjustments

Our draft decision on Essential's total revenue also includes a number of adjustments, for:

- Rewards accrued under the CESS, which we applied in the current regulatory control period to incentivise Essential to undertake efficient capex throughout the regulatory control period. The CESS rewards efficiency gains and penalises efficiency losses, each measured by reference to the difference between forecast and actual capex. In the current period Essential out-performed our capex forecast, and our draft decision is to approve a CESS revenue increment amount of $69.1 million ($2018–19) from the application of the CESS in the 2014–19 regulatory control period.
- An allowance of $4.7 million ($2018–19) over the 2019–24 regulatory control period under the Demand Management Innovation Allowance Mechanism (DMIAM). The DMIAM aims to encourage distribution businesses to find investments that are lower cost alternatives to investing in network solutions.
- A revenue reduction of $22.5 million ($2018–19) that we determined will be returned to customers under our final remade revenue decision for the 2014–19

49 Essential states its initiatives will be delivered through the following work streams: capital projects, maintenance and replacement, vegetation management, outage response, field force productivity, external spend and support functions. Essential Energy - 11.3 - *Standard control opex approach* - April 2018, pp. 12–13.

50 We are currently reviewing our approach to forecasting opex productivity. However, because Essential's proposed forecast opex includes a substantial productivity growth forecast, it is unlikely that the outcome of our productivity review will change our decision to accept Essential's proposal.

period.[51] This amount reflects the difference between our remade decision on Essential's revenue for the current period and the revenue expected to be recovered by Essential under the interim price undertakings that have applied over that period. This adjustment was included in Essential's proposal, and (subject to some updates) has since been confirmed in our final remade decision for 2014–19.

2.7 Corporate income tax

The building block approach to the calculation of revenue includes an allowance for the estimated cost of corporate income tax payable by Essential. Our draft decision is to include a corporate income tax allowance of $138.1 million ($ nominal) in Essential's revenue for 2019–24.

Adopting our current approach to the corporate income tax allowance, this allowance begins with an estimate of the taxable income that would be earned by a benchmark efficient company operating its network. This estimate takes into account estimated tax expenses such as interest (using our benchmark 60 per cent gearing) and tax depreciation. Tax expenses (including other expenses such as opex) are then offset against Essential's forecast revenue to estimate the taxable income. The statutory income tax rate of 30 per cent is then applied to the estimated taxable income to arrive at a notional amount of tax payable. Finally, a discount is applied to the notional amount of tax payable to account for the value of imputation credits (gamma).

The corporate income tax allowance we have included in our draft decision on Essential's revenue for 2019–24 is 37.1 per cent lower than that in Essential's proposal. The adjustments we have made in this draft decision to Essential's proposed return on capital and regulatory depreciation building blocks affect our draft decision on revenues, which in turn impacts the tax calculation. We have also made amendments for the purposes of this draft decision, to:

- correct the tax treatment of revenue adjustments associated with the CESS and DMIAM
- apply a value of imputation credits (gamma) of 0.5, consistent with our draft 2018 rate of return guideline.

We are still consulting on our draft 2018 rate of return guideline, and expect our final revised guideline, which will include a position on the value of imputation credits, will be binding on our final decision for Essential's 2019–24 revenue allowance.

We are also currently consulting on our approach to the corporate income tax allowance. It is possible that, as a result of that consultation, changes to our approach to the tax allowance could be decided before our final decision on Essential's revenue for 2019–24 is made. If this is the case, our final decision on Essential's corporate income tax allowance for 2019–24 may change from this draft decision.

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[51] NER, cl. 8A.14.

3 Incentive schemes to apply for 2019-24

Incentive schemes are a component of incentive based regulation and complement our approach to assessing efficient costs. These schemes provide important balancing incentives under the revenue determination we've discussed in section 2, to encourage Essential to pursue expenditure efficiencies and demand side alternatives to capex and opex, while maintaining the reliability and overall performance of its network.

The incentive schemes that might apply to an electricity distribution network as part of our decision are:

- the opex efficiency benefit sharing scheme (EBSS)
- the capital expenditure sharing scheme (CESS)
- the service target performance incentive scheme (STPIS)
- the demand management incentive scheme (DMIS) and demand management innovation allowance mechanism (DMIAM).

