



DRAFT DECISION

Powercor Distribution Determination 2021 to 2026

Attachment 9 Capital expenditure sharing scheme

September 2020

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Note

This attachment forms part of the AER's draft decision on the distribution determination that will apply to Powercor for the 2021–26 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 and demand management innovation allowance mechanism

Attachment 12 – Not applicable to this distributor

Attachment 13 – Classification of services

Attachment 14 – Control mechanisms

Attachment 15 – Pass through events

Attachment 16 – Alternative control services

Attachment 17 – Negotiated services framework and criteria

Attachment 18 – Connection policy

Attachment 19 – Tariff structure statement

Attachment A – Victorian f-factor incentive scheme

Contents

Note	9-2
Contents	9-3
9 Capital expenditure sharing scheme	9-4
9.1 Draft decision	9-4
9.2 Powercor’s proposal	9-5
9.3 Assessment approach	9-6
9.4 Reasons for draft decision	9-7
9.4.1 CESS revenue increments from the 2016–20 regulatory control period	9-7
9.4.2 Materiality assessment of adjustment mechanism.....	9-8
9.4.3 Application of CESS in the 2021–26 regulatory control period...	9-12
Shortened forms	9-14

9 Capital expenditure sharing scheme

The capital expenditure sharing scheme (CESS) provides financial rewards for network service providers whose capital expenditures (capex) becomes more efficient and financial penalties for those that become less efficient. Customers benefit from improved efficiency through lower regulated prices.

The CESS approximates efficiency gains and efficiency losses by calculating the difference between forecast and actual capex. It shares these gains or losses between service providers and consumers.

The CESS works as follows:

- We calculate the cumulative efficiency gains or losses for the current regulatory control period in net present value terms.
- We apply the sharing ratio of 30 per cent to the cumulative underspend or overspend to work out what the service provider's share of the underspend or overspend should be.
- We calculate the CESS payments taking into account the financing benefit or cost to the service provider of the underspend or overspend.¹ We can also make further adjustments to account for deferral of capex and ex post exclusions of capex from the regulatory asset base (RAB).²
- 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.

This attachment sets out our draft decision for the determination of the revenue impacts as a result of the CESS applying from the 2016–20 regulatory control period and the application of the CESS for Powercor in the 2021–26 regulatory control period.

9.1 Draft decision

Revenue impact for the 2021–26 regulatory control period

Our draft decision is to apply a CESS revenue increment amount of \$67.7 million (\$2020–21) to be paid across the 2021–26 regulatory control period, from the application of the CESS in the 2016–20 regulatory control period. This is a 12.8 per cent reduction from Powercor's forecast of \$77.6 million (\$2020–21).

¹ We calculate benefits as the benefits to the service provider of financing the underspend 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 overspend.

² 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.

Consistent with our proposed interim measures,³ the CESS will not apply over the 6 months between 1 January 2021 and 30 June 2021. As such, an increase (decrease) from the trended 6-months allowance is not included in our CESS revenue increment calculation.

The difference between our calculations and Powercor's proposal is due to our adoption of:

- an adjustment to account for the deferral of capex
- more recent inflation figures
- an updated weighted average cost of capital (WACC) input information
- changes to actual capex for consistency with the roll forward model (RFM) discussed in Attachment 2. The initial proposal included an estimate of 2019 capex. We have updated this to reflect actual 2019 capex.

Given the timing of our draft decision we will update our calculations in our final decision for updated inflation data, if available.

Application of scheme in 2021–26 regulatory control period

We will apply the CESS, as set out in the capital expenditure incentives guideline to Powercor in the 2021–26 regulatory control period.⁴ This is consistent with the proposed approach we set out in our framework and approach (F&A) paper.⁵

The reasons for adopting the CESS is set out in our capital expenditure incentive guideline.⁶

9.2 Powercor's proposal

Powercor proposed a CESS payment of \$77.6 million (\$2020–21) for the 2021–26 regulatory control period. This reflects an expected underspend of 15.1 per cent compared to the AER's regulatory allowance.

Powercor noted the primary reasons for its underspend are:

- delayed timing of REFCL works, more efficient targeting of HV feeder works and lower project delivery costs for augmentation expenditure (augex)
- for poles and pole top structures (in replacement expenditure (repex)), a new pole management approach as well as lower required replacements than initially forecast.⁷

³ AER, *Correspondence to Powercor - Victorian EDPR and the six-month extension*, 17 August 2020.

