DRAFT DECISION
Ausgrid

Distribution Determination

2019 to 2024

Overview

November 2018

AUSTRALIAN ENERGY REGULATOR

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Note

This overview forms part of the AER's draft decision on the distribution determination that will apply to Ausgrid for the 2019-2024 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

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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

Contents

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."

Ausgrid is the electricity distribution network service provider for Sydney, the Central Coast and the Hunter Valley. On 30 April 2018, Ausgrid submitted its regulatory proposal for the five years commencing 1 July 2019.

The key component of our distribution determination for Ausgrid 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 Ausgrid's customers.[2] This is our building block determination, and will form the basis of Ausgrid's distribution tariffs for the 2019-24 regulatory control period. Ausgrid's tariff structure statement (TSS) sets out the tariff structure through which it will recover its regulated revenue for standard control services from customers.

Ausgrid 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 Ausgrid's alternative control services in attachment 15 to this draft decision. Ausgrid has not proposed to provide any services on a negotiated basis in the 2019–24 regulatory control period.[3]

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1 NEL, s. 7.

2 Ausgrid's proposal also includes revenue for its dual function (transmission) assets, which will be recovered through TransGrid as the coordinating transmission network service provider for New South Wales.

3 Our distribution determination for Ausgrid includes an approved negotiating framework and negotiated distribution service criteria, as required by the NER. Because Ausgrid 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 Ausgrid's distribution determination for the 2019–24 regulatory control period. Ausgrid 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 Ausgrid'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.[4]

[4] 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 Ausgrid to recover $7940.4 million ($nominal) 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:

- Ausgrid's average network tariffs would decrease (in nominal terms) by 6.7 per cent.
- Holding all other components of the bill constant, the average annual electricity bill for a residential or small business customer on Ausgrid's network would decrease by 2.6 per cent.[5]

For Ausgrid's residential and small business customers, this suggests that the average annual electricity bill would be $44 and $104 lower, respectively, by then end of the 2019–24 regulatory control period.

Ausgrid's proposal was made following a period of engagement with consumers on its plans to address consumer priorities of affordability, reliability and sustainability. As part of our agreement to extend the time for submission of its proposal from 31 January 2018 to 30 April 2018, this engagement included a series of 'deep dives' into elements of its proposal in early 2018. This level of engagement was a significant improvement on Ausgrid's engagement in past processes.

In a number of respects we agree with Ausgrid on the key drivers identified through that engagement as influencing its revenue requirement for 2019–24. Over the current period we have seen Ausgrid make significant progress in improving its efficiency. Where at the time of our last decision we expressed concerns that its operating expenditure (opex) in particular was materially above efficient levels, we are now in a position to accept Ausgrid's revealed opex as a starting point for its forecast expenditure for the next five years. It also proposed continued reductions in capital expenditure (capex).

Despite these positives, and a proposed reduction to network tariffs in real terms, submissions highlight a number of areas of contention in Ausgrid's proposal. As Energy Consumers Australia (ECA) observed:[6]

> While the revenue proposal as submitted foreshadows real price reductions, we are not convinced on the information made available to us that the expenditures are warranted or that the price reductions are sufficient.

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[5] We estimate the expected bill impact by varying the distribution and transmission 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 and transmission network charges, and does not imply that other components will remain unchanged across the regulatory control period.

[6] ECA - Submission - Ausgrid - 23 August 2018, p. 5.

Our own analysis of Ausgrid's proposal has identified similar concerns. While Ausgrid has proposed to reduce both opex and capex relative to the current period, a number of areas remain in which Ausgrid has not been able to justify its proposed expenditure for 2019–24. These concerns are set out in this draft decision.

In making this draft decision we have had regard to a range of sources including Ausgrid's proposal, submissions received as well as additional analysis undertaken and published by us. Ausgrid will now have the opportunity to respond to our draft decision in its revised proposal. We will continue to work with Ausgrid and stakeholders to ensure that our final decision, which will determine the revenue Ausgrid can recover from its customers for the 2019–24 regulatory control period, is in the long term interests of consumers and that Ausgrid's customers are paying no more than they should for safe and reliable electricity.

Remaking our decision on Ausgrid's revenue for 2014–19

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

Ausgrid 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 began the process of remaking our decision in accordance with the Tribunal's directions in 2017, and expect to complete it by the end of this year.

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

Essential Energy and Endeavour Energy also appealed our 2014–19 determinations. Each included downward adjustments in their 2019–24 proposals reflecting the expected outcomes of their remade decisions. However, at the time it submitted its 2019–24 proposal Ausgrid had not yet filed its proposed approach to remaking our decision on its 2014–19 revenue. The potential adjustment it has since put forward was therefore not accounted for in its initial proposal.

In this draft decision we have now incorporated potential outcomes of the remittal process for Ausgrid. The placeholder reduction in this draft decision is based on Ausgrid's proposed approach to remaking our decision on 2014–19 revenues.[7]

[7] https://www.aer.gov.au/networks-pipelines/determinations-access-arrangements/ausgrid-determination-2014-19-remittal/proposal.

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 Ausgrid's customers pay.[8] 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.
- Costs charged by TransGrid as the coordinating transmission network service provider for NSW (which we regulate under our transmission determination for TransGrid[9]). This includes the charges for Ausgrid's dual function assets, which are recovered separately from its distribution network tariffs.
- 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 decrease of 2.6 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.[10]

We estimate the impact of this draft decision would be to reduce the average annual residential electricity bill in 2023–24 by about $44 or 2.6 per cent ($ nominal) from the current, 2018–19 level. By comparison, had we accepted Ausgrid's proposal, the expected impact would have been an increase of about $47 or 2.8 per cent.

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8 Ausgrid - RIN11.3 - RIN Workbook 1 - Consolidated - 22 June 2018.

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

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

Similarly, for an average small business customer on Ausgrid's network, we estimate the average annual electricity bill in 2023–24 to decrease by about $104 or 2.6 per cent ($ nominal) from the current 2018–19 level. By comparison, had we accepted Ausgrid's proposal, the expected impact would have been an increase of about $110 or 2.8 per cent.

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]	1680	1632	1637	1633	1634	1636
Annual change[c]		–48 (–2.8%)	4 (0.3%)	–4 (–0.2%)	1 (0.1%)	1 (0.1%)
Small business annual bill[b]	3940	3829	3838	3830	3833	3836
Annual change[c]		–111 (–2.8%)	10 (0.3%)	–9 (–0.2%)	3 (0.1%)	3 (0.1%)
Ausgrid's proposal						
Residential annual bill[a]	1680	1675	1692	1700	1714	1727
Annual change[c]		–5 (–0.3%)	17 (1%)	8 (0.5%)	13 (0.8%)	13 (0.8%)
Small business annual bill[b]	3940	3928	3968	3988	4019	4050
Annual change[c]		–12 (–0.3%)	40 (1%)	20 (0.5%)	31 (0.8%)	31 (0.8%)

Source: AER analysis; AER, Energy Made Easy website (standing offer); Ausgrid, *11.3 – RIN – Consolidated*, April 2018; AEMC *Residential electricity price trends report 2017 – New South Wales, December 2017*.