Once we make our decision on Essential's revenue cap, it has an incentive to provide services at the lowest possible cost, because its returns are determined by its actual costs of providing services. Our incentive schemes encourage network businesses to make efficient decisions. They give network businesses an incentive to pursue efficiency improvements in opex and capex, and to share them with consumers. If networks reduce their costs to below our forecast of efficient costs, the savings are shared with their customers in future regulatory periods through the EBSS and CESS.

The DMIS and DMIAM encourage businesses to pursue demand side alternatives to opex and capex. The STPIS ensures that the network business is not simply cutting costs at the expense of service quality. Incentives for opex and capex are balanced with the incentives under the STPIS to maintain or improve service quality. The incentive schemes encourage businesses to make efficient decisions on when and what type of expenditure to incur, and meet service reliability targets.

Our draft decision is that each of the EBSS, CESS, STPIS, DMIS and DMIAM should apply to Essential for the 2019–24 regulatory control period.

We discuss our draft decisions on each incentive scheme further in attachments 8 to 18.

4 Tariff structure statement

Essential's 2019–24 proposal includes the second iteration of its tariff structure statement (TSS). Its current TSS applies to 30 June 2019.

The requirement on distributors to prepare a TSS arises from a significant process of reform to the NER governing distribution network pricing. The purpose of the reforms is to empower customers to make informed choices by:

- providing better price signals—tariffs that reflect what it costs to use electricity at different times so that customers can make informed decisions to better manage their bills
- transitioning to greater cost reflectivity—requiring distributors to explicitly consider the impacts of tariff changes on customers, and engaging with customers, customer representatives and retailers in developing network tariff proposals over time
- managing future expectations—providing guidance for retailers, customers and suppliers of services such as local generation, batteries and demand management by setting out the distributor's tariff approaches for the entire duration of the regulatory control period.

Among other matters, Essential's TSS must set out its tariff classes, proposed tariffs, structures and charging parameters for each proposed tariff, policies and procedures it will use to assigning customers to tariff classes, or reassigning customers from one tariff to another and a description of the approach that Essential will take in setting each tariff in each pricing proposal during the 2019–24 regulatory control period.[52]

Our decision in this determination is on the structure of tariffs that will form the basis of tariff proposals throughout the regulatory control period.[53] We are also required to make a decision on the policies and procedures for assigning or re-assigning retail customers to tariff classes.[54] While an indicative pricing schedule must accompany the TSS, Essential's tariffs for the entire 2019–24 regulatory control period are not set as part of this determination.[55]

Tariffs for the financial year commencing 1 July 2019 will be subject to a separate approval process that takes place in May 2019, after we have made our final revenue determination in April 2019. In turn, tariffs for the following four years will also be approved on an annual basis.[56]

52 NER, cl. 6.18.1A.

53 NER, cl.6.12.1(14A)

54 NER, cl.6.12.1(17)

55 NER, cl. 6.8.2(d)(1).

56 NER, cll. 6.18.2 and 6.18.8

We commend Essential for the significant consultation it has undertaken to help develop its tariff structure statements. In particular, the establishment and engagement of its Customer Advocacy Group allowed Essential to develop stakeholders' understanding of its tariff framework and provide informed feedback. Its proposal includes measures intended to increase cost reflectivity and improve price signals. Essential proposed some significant changes to its tariffs and tariff structures for the 2019–24 regulatory control period, including:

- assigning all new customer connections, and reassigning customers who upgrade their connections or who receive a new smart meter as part of new or replacement meter programme, to cost reflective tariffs
- introducing a portfolio of tariffs that offers cost reflective choice to customers with the default and optional choices defined by whether or not the customer has new technology (defined as embedded generation, batteries and electric vehicles)
- setting tariff levels that typically reduce the network tariffs for residential customers that move from flat tariffs to cost reflective tariffs
- removing the morning peak for time of use tariffs to more closely align charging windows with peak demand events.

