Draft decision

CitiPower, Powercor and United Energy electricity distribution determinations
1 July 2026 – 30 June 2031

Attachment 15 – Metering services

September 2025



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Inquiries about this publication should be addressed to:

Australian Energy Regulator GPO Box 3131 Canberra ACT 2601

Email: aerinquiry@aer.gov.au

Tel: 1300 585 165

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15 Metering services

This attachment sets out our draft decisions for the 2026–31 regulatory control period (**period**) for metering services provided by CitiPower, Powercor and United Energy (**CPU**). These are alternative control services and additional to the other alternative control services we regulate (ancillary network services and public lighting services which are set out in Attachment 14). We are responsible for setting revenues for these services as they operate under a revenue cap form of control, consistent with our final position in our Framework & Approach paper¹, and as set out in Attachment 12. We are also responsible for setting price caps for metering exit fees.²

Metering services include maintenance, reading, data services, and the recovery of capital expenditure (capex) related to metering assets. Unlike other jurisdictions in the National Electricity Market (NEM), Victorian distributors are the monopoly providers of most metering services to small customers. In the rest of the NEM metering services are contestable, and distributors are unable to install new meters.

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 each measure electricity usage in different ways:³

- Type 1 to 4 meters have a remote communication ability. We refer to these as smart meters.
- 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 fee-based ancillary network services, which are discussed in Attachment 14.

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 also fee-based ancillary network services, discussed in Attachment 14.

In Victoria, legislation redefines most smart meters as type 5 and 6 meters for the purpose of distributors provision of metering services.⁴ This means that we consider expenditure related

¹ AER, Final Framework and Approach – Victorian electricity distribution determinations 2026–31, July 2024, pp. 12–13.

Metering exit fees recover the written down value, as well as the efficient costs of removing and disposing, of meters. This is discussed in Appendix A, section A.9.

³ AER, Final Framework and Approach – Victorian electricity distribution determinations 2026–31, July 2024, pp. 32–33.

Victorian Government, Order-In-Council, No. S 346, October 2017, cl. 2(b); Department of Primary Industries, Minimum AMI Functionality Specification (Victoria) v1.2, September 2013; Department of Primary Industries, Minimum AMI Service Levels Specification (Victoria) v1.1, September 2008.

to smart meters as a part of regulated metering services (despite these services being classified as unregulated services).

In this attachment, we:

- Set out our draft decisions (section 15.1), which draws on the reasons in Appendix A.
- Summarise CPU's proposals (section 15.2).
- Set out the reasons for our draft decisions (Appendix A).

15.1 Draft decisions

Our draft decisions are to not accept CPU's proposals as submitted. Our draft decisions are to:

- Substitute our total annual revenue requirements (ARR) and to apply our smoothing profiles. The smoothed ARRs reflect updates to forecast inflation and inputs related to the 2022 rate of return instrument and weighted average cost of capital (WACC), as well as our substituted:
 - Forecast metering capex, including revisions to the profile of proactive replacement volumes and expenditures, revisions to labour costs of replacement of meters on fault or failure, revisions to components of proposed communications capex and to apply updates to forecast inflation and labour cost escalation. For United Energy, our forecast metering capex also includes revisions to growth rates factored into the installation of new meters.
 - Forecast metering operating expenditure (opex) to apply updates to forecast inflation and labour cost escalation. For United Energy, our forecast metering opex also includes revisions to growth rates factored into the trend component.
- Substitute our metering exit fee price caps to apply updates to forecast inflation and inputs related to the 2022 rate of return instrument and WACC, as well as our substituted capex and opex forecasts.

The reasons for our draft decisions and each of the above positions are provided at Appendix A.

In addition to considering CPU's revised proposals in our final decisions, we will also apply updates where appropriate for actual inflation, actual capex and opex for 2024–25, and for our final decision forecast inflation, labour cost escalators, and inputs related to the 2022 rate of return instrument and WACC.

15.2 Overview of proposals

15.2.1 Metering revenue

CPU proposed total ARRs for metering services for the 2026-31 period of:

\$97.2 million (\$2025–26, smoothed) for CitiPower.⁵

⁵ CitiPower, *CP MOD 11.01 – Metering PTRM*, January 2025.

- \$303.9 million (\$2025–26, smoothed) for Powercor.⁶
- \$177.2 million (\$2025–26, smoothed) for United Energy.⁷

To determine the proposed revenue requirements, CPU used the AER's standardised metering models which apply the building block approach to determine allowable revenue. CPU's proposed ARRs and building blocks are set out in Tables 15.1, 15.2 and 15.3.

We note that we provide building block and ARR data in these tables as real \$2025–26 to allow for better comparison to the 2021–26 period. We generally provide this data in \$nominal as we consider it is a better representation of revenues that will be recovered from customers. Data in Appendix A is therefore presented in \$nominal, and proposal data between these tables and the appendix tables will differ.

Table 15.1 Proposed building blocks and annual revenue requirement – CitiPower (\$million, 2025–26)

Category	2021–26 final decision	2026–31 proposal	Change from 2021–26	Proportion of total ARR proposed
Return on capital	16.7	22.3	33.8%	22.8%
Return of capital (regulatory depreciation)	62.9	43.2	-31.3%	44.2%
Operating expenditure	36.5	30.7	-16.0%	31.3%
Net tax allowance	6.2	1.7	-73.1%	1.7%
ARR (unsmoothed)	122.3	97.8	-20.0%	
ARR (smoothed)	122.2	97.2	-20.5%	

Source: AER, Final Decision - CitiPower distribution determination - 2021–26 - ACS - Metering - Post-tax revenue model, April 2021; CitiPower, CP MOD 11.01 – Metering PTRM, January 2025.

Powercor, PAL MOD 12.01 – Metering PTRM, January 2025.

⁷ United Energy, *UE MOD 12.01 – Metering PTRM*, January 2025.

