Final Decision

Essential Energy Electricity Distribution Determination 2024 to 2029

(1 July 2024 to 30 June 2029)

Attachment 20
Metering services

April 2024

AUSTRALIAN ENERGY REGULATOR

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List of attachments

This attachment forms part of the AER's final decision on the distribution determination that will apply to Essential Energy for the 2024–29 period. It should be read with all other parts of the final decision.

As a number of issues were settled at the draft decision stage or required only minor updates, we have not prepared all attachments. The final decision attachments have been numbered consistently with the equivalent attachments to our draft decision. In these circumstances, our draft decision reasons form part of this final decision.

The final decision includes the following documents:

Contents

20 Metering services

This attachment sets out our final decision for the 2024–29 regulatory control period (2024–29 period) for type 5 (interval) and type 6 (accumulation) metering services for assets owned by Essential Energy.

Metering services include the maintenance, reading, data services, and the recovery of capital costs related to meters. Since the introduction of the Power of Choice reforms on 1 December 2017, Essential Energy is no longer responsible for installation of new meters and may not install any type 5 or type 6 meters from 1 April 2018. We are responsible for setting prices for Essential Energy's metering services.

Metering assets are used to measure electrical energy flows at a point in the network to record consumption for the purposes of billing. Not all customers have the same type of meter. There are different types of meters which measure electricity usage in different ways:[1]

- Type 1 to 4 meters have a remote communication ability. We refer to these as smart meters. Type 1 to 4 metering services are contestable and therefore not regulated.
- Type 5 meters are interval meters and Type 6 meters are accumulation meters. We refer to these as legacy meters, which are being progressively replaced by smart meters.
- Type 7 metering services are unmetered connections with a predictable energy consumption pattern (for example, public lighting connections). Type 7 metering services are a monopoly provided service and are covered by our determination on standard control services.

Distributors also provide some non-routine metering services which are charged to customers when requested, such as meter disconnection. These non-routine metering services are fee-based Ancillary Network Services, which are discussed in attachment 16.

This attachment:

- Provides a background to recent changes affecting metering services, including the decision framework, and the impacts of the Australian Energy Market Commission's (AEMC) metering review on this final decision (section 20.1). It applies to our determinations for all distributors in New South Wales, Australian Capital Territory and Tasmania.
- Sets out our final decision (section 20.2), which draws on the reasons in Appendix A.
- Summarises Essential Energy's revised proposal (section 20.3).
- Sets out the reasons for our final decision (Appendix A).

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1 AER, *Final framework and approach for Ausgrid, Endeavour Energy and Essential Energy for the 2024–29 regulatory control period,* July 2022, pp. 28–29.

20.1 Background

20.1.1 Transition to smart metering

The 2017 Power of Choice reforms removed the distributors' ability to provide new meters to customers and intended to introduce competition for providing and servicing meters by other meter providers in the NEM.[2] New standards mean only smart meters (mostly type 4 meters for residential customers) with remote communications may now be installed.

The take up of smart meters across the NEM has generally been slow. Essential Energy has forecast a legacy meter population of nearly 590,000 meters in 2023–24, being 45% of the legacy metering asset base when the reforms were introduced.[3]

In August 2023, the AEMC completed its review of the regulatory framework for metering services (the metering review). The AEMC review looked at how to expedite the uptake of smart meters. The AEMC's report noted that smart meters provide whole-of-system benefits which should be realised as soon as possible.[4]

As such, the metering review recommended a target of universal take-up of smart meters by 2030 in NEM jurisdictions. This recommendation would have the most impact in New South Wales, the Australian Capital Territory, Queensland and South Australia. Tasmania has a program in place to accelerate smart meter deployment by 2026. Victoria has already achieved a near universal uptake of smart meters.[5]

To achieve this outcome, the AEMC proposed a framework where the distributors develop legacy meter retirement plans (LMRPs) in consultation with retailers, metering parties, and other stakeholders. It is envisaged the LMRPs will schedule bulk meter replacements (retailers to replace legacy meters with smart meters) on a geographical basis to leverage economies of scale. Customers may have little choice as to when their legacy meter will be replaced as it will be determined by the distributors and other providers.

