DRAFT DECISION
Ausgrid
Distribution determination

2019–24

Attachment 9 – Capital expenditure sharing scheme

November 2018

AUSTRALIAN ENERGY REGULATOR

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Note

This attachment forms part of the AER's draft decision on the distribution determination that will apply to Ausgrid 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

Attachment 12 – Classification of services

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Attachment 18 - Tariff structure statement

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Shortened forms

Shortened form	Extended form
CESS	Capital expenditure sharing scheme
distributor	Distribution network service provider
RAB	regulatory asset base
AER	Australian Energy Regulator
NER	National Electricity Rules
EBSS	Efficiency benefit sharing scheme
STPIS	Service target performance incentive scheme
WACC	Weighted average cost of capital
PTRM	Post tax revenue model
CPI	Consumer Price Index
RFM	Roll forward model
NPV	Net present value

9 Capital expenditure sharing scheme

The capital expenditure sharing scheme (CESS) provides additional financial rewards to those distribution network service providers (distributors) that improve capital expenditure (capex) efficiency and additional financial penalties for those that become less efficient. Consumers benefit from improved efficiency through a lower regulatory asset base (RAB) and regulated revenues.

The CESS approximates efficiency gains and efficiency losses by calculating the difference between approved forecast and actual capex. It shares these gains or losses between distributors and consumers. Under the CESS a distributor retains 30 per cent of an under-spend or over-spend. This means that for a one dollar saving in capex the distributor keeps 30 cents of the benefit while consumers keep 70 cents of the benefit.[1]

The CESS works as follows:

1. We calculate the cumulative efficiency gains or losses for the current regulatory period in net present value terms.
2. We apply a ratio of 30 per cent to the cumulative under-spend or over-spend to work out what the service provider's share of the under-spend or over-spend should be.
3. We calculate the CESS payments taking into account the financing benefit or cost to the service provider of the under-spends or over-spends.[2] We can also make further adjustments to account for deferral of capex and ex post exclusions of capex from the RAB.[3]
4. The CESS payments will be added or subtracted to the service provider's regulated revenue as a separate building block in the next regulatory control period.

Stakeholders expressed differing views on the CESS. The Consumer Challenge Panel (CCP10) considered the CESS is well established.[4] However, AGL Energy did not support the continuation of the CESS and is yet to observe any benefits to consumers from the scheme.[5]

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1 AER, *Capital Expenditure Incentive Guideline for Electricity Network Service Providers*, November 2013.

2 We calculate benefits as the benefits to the service provider of financing the under-spend since the amount of the under-spend can be put to some other income generating use during the period. Losses are similarly calculated as the financing cost to the service provider of the over-spend.

3 The capex incentive guideline outlines how we may exclude capex from the RAB and adjust the CESS payment for deferrals. AER, *Capital Expenditure Incentive Guideline for Electricity Network Service Providers*, November 2013, pp. 9, 13–20.

4 Consumer challenge panel 10, *CCP10 response to AER issues paper and revenue proposals for NSW electricity distribution businesses 2019–24*, August 2018, p. 34.

5 AGL Energy, Submission on NSW electricity distribution determinations 2019–24, 14 September 2018, p.5.

We consider in addition to greater incentives to improve capex efficiency, the CESS provides a consistent incentive to incur capex efficiently during a regulatory control period and encourages more efficient substitution between capex and opex.

We also note that the 2014–19 regulatory control period is the first time the CESS has been applied to Ausgrid.

This attachment sets out our draft decision for the determination of the revenue impacts as a result of the CESS applying from the 2014–19 regulatory control period and the application of the CESS for Ausgrid in the 2019–24 regulatory control period.

9.1 Draft decision

Revenue impact for the 2019–24 regulatory control period

Our draft decision is to apply a CESS revenue increment amount of $102.9 million ($2018–19) from the application of the CESS in the 2014–19 regulatory control period.[6]

The difference between our calculations and Ausgrid's proposal is due to the:

- use of unlagged CPI consistent with the inflation used in the roll forward model (RFM)
- use of more recent inflation figures.

Our draft decision on the revenue impact of the application of the CESS in the 2014–19 regulatory control period compared to Ausgrid's proposal is summarised in Table 9.1 below.