Table 15.2 Proposed building blocks and annual revenue requirement – Powercor (\$million, 2025–26)

Category	2021–26 final decision	2026–31 proposal	Change from 2021–26	Proportion of total ARR proposed
Return on capital	50.1	81.3	62.3%	26.6%
Return of capital (regulatory depreciation)	180.4	149.2	-17.3%	48.7%
Operating expenditure	74.7	71.9	-3.7%	23.5%
Net tax allowance	16.2	3.6	-77.7%	1.2%
ARR (unsmoothed)	321.4	306.0	-4.8%	
ARR (smoothed)	321.2	303.9	-5.4%	

Source: AER, Final Decision - Powercor distribution determination - 2021–26 - ACS - Metering - Post-tax revenue model, April 2021; Powercor, PAL MOD 12.01 – Metering PTRM, January 2025.

Table 15.3 Proposed building blocks and annual revenue requirement – United Energy (\$million, 2025–26)

Category	2021–26 final decision	2026–31 proposal	Change from 2021–26	Proportion of total ARR proposed
Return on capital	29.3	47.5	61.9%	26.6%
Return of capital (regulatory depreciation)	100.2	87.2	-13.0%	48.8%
Operating expenditure	41.2	41.9	1.6%	23.5%
Net tax allowance	8.5	2.0	-76.4%	1.1%
ARR (unsmoothed)	179.2	178.5	-0.4%	
ARR (smoothed)	179.1	177.2	-1.1%	

Source: AER, Final Decision - United Energy distribution determination - 2021–26 - ACS - Metering - Post-tax revenue model, April 2021; United Energy, UE MOD 12.01 – Metering PTRM, January 2025.

15.2.2 Capital expenditure

CPU proposed total capex for metering services in the 2026–31 period of:

- \$109.9 million (\$2025–26) for CitiPower.8
- \$386.7 million (\$2025–26) for Powercor.⁹

⁸ CitiPower, *CP MOD 11.01 – Metering PTRM*, January 2025.

Powercor, PAL MOD 12.01 – Metering PTRM, January 2025.

\$244.6 million (\$2025–26) for United Energy.¹⁰

This capex includes expenditure for installations of new meters for customer growth, replacement of meters on fault or failure, installation and replacement of communication equipment to support remote connection to meters, and IT capability to manage metering data.

In addition to these routine expenditures, CPU also proposed capex in the 2026–31 period to proactively replace meters that have reached end of life and are at an increased risk of failure, being:

- \$58.1 million (\$2025–26) for CitiPower.¹¹
- \$179.5 million (\$2025–26) for Powercor.¹²
- \$120.7 million (\$2025–26) for United Energy.¹³

This is a material and new capex category, reflecting that this is the first time smart meters have reached their end of life and will need replacement.

CPU's total proposed capex for the 2026–31 period is set out in Tables 15.4, 15.5, and 15.6, along with allowed capex in the 2021–26 period, the change in capex between the 2021–26 and 2026–31 periods and the proportion of capex each category makes up of total proposed capex in the 2026–31 period.

United Energy, *UE MOD 12.01 – Metering PTRM*, January 2025.

¹¹ CitiPower, CP MOD 11.03 – Standardised metering capex and opex, January 2025.

Powercor, PAL MOD 12.03 – Standardised metering capex and opex, January 2025.

United Energy, *UE MOD 12.03 – Standardised metering capex and opex*, January 2025.

Table 15.4 Proposed capex – CitiPower (\$million, 2025–26)

Category	2021–26 final decision	2026–31 proposal	Change from 2021–26	Proportion of total capex proposed
Proactive replacement		58.1		52.4%
Growth	12.2	9.2	-25.0%	8.3%
Reactive replacement	16.5	21.2	28.4%	19.1%
Capitalised overheads	0.6	1.0	71.4%	0.9%
Communications	3.2	3.6	11.6%	3.2%
IT	0.6	4.2	595.4%	3.7%
Other	5.3	13.0	143.9%	11.7%
Equity raising costs	0.5	0.7	40.5%	0.6%
Total capex (including Standard Control Services (SCS) allocations)	38.9	110.8	184.8%	
Total capex (excluding SCS allocations)	38.1	109.9	188.5%	

Note: Categorised expenditure is presented in this table inclusive of expenditure allocated to SCS. Source: AER, Final Decision - CitiPower distribution determination - 2021–26 - ACS - Metering cost model, April 2021; AER, Final Decision - CitiPower distribution determination - 2021–26 - ACS - Metering - Post-tax revenue model, April 2021; CitiPower, CP MOD 11.03 – Standardised metering capex and opex, January 2025; CitiPower, CP MOD 11.01 – Metering PTRM, January 2025.

Table 15.5 Proposed capex – Powercor (\$million, 2025–26)

Category	2021–26 final decision	2026–31 proposal	Change from 2021–26	Proportion of total capex proposed
Proactive replacement		179.5		44.9%
Growth	34.5	50.2	45.6%	12.6%
Reactive replacement	50.5	66.3	32.7%	16.6%
Capitalised overheads	5.0	7.4	47.8%	1.9%
Communications	23.3	52.6	125.3%	13.1%
IT	1.4	8.9	538.4%	2.2%
Other	12.3	32.9	167.2%	8.2%
Equity raising costs	1.2	2.0	64.3%	0.5%
Total capex (including SCS allocations)	127.8	399.9	213.0%	
Total capex (excluding SCS allocations)	121.9	386.7	217.2%	

Note: Categorised expenditure is presented in this table inclusive of expenditure allocated to SCS. Source: AER, Final Decision - Powercor distribution determination - 2021–26 - ACS - Metering cost model, April 2021; AER, Final Decision - Powercor distribution determination - 2021–26 - ACS - Metering - Post-tax revenue model, April 2021; Powercor, PAL MOD 12.03 – Standardised metering capex and opex, January 2025; Powercor, PAL MOD 12.01 – Metering PTRM, January 2025.