(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 2000).

(b) Annual bill for 2018–19 is sourced from Energy Made Easy and reflects the average consumption of 10000 kWh for small business customers in NSW (postcode 2000).

(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 for network services, divided by AEMO's forecast energy delivered for NSW/ACT for transmission and forecast energy for distribution as proposed by Ausgrid. Actual bill impacts will vary depending on electricity consumption and tariff class.

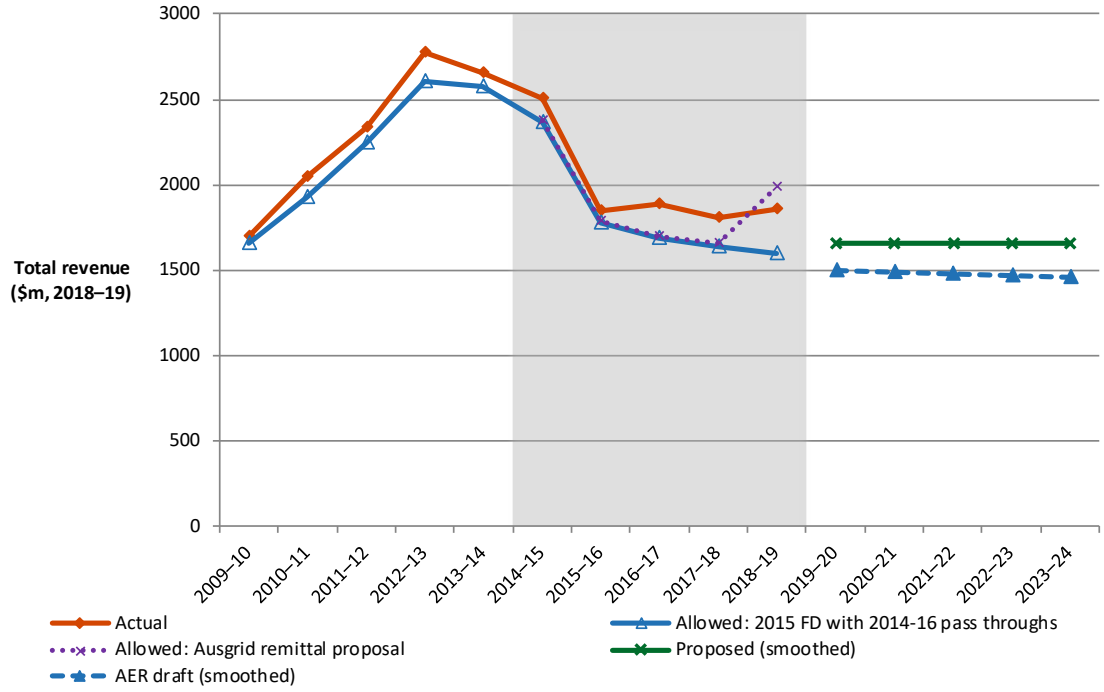
1.2 What is driving revenue?

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[11]), which have been adjusted for the impact of inflation.

[11] i.e. 30 June 2019 dollar terms.

In real terms, the total revenue allowance in this draft decision is 18.5 per cent lower than total allowed revenue under our April 2015 decision for the current, 2014–19 regulatory control period.[12] As Figure 1 shows, this would result in a real revenue decrease of 19 per cent in 2019–20 followed by average decreases of 0.7 per cent per annum over 2020–24. [13]

Figure 1 Revenue over time - distribution and transmission ($million, 2018–19)



Source: AER analysis

Ausgrid'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 Ausgrid's regulatory asset base (RAB) grew by around 51.8 per cent. In a challenging investment environment during the global financial crisis, the rate of return (a forecast of the financing costs Ausgrid 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.

[12] This comparison is between the total revenue allowed under this draft decision and that in our original decision on Ausgrid's total revenue allowance for 2014–19. We are in the process of remaking that decision as directed by the Australian Competition Tribunal.

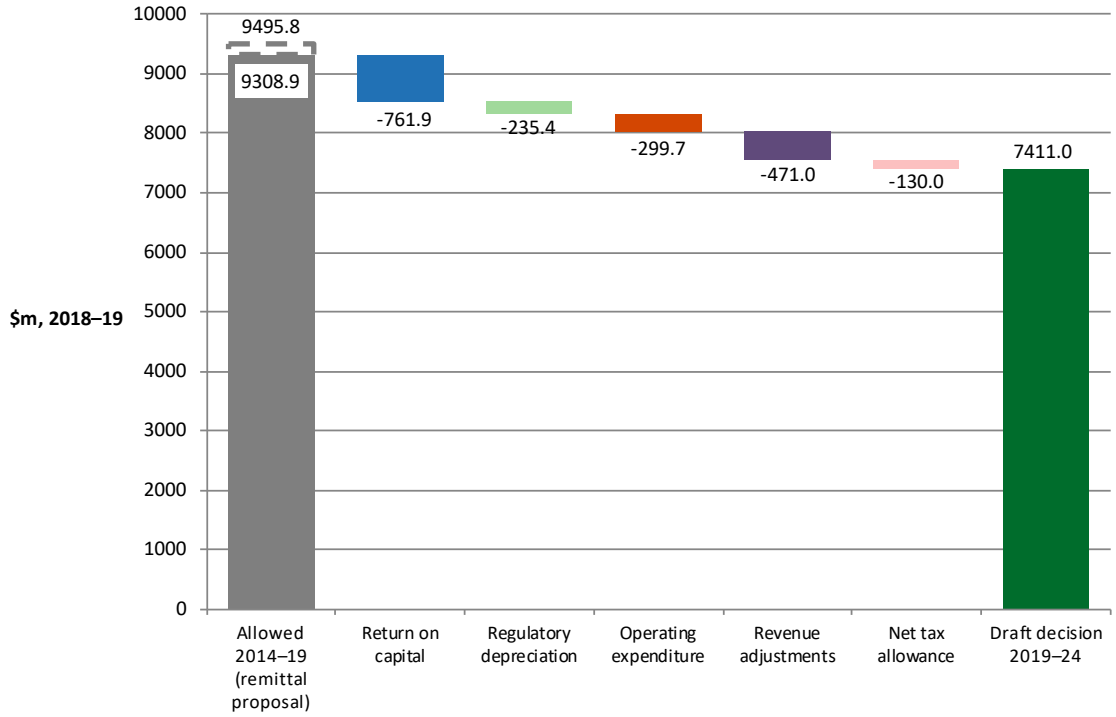
[13] This real decrease for 2019–20 revenue is relative to 2018–19 estimated actual revenue rather than 2018–19 allowed revenue.