⁴ NER, cl 6.12.1(9); AER, *Capital Expenditure Incentive Guideline for Electricity Network Service Providers*, November 2013, pp. 5–9.

⁵ AER, *Final framework and approach AusNet Services, CitiPower, Jemena, Powercor and United Energy Regulatory control period commencing 1 January 2021*, January 2019, pp. 84–85.

⁶ AER, *Better regulation explanatory statement capital expenditure incentive guideline for electricity network service providers*, November 2013.

Powercor considered its underspend should not give rise to an adjustment to the CESS as its deferrals have not led to a materially higher capex forecast in the 2021–26 regulatory control period.

9.3 Assessment approach

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

- whether or not to apply the CESS to Powercor in the 2021–26 regulatory control period and how any applicable scheme will apply;⁸ and
- the revenue effects on Powercor arising from applying the CESS in the 2016–20 regulatory control period.

Our assessment approach is set out below.

We must determine the appropriate revenue increments or decrements (if any) for each year of the 2021–26 regulatory control period arising from the application of the CESS during the 2016–20 regulatory control period.⁹ Next, we assess whether any adjustments should be made to the CESS for deferred capex in accordance with the capital expenditure incentive guideline. Finally, we make adjustments based on updated modelling inputs.

The NER requires that our draft decision include a determination on how any applicable CESS should apply to Powercor.¹⁰ In deciding whether to apply the CESS to Powercor for the 2021–26 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 objective¹¹
- take into account the CESS principles,¹² the capex objectives and if relevant the operating expenditure (opex) objectives,¹³ the interaction with other incentive schemes¹⁴ as they apply to the particular service provider, and the circumstances of the service provider.¹⁵

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.

⁷ Powercor, *Information request 54 – Q1-3*, 20 July 2020, pp. 1–4.

⁸ NER, cl. 6.12.1(9).

⁹ NER, cl. 6.4.3(a).

¹⁰ NER, cl. 6.12.1(9).

¹¹ NER, cl. 6.5.8A(e)(3); the capex incentive objective is set out in cl. 6.4A(a) of the NER.

¹² NER, cl. 6.5.8A(e)(4)(i); the CESS principles are set out in cl.6.5.8A(c).

¹³ 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).

¹⁴ NER, cll. 6.5.8A(e)(4)(i) and 6.5.8A(d)(1).

¹⁵ NER, cl. 6.5.8A(e)(4)(ii).

9.4 Reasons for draft decision

9.4.1 CESS revenue increments from the 2016–20 regulatory control period

Our draft decision is to reduce Powercor's CESS revenue increment by \$9.9 million to account for \$32.9 million (\$2020–21) in re-proposed capex that is included in our substitute capex forecast for pole replacements (\$24.1 million) and transformers (\$8.9 million). We have also adjusted for modelling inputs such as CPI, reported capex and the WACC to reflect more up to date information.

Our position was also informed by stakeholder comments. Several stakeholders expressed concerns regarding the scheme's transparency, and the incentives for distributors to overestimate capex. For example, Origin Energy,¹⁶ EnergyAustralia,¹⁷ ECA¹⁸ and the AER's Consumer Challenge Panel, sub-panel 17 (CCP17)¹⁹ all commented on the lack of clarity as to whether under-expenditure during the current period was due to genuine efficiency gains, or due to a combination of happenstance, poor/over-forecasting or the inability to obtain project approvals. The stakeholders posit that the CESS is potentially not rewarding efficient behaviour but rather gaps between forecast effort and actual delivery.²⁰

We also recognise the serious concerns that several stakeholders have on the operation of the CESS for all distributors. For example, the CCP17 submitted²¹ that distributors are incentivised to overestimate their future network capacity. In this regard, we are currently scoping a broad review of incentive schemes that will look into the concerns raised by the CCP17 and other stakeholders.

The capital expenditure incentive guideline notes that we will address any over forecasting issues as part of our capex assessment. We note that despite a significant underspend in the current regulatory control period, Powercor forecasted a 21 per cent increase in its capex above its current period spend for the 2021–26 regulatory control period.

In accordance with the capital expenditure incentive guideline, we will adjust the CESS in situations where a distributor has capex deferrals in the current regulatory control and:²²

¹⁶ Origin Energy, *Submission to Victorian electricity distributors regulatory proposals*, June 2020, p. 6.

¹⁷ EnergyAustralia, *Victorian Electricity Distribution Determinations 2021–26 – regulatory proposals – 31 January 2020*, June 2020, p. 8.