Table 15.6 Proposed capex – United Energy (\$million, 2025–26)

Category	2021–26 final decision	2026–31 proposal	Change from 2021–26	Proportion of total capex proposed
Proactive replacement		120.7		48.5%
Growth	29.8	29.6	-0.6%	11.9%
Reactive replacement	19.4	42.6	119.3%	17.1%
Capitalised overheads	0.9	6.5	641.7%	2.6%
Communications	12.1	16.2	34.3%	6.5%
IT	3.2	14.1	344.7%	5.7%
Other	6.3	17.6	179.6%	7.1%
Equity raising costs	0.6	1.4	128.3%	0.5%
Total capex (including SCS allocations)	72.3	248.7	244.2%	
Total capex (excluding SCS allocations)	69.2	244.6	253.4%	

Note: Categorised expenditure is presented in this table inclusive of expenditure allocated to SCS. Source: AER, Final Decision - United Energy distribution determination - 2021–26 - ACS - Metering cost model, April 2021; AER, Final Decision - United Energy distribution determination - 2021–26 - ACS - Metering - Post-tax revenue model, April 2021; United Energy, UE MOD 12.03 – Standardised metering capex and opex, January 2025; United Energy, UE MOD 12.01 – Metering PTRM, January 2025.

15.2.3 Operating expenditure

CPU proposed total opex for metering services in the 2026–31 period of:

- \$30.7 million (\$2025–26) for CitiPower.¹⁴
- \$71.9 million (\$2025–26) for Powercor.¹⁵
- \$41.9 million (\$2025–26) for United Energy.¹⁶

CPU developed their opex forecasts using the 'base-step-trend' method, consistent with the standardised metering models and our standard approach for SCS. CPU proposed base opex using estimated opex (2024–25) with no adjustments, trends that includes metering

¹⁴ CitiPower, *CP MOD 11.01 – Metering PTRM*, January 2025.

¹⁵ Powercor, *PAL MOD 12.01 – Metering PTRM*, January 2025.

United Energy, *UE MOD 12.01 – Metering PTRM*, January 2025.

growth and real price changes in labour costs, and step changes to fund the expected increase in meter testing.¹⁷

CPU's proposed opex is set out in Tables 15.7, 15.8, and 15.9. The table also shows the change in opex between the 2021–26 and 2026–31 periods and the proportion of opex each category makes up of total proposed opex in the 2026–31 period.

Table 15.7 Proposed opex – CitiPower (\$million, 2025–26)

Category	2021–26 final decision	2026–31 proposal	Change from 2021–26	Proportion of total opex proposed
Base opex	36.0	22.1	-38.6%	72.1%
Trend: Output growth	1.7	0.8	-49.7%	2.7%
Trend: Price growth	0.9	1.3	53.0%	4.3%
Total trend	2.6	2.2	-14.3%	7.2%
Step change: Meter testing		6.2		20.1%
Total step changes	-2.2	6.2	-374.7%	20.1%
Debt raising costs	0.2	0.2	1.5%	0.6%
Total opex	36.5	30.7	-16.0%	

Note: Trend components will not sum to total trend due to compounding effects.

Source: AER, Final Decision - CitiPower distribution determination - 2021–26 - ACS - Metering cost model, April 2021; AER, Final Decision - CitiPower distribution determination - 2021–26 - ACS - Metering - Post-tax revenue model, April 2021; CitiPower, CP MOD 11.03 – Standardised metering capex and opex, January 2025; CitiPower, CP MOD 11.01 – Metering PTRM, January 2025.

CitiPower, *CP MOD 11.03* – *Standardised metering capex and opex*, January 2025; CitiPower, *CP BUS 11.01* – *Metering*, January 2025, pp. 31–32; Powercor, *PAL MOD 12.03* - *Standardised metering capex and opex*, January 2025; Powercor, *PAL BUS 12.01* – *Metering*, January 2025, pp. 31–32; United Energy, *UE MOD 12.03* - *Standardised metering capex and opex*, January 2025; United Energy, *UE BUS 12.01* – *Metering*, January 2025, pp. 31–32.

Table 15.8 Proposed opex – Powercor (\$million, 2025–26)

Category	2021–26 final decision	2026–31 proposal	Change from 2021–26	Proportion of total opex proposed
Base opex	71.0	54.0	-24.0%	75.0%
Trend: Output growth	5.3	4.6	-13.8%	6.4%
Trend: Price growth	1.7	3.2	88.3%	4.4%
Total trend	7.2	8.1	12.7%	11.2%
Step change: Meter testing		9.2		12.8%
Total step changes	-4.0	9.2	-328.7%	12.8%
Debt raising costs	0.6	0.7	25.7%	1.0%
Total opex	74.7	71.9	-3.7%	

Note: Trend components will not sum to total trend due to compounding effects.

Source: AER, Final Decision - Powercor distribution determination - 2021–26 - ACS - Metering cost model, April 2021; AER, Final Decision - Powercor distribution determination - 2021–26 - ACS - Metering - Post-tax revenue model, April 2021; Powercor, PAL MOD 12.03 – Standardised metering capex and opex, January 2025; Powercor, PAL MOD 12.01 – Metering PTRM, January 2025.

Table 15.9 Proposed opex – United Energy (\$million, 2025–26)

Category	2021–26 final 2026–31 decision proposal		Change from 2021–26	Proportion of total opex proposed
Base opex	40.2	32.1	-20.1%	76.7%
Trend: Output growth	2.2	1.7	-19.2%	4.2%
Trend: Price growth	1.0	1.9	99.1%	4.5%
Total trend	3.2	3.8	18.5%	9.0%
Step change: Meter testing		5.6		13.3%
Total step changes	-2.5	5.6	-323.2%	13.3%
Debt raising costs	0.3	0.4	23.7%	1.0%
Total opex	41.2	41.9	1.6%	

Note: Trend components will not sum to total trend due to compounding effects.

Source: AER, Final Decision - United Energy distribution determination - 2021–26 - ACS - Metering cost model, April 2021; AER, Final Decision - United Energy distribution determination - 2021–26 - ACS - Metering - Post-tax revenue model, April 2021; United Energy, UE MOD 12.03 – Standardised metering capex and opex, January 2025; United Energy, UE MOD 12.01 – Metering PTRM, January 2025.

15.2.4 Stakeholder views

We did not receive any submissions on metering in response to CPU's proposal or our issues paper.