Lower revenues for the current 2014–19 period[14] 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 Ausgrid was under less pressure to augment its network to meet the needs of additional customers or any increased demand from existing customers, and RAB growth stabilised.

Our draft decision for 2019–24 reflects a continuation of many of these trends. Figure 2 below highlights the key drivers of the real change in Ausgrid's revenues from the current period to this draft decision for 2019–24, by reference to the revenue 'building blocks' that form the basis of our assessment.

[14] This comparison is between the total revenue allowed under this draft decision and that in our original decision on Ausgrid's total revenue allowance for 2014–19. We are in the process of remaking that decision as directed by the Australian Competition Tribunal.

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



Note: The 'Allowed 2014–19 (remittal proposal)' column shows an additional $187.0 million (in dashed grey outline) on top of the $9308.9 million total. The $9308.9 million is the sum of the revenue building blocks in the remittal PTRMs, and incorporates some of the proposed remittal updates including opex and return on debt updates. The additional $187.0 million comprises $67.1 million for metering, Ancillary Network Services (ANS) and Emergency Recoverable Works (ERW) and $119.8 million representing further changes in the remittal PTRM calculations including: service target performance financial incentives, differences in CPI adjustments and negotiated cap settlement amounts.[15]

'Revenue adjustments' include increments or decrements accrued under incentives schemes such as the CESS and DMIAM. It also includes a placeholder return to customers for the difference of $288.0 million between revenues recovered under interim price undertakings in 2014–19 and Ausgrid's proposed approach to remaking our 2014–19 decision. That process has yet to be finalised.

Source: AER analysis.

The return on capital (the product of the size of Ausgrid's RAB and the allowed rate of return) is the largest component of Ausgrid's regulated revenue. However, the return on capital under this draft decision is significantly lower than that for the current period. Ausgrid's actual capex in the current period was lower than forecast. Our draft decision forecasts further reductions in capex for 2019–24. Our draft decision also adopts a placeholder rate of return on Ausgrid's RAB of 5.96 per cent, [16] compared to the 6.74

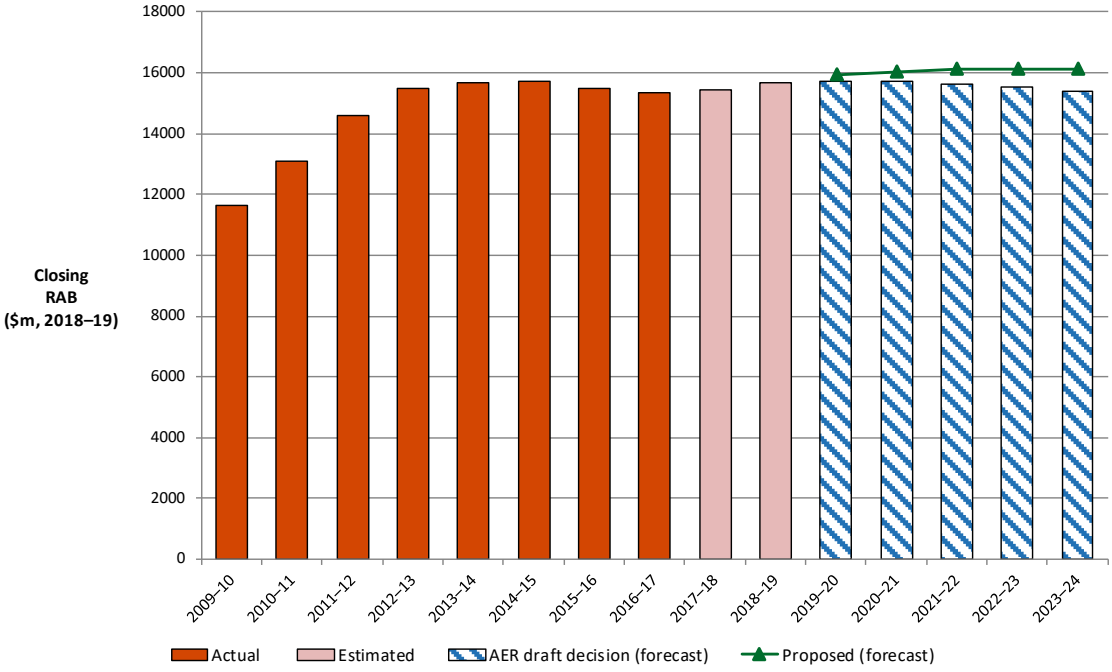
[15] Building block revenues are converted from nominal to real $2018-19 using both forecast and actual CPI, the 'Allowed 2014-19 (remittal final decision)' amount is converted from nominal to real $2018-19 only using actual CPI.

[16] Nominal, vanilla weighted average cost of capital.

per cent we previously set for the current period.[17] This is consistent with the approach set out in our draft 2018 rate of return guideline, consultation on which is ongoing.

As a result, as shown in Figure 3, Ausgrid's RAB over the 2019–24 period is now projected to decrease by 1.8 per cent.

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



Source: AER analysis.

Over the 2019–24 regulatory control period, this combination of the lower rate of return, declining real RAB value and reductions in proposed capex going forward are working together to maintain downward pressure on revenues. These last two factors are also driving the lower regulatory depreciation allowance over the next five years.

Over the current period we have also seen Ausgrid make significant progress in improving its operating efficiency. At the time of our last decision we expressed concerns that Ausgrid's opex was materially above efficient levels. The significant decrease in Ausgrid's opex over the current period is such that we are now in a position to accept Ausgrid's revealed (actual) opex at the end of the current period as a starting point for lower forecast expenditure for the next five years.

The large difference in revenue adjustments between the current period and this draft decision is due mainly to the current remittal process for 2014–19.[18] Our draft decision

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

18 Ausgrid's proposed 2014–19 remittal PTRMs contained significant revenue adjustments including amounts for EBSS but also opex-related items that have been added as part of the remittal process. The 2014–19 inputs for

includes a placeholder reduction of $288 million to forward revenues. Under Ausgrid's proposed approach to remaking our decision for the current period, this is the amount that would be returned to customers to correct the difference between revenue recovered under interim price undertakings and our remade decision.

1.3 Key differences between our draft decision and Ausgrid's proposal

Our draft decision does not allow the total revenue proposed by Ausgrid. The total revenue in this draft decision is $978.0 million ($nominal), or 11.0 per cent, lower than in Ausgrid's proposal.