Table 9.1 AER's draft decision on Ausgrid's CESS revenue increment ($ million, 2018–19)

	2019–20	2020–21	2021–22	2022–23	2023–24	Total
Ausgrid's proposal	20.1	20.1	20.1	20.1	20.1	99.8
AER draft decision (distribution)	18.5	18.5	18.5	18.5	18.5	92.3
AER draft decision (transmission)	2.1	2.1	2.1	2.1	2.1	10.6
AER draft decision total	19.1	19.1	19.1	19.1	19.1	102.9

Source: AER analysis.

Note: Numbers may not add up due to rounding

[6] NER, cl 6.4.3(5); The CESS does not apply to 2014–15. NER, clause 11.56.3(a)(3).

Given the timing of our draft decision we will update our calculation in our final decision for the following:

- Ausgrid's actual expenditure for 2017–18.[7]
- If available, updated inflation using actual data.

Application of scheme in 2019–24 regulatory control period

We will apply the CESS, as set out in version 1 of the capital expenditure incentives guideline, with the formulae updated to reflect the TransGrid final determination[8], to Ausgrid in the 2019–24 regulatory control period.[9] This is broadly consistent with the proposed approach we set out in our framework and approach paper.[10]

9.2 Ausgrid's proposal

Subsequent to submitting its initial proposal, Ausgrid provided an updated CESS model proposing a CESS payment of $99.8 million ($2018–19) over the 2019–24 regulatory control period with a net present value (NPV) of $89.4 million ($2018–19).[11] This reflects a lower CESS payment than that included in Ausgrid's original regulatory proposal. This is because the updated figure reflects changes to the CESS model as a result of our TransGrid determination.

Ausgrid also proposed the CESS to be calculated in accordance with our current CESS guidelines.[12]

9.3 AER's assessment approach

Under the National Electricity Rules (NER) we must decide:

- the revenue effects on Ausgrid arising from applying the CESS in the 2014–19 regulatory control period; and
- whether or not to apply the CESS to Ausgrid in the 2019–24 regulatory control period and how any applicable scheme will apply.[13]

Our assessment approach is set out below.

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7 Given the timing of when Ausgrid submitted its initial proposal, Ausgrid was only able to provide an estimate of its capex for the 2017–18 regulatory year. When we make our final decision we will be able to update the CESS payment calculation for the actual capex Evoenergy incurred in 2017–18.

8 AER, *Final decision TransGrid transmission determination 2018 to 2023, Attachment 10 – Capital expenditure sharing scheme*, May 2018

9 NER, cl 6.12.1(9); AER, *Capital Expenditure Incentive Guideline for Electricity Network Service Providers*, November 2013, pp. 5–9.

10 AER, *Framework and approach Ausgrid, Endeavour Energy and Essential Energy regulatory control period commencing 1 July 2019*, July 2017, p. 81.

11 Ausgrid, *AER - Ausgrid - CESS model - modified_VS_2080322 - net disposals_no links.xlsm*, 22 March 2018.

12 Ausgrid, *Regulatory proposal*, April 2018, p. 171.

13 NER cl. 6.12.1(9).

Revenue impact for the 2019–24 regulatory control period

We must determine the appropriate revenue increments or decrements (if any) for each year of the 2019–24 regulatory control period arising from the application of the CESS during the 2014–19 regulatory control period.[14] This includes making an assessment of whether any adjustments should be made to the CESS for deferred capex.

In some circumstances, without an adjustment to the CESS, consumers may not share in the benefits where capex is deferred from one regulatory control period to the next regulatory control period. We will make an adjustment to CESS payments where a distributor has deferred capex in the current regulatory control period and:

1. the amount of the deferred capex in the current regulatory control period is material, and
2. the amount of the estimated underspend in capex in the current regulatory control period is material, and
3. total approved capex in the next regulatory control period is materially higher than it is likely to have been if a material amount of capex was not deferred in the current regulatory control period.[15]

The NER require that our draft decision include a determination on how any applicable CESS is to apply to Ausgrid.[16] In deciding whether to apply a CESS to Ausgrid for the 2019–24 regulatory control period, and the nature of the details of the scheme, we must:

- make that decision in a manner that contributes to the capex incentive objective[17]
- take into account the CESS principles[18], the capex objectives and if relevant the opex objectives[19], the interaction with other incentive schemes[20] as they apply to the particular service provider, and the circumstances of the service provider.[21]

The capex incentive objective is to ensure that only capex that meets the capex criteria enters the RAB used to set prices. Therefore, consumers only fund capex that is efficient and prudent.