If distributors maintained the 2019–24 settings for metering services with costs allocated to a declining customer base, customers with meters replaced later in the deployment may be charged inequitably higher costs for metering services than customers with meters replaced earlier, even though there is no change in the service they receive. This arises because:

- Large fixed-cost base will be recovered over a rapidly declining number of customers (e.g. systems and IT, base labour force).
- Per unit costs to read a meter increase as it is further to travel between each meter.
- Some costs that are necessary for the transition, such as site remediation, may also occur within the 2024–29 period. As the rate of replacement increases, more of the sites requiring remediation will be brought forward into the 2024–29 period.

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2 This does not apply to the Northern Territory and Victorian customers who are covered by state regulation that places responsibility for metering with the distributors.

3 Essential Energy, *13.02.06 Standardised Metering Pricing Model*, January 2023; Essential Energy, *11.01 Metering Capex and Opex Model*, November 2023.

4 AEMC, *Final report Metering review*, August 2023, p.13.

5 AEMC, *Final report Metering review*, August 2023, p. iii.

20.1.2 Our draft decision

Our draft decision had regard to the metering review and how to address potential inequity in metering service costs as a result of the metering transition. It applied the following regulatory settings:

- The service classification as alternative control services (ACS) is retained.
- The price cap form of control is retained, which sets the maximum fixed prices distributors can charge per customer.
- The price caps are set with the expectation that distributors will recover costs from all low voltage customers who have had a legacy meter, instead of an ever-decreasing population of customers with legacy meters.
- The price caps are set to recover the revenue requirement as a whole (one price), rather than separate capital and non-capital components for recovery from different customer bases as per the approach in the 2019–24 period.
- The legacy metering asset base is subject to accelerated depreciation to fully depreciate the asset base within the 2024–29 period. This reflects a change in the remaining life of the assets due to the metering review.
- An assumption that the meter replacement rate will accelerate along a straight line from 2025 to achieve 100% deployment at the end of the 2029–30 financial year.[6]

The central goal of the draft decision was to ensure that potentially vulnerable customers are protected from rising costs. This change ensured no customer is worse off due to when their legacy meter is replaced. However, we recommended distributors reclassify legacy metering services as standard control services (SCS) with costs recovered through the revenue cap because it is likely to reduce material price impacts for customers through the metering transition. Contribution by all customers is appropriate as all energy users will recognise the network benefits of this transition.

We considered the recommendations of the metering review to be a material change in circumstances that supports a departure from the final framework and approach (F&A).[7] We encouraged the distributors to engage with stakeholders in considering potential changes in classification and form of control for their revised proposals. We considered it important that a reclassification of metering services as SCS would need to retain the current level of transparency through the continued use of the standardised metering models.

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6 We set this path based on the best information available to us at the time of our draft decision. We expect actual rates of replacement to be different to this linear path, and for some exceptions to be made for meters with complicating factors.

7 AER, *Final framework and approach for Ausgrid, Endeavour Energy and Essential Energy for the 2024–29 regulatory control period*, July 2022, p. 29.

20.2 Final decision

Our final decision is to not accept Essential Energy's revised proposal as submitted. Based on our analysis, our final decision is to:

- Accept Essential Energy's revised metering capex. We apply updated actual and forecast inflation and inputs related to the 2022 rate of return instrument.[8]
- Substitute our forecast metering opex, particularly relating to the step and trend components. We apply updates to labour cost escalation and inflation.
- Substitute our annual revenue requirement, which applies our substitute inputs as noted above.
- Accept Essential Energy's reclassification to SCS and revenue cap calculation for legacy metering services which reflects the recovery of costs through a flat per customer charge to low voltage (LV) customers, regardless of customer, tariff, or meter type.