Our draft decision includes a placeholder revenue adjustment for the difference between Ausgrid's revenue under interim price undertakings over the 2014–19 period and its proposed resolution of our remade decision for that period. This difference will be returned to customers in the 2019–24 period. This placeholder adjustment is based on Ausgrid's remittal proposal, which was submitted after its proposal for 2019–24. An adjustment of this nature was contemplated in Ausgrid's proposal for 2019–24, but not included in its revenue calculation at that time.

The remaining difference relates to the following areas in which our draft decision identifies concerns with Ausgrid's 2019–24 proposal.

The biggest contributor to the difference between our draft decision and Ausgrid'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 5.96 per cent rate of return. This is lower than Ausgrid's proposed 6.33 per cent, which was based on our 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 Ausgrid's proposed 0.4, which has contributed to the reduction in the corporate income tax allowance relative to Ausgrid's proposal.[19]

Consultation on our draft 2018 guideline is ongoing,[20] 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.

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the chart in Figure 2 re-allocates these opex-related items to the opex building block for a more suitable period to period comparison. This period to period change for revenue adjustments is further accentuated because our 2019–24 draft decision revenue adjustments include a significant negative amount to be returned to customers. This amount reflects Ausgrid's proposed resolution of our remade decision on its revenues for 2014–19.

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

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

While the total revenue in this draft decision shares some of the same drivers that informed Ausgrid's proposal, our current assessment of its expenditure forecasts is also contributing to the difference between the two:

- Ausgrid's total forecast capex includes provision for a level of capital investment that we consider goes beyond what is efficient and prudent for the maintenance and operation of its network and given expected demand. The lower capex forecast we have substituted for the purposes of this draft decision has resulted in a lower projected RAB over the 2019–24 period than assumed in Ausgrid's proposal, and also a lower regulatory depreciation allowance.
- On the information before us, we consider Ausgrid has not justified the full extent of its proposed step changes in opex, and that its total forecast opex overestimates the likely changes in the costs of labour and network growth. Between now and our final decision in April 2019, we will also be giving further consideration to our approach to forecasting productivity. This review may change our approach going forward, which in turn may impact our final decision on Ausgrid's opex.

We expand on these differences below and in attachments 5 and 6 to this draft decision.

1.4 Ausgrid's consumer engagement

The NEO puts the long term interests of consumers at the centre of our decisions as a regulator and the way Ausgrid operates its network. An important part of this is ensuring the regulatory proposal Ausgrid puts to us for approval reflects the NEO, and that Ausgrid 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 Ausgrid working openly and collaboratively with consumers and providing opportunities for their views and preferences to be heard and to influence Ausgrid'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.

Commencing in late 2016, Ausgrid's engagement with consumers on its 2019–24 proposal included:[21]

- focus groups and deliberative forums
- a quantitative survey and online forums
- meetings with Ausgrid's Customer Consultative Committee, and establishment of a dedicated 'Reset Working Group' within the Committee

[21] Ausgrid - Executive Summary (Overview paper) v2 - April 2018 - PUBLIC, pp. 12-13.

- meetings with local government representatives on street lighting and tree trimming, and with electricity retailers on tariff structures.

As part of our agreement to extend the date for submission of its proposal from 31 January 2018 to 30 April 2018, Ausgrid extended its stakeholder consultation in early 2018 to include the release of a Stakeholder Consultation Document in January, and further engagement on its capex and opex forecasts, operational performance, price impacts and its pricing proposals.[22]

This program of engagement was recognised as an improvement from Ausgrid's engagement at the time of our last decision. In its *Evaluation of Consumer Engagement by NSW DNSPs*, the Public Interest Advocacy Centre (PIAC) reported that it was:[23]

> "…encouraged by signs that Ausgrid has sought to develop a better culture of, and approach to, engagement over the period. In particular, PIAC considers the consumer representative engagement in 2018 to have been of a much higher quality than that in 2017."

Despite this, feedback on Ausgrid's engagement from PIAC and other key stakeholders highlights significant room for further development. As observed by the AER's Consumer Challenge Panel (CCP10), "[s]ome of the excellent engagement by Ausgrid … was undone by [a proposal] that did not reflect consumer input as strongly as it should have".[24]

ECA's assessment was that:[25]

> "…there is clearly further work needed by the senior management team in Ausgrid to develop a culture which supports authentic engagement over time."

In a theme also evident in submissions from PIAC and the Energy Users Association Australia (EUAA), it went on to suggest that:[26]

> "…the consultation did not focus on identifying and addressing consumer needs and preferences and concerns with proposed actions.
>
> Rather, we consider that Ausgrid's process was intended to and did present company preferences and obtain endorsement from consumer bodies based on inadequate time or resources for consumer advocates to fully consider and respond to the matters under consideration."

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22 Ausgrid - Executive Summary (Overview paper) v2 - April 2018 - PUBLIC, p. 12.

23 PIAC, Evaluation of Consumer Engagement by NSW DNSPs, August 2018, p. 14

24 CCP10 - Submission - 8 August 2018, p. 6.

25 ECA - Submission - Ausgrid - 23 August 2018, p. 6.

26 ECA - Submission - Ausgrid - 23 August 2018, p. 7. See also: EUAA - Submission - 10 August 2018, p. 6; PIAC, Evaluation of Consumer Engagement by NSW DNSPs, August 2018, p. 14 (This report was provided as Attachment A to PIAC's submission on the three NSW proposals.)

This draft decision is a half-way mark in our review of Ausgrid's proposal. Ausgrid now has the opportunity to respond to our draft decision in a revised proposal, a process that we consider would benefit from further consideration of consumer views. To this end, through its advice to us CCP10 has encouraged Ausgrid:

> "…to engage further with consumers and stakeholders to modify [its] proposals and to present more realistic revised revenue proposals."[27]

As part of this, submissions recommend in particular that Ausgrid "commit to a culture of compromise"[28] and allow time for reflection on the proposal as a whole.[29]

Ausgrid's Stakeholder Consultation Document signals its intention to engage with its Customer Consultative Committee on our draft decision,[30] and we encourage Ausgrid to consider opportunities for wider consultation also. Ausgrid has already initiated further consultation on its proposed Tariff Structure Statement (TSS), and its willingness to reconsider its initial TSS proposal has been commended by a number of stakeholders. We look forward to seeing this initiative extended to the remainder of its revised proposal.