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14 NER cl. 6.4.3(a). Transitional arrangements in the NER excludes 2014–15, NER cl. 11.56.3(a)(3).

15 AER, *Capital Expenditure Incentive Guideline for Electricity Network Service Providers*, November 2013, p. 9.

16 NER cl. 6.12.1(9).

17 NER, cl. 6.5.8A(e)(3); the capex incentive objective is set out in cl. 6.4A(a) of the NER

18 NER, cl. 6.5.8A(e)(4)(i); the CESS principles are set out in cl.6.5.8A(c).

19 NER, cll. 6.5.8A(e)(4)(i) and 6.5.8A(d)(2); the capex objectives are set out in cl. 6.5.7(a); the opex objectives are set out in cl.6.5.6(a).

20 NER, cll. 6.5.8A(e)(4)(i) and 6.5.8A(d)(1).

21 NER, cl. 6.5.8A(e)(4)(ii)

9.3.1 Interrelationships

The approval of CESS payments/penalties determines the associated CESS building block and therefore Ausgrid's overall forecast revenue requirement for the 2019–24 regulatory control period.

As set out in the AER's incentive guidelines, without applying a CESS for the 2019–24 regulatory control period, Ausgrid will face incentives that decline over the period.

That is, without applying the CESS, if Ausgrid makes an efficiency gain in the first year of the 2019–24 regulatory control period any benefit will last for four more years before the RAB is updated for actual capex. In the final year however, the benefit will be approximately zero. This may lead to inefficient capex and inefficient substitution of opex for capex towards the end of a regulatory control period.[22]

The CESS relates to other incentives Ausgrid faces to incur efficient opex, conduct demand management and maintain or improve service levels. Related schemes are the efficiency benefit sharing scheme (EBSS) for opex, the service target performance incentive scheme (STPIS) for service levels and the demand management incentive scheme and innovation allowance mechanism for non-network options relating to demand management. The AER aims to incentivise network service providers to make efficient decisions on when and what type of expenditure to incur and to balance expenditure efficiencies with service quality. We discuss these interrelationships where relevant as part of our expenditure attachments.

9.4 Reasons for draft decision

9.4.1 CESS revenue increments from the 2014–19 regulatory control period

We consider Ausgrid should receive a CESS payment of $102.9 million ($2018–19) from the application of version 1 of the CESS, with the formulae updated to reflect the TransGrid final determination[23], during the 2014–19 regulatory control period. We note that the scheme operates only over the 2015–16, 2016–17, 2017–18 and 2018–19 regulatory years. This is because the 2014–15 transitional year of the determination was excluded when version 1 of the CESS was applied.[24]

The timing of our draft decision means that capex for the 2017–18 and 2018–19 regulatory years are estimates. The actual capex incurred by Ausgrid for the 2017–18 regulatory year will be known in time for the final decision. We will update the CESS revenue increment in the final determination to reflect this updated information.

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22 AER, *Capital Expenditure Incentive Guideline for Electricity Network Service Providers*, November 2013, p. 5.

23 AER, *Final decision TransGrid transmission determination 2018 to 2023, Attachment 10 – Capital expenditure sharing scheme*, May 2018

24 NER, clause 11.56.3(a)(3).

Given that the 2018–19 regulatory year will be an estimate at the time of our final decision, we may need to make further adjustments to the revenue increment where actual underspending or overspending in the 2018–19 regulatory year is different to the estimate. Consistent with our incentive guideline, these adjustments will be made when undertaking a revenue determination for the subsequent regulatory control period.[25]

In the 2014–19 regulatory control period, Ausgrid was subject to version 1 of the CESS Guideline. Our calculation of the CESS is in accordance with section 2.3 of this guideline[26], incorporating the updated formulae from the TransGrid final determination.[27] Under the guideline the CESS revenue increments are to be based on the difference between:

- approved forecast capex which is set out in our determination for Ausgrid for the 2015–19 regulatory control period
- actual capex for the regulatory years from 2015–16 to 2018–19, after the removal of any excluded cost categories.[28]

The formulas for calculating the revenue increments are set out in our determination CESS model.[29]

The CESS revenue that we calculated ($102.9 million ($2018-19)) is different to the increment that Ausgrid proposed ($99.8 million ($2018-19)) because of the following:

- We have used the updated CESS model first used as part of the TransGrid final determination, including using unlagged CPI
- We have used recently released actual inflation data for 2017-18.