15.3 Assessment approach

Metering services are classified as alternative control services. ¹⁸ The regulatory framework for assessing alternative control services is less prescriptive than for SCS. As such, we have a greater discretion under the NER in assessing proposals for metering services compared to SCS. However, where possible we seek to apply similar approaches as applied to SCS. In considering CPU's proposals we have had regard to:

- The application of our standardised metering model templates for metering expenditure, management of the regulated asset base, smoothing of allowed revenues, and setting of price caps where appropriate.
- An assessment of the prudent and efficient costs of providing metering services, having regard to historical expenditure, our previous determinations, benchmarked costs against other distributors, and against independent data and information as relevant.
- The wider regulatory context, including the existence or possibility of competition across metering services provided.
- Consistency of approach with other regulated services, particularly SCS, the current applicable determination, our recent determinations for other networks, and across the current proposals being assessed.
- Stakeholder engagement undertaken on the proposal, stakeholder feedback provided in response to the proposal or our issues papers and if / how it has been incorporated into proposals.
- Any other factors we considered relevant to our assessment.

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AER, Final Framework and Approach – Victorian electricity distribution determinations 2026–31, July 2024, p. 32.

A Reasons for draft decisions

A.1 Annual revenue requirement

Our draft decisions are for total ARRs for metering services over the 2026–31 period of:

- \$97.4 million (\$nominal, smoothed) for CitiPower.¹⁹ This is a decrease of \$8.3 million (\$nominal) or 7.8% from CitiPower's proposed total ARR of \$105.7 million (\$nominal, smoothed) for this period.²⁰
- \$302.6 million (\$nominal, smoothed) for Powercor.²¹ This is a decrease of \$27.6 million (\$nominal) or 8.4% from Powercor's proposed total ARR of \$330.2 million (\$nominal, smoothed) for this period.²²
- \$174.1 million (\$nominal, smoothed) for United Energy.²³ This is a decrease of \$18.4 million (\$nominal) or 9.6% from United Energy's proposed total ARR of \$192.5 million (\$nominal, smoothed) for this period.²⁴

Our draft decisions apply a flat real 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 2026–27 year. We consider this provides the most certainty for customers and will deliver material real price decreases as soon as possible, including in the context of the impact of the increase of capex for proactive replacements.

Our draft decision ARRs are set out in Tables A.1, A.2, and A.3.

¹⁹ AER, Metering PTRM - Draft decision - CitiPower distribution determination 2026-31, September 2025.

²⁰ CitiPower, *CP MOD 11.01 – Metering PTRM*, January 2025.

²¹ AER, Metering PTRM - Draft decision - Powercor distribution determination 2026–31, September 2025.

Powercor, PAL MOD 12.01 – Metering PTRM, January 2025.

²³ AER, *Metering PTRM – Draft decision – United Energy distribution determination 2026–31*, September 2025.

United Energy, *UE MOD 12.01 – Metering PTRM*, January 2025.

Table A.1 Metering total ARR – CitiPower (\$million, nominal)

	2026–27	2027–28	2028–29	2029–30	2030–31	Total
Proposal – unsmoothed	15.4	18.1	21.1	24.4	27.8	106.9
Proposal – smoothed	19.2	20.1	21.1	22.1	23.2	105.7
Proposal – X factors	28.7%	-2.0%	-2.0%	-2.0%	-2.0%	
Draft decision – unsmoothed	14.5	16.7	19.2	22.3	26.0	98.8
Draft decision – smoothed	18.5	19.0	19.5	20.0	20.5	97.4
Draft decision – X factors	28.8%	-	-	-	-	

Note: A positive X factor reflects a reduction in revenues.

Source: CitiPower, *CP MOD 11.01 – Metering PTRM*, January 2025; AER, *Metering PTRM – Draft decision – CitiPower distribution determination 2026–31*, September 2025.

Table A.2 Metering total ARR – Powercor (\$million, nominal)

	2026–27	2027–28	2028–29	2029–30	2030–31	Total
Proposal – unsmoothed	46.8	55.5	65.9	77.1	89.3	334.6
Proposal – smoothed	60.0	62.9	65.9	69.1	72.4	330.2
Proposal – X factors	16.2%	-2.0%	-2.0%	-2.0	-2.0%	
Draft decision – unsmoothed	44.5	51.4	59.9	69.5	81.9	307.2
Draft decision – smoothed	57.5	59.0	60.5	62.0	63.6	302.6
Draft decision – X factors	16.2%	-	-	-	-	

Note: A positive X factor reflects a reduction in revenues.

Source: Powercor, *PAL MOD 12.01 – Metering PTRM*, January 2025; AER, *Metering PTRM – Draft decision – Powercor distribution determination 2026–31*, September 2025.

Table A.3 Metering total ARR – United Energy (\$million, nominal)

	2026–27	2027–28	2028–29	2029–30	2030–31	Total
Proposal – unsmoothed	26.3	32.3	38.5	45.7	52.6	195.3
Proposal – smoothed	35.0	36.7	38.4	40.3	42.2	192.5
Proposal – X factors	12.4%	-2.0%	-2.0%	-2.0%	-2.0%	
Draft decision – unsmoothed	24.8	29.3	34.5	40.9	47.4	176.9
Draft decision – smoothed	33.1	33.9	34.8	35.7	36.6	174.1
Draft decision – X factors	13.7%	-	-	-	-	

Note: A positive X factor reflects a reduction in revenues.

Source: United Energy, *UE MOD 12.01 – Metering PTRM*, January 2025; AER, *Metering PTRM – Draft decision – United Energy distribution determination 2026–31*, September 2025.

The AER's post tax revenue model (**PTRM**) calculates the ARR for each year of the 2026–31 period. This unsmoothed ARR for each year is then smoothed (as in Tables A.1, A.2, and A.3) and is the sum of the building block costs. Table A.4 shows the component and total building block costs that form the ARRs and where discussion on the components that drive these costs can be found within this appendix.

Table A.4 Metering building block components and total AAR (unsmoothed, \$million, nominal)

Building block component	2026–31 proposal CPR	2026–31 draft decision CPR	2026–31 proposal PCR	2026–31 draft decision PCR	2026–31 proposal UEY	2026–31 draft decision UEY	Sections discussed
Return on capital	24.4	21.8	89.1	78.1	52.1	43.7	A.3, A.5
Return of capital (regulatory depreciation)	47.3	42.5	163.3	147.5	95.5	87.2	A.4, A.5
Operating expenditure	33.4	32.8	78.4	76.8	45.6	43.4	A.6
Net tax allowance	1.8	1.7	3.9	4.9	2.2	2.6	-
Revenue requirement	106.9	98.8	334.6	307.2	195.3	176.9	A.1

Note: CPR = CitiPower, PCR = Powercor, UEY = United Energy; Return on and of capital are products of proposed capex, discussed at section A.5.