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27 CCP10 - Submission - 8 August 2018, p. 6

28 PIAC, Evaluation of Consumer Engagement by NSW DNSPs, August 2018, p. 14

29 ECA - Submission - Ausgrid - 23 August 2018, p. 7.

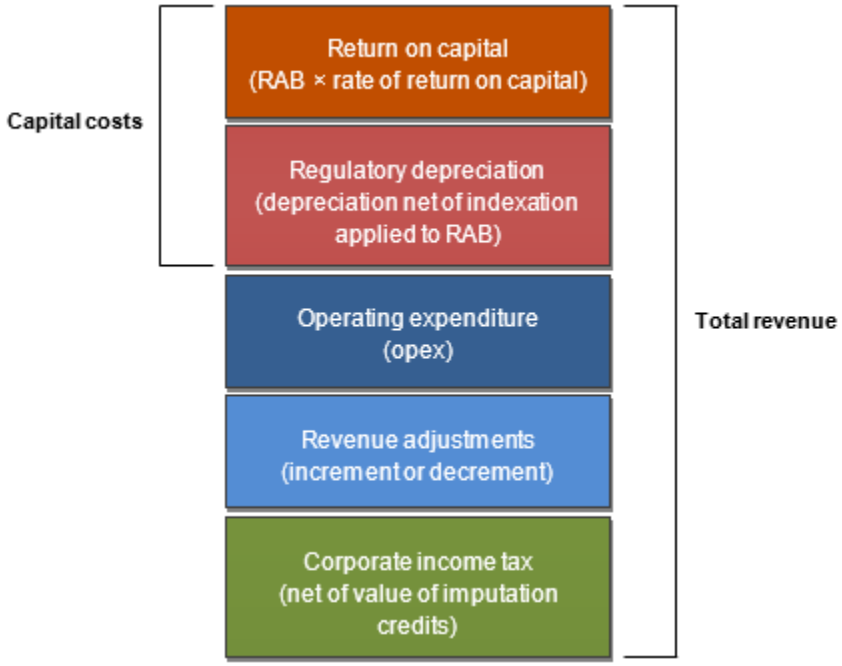
30 Ausgrid - Stakeholder Consultation Document: 2019 - 2024 Proposal - January 2018, p. 11.

2 Key components of our draft decision on revenue

The total revenue Ausgrid has proposed reflects its forecast of the efficient cost of providing network services over the 2019–24 regulatory control period. Ausgrid'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 Ausgrid 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 each component of our draft decision on Ausgrid's revenue for 2019–24 in turn.

2.1 Regulatory asset base

The RAB is the value of assets used by Ausgrid to provide regulated distribution and transmission network services. The value of the RAB substantially impacts Ausgrid's revenue requirement, and the price consumers ultimately pay. This makes it a key issue for many stakeholders. 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 Ausgrid's revenue for 2019–24, we make a decision on Ausgrid's opening RAB as at 1 July 2019 for its distribution and transmission (dual

function assets) networks.[31] 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:

- opening RAB values of $13767.9 million and $1915.4 million ($ nominal) as at 1 July 2019 for Ausgrid for its distribution and transmission networks respectively.
- forecast closing RAB values of $15204.7 million and $2157.1 million ($ nominal) as at 30 June 2024 for Ausgrid's distribution and transmission networks respectively.

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

- the forecast of capex to be added to the RAB over the 2019–24 period, which as we discuss in section 2.4 below is lower than Ausgrid proposed.
- 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 inflation rate of 2.42 per cent, compared to 2.5 per cent in Ausgrid's proposal.

2.2 Rate of return and value of imputation credits

The return (the 'return on capital') each business will receive on its RAB 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.

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[31] NER, cl. 6.12.1(6). Ausgrid's dual function assets are high voltage assets which support the broader NSW transmission network owned and operated by TransGrid. We apply transmission pricing to these assets.

Our draft decision is to not accept Ausgrid's rate of return proposal of 6.33 per cent.

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 guidelines. After considering all the material submitted to us, we consider that this departure will, for the reasons set out in the draft 2018 guidelines,[32] contribute to the achievement of the NEO and allowed rate of return objective[33] to the greatest degree.

Table 2 Draft decision on Ausgrid's rate of return (% nominal)

	Ausgrid final decision (2014–19)	Ausgrid's proposal (2019–24)	AER draft decision (2019–24)	Allowed return over regulatory control period
Nominal risk free rate	2.55%	2.69%[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]	5.75%	5.73%[d]	Updated annually
Gearing	60%	60%	60%	Constant (60%)
Nominal vanilla WACC	6.74%	6.33%	5.96%	Updated annually for return on debt
Forecast inflation	2.42%[34]	2.5%	2.42%	Constant (%)

Source: AER analysis

a Ausgrid's proxy averaging period of 20 business days ending 16 January 2018

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 represents a reduction from the 6.74[35] per cent we set for the 2014–19 regulatory control period. This is driven by lower returns on equity and debt.

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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 We expect to correct for an inflation estimation error for Ausgrid that was identified in the merits review of Victorian Electricity and ACT Gas decisions. For example, see: AER, *Proposed revocation and substitution of TransGrid transmission determination 2014–2018*, 15 December 2017. This has been communicated to Ausgrid. The corrected forecast inflation is 2.42 per cent.

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

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 Guidelines.[36]

Our draft decision is to maintain the current transition path for Ausgrid and estimate a placeholder return on debt of 5.73 per cent.[37] We have maintained our benchmark credit rating and term of debt from the 2013 Guidelines. However, for reasons outlined in the draft 2018 Guidelines, we have updated the implementation of our approach:

- The implementation of the benchmark credit rating has been updated to more accurately reflect the BBB+ benchmark credit rating for reasons outlined in the draft 2018 Guidelines.[38]
- We include an additional debt data series, the Thomson Reuters debt curve, to be evenly averaged with the RBA and Bloomberg debt curves.[39]

Ausgrid proposed a value of 0.4 for imputation credits (gamma). Our draft decision is to apply a gamma of 0.5 for reasons outlined in the draft 2018 Guidelines. 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.[40]

Consultation on our draft 2018 Guidelines is ongoing,[41] 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). Ausgrid 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 depreciation allowance. The regulatory depreciation allowance is the net total of the straight-line depreciation less the inflation indexation adjustment of the RAB.

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

37 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.