Our draft decision broadly supports the direction of these changes. However, we have concerns that some aspects of the TSS do not comply with the pricing principles set out in the NER.[57] In attachment 18 we have therefore set out a series of changes that we consider necessary for us to approve the TSS. These include amendments to provide more certainty as to how customers are assigned to particular tariffs, and of the structure of particular tariffs.

[57] NER, cl.6.18.5

A The National Electricity Objective

The NEL requires us to make our decision in a manner that contributes, or is likely to contribute, to achieving the NEO.[58] The focus of the NEO is on promoting efficient investment in, and operation and use of, electricity services (rather than assets) in the long term interests of consumers.[59] This is not delivered by any one of the NEO's factors in isolation, but rather by balancing them in reaching a regulatory decision.[60]

In general, we consider that the long-term interests of consumers are best served where consumers receive a reasonable level of safe and reliable service that they value at least cost in the long run.[61] A decision that places too much emphasis on short term considerations may not lead to the best overall outcomes for consumers once the longer term implications of that decision are taken into account. [62]

There may be a range of economically efficient decisions that we could make in a revenue determination, each with different implications for the long term interests of consumers.[63] A particular economically efficient outcome may nevertheless not be in the long term interests of consumers, depending on how prices are structured and risks allocated within the market.[64] There are also a range of outcomes that are unlikely to advance the NEO, or advance the NEO to the degree than others would. For example, we consider that:

- the long term interests of consumers would not be advanced if we encourage overinvestment which results in prices so high that consumers are unwilling or unable to efficiently use the network.[65] This could have significant longer term pricing implications for those consumers who continue to use network services.
- equally, the long-term interests of consumers would not be advanced if allowed revenues result in prices so low that investors do not invest to sufficiently maintain the appropriate quality and level of service, and where customers are making more use of the network than is sustainable.[66] This could create longer term problems in the network, and could have adverse consequences for safety, security and reliability of the network.

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58 NEL, section 16(1).

59 This is also the view of the Australian Energy Market Commission (AEMC). See, for example, AEMC, *'Applying the Energy Objectives: A guide for stakeholders'*, 1 December 2016, p. 5.

60 Hansard, SA House of Assembly, 26 September 2013, p. 7173. See also AEMC, *'Applying the Energy Objectives: A guide for stakeholders'*, 1 December 2016, pp. 7–8.

61 Hansard, SA House of Assembly, 9 February 2005, p. 1452.

62 See, for example, AEMC, *'Applying the Energy Objectives: A guide for stakeholders'*, 1 December 2016, pp. 6–7.

63 Re Michael: Ex parte Epic Energy [2002] WASCA 231 at [143].

64 See, for example, AEMC, *'Applying the Energy Objectives: A guide for stakeholders'*, 1 December 2016, p. 5.

65 NEL, s. 7A(7).

66 NEL, s. 7A(6).

The legislative framework recognises the complexity of this task by providing us with significant discretion in many aspects of the decision-making process to make judgements on these matters.

A.1 Achieving the NEO to the greatest degree

Electricity determinations are complex decisions. In most cases, the provisions of the NER do not point to a single answer, either for our decision as a whole or in respect of particular components. They require us to exercise our regulatory judgement. For example, chapter 6A of the NER requires us to prepare forecasts, which are predictions about unknown future circumstances. Very often, there will be more than one plausible forecast,[67] and much debate amongst stakeholders about relevant costs. For certain components of our decision there may therefore be several plausible answers or several plausible point estimates.

When the constituent components of our decision are considered together, this means there will almost always be several potential, overall decisions. More than one of these may contribute to the achievement of the NEO. In these cases, our role is to make an overall decision that we are satisfied contributes to the achievement of the NEO to the greatest degree.[68]

We approach this from a practical perspective, accepting that it is not possible to consider every permutation specifically. Where there are choices to be made among several plausible alternatives, we have selected what we are satisfied would result in an overall decision that contributes to the achievement of the NEO to the greatest degree.