Source: CitiPower, *CP MOD 11.01 – Metering PTRM*, January 2025; AER, *Metering PTRM – Draft decision – CitiPower distribution determination 2026–31*, September 2025; Powercor, *PAL MOD 12.01 – Metering PTRM*, January 2025; AER, *Metering PTRM – Draft decision – Powercor distribution determination 2026–31*, September 2025; United Energy, *UE MOD 12.01 – Metering PTRM*, January 2025; AER, *Metering PTRM – Draft decision – United Energy distribution determination 2026–31*, September 2025.

A.2 Regulatory asset base

Our draft decision accepts CPU's regulatory asset base (**RAB**) roll forward and calculation method. However, we substitute values for corrected historical inputs, our draft decision capex inputs, updated inflation, WACC inputs and other updated inputs related to the rate of return.

The value of the RAB impacts CPU's revenue requirements, and the price consumers ultimately pay. Other things being equal, a higher RAB increases both the return on capital and return of capital (depreciation) components of the distribution determination and therefore results in higher prices. Our draft decisions are set out in Table A.5 and shows lower closing RABs compared to CPU's proposals. This reflects that our draft decisions include lower amounts of capex for reactive replacement of meters (amongst other capex changes) than CPU proposed, as well as changes to actual 2021–26 capex in the RFM, which impacts the opening asset bases and regulatory depreciation across the 2021–26 and 2026–31 periods.

 Table A.5
 Summary of metering asset roll forward (\$million, nominal)

Summary of asset roll forward	2026–31 proposal CPR	2026–31 draft decision CPR	2026–31 proposal PCR	2026–31 draft decision PCR	2026–31 proposal UEY	2026–31 draft decision UEY
Opening RAB on 1 July 2026	49.1	44.5	183.8	166.6	97.9	84.9
Net capex	121.1	118.3	426.6	400.8	269.7	250.1
Regulatory depreciation	-58.4	-51.5	-203.9	-179.9	-119.2	-105.3
Inflation on opening RAB	11.1	9.1	40.6	32.5	23.7	18.1
Forecast closing RAB on 30 June 2031	123.0	120.4	447.1	419.9	272.1	247.8

Note: CPR = CitiPower, PCR = Powercor, UEY = United Energy.

Source: CitiPower, *CP MOD 11.01 – Metering PTRM*, January 2025; AER, *Metering PTRM – Draft decision – CitiPower distribution determination 2026–31*, September 2025; Powercor, *PAL MOD 12.01 – Metering PTRM*, January 2025; AER, *Metering PTRM – Draft decision – Powercor distribution determination 2026–31*, September 2025; United Energy, *UE MOD 12.01 – Metering PTRM*, January 2025; AER, *Metering PTRM – Draft decision – United Energy distribution determination 2026–31*, September 2025.

We used the roll forward model (RFM) to roll forward CPU's RABs from the 2021–26 period to arrive at opening RAB values as of 1 July 2026. This includes application of a bespoke RFM template to factor in the transition to financial year regulation which occurred in 2021. The roll-forward calculation accounts for inflation, the WACC, actual net capex and actual depreciation.

In updating the RFM for actual capex, we have had difficulty reconciling these amounts across the amounts reported by distributors in their regulatory information notices (**RIN**s). Where available, we have updated the RFM total actual capex for amounts reported in the annual reporting RIN (table 8.2.3). As this capex is not disaggregated, we have used the reported communications and IT capex related to metering services from the category analysis RIN (table 4.2.2) for the relevant asset classes, with the residual being attributed to the metering asset class. Where actual capex values have not been reported in the annual reporting RIN, we have used data reported for meter purchase and replacement collectively to represent actual capex for the metering asset class. We expect distributors to consider the actual capex amounts and how they reconcile with the RINs in their revised proposals, along with any required resubmissions of RINs to support.

In the 2026–31 period, we expect distributors to report actual metering capex by purpose in the new annual orders (table 8.2.3)²⁵ in a way that can be reconciled against future RFMs. We expect this will be disaggregated to meter, communications and IT components as a minimum. But we would prefer it to be disaggregated further at the meter component by purpose, to align with categories of capex considered in these draft decisions (e.g., proactive replacement, reactive replacement, customer-initiated replacement, etc.).

²⁵ AER, DNSP – Annual Order 2024–25 – Data submission workbook, January 2025.

Some capex amounts in the RFMs are estimated based on forecasts where actual data is not available (for example, actual capex for 2024–25 and 2025–26). We have updated these forecasts using calculations in the metering expenditure model to reflect the impact of updated modelling inputs (such as updates for inflation and labour escalators). Where amounts were provided in the proposals for IT capex, and these were not present in the expenditure models, we have retained the proposed amounts in the RFM to reflect IT capex for projects allowed in the 2021–26 period.

The opening RAB at the beginning of the 2026–31 period 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 have been made for the 2026–31 period.

The PTRM used to calculate the ARR for the 2026–31 period generally adopts the same RAB roll-forward approach as the RFM, with the forward-looking annual adjustments to the RAB being based on forecasts. These will then be updated for actual amounts in the RFM in the 2031–36 period.

A.3 Rate of return

Our draft decisions on metering services apply the same rate of return (WACC) as applied throughout our determinations, as set out in section 2.2 of the Overviews to each draft decision. These state that the draft decisions use the 2022 rate of return instrument. This includes updated rates for return on debt, inflation, and equity raising costs.

A.4 Regulatory depreciation

Our draft decisions accept CPU's proposed weighted average remaining life depreciation approach, with substitute values for corrected historical inputs, our draft decision capex inputs, updated inflation, WACC inputs, and other updated inputs related to the rate of return. This includes the application of our standardised RFM, PTRM, and depreciation tracking model templates.