¹⁸ ECA, *Victorian Electricity Distributors Regulatory Proposals 2021–26*, June 2020, Attachment 1, p. 32.

¹⁹ CCP17, *Advice to the AER on the Victorian Electricity Distributors' Regulatory Proposals for the Regulatory Determination 2021–26*, June 2020, p. 65.

²⁰ ECA, *Victorian Electricity Distributors Regulatory Proposals 2021–26*, June 2020, pp. 16-17.

²¹ CCP17, *Advice to the AER on the Victorian Electricity Distributors' Regulatory Proposals for the Regulatory Determination 2021–26*, June 2020, p. 68.

²² AER, *Capital Expenditure Incentive Guideline for Electricity Network Service Providers*, November 2013, p. 9.

1. The amount of the estimated underspend in capex in the current regulatory control period is material; and
2. The amount of the deferred 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.

The next section (section 9.4.2) sets out our analysis of each of these criteria, and reasons why in this case, these have been satisfied.

More information on our capex assessment is in Attachment 5.

9.4.2 Materiality assessment of adjustment mechanism

Powercor identified \$334.3 million (\$2020–21) in capex savings in the current regulatory control period.²³ It proposed a CESS reward of \$77.6 million.

We are satisfied that there is a material underspend, deferral and repropoed capex to adjust Powercor's proposed CESS payment. Our draft decision is to apply an adjustment of \$9.9 million to lower its CESS reward to \$67.7 million.

While we consider certain projects in determining our substitute estimate, we do not determine which programs or projects a distributor should or should not undertake. Once we set a forecast, it is up to Powercor to prioritise its capex program within the total capex forecast given its circumstances, which are subject to change, over the course of the regulatory control period. However, in the circumstances of a significant underspend compared to the final decision forecast, we have had regard to Powercor's performance against its 2016–20 forecast as key indicators to understand whether there is a material deferral.

Assessment of underspend

Powercor submitted that its underspend is due to a variety of reasons, including exemptions from regulatory obligations (an Energy Safe Victoria (ESV) exemption), a change in its demand forecasting tool and savings from greater efficiencies in project delivery.²⁴

We are satisfied that an underspend of \$334.3 million is material relative to Powercor's allowance of \$2092 million (\$2020–21).

The purpose of assessing whether the underspend is material is to ensure that a network has the flexibility to respond to changing circumstances within a regulatory control period. This means that a network retains an incentive to efficiently defer some

²³ Powercor, *PAL APP02 - What we have delivered*, January 2020, p. 4.

²⁴ Powercor, *Information request 54 – Q1-3*, 20 July 2020, pp. 1-4.

projects and to bring other projects forward. This ensures that we do not only examine the projects that Powercor has deferred without also considering whether Powercor has brought forward efficient capex.

We are satisfied that in this circumstance, given the size of the underspend, that Powercor has not rebalanced its capex. Rather, its underspend is a due to mixture of efficiency gains, exemptions from regulatory obligations and deferrals²⁵ which has resulted in a material underspend.

Assessment of deferral

Powercor's proposal identified \$8.9 million in deferred and repropose capex for three transformers.²⁶ In response to our information request on all deferrals, including those beyond the 2021–26 regulatory control period, Powercor did not identify any additional deferrals.

We also assessed deferrals in poles repex. Given Powercor's material underspend of 35 per cent in poles repex, as well as a significant forecasted step up of 256 per cent compared to actual spend, we undertook a closer review of possible deferral in this asset category.

As Powercor reduced its unit costs over the current period due to its transformation program which it should be rewarded for, we have sought to understand whether the underspend is purely a result of a reduction in unit costs alone, or whether it was due to a difference between actual and forecast volumes.

Approximately 24.5 per cent of Powercor's underspend is attributed to deferrals from our analysis of poles and transformers repex. Based on the limited information provided by Powercor and our total capex forecast approach, which does not necessarily identify all approved projects in the current regulatory control period, it is unclear whether there has been a material deferral in other capex categories. However, we are satisfied the deferrals we have identified for poles and transformers repex are material.

Volumes analysis

We are satisfied that Powercor's volume deferrals for transformers and wood poles was material over the current period.

Our analysis indicates that Powercor's current period volume of asset replacement is materially below current period forecasted volumes. This is particularly apparent for its poles and transformers replacement volumes. Powercor is expected to replace approximately 10 471 poles in the current period, which is 49 per cent lower than its 2016–20 forecast (15 616 pole replacements).²⁷ Further, Powercor replaced 1 614

²⁵ Powercor, *Information request 54 – Q1-3*, 20 July 2020.