20.3 Essential Energy's revised proposal

Essential Energy followed our draft decision recommendation and revised its proposal to reclassify legacy metering services as SCS and regulated under a revenue cap (see Appendix A.1).

As the provision of these services is subject to the progressive retirement of legacy meters Essential Energy's proposal is based on an accelerated rate of replacement. Essential Energy proposed to retire 75% of its legacy meters, leaving around 147,000 legacy meters in place in 2028–29.[9]

20.3.1 Metering revenue

Essential Energy proposed a total smoothed annual revenue requirement of $286.7 million ($nominal) for the 2024–29 period.[10] To determine its proposed revenue requirement Essential Energy used the AER's standardised metering models which applies the building block approach to determine allowable revenue. Essential Energy's proposed annual revenue requirement and building blocks are set out in Table 20.1.

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8 AER, *Rate of Return Instrument 2022*. The 2022 Rate of Return Instrument was amended in August 2023. See https://www.aer.gov.au/publications/guidelines-schemes-models/rate-of-return-instrument-2022/final-decision.

9 Essential Energy, *2024–29 Revised Regulatory Proposal*, November 2023, p. 54; Essential Energy, 11.01 *Metering Capex and Opex Model*, November 2023.

10 Essential Energy, *11.04 Revised Metering Post-Tax Revenue Model*, November 2023.

Table 20.1 Essential Energy's proposed building blocks and annual revenue requirement ($million, nominal)

Building block component	2024–25	2025–26	2026–27	2027–28	2028–29	Total
Return on capital	4.7	4.1	3.3	2.3	1.3	15.7
Return of capital (regulatory depreciation)	14.3	19.3	19.9	20.3	21.5	95.3
Operating expenditure	32.7	37.2	35.4	34.8	27.7	167.8
Revenue adjustments	-	-	-	-	-	-
Net tax allowance	1.5	1.6	1.6	1.7	1.8	8.1
Annual revenue requirement (unsmoothed)	**53.2**	**62.3**	**60.2**	**59.1**	**52.3**	**287.0**

Source: Essential Energy, 11.04 *Revised Metering Post-Tax Revenue Model*, November 2023.

20.3.1.1 Capex

Essential Energy proposed total net capex of $15.9 million ($2023–24) for the 2024–29 period.[11] This includes the cost of assets such as depots and communications technology which enable Essential Energy to deliver these services.[12] Essential Energy did not propose any direct capex because direct capex relates to investment in new assets and Essential Energy is not allowed to install new meters.

20.3.1.2 Opex

Essential Energy's proposed opex of $154.9 million ($2023–24) for the 2024–29 period includes the costs of performing routine meter reading, maintenance and other support activities.[13] Essential Energy developed its opex forecast using the 'base-step-trend' approach, consistent with the standardised models, the approach for SCS, and the approach used in the 2019–24 period. Essential Energy proposed a $21.4 million ($2023–24) step change to its metering operating expenditure for meter remediation works that individual customers could not be reasonably expected to pay. These include:[14]

- $12.3 million ($2023–24) for remediation of meter boxes on poles
- $8.8 million ($2023–24) for relocating current transformers on cross arms
- $0.3 million ($2023–24) for single-phase metering on multiphase sites.

Essential Energy did not explicitly propose step changes for developing and implementing a LMRP or reduced inspection and testing costs over the 2024–29 period as these two cost changes are expected to fully offset each other.[15]

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11 Essential Energy, 11.04 *Revised Metering Post-Tax Revenue Model*, November 2023.

12 A relevant allocation of this indirect capex to legacy metering services is calculated in line with Essential Energy's applicable Cost Allocation Methodology.

13 Essential Energy, *11.04 Revised Metering Post-Tax Revenue Model*, November 2023.

14 Essential Energy, *2024–29 Revised Regulatory Proposal*, November 2023, p. 57.

15 Essential Energy, *2024–29 Revised Regulatory Proposal*, November 2023, p. 8.

To establish the trend in opex over the 2024–29 period, Essential Energy applied the following factors:[16]

- declining number of meters
- real price changes in labour costs
- an adjustment reflecting the growing diseconomies of scale.