A.5 Capital expenditure

Our draft decisions are for total capex for metering services over the 2026–31 period of:

- \$107.2 million (\$2025–26) for CitiPower.²⁶ This is a decrease of \$2.7 million (\$2025–26) or 2.5% from CitiPower's proposed total capex of \$109.9 million (\$2025–26) for this period.²⁷
- \$362.8 million (\$2025–26) for Powercor.²⁸ This is a decrease of \$23.9 million (\$2025–26) or 6.2% from Powercor's proposed total capex of \$386.7 million (\$2025–26) for this period.²⁹

²⁶ AER, *Metering PTRM – Draft decision – CitiPower distribution determination 2026–31*, September 2025.

²⁷ CitiPower, *CP MOD 11.01 – Metering PTRM*, January 2025.

²⁸ AER, Metering PTRM – Draft decision – Powercor distribution determination 2026–31, September 2025.

²⁹ Powercor, *PAL MOD 12.01 – Metering PTRM*, January 2025.

\$226.5 million (\$2025–26) for United Energy.³⁰ This is a decrease of \$18.1 million (\$2025–26) or 7.4% from United Energy's proposed total capex of \$244.6 million (\$2025–26) for this period.³¹

Our draft decision capex for the 2026–31 period is set out in Tables A.6, A.7, and A.8, along with a comparison against CPU's proposed capex for that period.

Table A.6 Draft decision capex – CitiPower (\$million, 2025–26)

Category	2026–31 proposal	2026–31 draft decision	Change from proposal	Draft decision proportion of total capex
Proactive replacement	58.1	58.3	0.3%	54.1%
Growth	9.2	9.2	0.1%	8.5%
Reactive replacement	21.2	19.2	-9.4%	17.8%
Capitalised overheads	1.0	1.0	0.1%	0.9%
Communications	3.6	2.2	-39.4%	2.0%
IT	4.2	4.2	2.0%	3.9%
Other	13.0	13.0	0.1%	12.1%
Equity raising costs	0.7	0.7	5.6%	0.7%
Total capex (including SCS allocations)	110.8	107.7	-2.8%	
Total capex (excluding SCS allocations)	109.9	107.2	-2.5%	

Note: Categorised expenditure is presented in this table inclusive of expenditure allocated to SCS. Source: CitiPower, *CP MOD 11.03 – Standardised metering capex and opex*, January 2025; CitiPower, *CP MOD 11.01 – Metering PTRM*, January 2025; AER, *Metering expenditure model – Draft decision – CitiPower distribution determination 2026–31*, September 2025; AER, *Metering PTRM – Draft decision – CitiPower distribution determination 2026–31*, September 2025.

AER, Metering PTRM – Draft decision – United Energy distribution determination 2026–31, September 2025.

United Energy, *UE MOD 12.01 – Metering PTRM*, January 2025.

Table A.7 Draft decision capex - Powercor (\$million, 2025-26)

Category	2026–31 proposal	2026–31 draft decision	Change from proposal	Draft decision proportion of total capex
Proactive replacement	179.5	180.1	0.3%	48.5%
Growth	50.2	50.3	0.1%	13.5%
Reactive replacement	66.3	59.7	-10.0%	16.1%
Capitalised overheads	7.4	7.4	0.1%	2.0%
Communications	52.6	35.3	-32.8%	9.5%
IT	8.9	9.1	2.0%	2.4%
Other	32.9	27.6	-16.2%	7.4%
Equity raising costs	2.0	2.1	8.1%	0.6%
Total capex (including SCS allocations)	399.9	371.7	-7.1%	
Total capex (excluding SCS allocations)	386.7	362.8	-6.2%	

Note: Changes to other capex relate to the correction of a modelling error that allocated incorrect expenditure to meter abolishment activities (other than modelling updates for inflation and labour cost escalators). This does not affect CitiPower or United Energy and is not addressed further in this appendix. Categorised expenditure is presented in this table inclusive of expenditure allocated to SCS.

Source: Powercor, *PAL MOD 12.03 – Standardised metering capex and opex*, January 2025; Powercor, *PAL MOD 12.01 – Metering PTRM*, January 2025; AER, *Metering expenditure model – Draft decision – Powercor distribution determination 2026–31*, September 2025; AER, *Metering PTRM – Draft decision – Powercor distribution determination 2026–31*, September 2025.

Table A.8 Draft decision capex - United Energy (\$million, 2025-26)

Category	2026–31 proposal	2026–31 draft decision	Change from proposal	Draft decision proportion of total capex
Proactive replacement	120.7	121.0	0.3%	52.8%
Growth	29.6	19.4	-34.5%	8.5%
Reactive replacement	42.6	38.1	-10.5%	16.6%
Capitalised overheads	6.5	6.5	0.1%	2.8%
Communications	16.2	10.8	-33.7%	4.7%
IT	14.1	14.4	1.9%	6.3%
Other	17.6	17.6	0.1%	7.7%
Equity raising costs	1.4	1.4	3.4%	0.6%
Total capex (including SCS allocations)	248.7	229.2	-7.8%	
Total capex (excluding SCS allocations)	244.6	226.5	-7.4%	

Note: Categorised expenditure is presented in this table inclusive of expenditure allocated to SCS. Source: United Energy, *UE MOD 12.03 – Standardised metering capex and opex*, January 2025; United Energy, *UE MOD 12.01 – Metering PTRM*, January 2025; AER, *Metering expenditure model – Draft decision – United Energy distribution determination 2026–31*, September 2025; AER, *Metering PTRM – Draft decision – United Energy distribution determination 2026–31*, September 2025.

A.5.1 Direct metering capex

A.5.1.1 Proactive meter replacement

Assessment Overview

Our draft decisions are for proactive replacement capex for metering services over the 2026–31 period of:

- \$58.3 million (\$2025–26) for CitiPower.³² This is an increase of \$0.2 million (\$2025–26) or 0.3% from proposed proactive replacement capex of \$58.1 million (\$2025–26) for this period.³³
- \$180.1 million (\$2025–26) for Powercor.³⁴ This is an increase of \$0.6 million (\$2025–26) or 0.3% from proposed proactive replacement capex of \$179.5 million (\$2025–26) for this period.³⁵

³² AER, Metering expenditure model – Draft decision – CitiPower distribution determination 2026–31, September 2025.