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

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

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

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

Our draft decision on Ausgrid's revenue for 2019-24 includes a regulatory depreciation allowance of $726.3 million ($nominal).[42] This is $13.8 million (1.9 per cent) higher than Ausgrid's proposal. We have adopted the same approach to depreciation as Ausgrid, 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 Ausgrid reflects other, related parts of our draft revenue decision including our draft decisions on:

- the opening RAB at 1 July 2019, which as we mentioned above is lower than Ausgrid's proposal
- the expected inflation rate, which is lower than the rate used in Ausgrid's proposal and is the driver of the increase in the depreciation allowance
- forecast capex, which as we discuss below is lower than Ausgrid's proposal and results in a lower projected RAB value over the 2019–24 regulatory control period.[43]

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

2.4 Capital expenditure

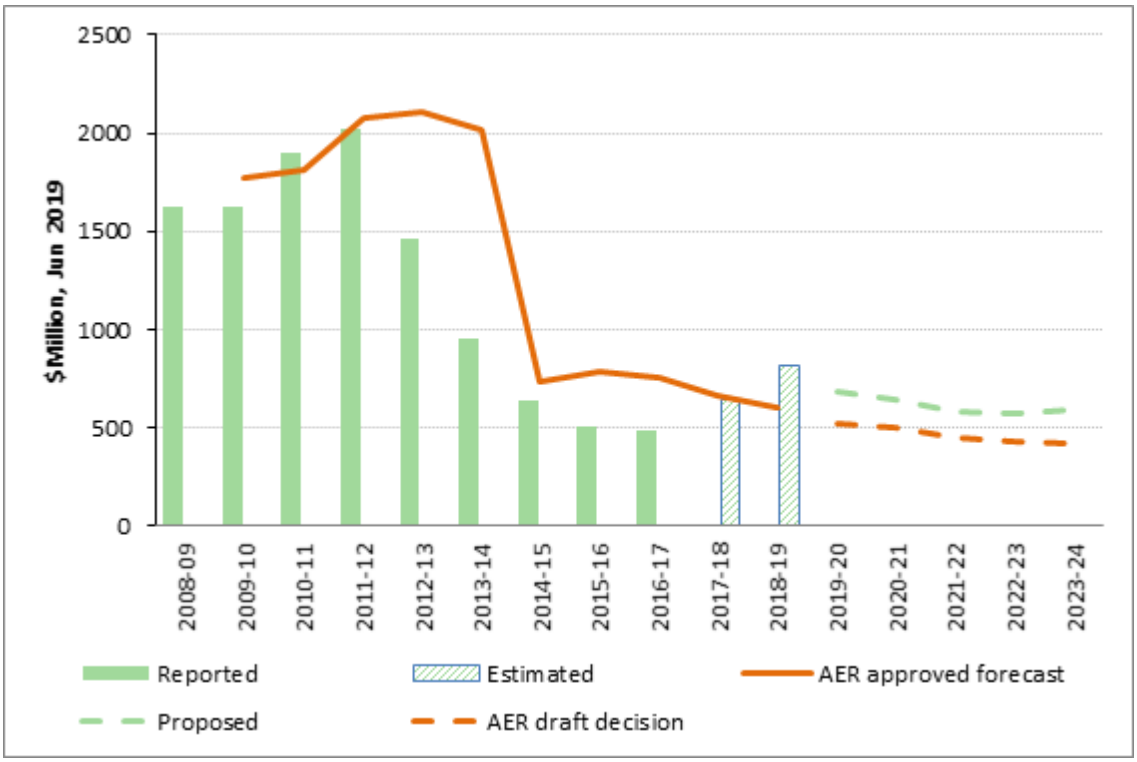
Capex—the capital costs and expenditure incurred in the provision of network services—mostly relates to assets with long lives, the costs of which are recovered over several regulatory control periods. Capex is added to Ausgrid's RAB, which is used to determine the return on capital and return of capital (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 on Ausgrid's revenue includes total forecast capex of $2,209.8 million ($2018–19) for 2019–24. Figure 5 compares Ausgrid's capex over the last two regulatory control periods compared to its proposed forecast and our draft decision for 2019–24.

[42] This comprises $637.4 million for distribution assets and $88.9 million for dual function (transmission) assets.

[43] 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.

Figure 5 Ausgrid's Capex over time ($m, June 2019)



Source: AER analysis

Note: Net capex (including disposals).

Our draft decision substitutes a capex forecast that is 25.5 per cent lower than Ausgrid's proposal. [44] There are a number of factors contributing to this:

- Ausgrid's replacement capex forecast was significantly higher than our predictive modelling results, which compare distributors' asset categories on both unit costs and expected replacement lives, suggested would be required. Our bottom-up review of the proposed repex programs found that Ausgrid has not adequately justified the expenditure proposed for many of its replacement programs and projects.
- We found insufficient options analysis and cost-benefit assessment in a number of areas in Ausgrid's forecast non-network capex. A key concern we share with stakeholders is the lack of clear explanation from Ausgrid as to how the ex-ante benefits of the program have been incorporated into the overall expenditure proposal. Our review has found no evidence that this has been undertaken in developing its forecast.
- Our alternative forecast includes a number of Ausgrid's larger proposed augmentation projects and programs. However, we found that the need for other forecast augmentation works has not been demonstrated, and in some cases that

[44] NER, cl. 6.12.1(3)(ii).

alternative augmentation or non-network measures of lesser scope may be possible or otherwise have not been considered.

- Our substitute estimate incorporates corrections to Ausgrid's initial proposal for gross connections capex to address modelling errors identified and addressed with Ausgrid in the course of our review.

Our draft decision on capex also includes adjustments to Ausgrid's proposed capitalised overheads commensurate with the adjustments made to other parts of its capex forecast.

The differences between the total capex forecast proposed by Ausgrid and the forecast we have substituted in this draft decision are summarised in Table 3.

Table 3 Assessment of required capex by driver 2019–24 ($2018–19, million)

Category	Ausgrid's proposal	Our substitute estimate	Difference (%)
Augmentation	189.1	168.6	(10.9%)
Connections	52.2	29.2	(44.1%)
Replacement	1,673.1	1,207.5	(27.8%)
Non-Network	548.0	345.4	(37.0%)
Capitalised overheads	621.3	577.1	(7.1%)
Gross Capex (includes capital contributions)	**3,668.7**	**2,906.4**	**(20.8%)**
Less Capital Contributions	585.0	578.7	(1.1%)
Less Disposals	117.9	117.9	
Net Capex (excluding capital contributions)	**2,965.8**	**2,209.8**	**(25.5%)**

Source: AER analysis.

Notes: Capital contributions in this table include an overheads component. Numbers may not add due to rounding.