20.3.1.3 Regulatory depreciation

Essential Energy accepted our draft decision to accelerate depreciation for legacy meters by adjusting the remaining metering asset life to 5 years in their revised proposal. The forecast closing metering regulatory asset base is a mix of metering and shared assets, totalling $2.5 million ($nominal).[17]

20.3.2 Pricing

Essential Energy proposed to calculate its revenue cap for legacy metering services using the building blocks from the post tax revenue model (PTRM). The model determines the relevant revenue cap to be recovered from small LV customers through a flat per customer charge.

It also proposed to recover legacy metering costs as an adjustment to non-metering SCS revenues.

16 Essential Energy, *11.01 Metering Capex and Opex Model*, November 2023.

17 Essential Energy, *11.04 Revised Metering Post-Tax Revenue Model*, November 2023.

A Reasons for final decision

A.1 Classification and form of control

Our final decision accepts Essential Energy's revised proposal to reclassify metering as SCS and recover costs through the revenue cap form of control. For all subsequent years of the 2024–29 period, revenues will be adjusted by the applicable control mechanism formula set out in Attachment 14. This mechanism adjusts revenue caps annually for inflation, an X factor, and any relevant adjustments. Essential proposes that metering costs would be recovered through a flat per customer charge to LV customers, regardless of customer, tariff, or meter type.

In our Final F&A, we classified legacy metering services as ACS and noted we would depart from these settings if the metering review constituted a "material change in circumstances". As such, the ACT, NSW and TAS distributors' initial proposals were based on F&A settings and subject to change based on the outcomes of the AEMC's metering review.[18] The AEMC's metering review has resulted in a material change in circumstances, due to the requirement to replace all legacy meters by 2030 and the changes to regulated expenditure to support the metering transition.

As noted in section 20.1.1, if distributors did not revise their metering cost recovery settings from their initial proposals, some customers could have experienced inequitable price increases as more meters are replaced. As such, our draft decision expressed a preference for distributors to reclassify metering as SCS to mitigate inequitable price increases to individual customers by recovering costs across a wider customer base.

In response to our draft decision and the revised proposal, the Public Interest Advocacy Centre (PIAC) requested that Essential Energy should:

- recover legacy metering costs from all customers, not just low voltage customers, through SCS
- recover legacy metering costs proportionally, as opposed to a flat price
- not be allowed to accelerate the depreciation of its legacy metering asset base[19]

We accept Essential Energy's revised proposal to reclassify metering as SCS which enables it to recover metering costs from all low voltage customers. This approach mitigates inequitable price increases over the 2024–29 period, supports the transition to the whole-of-system benefits that smart meters will provide and is supported by PIAC and Essential Energy's primary stakeholder reference group, the Stakeholder Collaboration Collective

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18 AEMC, *Final report Metering review*, August 2023.

19 PIAC, *Submission on the NSW revised proposals and draft decisions 2024–29*, February 2024.

(SCC).[20] The SCC expressed a preference for a proportional increase to the access charge for all customers.[21]

PIAC also preferred Essential Energy to recover metering costs from all customers (not just low voltage customers), however the NER precludes this. The pricing principles do not allow metering costs to be recovered from tariff classes that did not previously have legacy meters.[22]

We also accept Essential Energy's revised proposal to recover metering costs through a flat per customer charge to low voltage customers.

In response to PIAC's submission, we requested Essential Energy provide further analysis on whether its proposal provided the best outcome for relevant customers, and whether a better outcome could be achieved with proportional prices. Essential Energy's analysis showed that a flat $58 per year price results in the most equitable outcome across the broad consumer base. While proportional costs may result in slightly lower charges for residential customers ($50 per year from 2024–25 compared to the $55 in 2023–24), small businesses would experience higher charges ($85 per year from 2024–25 compared with $42 in 2023–24).[23] We accept this approach as we consider that having the lowest average adverse price impact to be the best outcome for customers.