³³ CitiPower, CP MOD 11.03 – Standardised metering capex and opex, January 2025.

AER, Metering expenditure model – Draft decision – Powercor distribution determination 2026–31, September 2025.

Powercor, PAL MOD 12.03 - Standardised metering capex and opex, January 2025.

• \$121.0 million for United Energy (\$2025–26).³⁶ This is an increase of \$0.3 million (\$2025–26) or 0.3% from proposed proactive replacement capex of \$120.7 million (\$2025–26) for this period.³⁷

These slight increases reflect updated inflation and labour price growth forecasts.

Our draft decision accepts the need for CPU to undertake proactive meter replacement programs in the 2026–31 period, reflecting the emerging risks of not meeting metering obligations, given an ageing smart meter fleet that is approaching the end of its asset life. Further, we consider CPU has demonstrated in its cost-benefit analysis that proactive replacement of meters based on age, and its assumed failure rate, is likely to lead to lower costs to customers over the long term. This reflects the geographic basis of the original smart meter rollout, that aging meters are therefore close to each other, and the labour efficiencies in being able to replace meters that are close to each other at the same time.

However, we have concerns with CPU's ability to deliver the significant proposed increase in proactive meter replacements in the first year of the next period. These are around 6-times greater than the replacement on failure option and we consider this step up would be difficult to deliver. To recognise these concerns, in our draft decisions we have reduced the proposed volumes of proactive meter replacements by 50% and 25% respectively in the first 2 years of the next period and added these volumes to the last 2 years.

Cost benefit analysis, procurement and delivery

The Victorian distributors proposed proactive meter replacement programs for their ageing smart meters across their networks. This reflects that most smart meters in Victoria were rolled out in a 5-year period from 2009 and are reaching the end of their expected 15-year asset lives. As these meters reach the end of their asset lives, they are more likely to fail and require replacement, particularly during the 2026–31 period. This could impact the distributors' ability to meet their metering obligations, for example no less than 99% of actual data within 24 hours of the time in previous point to be available.³⁸

As the Victorian smart meter rollout was one of the first large-scale rollouts to occur, there is little data on the rate of failure of these assets. International benchmarking provided by the distributors suggests that utilities with similar ageing smart meter fleets are experiencing increasing annual failure rates, with older meters contributing to an overall fleet-wide failure rate of around 2% per year for meters older than 10+ years. ³⁹ Experience in Australia to date shows that the smart meter battery and memory are the major drivers of meter failure. ⁴⁰

AER, Metering expenditure model – Draft decision – United Energy distribution determination 2026–31, September 2025.

United Energy, UE MOD 12.03 - Standardised metering capex and opex, January 2025.

Department of Primary Industries, *Minimum AMI Service Levels Specification (Victoria) v1.1*, September 2008, p. 9.

³⁹ CitiPower, CP ATT 11.03 - Blunomy - Smart meters replacement benchmark study, January 2025, p. 9.

CitiPower, *CP BUS 11.01 – Metering*, January 2025, p. 7; Powercor, *PAL BUS 12.01 – Metering*, January 2025, p. 7; United Energy, *UE BUS 12.01 – Metering*, January 2025, p. 7; AusNet Services, *ASD - AusNet - Business case for smart meter replacement*, January 2025, pp. 4–5; Jemena, *JEN – RIN – 4.6.1 – Inspection of Metering Installations – Business Case*, January 2025, p. ix.

CPU developed business cases and cost benefit analysis to determine the preferred replacement approach. This assessed three options and focused on understanding whether there was merit in departing from its current reactive replacement approach along with whether the timing of a proactive replacement approach would materially affect the economic outcome. Specifically, it considered the following:⁴¹

- Base case CPU's continued reactive replacement of meters on failure or fault at the end of the meter's useful life, using the profile of failure rates informed by its own historical failure rates, international experience and vendor consultation.⁴²
- Option 1 proactively replace meters based on age and meter types with known issues on a geographic basis. This would occur over a 10-year period from 2026–27 through to 2035–36.
- Option 2 reactive replacement upon failure or fault during 2026–31, with an accelerated proactive replacement over 7 years, commencing 2031–36.

In terms of failure rates, CPU considered meter age to be the key driver of replacement given the increasing risk of failure as meters approach and exceed their design life. ⁴³ As its initial rollout was delivered on a region-by region basis, CPU identified geographic location as a strong proxy for meter age. Given this, Option 1 and the accelerated component of Option 2 seek to leverage a geographic (street-by-street) replacement strategy, which it expects to achieve operational efficiencies. This is achieved by reducing travel time between meter replacements and through there being no need for fault diagnosis which means there is less time for replacement. ⁴⁴

The cost-benefit analysis identified Option 1 as the preferred approach for all three distributors as it delivered the lowest total cost and the highest net present value relative to the base case. ⁴⁵ Option 2 resulted in higher costs and lower NPVs relative to Option 1. CPU's analysis showed that while the total number of meters replaced under Option 1 and 2 are similar, Option 2 results in a greater proportion of replacement being undertaken reactively at higher costs. ⁴⁶ The base case of a reactive replacement scenario was the highest-cost option as these replacements are unable to leverage efficiencies offered by CPU's proactive replacement approach on a geographic basis.

CitiPower, *CP BUS 11.01 - Metering*, January 2025, p. 21; Powercor, *PAL BUS 12.01 – Metering*, January 2025, p. 21; United Energy, *UE BUS 12.01 – Metering*, January 2025, p. 21.

CPU advised that if its meter faults and failure rates exceed 1% within a year the risk of non-compliance with its metering obligations rises. CitiPower, CP BUS 11.01 - Metering, January 2025, p. 18; Powercor, PAL BUS 12.01 - Metering, January 2025, p.18; United Energy, UE BUS 12.01 - Metering, January 2025, p.18. Further that the expected failure rate of its meters exceeds 1% at around 9 years and doubles to 2% by 15 years. CitiPower, CP BUS 11.01 - Metering, January 2025, p. 18; Powercor, PAL BUS 12.01 - Metering, January 2025, p.18; United Energy, UE BUS 12.01 - Metering, January 2025, p.18.