A.2 Interrelationships between constituent components

Examining constituent components in isolation ignores the importance of the interrelationships between components of the overall decision, and would not contribute to the achievement of the NEO. We have considered these interrelationships in our analysis of the constituent components of our draft decision in the relevant attachments. Examples include:

- Underlying drivers and context which are likely to affect many constituent components of our decision. For example, forecast demand affects the efficient levels of capex and opex in the regulatory control period.
- Direct mathematical links between different components of a decision. For example, the level of gamma has an impact on the appropriate tax allowance; the

[67] AEMC, *Rule Determination: National Electricity Amendment (Economic Regulation of Transmission Services) Rule 2006*, 16 November 2006, p. 52.

[68] NEL, s. 16(1)(d).

benchmark efficient entity's debt to equity ratio has a direct effect on the cost of equity, the cost of debt, and the overall vanilla rate of return.

- Trade-offs between different components of revenue. For example, undertaking a particular capex project may affect the need for opex or vice versa.

B Constituent components

This overview and the accompanying attachments set out our draft decision on Essential's distribution determination for the 2019–24 regulatory control period. Our draft decision includes the following constituent components:[69]

Constituent component
In accordance with clause 6.12.1(1) of the NER, the AER's draft decision is that the classification of services set out in Attachment 12 will apply to Essential for the 2019–24 regulatory control period.
In accordance with clause 6.12.1(2)(i) of the NER, the AER's draft decision is not to approve the annual revenue requirement set out in Essential's building block proposal. Our draft decision on Essential's annual revenue requirement for each year of the 2019–24 regulatory control period is set out in attachment 1 of the draft decision.
In accordance with clause 6.12.1(2)(ii) of the NER, the AER's draft decision is to approve Essential's proposal that the regulatory control period will commence on 1 July 2019. Also in accordance with clause 6.12.1(2)(ii) of the NER, the AER's draft decision is to approve Essential's proposal that the length of the regulatory control period will be 5 years from 1 July 2019 to 30 June 2024.
In accordance with clause 6.12.1(3)(i) and acting in accordance with clause 6.5.7(c) of the NER, the AER's draft decision is not to accept Essential's proposed total net forecast capital expenditure of $2,099.6 million ($2018–19). Our draft decision therefore includes a substitute estimate of Essential's total net forecast capex for the 2019–24 regulatory control period of $2,081.2 million ($2018–19). This is discussed in attachment 5 of the draft decision.
In accordance with clause 6.12.1(4)(i) and acting in accordance with clause 6.5.6(c) of the NER, the AER's draft decision is to accept Essential's proposed total forecast operating expenditure inclusive of debt raising costs and exclusive of DMIAM of $1718.4 million ($2018-19). This is discussed in attachment 6 of the draft decision.
In accordance with clause 6.12.1(5) of the NER, the AER's draft decision is that the allowed rate or return for the 2019–20 regulatory year is 5.96 per cent (nominal vanilla), as set out in Attachment 3 of this draft decision, and that the rate of return for the remaining regulatory years 2020–24 will be updated annually because our decision is to apply a trailing average portfolio approach to estimating debt which incorporates annual updating of the allowed return on debt.
In accordance with clause 6.12.1(5A) of the NER, the AER's draft decision is that the return on debt is to be estimated using a methodology referred to in clause 6.5.2(i)(2) and using the formula to be applied in accordance with clause 6.5.2(l). The methodology and formula are set out in Attachment 3 of this draft decision.