We require Essential Energy to report metering charges separately in its annual pricing proposals to maintain this transparency. Our final decision is consistent with our metering guidance note which is that legacy metering costs are to be recovered separately.[24] We consider that transparency of the recovery of metering costs over the 2024–29 period for stakeholders is important.

A.2 Smart meter deployment rates

Our final decision accepts the legacy meter replacement rates as proposed. Essential Energy's revised proposal substituted our assumptions of business-as-usual replacements before a steep increase in replacements from 2025–30 with a 100% replacement rate by 2030. Instead, it updated its forecasts for the current observed increase in replacements and a less steep trend to reflect difficulties in installation such as lower customer density and a greater number of remote sites, a higher ratio of sites requiring remediation and a higher proportion of pole mounted meter boxes which are more complex and costly to replace.[25]

We consider Essential Energy's revised forecast to be prudent and reduces the risk of windfall gains or losses over the 2024–29 period. Also, section A.8 of this document explains

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20 Consumer Challenge Panel 26, *CCP26 Advice to AER re 2024–29 Essential Energy Revised Regulatory Proposal and AER Draft Decision*, January 2024, pp. 4 & 12.

21 Consumer Challenge Panel 26, *CCP26 Advice to AER re 2024–29 Essential Energy Revised Regulatory Proposal and AER Draft Decision*, January 2024, pp. 12.

22 NER, cl. 6.18.5(g)(1).

23 Essential Energy, *Information request ESS IR#060 – Legacy Metering, 20240312*, 17 March 2024.

24 AER, *Legacy metering services - guidance for revised proposals*, November 2023.

25 Essential Energy, *2024–29 Revised Regulatory Proposal*, November 2023, p. 54.

how we will reduce misalignment in revenues caused by the projected and actual smart meter deployment rates through the metering opex true-up mechanism.

A.3 Annual revenue requirement

Our final decision is for a total smoothed annual revenue requirement (ARR) of $287.7 million ($nominal) for Essential Energy over the 2024–29 period.[26] This is an increase of $1.06 million ($nominal) or 0.37% from Essential Energy's revised proposal total ARR of $286.7 million ($nominal) for this period. This reflects the impact of our final decision on the various building block costs.

Table A.1 Annual revenue requirement (unsmoothed, $million, nominal)

Annual revenue requirement	2024–25	2025–26	2026–27	2027–28	2028–29
Essential Energy initial proposal	38.5	39.2	39.8	40.2	40.7
Draft decision	45.4	48.1	47.2	45.0	40.4
Essential Energy revised proposal	53.2	62.3	60.2	59.1	52.3
Final decision	53.3	62.3	60.1	58.9	52.0

Source: Essential Energy, 13.02.03 *Metering Post-Tax Revenue Model*, January 2023; AER, *Draft decision - Essential Energy distribution determination 2024–29 - Metering PTRM*, September 2023; Essential Energy, *11.04 Revised Metering Post-Tax Revenue Model*, November 2023; AER, *Final decision - Essential Energy distribution determination 2024–29 - Metering PTRM*, April 2024.

We assessed Essential Energy's metering proposal by analysing the metering PTRM and the roll-forward model (RFM). In doing this we had regard to the outcomes of the AEMC's metering review which might affect inputs into the elements of the PTRM and RFM.

The AER's PTRM calculates the ARR for each year of the 2024–29 period. This unsmoothed ARR for each year is the sum of the building block costs.

Table A.2 shows the total building block costs that form the ARR and where discussion on the elements that drive these costs can be found within this final decision.

Our final decision applies a real flat price path for years 2–5. This is done by applying 0% X factors in these years. This means that any real price movement is applied in the 2024–25 year. We consider this provides the most certainty and will best support the likely increases in metering costs in the retail component as the rollout is delivered.

[26] AER, *Final decision - Essential Energy distribution determination 2024–29 - Metering PTRM*, April 2024.