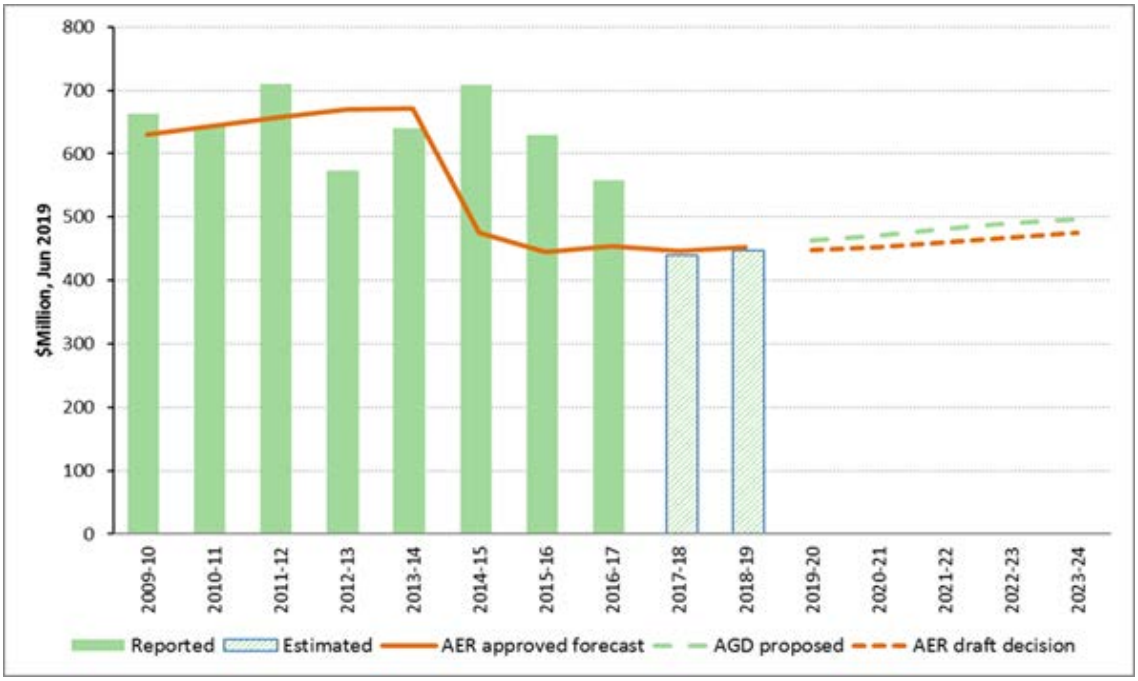
Ausgrid will now have the opportunity to respond to the concerns we have raised with its capex forecast in its revised proposal. As it does so, we encourage Ausgrid to have particular regard to our detailed observations in Attachment 5 to this draft decision, particularly where we have noted a lack of supporting material to justify the prudency and efficiency of its forecast.

2.5 Operating expenditure

Our draft decision is to include total forecast opex of $2,344.1 million ($2018–19) in Ausgrid's revenue for 2019-24.[45]

The total forecast opex in this draft decision is around 15.8 per cent lower than Ausgrid's actual opex in the current period. Figure 6 shows the change in Ausgrid's opex over the last two regulatory control periods, and compares this to its forecast opex and our draft decision for 2019–24.

Figure 6 Ausgrid's opex over time ($m, June 2019)



Source: AER analysis.

Note: Excludes debt-raising costs.

The total opex forecast we have included in this draft decision is $98.4 million lower than Ausgrid's proposed total opex forecast of $2442.5 million.[46] Like Ausgrid's, our substitute forecast starts with its 2017–18 base year expenditure as the basis for our 2019–24 opex forecast. Benchmarking analysis undertaken for this reset shows Ausgrid's opex over the current period converging with the opex target set in our April 2015 decision, and a level that is more consistent with efficient business practices in the NEM.

However, the following factors have contributed to our total forecast opex being 4.0 per cent lower than Ausgrid's proposal:

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45 Includes debt-raising costs.

46 NER, cl. 6.12.1(4)(ii).

- The step change for demand management projects that we have included in our total opex forecast is lower than Ausgrid proposed. Our alternative forecast includes three of Ausgrid's demand management proposals, but does not include a further four projects that we consider have not been adequately justified.
- Our forecast also excludes Ausgrid's proposed step increase in opex for research into, and engagement on, network tariff reform. While we support further consideration and engagement by Ausgrid on how best to transition to cost reflective pricing, we consider this type of activity is part of a distributor's standard business activities and is accommodated within the existing costs and base year opex.
- We have not included Ausgrid's proposed adjustment to increase its base year opex for Emergency Recoverable Works costs,[47] which we consider may already be accounted for in Ausgrid's historical opex.
- Our forecast of the expected increase in real labour prices in NSW is lower than that proposed by Ausgrid. We have applied our standard approach by averaging the forecasts of growth in the NSW utilities wage price index by our consultant Deloitte Access Economics and Ausgrid's consultant, BIS Oxford Economics. In contrast, Ausgrid only applied BIS Oxford Economics' forecast.
- Our forecast of expected increases in the costs of operating a larger network (output growth) is also lower than Ausgrid's. We have derived output weights from the results of four of the models we presented in our 2017 annual benchmarking report. This is a refinement of our previous approach, which Ausgrid adopted and which used the weights from a single econometric model.[48]

The differences between Ausgrid's total proposed opex and the forecast we have substituted for the purposes of this draft decision are summarised in Table 4.

[47] Following the introduction of the AER's Ring-Fencing Guideline, Emergency Recoverable Works (ERW), which were previously classified as an unregulated service, will now be subsumed into the common distribution services group and classified as a standard control service.

[48] We have derived weights from the results four economic benchmarking models — Cobb-Douglas stochastic frontier analysis, Cobb-Douglas least squares econometrics, translog least squares econometrics and opex multi-lateral partial factor productivity. We had previously relied solely on the results of our Cobb-Douglas stochastic frontier analysis model, which is the basis of Ausgrid's proposal.

Table 4 Our alternative estimate compared to Ausgrid's proposal ($ million, 2018–19)

	Ausgrid	Our alternative estimate	Difference
Base opex	2201.0	2197.1	–4.0
Base opex adjustment for Emergency Recoverable Works	26.8	–	–26.8
2017–18 to 2018–19 increment	33.3	18.4	–15.0
Price growth	56.0	32.4	–23.6
Output growth	56.1	49.1	–6.9
Productivity growth	–	–	0.0
Step changes	29.1	8.5	–20.7
Debt raising costs	40.2	38.7	–1.5
Total opex	2442.5	2344.1	–98.4

Source: Ausgrid revenue proposal - forecast SCS opex model, April 2018; AER analysis.

Note: Numbers may not add up to total due to rounding.

For the purpose of this draft decision, our rate of change applies a zero productivity growth forecast. This is consistent with Ausgrid's proposal, and with our approach to forecasting the productivity component of our opex the rate of change in past decisions.

A number of stakeholders have questioned this approach, and we are now reviewing our approach to forecasting productivity. [49] This review may change our approach going forward. As part of this review we will consult with all distributors and any other interested stakeholders. We will take the outcome of this review into consideration in our final decision.

2.6 Revenue adjustments

Our draft decision on Ausgrid'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 Ausgrid 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 Ausgrid out-performed our capex forecast,

[49] https://www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/review-of-our-approach-to-forecasting-opex-productivity-growth-for-electricity-distributors

and our draft decision is to approve a CESS revenue increment amount of $102.9 million ($2018–19) from the application of the CESS in the 2014–19 regulatory control period.