²⁶ Powercor, *PAL APP02 - What we have delivered*, January 2020, p. 15.

²⁷ AER, *Preliminary decision Powercor - Repex model (calibrated lives - historical unit costs)* - October 2015.

transformers, which is 61 per cent lower than its 2016–20 volumes included in the capex forecast. These materially lower replacement volumes have contributed significantly to Powercor's overall underspend in the current regulatory control period relative to its capex allowance. We are satisfied that the deferral of poles and transformers repex is material as it has contributed approximately 24.5 per cent (\$82 million) to Powercor's total underspend. Further, we note that the deferred amount is also material relative to Powercor's actual and estimated transformers and poles repex over the current regulatory control period, comprising 69 per cent of approximately \$142.5 million.

While Powercor attributes some of this underspend to efficiency improvement and efficient deferral, we are satisfied that due to the type of capex, being repex which is generally recurrent in nature, a reduction in volumes is indicative of capex deferrals. Further we note that, when estimated unit cost efficiencies are taken into account, poles and transformers' volume deferrals still contribute about 19.6 per cent (\$65 million) to Power's total underspend. In either case, we are satisfied that these volume deferrals are material.

Consequence of Powercor's previous wood pole management practices

For poles repex, we have also considered Powercor's particular circumstances. In this case, we are satisfied that the consequences of Powercor's previous wood pole inspection practices, which led to a reduction in poles intervention in the current period, to be material.

The ESV's 2019–20 review of Powercor's wood pole management practices was initiated due to concerns that its practices would not deliver sustainable outcomes. Its most recent report recommended improvements to Powercor's wood pole management practices across all of its service area.²⁸

Over 2016–2019, failure rates have exceeded Powercor's performance target in three out of four years. Powercor noted that "the majority of these failures occurred in the northern region of Powercor in both serviceable and Added Control (AC) Serviceable poles averaging 52 years of age."²⁹ We observe that the higher failure rates coincide with decreasing intervention volumes between 2015 and 2018 due to lower "find-rates" of unserviceable or added-control serviceable poles.

As noted by the ESV, the consequences of Powercor's previous wood pole inspection practices, have had serious community-wide impacts:³⁰

²⁸ See, Energy Safety Victoria, 2018, Garvoc Fire (the Sisters), Technical investigation report, 17 March 2018; and Energy Safe Victoria, Powercor sustainable wood pole safety management - Detailed Technical report, December 2019, pp. 79-81.

²⁹ ESV, *Powercor – Wood Pole Management, Sustainable Wood Pole Safety Management approach – Detailed Technical report*, December 2019, p. 102.

³⁰ Energy Safe Victoria, *Powercor sustainable wood pole safety management - Detailed Technical report*, December 2019, p10.

Started by electricity assets, the fires destroyed a significant amount of property and livestock leaving property owners fearful that further fires may occur. Several community members questioned the adequacy of Powercor's maintenance regime, particularly its inspection and pole replacement practices.

We are therefore satisfied that the consequences of Powercor's previous wood pole inspection and management practices are particularly material in terms of its impact on achieving sustainable safety outcomes.

Circumstances around the transformer repex deferral

We are not satisfied with Powercor's reasoning for its deferral of its transformer repex.

Powercor submits that it was reasonable for it to defer the replacement of the transformers based on its risk monetisation model. This is despite the fact that the model, provided as part of the regulatory proposal to support the replacement of same three transformers in the forecast period, indicates an optimal timing of 2019.³¹

When we questioned Powercor as to why it did not replace these transformers according to its risk monetisation's optimal timing, Powercor stated that it had regard to the risk monetisation as a factor, however, it looks to the development of a balanced works program when replacing its transformers in reality.³² This indicates that Powercor did not solely rely on its risk monetisation to determine replacement timing of its transformers, as previously stated.

Powercor has not provided a satisfactory explanation, including credible reasons, for the deferral of its transformer repex. It is important that distributors provide robust and credible reasons for any deferrals.

Assessment of the effect of deferred capex on approved forecast

We are satisfied that the deferred capex of \$32.9 million included in our substitute capex estimate is material, and that the capex forecast is materially higher than it is likely to have been if the capex was not deferred in the current regulatory control period.