Table A.2 Metering building block components ($million, nominal)

Building block component	Total – Essential Energy's revised proposal	Total – final decision	Section where element is discussed
Return on capital	15.7	15.9	A.5
Return of capital (regulatory depreciation)	95.3	95.3	A.6
Operating expenditure	167.8	167.2	A.8
Revenue adjustments	-	-	-
Net tax allowance	8.1	8.2	-
Revenue requirement	**287.0**	**286.5**	**A.3**

Source: Essential Energy, *11.04 Revised Metering Post-Tax Revenue Model*, November 2023; AER, *Final decision - Essential Energy distribution determination 2024–29 - Metering PTRM*, April 2024.

A.4 Regulatory asset base

Our final decision accepts Essential Energy's asset roll forward and calculation method, but we have substituted values based on updated final decision inflation inputs.

The value of the regulatory asset base (RAB) impacts Essential Energy's revenue requirement, and the price consumers ultimately pay. Other things being equal, a higher RAB would increase both the return on capital and return of capital (depreciation) components of the distribution determination. This final decision sets out:

- the opening RAB as at 1 July 2024
- the forecast closing RAB as at 30 June 2029
- a profile of accelerated depreciation as set out in section A.6

Table A.3 Summary of asset roll forward ($million, nominal)

Summary of asset roll forward	Essential Energy's revised proposal	Final decision
Opening RAB	80.4	80.3
Net capex (total nominal)	17.4	17.4
Regulatory depreciation (total nominal)	-102.8	-102.3
Inflation on opening RAB (total nominal)	7.4	7.0
Forecast closing RAB	2.5	2.5

Source: Essential Energy, *11.04 Revised Metering Post-Tax Revenue Model*, November 2023; AER, *Final decision - Essential Energy distribution determination 2024–29 - Metering PTRM*, April 2024.

We use the RFM to roll forward Essential Energy's RAB over from the 2019–24 period to arrive at an opening RAB value at 1 July 2024. This roll-forward calculation accounts for

inflation, the weighted average cost of capital, actual net capex and actual depreciation. The amounts are estimated based on forecasts where actuals data is not available.

The opening RAB may also be adjusted to reflect any changes in the use of the assets, with only assets used to provide metering services to be included in the RAB. No such adjustments were included in the final decision.

The PTRM used to calculate the annual revenue requirement for the 2024–29 period generally adopts the same RAB roll-forward approach as the RFM, although the annual adjustments to the RAB are based on forecasts, rather than actual amounts.

A.5 Rate of return

Our final decision on legacy metering services applies the same rate of return as applied throughout our determination, which is set out in Attachment 3.

Attachment 3 states that the final decision uses the 2022 rate of return instrument. This includes updated rates for return on debt, inflation, and equity raising costs.

A.6 Regulatory depreciation

Our final decision accepts the depreciation schedules proposed by Essential Energy, with straight-line accelerated depreciation to fully depreciate the asset base within the 2024–29 period.

Depreciation is the return of capital over the economic life of the asset. In deciding whether to approve the depreciation schedules submitted by Essential Energy, we make determinations on the indexation of the RAB and depreciation building blocks for Essential Energy's 2024–29 period. The regulatory depreciation amount is the depreciation less the indexation of the RAB.

We determine the regulatory depreciation amount using the PTRM. The calculation of depreciation in each year is governed by the value of assets included in the RAB at the beginning of the regulatory year, and by the depreciation schedules.[27]

Our standard approach for depreciating a distributor's existing assets in the PTRM uses the remaining asset lives at the start of a regulatory control period as determined in the RFM.

In this case we consider that the appropriate economic life of the metering asset base may be different to the standard asset lives due to the accelerated deployment of legacy meters. Essential Energy adopted our standard assumption to wind up the metering asset base in the 2024–29 period.