69 NEL, s. 16(1)(c).

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In accordance with clause 6.12.1(5B) of the NER, the AER's draft decision on the value of imputation credits as referred to in clause 6.5.3 is to adopt a value of 0.5.
In accordance with clause 6.12.1(6) of the NER, the AER's draft decision on Essential's regulatory asset base as at 1 July 2019 in accordance with clause 6.5.1 and schedule 6.2 is $8215.2 million ($ nominal). This is discussed in attachment 2 of the draft decision.
In accordance with clause 6.12.1(7) of the NER, the AER's draft decision on Essential's corporate income tax is $138.1 million ($ nominal). This is set out in attachment 7 of the draft decision.
In accordance with clause 6.12.1(8) of the NER, the AER's draft decision is not to approve the depreciation schedules submitted by Essential. Our draft decision substitutes alternative depreciation schedules in accordance with clause 6.5.5(b) and this is set out in attachment 4 of the draft decision.
In accordance with clause 6.12.1(9) of the NER, the AER makes the following draft decisions on how any applicable efficiency benefit sharing scheme, capital expenditure sharing scheme, service target performance incentive scheme, demand management incentive scheme or small-scale incentive scheme is to apply: • We will apply version 2 of the EBSS to Essential in the 2019–24 regulatory control period. This is set out in attachment 8 of the draft decision. • We will apply the CESS as set out in version 1 of the Capital Expenditure Incentives Guideline to Essential in the 2019–24 regulatory control period. CESS is discussed in attachment 9 of the draft decision. • We will apply our Service Target Performance Incentive Scheme (STPIS) to Essential for the 2019–24 regulatory control period, as set out in attachment 10 of the draft decision. • We will apply the DMIS and DMIAM to Essential for the 2019–24 regulatory control period, as set out in attachment 11 of the draft decision.
In accordance with clause 6.12.1(10) of the NER, the AER's draft decision is that all appropriate amounts, values and inputs are as set out in this determination including attachments.
In accordance with clause 6.12.1(11) of the NER and our framework and approach paper, the AER's draft decision on the form of control mechanisms (including the X factor) for standard control services is a revenue cap. The revenue cap for Essential for any given regulatory year is the total annual revenue calculated using the formula in attachment 13 plus any adjustment required to move the DUoS unders and overs account to zero. This is discussed in attachment 13 of the draft decision.
In accordance with clause 6.12.1(12) of the NER and our framework and approach paper, the AER's draft decision on the form of the control mechanism for alternative control services is to apply price caps for all services. This is discussed in attachment 13 of the draft decision.
In accordance with clause 6.12.1(13) of the NER, to demonstrate compliance with its distribution determination, the AER's draft decision is Essential must maintain a DUoS unders and overs account. It must provide information on this account to us in its annual pricing

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proposal. This is discussed in attachment 13 of the draft decision.
In accordance with clause 6.12.1(14) of the NER, the AER's draft decision is to apply the following nominated pass through events for the 2019–24 regulatory control period in accordance with clause 6.5.10: • Terrorism event • Natural Disaster event • Insurance Cap event • Insurer Credit Risk event These events have the definitions set out in Attachment 14 of the draft decision.
In accordance with clause 6.12.1(14A) of the NER, the AER's draft decision is not to approve the tariff structure statement proposed by Essential. This is discussed in attachment 18 of the draft decision.
In accordance with clause 6.12.1(15) of the NER, the AER's draft decision is to apply the negotiating framework as proposed by Essential for the 2019-24 regulatory control period. This decision is set out in attachment 16 of the draft decision.
In accordance with clause 6.12.1(16) of the NER, the AER's draft decision is to apply the negotiated distribution services criteria published in May 2018 to Essential. This decision is set out in attachment 16 of the draft decision.
In accordance with clause 6.12.1(17) of the NER, the AER's draft decision on the procedures for assigning retail customers to tariff classes for Essential is set out in attachment 13 of the draft decision.
In accordance with clause 6.12.1(18) of the NER, the AER's draft decision is that the depreciation approach based on forecast capex (forecast depreciation) is to be used to establish the RAB at the commencement of Essential's regulatory control period as at 1 July 2024. This is discussed in attachment 2 of the draft decision.
In accordance with clause 6.12.1(19) of the NER, the AER's draft decision on how Essential is to report to the AER on its recovery of designated pricing proposal charges is to set this out in its annual pricing proposal. The method to account for the under and over recovery of designated pricing proposal charges is discussed in attachment 13 of the draft decision.
In accordance with clause 6.12.1(20) of the NER, the AER's draft decision is to require Essential to maintain a jurisdictional scheme unders and overs account. It must provide information on this account to us in its annual pricing proposal as set out in attachment 13 of the draft decision.
In accordance with clause 6.12.1(21) of the NER, the AER's draft decision is not to approve the connection policy proposed by Essential. Our draft decision is to amend Essential's proposed connection policy as set out in attachment 17 of the draft decision.