These issues are discussed below.

We have also determined that Ausgrid's deferred capex does not meet all the materiality criteria for an adjustment to the CESS payment.

Updated CESS model inputs

We have applied the updated CESS model, first adopted as part of the TransGrid final determination, to better account for the timing of revenue recovery and changes to asset values. This model includes minor changes from the model described in the CESS guideline. We noted that the updated model used for the TransGrid final

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25 AER, *Capital Expenditure Incentive Guideline for Electricity Network Service Providers*, November 2013, p. 8.

26 AER, *Capital Expenditure Incentive Guideline for Electricity Network Service Providers*, November 2013, p. 6.

27 AER, *Final decision TransGrid transmission determination 2018 to 2023, Attachment 10 – Capital expenditure sharing scheme*, May 2018.

28 An estimate of 2017–18 and 2018-19 capex will be used for the draft decision as actual capex for these years is not available

29 AER, *Ausgrid Dx and Tx 2019-24 - CESS model.xlsx*, October 2018.

decision would serve as the basis for subsequent regulatory determinations that will also use the same template.[30]

The revised model adopts a different approach to calculating revenue over multiple regulatory control periods. The original CESS model did not fully account for the distribution of the financing benefit across regulatory control periods.[31]

This is illustrated by how the six-month WACC adjustment is calculated. In the original model, the financing benefit from the six-month WACC adjustment was included as a direct cash flow received for the underspend or overspend. The updated model instead adjusts the asset values, in effect capitalising the changes. This approach is consistent with the capitalisation approach applied in the PTRM.

More detail on the specific modifications and the reasons for the modifications to the model are discussed in attachment 10 of our TransGrid final decision.[32]

Ausgrid provided an updated CESS model that adopted most of the changes, however we have adopted an unlagged CPI, instead of a lagged CPI for our inflation figure. The six-month WACC adjustment inflation figures must be consistent with the nominal vanilla WACC. As the roll forward model (RFM) uses unlagged inflation in calculating the six-month WACC adjustment we consider the CESS model should also use the same inflation figure.

Updated inflation

We have applied updated inflation figures to calculate the discount rate. As noted above, Ausgrid adopted a lagged CPI figure, so that 2017–18 CPI applies to 2018–19 inflation. Actual inflation data for 2017–18 was not available at the time of the proposal and subsequent submission. We have updated the CESS model to use actual inflation for 2017–18.

Movement in provisions

We have made an adjustment to account for movements in capitalised provisions. This is consistent with our approach in the RFM for adjusting gross capex for movements in capitalised provisions. This change reduces actual capex in 2015–16 by $10.69 million and actual capex in 2016–17 by $19.08 million.

We discuss the adjustment for the movements in capitalised provisions in attachment 2.

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30 AER, *Final decision TransGrid transmission determination 2018 to 2023, Attachment 10 – Capital expenditure sharing scheme*, May 2018, p. 8.

31 The financing benefit is the return on the underspend the distributor has already recovered during the regulatory control period.

32 AER, *Final decision TransGrid transmission determination 2018 to 2023, Attachment 10 – Capital expenditure sharing scheme*, May 2018, pp. 6–10.

9.4.1.1 Assessment of deferral

We have not made an adjustment for deferrals due to the current uncertainty of the forecast capex, but will make the adjustment as part of the final decision if it is required.

We have concerns about the materiality of deferrals that have occurred in the current regulatory control period, and how this may have affected the forecast capex for the upcoming regulatory control period. We consider that there may have been material deferral in the current period that has led to a material underspend, however we are awaiting further information from Ausgrid to determine if these deferrals have materially affected the forecast capex.

Our assessment of whether there should be a CESS payment adjustment for deferral of capex is not intended to be an in depth assessment of each deferred capex project. It is intended to be at a high level to ensure that consumers receive a commensurate benefit from such deferral.[33]

The CESS guideline does not specify a materiality threshold before we must adjust for deferral. Instead, this assessment is undertaken on a case by case basis. Our detailed assessment of the three materiality criteria is below.