However, as noted in section A.1, PIAC preferred the NSW distributors, including Essential Energy, to apply accelerated depreciation of its metering asset base. Our decision accepts Essential Energy's approach because our analysis shows that this would result in a low-level increase (at most $10 per annum) for distributors in NSW. These impacts are within a reasonable expectation of short-term cost increases to deliver the benefits of the transition to smart metering. Additionally in NSW, a longer depreciation schedule will spread out costs

[27] NER, cl. 6.5.5(a).

further into the future, where there are likely other upward pressures on network prices beyond the control of the NSW distributors. Therefore, a faster depreciation schedule will result in a smoother price path for customers over regulatory periods.

A.7 Capital expenditure

Our final decision is to accept Essential Energy's revised proposal forecast capex of $15.9 million ($2023–24).[28]

Table A.4 below compares our final decision capex to Essential Energy's proposed forecast capex.

Table A.4 Forecast net capex ($million, 2023–24)

Forecast capex	2024–25	2025–26	2026–27	2027–28	2028–29	Total
Essential Energy's proposed net capex	4.0	3.6	3.0	3.1	2.1	15.9
Final decision net capex	4.0	3.6	3.0	3.1	2.1	15.9

Source: Essential Energy, *11.04 Revised Metering Post-Tax Revenue Model*, November 2023; AER, *Final decision - Essential Energy distribution determination 2024–29 - Metering PTRM*, April 2024.

A.8 Operating expenditure

Our final decision is to not accept Essential Energy's revised proposal forecast opex of $154.86 million ($2023–24).[29] Our final decision includes an alternate estimate of $154.95 million ($2023–24) reflecting updates to labour cost escalation and inflation.[30]

Our final decision and Essential Energy's revised proposed both use the base-step-trend method to calculate forecast opex for the 2024–29 period. Due to the uncertainty around opex, which depends both on the LMRPs proposed scheduling of meter replacements (which are yet to be developed) and the actual rate of meter replacement, the final decision also includes a true-up mechanism for opex to manage this misalignment (forecast versus actual) and ensures customers pay no more than necessary for the metering transition (discussed below).

Base opex

If we find the business is operating efficiently, our preferred methodology is to use the business's historical or 'revealed' costs in a recent year as a starting point for our opex forecast. For the final decision the base opex is taken to be the actual opex in 2022–23.

Rate of change

We trend base opex forward by applying our forecast 'rate of change'. We estimate the rate of change by forecasting the expected growth in input prices, outputs and productivity.

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28 Essential Energy, *14.01 Metering Post-Tax Revenue Model,* January 2023.

29 Essential Energy, *11.04 Revised Metering Post-Tax Revenue Model*, November 2023.

30 AER, *Final decision - Essential Energy distribution determination 2024–29 - Metering PTRM*, April 2024.

We forecast input price growth using a combination of labour and non-labour price change forecasts. Labour costs represent a significant proportion of a distributor's costs.[31] We use input price weights between labour and non-labour components consistent with SCS.

We forecast the change in output (number of meters) to account for the annual change in operational costs to provide metering services. Our final decision applies a weighting of 61.1% variable and 38.9% fixed costs.[32] The change in variable costs is determined based on the change in output using a productivity factor.

As more legacy meters are retired, the average metering cost per customer is expected to rise due to higher travel costs of individual meter reads. Our final decision accepts Essential Energy's meter volume forecasts.

Step changes

Lastly, we add or subtract any components of opex that are not appropriately compensated for in base opex or the rate of change, but which should be included in the forecast total opex to meet the opex criteria.[33]

Our draft decision acknowledged the distributors will incur some additional temporal costs due the AEMC's decision on the replacement of legacy meters over the 2024–29 period. All distributors have submitted operating expenditure step changes for these costs.

Most distributors proposed a step change for developing and administering a LMRP. In consultation with key stakeholders, distributors are required to develop LMRPs that schedule groupings of legacy meters to be retired and replaced each year of the five-year acceleration period.

Several distributors also proposed a negative step change to reflect the reduced costs of testing and inspecting legacy meters during the acceleration period.

