DRAFT DECISION
Essential Energy
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 Essential Energy for the 2019–24 regulatory control period. It should be read with all other parts of the draft decision.

The draft decision includes the following attachments:

Overview

Attachment 1 – Annual revenue requirement

Attachment 2 – Regulatory asset base

Attachment 3 – Rate of return

Attachment 4 – Regulatory depreciation

Attachment 5 – Capital expenditure

Attachment 6 – Operating expenditure

Attachment 7 – Corporate income tax

Attachment 8 – Efficiency benefit sharing scheme

Attachment 9 – Capital expenditure sharing scheme

Attachment 10 – Service target performance incentive scheme

Attachment 11 – Demand management incentive scheme

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 Essential.

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 Essential 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 $69.1 million ($2018–19) from the application of the CESS in the 2014–19 regulatory control period.[6]

The difference between our calculations and Essential's proposal of $59.5 million is due to the:

- adoption of an updated CESS model that better reflects the relationship between the timing of revenue and changes in asset values used in the PTRM;
- 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 Essential's proposal is summarised in Table 9.1 below.

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

	2019–20	2020–21	2021–22	2022–23	2023–24	Total
Essential Energy's proposal	12.0	11.9	11.9	11.9	11.8	59.5
AER draft decision	13.8	13.8	13.8	13.8	13.8	69.1

Source: AER analysis.

Note: Numbers may not add up due to rounding

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

- Essential's actual expenditure for 2017–18.[7]

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

- 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 Essential 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 Essential Energy proposal

Essential proposed a CESS payment of $59.5 million ($2018–19) for the 2019–24 regulatory control period. The total net present value of Essential's underspend was $303.27 million ($2018–19).[11]

In response to our information request, Essential identified $8.1 million ($2018-19) in deferrals for two augmentation projects.[12]

9.3 AER's assessment approach

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

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

Our assessment approach is set out below.

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 assessing whether any adjustments should be made to the CESS for deferred capex.

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7 Given the timing of when Essential Energy submitted its initial proposal, Essential Energy 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 to reflect the actual capex Essential Energy 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 Essential Energy, *9.3 CESS calculation.xls*, April 2018.

12 Essential Energy, *Response to information request 21*, 18 July 2018, p. 3.

13 NER cl. 6.12.1(9).

14 NER cl. 6.4.3(a)(5). Transitional arrangements in the NER excludes 2014–15, NER cl. 11.56.3(a)(3)

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 adjust 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 Essential.[16] In deciding whether to apply a CESS to Essential 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]

Broadly, 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.

9.3.1 Interrelationships

The approval of CESS payments/penalties determines the associated CESS building block and, therefore, Essential'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, Essential will face incentives that decline over the period.

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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).

That is, without applying the CESS, if Essential 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 Essential 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 Essential should receive a CESS payment of $69.1 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 the 2017–18 and 2018–19 regulatory years are estimates. The actual capex incurred by Essential 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.

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, Essential was subject to version 1 of the CESS Guideline. Our calculation of the CESS is in accordance with section 2.3 of this

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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).

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

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 Essential 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 increments we calculated ($69.1 million ($2018–19)) is different to the increment that Essential proposed ($59.5 million ($2018–19)) because of the following:

- We have used the updated CESS model, first adopted after Essential's submission, as part of the TransGrid final determination. This has a number of minor variations, set out below, to the original model used in Essential's proposal.
- We have used recently released actual inflation data for 2017-18

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

Updated CESS model

We have applied the updated CESS model, first adopted as part of the TransGrid final determination, to better take into account the timing of revenue recovery and changes to asset values. This model includes minor changes from the model described in the CESS guidelines. We noted that the updated model used for the TransGrid final decision would serve as the basis for subsequent regulatory determinations that use the same template.[30]

Essential's CESS proposal does not fully reflect our updated CESS model.

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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 capex will be used for the draft decision as actual capex for 2017–18 will not be available until after the draft decision.

29 AER, *Essential Energy 2019–24 CESS model*, October 2018.

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

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]

In applying the updated model we have made the following changes to Essential's proposed inputs:

- The financing benefit and the CESS payment to be made in the 2019–24 regulatory control period has been calculated based on the real WACC rather the nominal WACC. This has the effect of decreasing the financing benefit of any underspends and subsequently increasing the CESS payment.
- 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, Evoenergy 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. We have updated the CESS model to use actual inflation for 2017–18.

Deferrals

We do not consider that Essential's CESS payment should be adjusted for deferrals as it does not meet the materiality criteria set out in the CESS guidelines.

CCP10 noted that the AER may make an adjustment for exclusion of deferrals but stated it was unsure about the extent of deferrals that took place during the current regulatory control period.[33]

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[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.

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

In response to our information request, Essential noted that its $8.1 million ($2018–19) in deferrals represented 0.3 per cent of Essential's capex allowance for the 2019–24 regulatory control period.[34]

The CESS guideline does not explicitly define the materiality threshold and we must consider whether we should adjust the CESS payment on a case by case basis.

In this circumstance, we do not consider Essential's deferrals are material relative to its current period capex. As all three materiality criteria must be met before we adjust the CESS payment, we do not consider Essential's deferrals require us to adjust the CESS payment.

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.[35] 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[36], with the updated formulae set out in the TransGrid final determination[37], to Essential 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 Essential with a continuous incentive to pursue efficiency gains. This approach is consistent with Essential's regulatory proposal.[38]

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[34] Essential Energy, *Response to information request 21*, 18 July 2018, p. 3.

[35] AER, *Capital Expenditure Incentive Guideline for Electricity Network Service Providers*, November 2013,

[36] AER, *Capital Expenditure Incentive Guideline for Electricity Network Service Providers*, November 2013,

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

[38] Essential Energy, *2019–24 Regulatory Proposal*, April 2018, p. 43