Materiality of current period deferral

We consider Ausgrid's deferral of capex in the current period is material. In response to our information requests Ausgrid has identified $198 million[34] ($2018–19) in capex deferred from the 2014–19 regulatory control period to the 2019–24 regulatory control period. The main drivers of deferrals are in the replacement capex and non-network property capex categories.[35]

For the four year period covered by the CESS in the current regulatory control period, deferrals accounts for 5 per cent of Ausgrid's capex allowance applicable to the CESS. Deferrals also accounts for 38 per cent of the underspend in the same four year period.

Although there is no defined materiality threshold, we consider in this circumstance Ausgrid's deferrals satisfies the first assessment criteria as it is a material driver of Ausgrid's underspend.

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33 AER, *Explanatory Statement Capital Expenditure Incentive Guideline for Electricity Network Service Providers*, November 2013, p. 32.

34 We have referred to deferred capex as the amount of capex that has been deferred into the 2019–24 regulatory control period and included in Ausgrid's regulatory proposal.

35 Ausgrid, *CESS information request – Ausgrid response part 2*, 27 June 2018, p. 1 and Ausgrid, *Response to information request 21*, 25 July 2018, p. 4.

Materiality of underspend

We consider Ausgrid's capex underspend in the 2014–19 regulatory control period is material.

We have examined Ausgrid's estimated capex underspend of $350 million[36] ($2018–19) and consider it is material because it represents 13 per cent of Ausgrid's allowance.

This assessment was designed to be considered at the overall level, as such we have not undertaken an in depth assessment of the drivers of the underspend. This is because Ausgrid may choose to defer some discrete projects and bring forward other discrete projects that we have not previously assessed.

Assessing the underspend at the overall level ensures Ausgrid still faces incentives to re-prioritise its capex budgets in response to changing circumstances during a regulatory control period.

However, as noted above, capex deferral appears to have been a major driver of Ausgrid's underspend in the 2014–19 regulatory control period.

Materiality of the effect of deferrals on the forecast capex

We have concerns about the materiality of the effect that deferrals is likely to have on forecast capex. However, our substitute estimate of forecast capex is likely to be influenced by additional information that Ausgrid has not provided to date but has indicated it will do so in its revised proposal.[37] Noting this uncertainty, we have not, at this time, made an adjustment for deferrals. Should this information indicate that deferrals have materially increased the forecast capex for the upcoming regulatory control period, we will make the required adjustment to the CESS payment.

The additional information that is provided by Ausgrid will influence the final approved amount of capex, and the amount of forecast capex (if any) that is due to deferrals in the current regulatory control period. Without this additional information, we consider that it is not practical to make a determination as to whether deferrals have resulted in a materially higher capex forecast.

At the time of the final decision, once the additional information has been provided, we will make an assessment of the materiality of the effect of deferrals on the approved forecast capex. If the approved forecast capex is found to be materially higher due to deferral from the current regulatory period, we will make the appropriate adjustment to the CESS payment at this time.

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[36] 2017–18 and 2018–19 are estimates.

[37] Ausgrid, *Response to Information request #048*, September 2018, p. 16.

9.4.2 Application of CESS in the 2019–24 regulatory control period

The reasons for our preference for a CESS are set out in our capital expenditure incentive guideline.[38] In developing the guideline we took into account the capex incentive objective, capex criteria, capex objectives and the national electricity objective.

We will apply version 1 of the CESS[39], with the updated formulae set out in the TransGrid final determination[40], to Ausgrid in the 2019–24 regulatory control period. As we have set out in the framework and approach, we consider the CESS is needed to provide Ausgrid with a continuous incentive to pursue efficiency gains. This approach is consistent with Ausgrid's regulatory proposal.[41]

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38 AER, *Capital Expenditure Incentive Guideline for Electricity Network Service Providers*, November 2013,

39 AER, *Capital Expenditure Incentive Guideline for Electricity Network Service Providers*, November 2013,

40 AER, *Final decision TransGrid transmission determination 2018 to 2023, Attachment 10 – Capital expenditure sharing scheme*, May 2018

41 Ausgrid, *Regulatory Proposal 2019–2024*, April 2018, p. 171.