Our final decision accepts Essential Energy's proposed step changes as they are a prudent response to the AEMC metering review. These activities are explained below.

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31 AER, *Expenditure forecast assessment guideline – distribution,* August 2022, pp. 25–26.

32 AER, *Final Decision - Essential Energy distribution determination 2024–29 - Metering expenditure model*, April 2024.

33 AER, *Expenditure forecast assessment guideline for electricity distribution*, November 2013, p. 24.

Table A.5 Revised proposal and final decision meter volumes, step changes and opex

	2024–25	2025–26	2026–27	2027–28	2028–29	Total
Meter volumes (accepted)	503,077	416,385	328,151	238,374	147,057	-
Remediation step changes ($million, 2023–24, accepted)	3.3	7.3	5.5	5.3	0.0	21.4
LMRP plan offset by reduced meter testing step change ($million, 2023–24, accepted)	0.0	0.0	0.0	0.0	0.0	0.0
Essential Energy's proposed opex ($million, 2023–24)	31.8	35.2	32.5	31.1	24.1	154.7
Final decision opex ($million, 2023–24)	31.8	35.2	32.5	31.1	24.1	154.8

Source: Essential Energy, *11.01 Metering Capex and Opex Model,* November 2023; AER, *Final decision - Essential Energy distribution determination 2024–29 - Metering expenditure model*, April 2024.

Relocation of meter boxes on poles[34]

Essential Energy has over 46,000 meter boxes are mounted on distribution network poles. A proportion of the meter boxes will require remediation as part of a smart meter installation. Essential will have to undertake the remediation work on 2 per cent of these sites due to the high risks that also involve relocating the meter box.

These configurations present a high-risk environment where only the network business can undertake the necessary works.

Current transformers on cross arms[35]

Essential Energy will need to relocate a number of legacy metering installations. Part of these metering installations include current transformers (CTs) which are located on the cross arms of Essential Energy–owned poles. Their location means the metering providers for the smart meters would not be able to conduct the regulated testing requirements. As such, the CTs need to be relocated.

Single–phase metering on multiphase sites[36]

A number of legacy sites have multiphase services that are metered on a single phase, with the meter reading multiplied by the number of phases. This metering configuration is non-compliant. When a smart meter is installed, all phases must be run to and from the meter to comply with the current metrology requirements.

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34 Essential Energy, *2024–29 Revised Regulatory Proposal*, November 2023, p. 57.

35 Essential Energy, *2024–29 Revised Regulatory Proposal*, November 2023, p. 57.

36 Essential Energy, *2024–29 Revised Regulatory Proposal*, November 2023, p. 57.

True-up mechanism for opex

Our final decision applies Essential Energy's revised proposal meter replacement, as described in section A.2.

Although the distributors are responsible for developing the LMRPs to schedule the meter replacements, the actual replacement in a retailer-led smart meter roll out is out of their control. A key concern is that replacement profiles in our final decision may not align with the LMRPs (both forecasts), and the actual replacement rates may not reflect the profiles from the LMRPs. This exposes the distributors to a misalignment in cost recovery and consumers in paying more or less than they otherwise should.

To manage this misalignment, our final decision applies a true-up of total metering opex (forecast versus actual) related to replacement rates through the price cap formulae to (see Attachment 14 – Control mechanisms). This ensures the distributors only recover their actual costs and consumers pay no more or less than they should for the metering transition. For the avoidance of doubt, no components of opex other than meter volumes will be updated through this true-up mechanism.

Shortened forms

ACS	alternative control services
AEMC	Australian Energy Market Commission
AER	Australian Energy Regulator
ARR	annual revenue requirement
capex	capital expenditure
LMRP	legacy meter retirement plan
NEM	national electricity market
NER	national electricity rules
opex	operating expenditure
PIAC	public interest advocacy centre
PTRM	post tax revenue model
RAB	regulatory asset base
RFM	roll forward model
SCS	standard control services