- A DMIAM allowance of $6.8 million ($2018–19) over the 2019–24 regulatory control period. The DMIAM aims to encourage distribution businesses to find investments that are lower cost alternatives to investing in network solutions.
- We are currently in the process of assessing Ausgrid's remittal proposal. Any difference between our upcoming remade decision on Ausgrid's revenue for the current period and the revenue recovered by Ausgrid under the interim price undertakings that have applied over that period will be included as a further adjustment in our final decision on Ausgrid's revenue for 2019–24.[50] For the purposes of this draft decision, we have adopted a placeholder revenue reduction of $288 million ($2018–19) based on Ausgrid's remittal proposal for the 2014–19 period.[51]

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 Ausgrid. Our draft decision is to include a corporate income tax allowance of $219.9 million ($ nominal) in Ausgrid's revenue for 2019–24.[52]

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 depreciation. Tax expenses (including other expenses such as opex) are then offset against Ausgrid'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 Ausgrid's revenue for 2019–24 is 33.4 per cent lower than that in Ausgrid's proposal. The adjustments we have made in this draft decision to Ausgrid's proposed return on capital and regulatory depreciation building blocks affect our draft decision on revenues, which in turn impacts the tax calculation for this draft decision. We have also made amendments for the purposes of this draft decision, to:

- adjust the 2019 opening tax asset bases to reflect a transfer of assets between the distribution and transmission networks

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50 NER, cl. 8A.14.

51 Ausgrid, *Proposal for the remake of Ausgrid's 2014–19 distribution determination*, 15 August 2018, p. 1.

52 This comprises $206.1 million for Ausgrid's distribution network revenue and $13.8 million for its dual function asset (transmission) revenue. See Attachment 7 Corporate income tax, Tables 7-1 and 7-2, p. 7-7.

- apply a value of imputation credits (gamma) of 0.5, consistent with our draft 2018 rate of return guideline and is the main driver of the reduction in the tax allowance.

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 Ausgrid'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 Ausgrid's revenue for 2019–24 is made. If this is the case, our final decision on Ausgrid's corporate income tax allowance for 2019–24 may change from this draft decision.

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 Ausgrid 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 Ausgrid'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 Ausgrid for the 2019–24 regulatory control period.

We discuss our draft decisions on each incentive scheme further in attachments 8 to 11.

4 Tariff structure statement

Ausgrid's 2019–24 proposal includes the second iteration of its 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, Ausgrid's TSS must set out its tariff classes, proposed tariffs, structures and charging parameters for each proposed tariff, and the 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..[53]

Our decision in this determination is on the structure of tariffs that will form the basis of tariff proposals throughout the regulatory control period.[54] We are also required to make a decision on the policies and procedures for assigning or reassigning retail customers to tariff classes.[55] While an indicative pricing schedule must accompany the TSS, Ausgrid's tariffs for the entire 2019–24 regulatory control period are not set as part of this determination.[56]

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.[57]

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53 NER, cl. 6.18.5.
54 NER, cl.6.12.1(14A)
55 NER, cl.6.12.1(17)
56 NER, cl. 6.8.2(d)(1).
57 NER, cll. 6.18.2 and 6.18.8

Ausgrid is one of the more advanced distributors in the NEM in respect of the penetration of cost reflective pricing and the cost reflectivity of its existing tariffs. Ausgrid 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
- offering customers a cost-reflective seasonal time of use energy charge with a strong signal to conserve energy usage during the peak charging window
- expanding its residential charging windows to all customers to more closely align charging windows with system peaks.

Our draft decision broadly supports the direction of the above changes. However, we have concerns that some aspects of the TSS do not comply with the pricing principles set out in the NER.[58] 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.

We understand that following concerns from customer groups regarding compliance with the customer impact principle, Ausgrid is considering significant revision of its TSS. We welcome Ausgrid demonstrating a responsiveness to stakeholder feedback, however if Ausgrid is proposing substantial changes to its TSS we expect it will have regard to our draft decision in doing so and consult widely with us and its customers on proposed changes before submitting its revised TSS for approval.

[58] 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.[59] 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.[60] This is not delivered by any one of the NEO's factors in isolation, but rather by balancing them in reaching a regulatory decision.[61]

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.[62] 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. [63]

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.[64] 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.[65] 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.[66] 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.[67] 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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59 NEL, section 16(1).

60 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.

61 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.

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

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

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

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

66 NEL, s. 7A(7).

67 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,[68] 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.[69]

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

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

[69] 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 Ausgrid's distribution determination for the 2019–24 regulatory control period. Our draft decision includes the following constituent components:[70]

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 Ausgrid 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 Ausgrid's building block proposal. Our draft decision on Ausgrid'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 Ausgrid'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 Ausgrid'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(d) of the NER, the AER's draft decision is not to accept Ausgrid's proposed total net forecast capital expenditure of **$**2,965.8 million ($2018–19). Our draft decision therefore includes a substitute estimate of Ausgrid's total net forecast capex for the 2019–24 regulatory control period of $2,209.8 million ($2018–19). This is discussed in attachment 5 of the draft decision.
In accordance with clause 6.12.1(4)(ii) and acting in accordance with clause 6.5.6(d) of the NER, the AER's draft decision is not to accept Ausgrid's proposed total forecast operating expenditure inclusive of debt raising costs and exclusive of DMIAM of $2442.5 million ($2018-19). Our draft decision therefore includes a substitute estimate of Ausgrid's total forecast opex for the 2019–24 regulatory control period of $2,344.1 million ($2018–19) including debt raising costs and exclusive of DMIAM. 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

[70] NEL, s. 16(1)(c).

Constituent component
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.
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 Ausgrid's regulatory asset base as at 1 July 2019 in accordance with clause 6.5.1 and schedule 6.2 is $13767.9 million and $1915.4 million ($ nominal) for its distribution and transmission networks respectively. 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 is not to accept Ausgrid's proposed corporate income tax of $330.1 million ($ nominal). Our draft decision on Ausgrid's corporate income tax is $219.9 million ($ 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 to not approve the depreciation schedules submitted by Ausgrid. 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 Ausgrid 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 Ausgrid 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 Ausgrid 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 Ausgrid 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 Ausgrid 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 at 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

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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 Ausgrid must maintain a DUoS unders and overs account. It must provide information on this account to us in its annual pricing 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 to not approve the tariff structure statement proposed by Ausgrid. 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 that the negotiating framework as proposed by Ausgrid will apply 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 Ausgrid. 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 Ausgrid 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 Ausgrid'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 Ausgrid 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 Ausgrid 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 to not approve the connection policy proposed by Ausgrid. Our draft decision is to amend Ausgrid's proposed

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connection policy as set out in attachment 17 of the draft decision.