The majority of the deferred capex relates to Powercor's poles repex. We note that had Powercor not deferred \$25.3 million of its poles repex, consumers would not have had to fund Powercor in the forecast period for poles interventions it should have undertaken in the current period. Our approved forecast for Powercor's poles repex includes a "back-log" of \$25.3 million to take account of the need to provide Powercor with necessary funds for it to improve its wood pole inspection and management

³¹ Powercor's own modelling show that the optimal timing is 2019 and use the risk modelling to support the replacement of these transformers over the forecast period. Powercor, MOD4.13 - RVL transformer no.1, January 2020, public, Powercor, MOD 4.14 - RVL transformer no.2, January 2020, public and Powercor, MOD 4.05 - WBL transformer no.3, January 2020.

³² Powercor, *Response to information request 38 - historical RIN data and transformer repex*, 16 June 2020.

practices so that it can bring its pole intervention levels to a more sustainable level. As noted by the ESV:³³

The wood pole management system in place in March 2018, at the time of The Sisters fire at Garvoc, would not deliver sustainable safety outcomes for the future.

Consistent with previous decisions, we acknowledge the need to fund businesses to address network risk, especially safety-related risk. In particular, we note the ESV's findings and recommendations to improve Powercor's wood pole inspection and management practices. We therefore consider that the inclusion of the "back-log" of \$25.3 million into Powercor's approved total capex allowance can have a material impact on it achieving its service level including safety level outcomes.

As we are satisfied that the inclusion of the deferred poles repex into Powercor's approved total capex allowance is materially higher than had the poles repex not been deferred, it follows that the addition of \$8.9 million in deferred transformers repex into the approved total capex allowance satisfies the materiality threshold.

Updates for final decision

We note the adjustment reflects our draft decision capex substitute. Any changes to our final decision capex forecast for deferred and repropoed capex would be reflected in our final decision CESS assessment.

9.4.3 Application of CESS in the 2021–26 regulatory control period

The Victorian Government (DELWP) submitted, as part of our F&A consultation, that the CESS should be not applied for the 2021–26 regulatory control period, or that we apply the CESS only where we can confidently correct for over-forecasting.³⁴ DELWP's submission reflected similar concerns by the aforementioned stakeholders.

In our F&A paper, we noted that we would continue to apply the CESS for the 2021–26 regulatory control period.³⁵ We have maintained this position.

We consider that the CESS is needed to provide Powercor with a continuous incentive to pursue efficiency gains.³⁶ This approach is consistent with Powercor's proposal.³⁷ We also note that ex ante measures are the primary means to reveal efficient costs

³³ Energy Safe Victoria, *Powercor sustainable wood pole safety management - Detailed Technical report*, December 2019, p. 14.

³⁴ DELWP, *Submission on Victorian Preliminary Framework and Approach 2021–25*, 29 October 2019, p. 2.

³⁵ AER, *Final framework and approach AusNet Services, CitiPower, Jemena, Powercor and United Energy Regulatory control period commencing 1 January 2021*, January 2019, pp. 83-86.

³⁶ AER, *Final framework and approach AusNet Services, CitiPower, Jemena, Powercor and United Energy Regulatory control period commencing 1 January 2021*, January 2019, pp. 83-86.

³⁷ Powercor, *Regulatory Proposal 2021–26*, January 2020, p. 148.

over time. The CESS provides a relatively strong incentive to reveal this expenditure and provides a good indicator of future costs.³⁸ Given the greater incentive to incur efficient capex, we consider actual capex spent is a key indicator of identifying and over-forecasting bias. This is reflected in both our top down and bottom-up category specific analysis, which we discuss in further detail in Attachment 5. We consider our draft decision addresses over-forecasting of capex and we consider future capex outcomes under a CESS are an important source of information to assist with capex assessments in future regulatory control periods.

Therefore, we will apply the CESS to Powercor in the 2021–26 regulatory control period.

However, as noted above, we consider the operation of the CESS can be improved through the future review of the CESS guideline as part of a broader incentive review currently being scoped.

³⁸ AER, *Better regulation explanatory statement capital expenditure incentive guideline for electricity network service providers*, November 2013, p. 13, p .50.

Shortened forms

Shortened form	Extended form
AER	Australian Energy Regulator
augex	augmentation expenditure
capex	capital expenditure
CCP17	Consumer Challenge Panel, sub-panel 17
CESS	capital expenditure sharing scheme
CPI	consumer price index
distributor	distribution network service provider
ECA	Energy Consumers Australia
ESV	Energy Safe Victoria
F&A	framework and approach
NER	National Electricity Rules
opex	operating expenditure
REFCL	Rapid Earth Fault Current Limiters
repex	replacement expenditure
RFM	roll forward model
WACC	weighted average cost of capital