⁴³ CitiPower, *CP BUS 11.01 - Metering*, January 2025, pp. 11–14; Powercor, *PAL BUS 12.01 – Metering*, January 2025, pp. 11–14; United Energy, *UE BUS 12.01 – Metering*, January 2025, pp. 11–14.

CitiPower, *CP BUS 11.01 – Metering*, January 2025, p. 18; Powercor *PAL BUS 12.01 – Metering*, January 2025, p. 18; United Energy, *UE BUS 12.01 – Metering*, January 2025, p. 18.

CitiPower, *CP BUS 11.01 – Metering*, January 2025, p. 28; Powercor, *PAL BUS 12.01 – Metering*, January 2025, p. 28.; United Energy, *UE BUS 12.01 – Metering*, January 2025, p.28.

CitiPower, CP BUS 11.01 - Metering, January 2025, pp. 21–25; Powercor, PAL BUS 12.01 – Metering, January 2025, pp. 21–25.; United Energy, UE BUS 12.01 – Metering, January 2025, pp. 21–25.

CPU also noted that its cost benefit analysis took a longer-term view of meter replacement costs and was not bounded by the 5-year regulatory period.⁴⁷ It considered that this produced results that are consistent with lower overall costs in the long term, which would translate to lower overall meter costs being recovered from customers in the long run.

Further, CPU noted that the cost benefit analysis, and therefore the preferred option, does not account for non-quantified benefits.⁴⁸ It outlined that these include the benefits of bringing forward new meter functionality and a reduction in non-compliance risk.

CPU tested stakeholder views on proactive meter replacement through its 'Test and Validate' program.⁴⁹ It surveyed if customers preferred proactively replacing meters from 2026–27, maintaining current meter charges, or delaying this to after 2031, with lower charges in the next period but potentially higher charges from 2031. Two thirds of customers preferred a 2026 proactive replacement approach. Further, group discussions highlighted stakeholder emphasis on maintaining reliability of meter performance.⁵⁰

We have assessed CPU's cost benefit analysis, including the specific inputs. We consider that this analysis is reasonable. We note:

- CPU's modelling of expected failure rates is comprehensive and calibrated in the context
 of there not being a lot of data for failure rates of smart meters beyond their useful life (in
 Australia or internationally).
- CPU's assumptions for Option 1, and the accelerated component of Option 2, in terms of the potential efficiencies relative to replacement on failure are well explained and appear reasonable and efficient.
- While the cost benefit analysis shows that the ratio of benefits to costs is not large, there
 are benefits which have not been quantified and we consider this means the analysis is
 likely to be conservative.
- While CPU's cost-benefit analysis is well-structured, we observed some discrepancies between the assumptions used in the analysis and those in the proposed metering expenditure models. These included the absence of labour escalation in the cost benefit analysis, slightly different replacement volumes, and higher meter unit costs for reactive replacement. We consider these reflect modelling choices and have not affected our consideration in relation to the preferred option.
- From our bottom-up analysis, and benchmarking proposed replacement rates, meter unit costs, and labour costs (using data from the Victorian distributors standardised metering

CitiPower, CP BUS 11.01 – Metering, January 2025, p. 21; Powercor, PAL BUS 12.01 – Metering – Jan2025 – Public, p. 21.; United Energy, UE BUS 12.01 – Metering, January 2025, p. 21.

⁴⁸ CitiPower, *CP BUS 11.01 – Metering*, January 2025, p. 21; Powercor *PAL BUS 12.01 – Metering*, January 2025, p. 21.; United Energy, *UE BUS 12.01 – Metering*, January 2025, p. 21.

CitiPower, *CP BUS 11.01 – Metering*, January 2025, p. 20; Powercor, *PAL BUS 12.01 – Metering*, January 2025, p. 20.; United Energy, *UE BUS 12.01 – Metering*, January 2025, p. 20.

CitiPower, *CP BUS 11.01 – Metering*, January 2025, p. 20; Powercor, *PAL BUS 12.01 – Metering*, January 2025, p. 20.; United Energy, *UE BUS 12.01 – Metering*, January 2025, p. 20.

expenditure models)⁵¹ we found that the rates and costs proposed by CPU's are broadly comparable / benchmark well (see section A.5.1.5). This included the proposed time to undertake different metering activities across the Victorian distributors where we found that CPU benchmarked well against the other distributors, demonstrating the highest labour efficiency in proactive meter replacements. Given this we accept CPU's proposed meter unit costs and the proactive replacement labour rate (as discussed in sections A.5.1.4 and A.5.1.5).

• While CPU did not examine a component replacement program as part of its assessment, we consider from the information it provided this option is not feasible. This is because smart meters are closed units meaning the labour required for meter removal and component replacement is comparable to the cost of the meter unit.⁵² Further, that a failed component often indicates broader meter degradation and component replacement is unlikely to materially extend a meter's residual field life or ensure reliable ongoing operation.

We also note that we did not receive any submissions in response to CPU's proposal or our issues paper in relation the proactive meter replacement program.

In addition to the cost benefit analysis, we also considered procurement and deliverability, both in terms of availability of meters and labour, and the scale of the proactive replacement proposed. This included in the context of concurrent implementation of a Victorian proactive replacement program and the smart meter rollout in the wider NEM.

CPU, and the other Victorian distributors, all considered that the risk of meter shortages and limited supplier capacity is low as forecast volumes only represent a small portion of the global metering market.⁵³ We note meter vendors are international suppliers with broad manufacturing capability. Therefore, we consider it unlikely the forecast volumes over the 2026–31 period will be constrained by meter availability.

CPU noted that its lead time for meter orders is currently 9 months⁵⁴ and that it places forward purchase orders up to 12 months in advance to support continuity of supply.⁵⁵ Further, that it had planned to review its existing meter supply contract in 2025 as part of a

CitiPower, CP MOD 11.03 – Standardised metering capex and opex, January 2025; Powercor, PAL MOD 12.03 - Standardised metering capex and opex, January 2025; United Energy, UE MOD 12.03 - Standardised metering capex and opex, January 2025; AusNet, ASD - AusNet EDPR 2026-31 - Metering Capex and Opex Model, January 2025; Jemena, JEN – Att 10-03M ACS Metering opex and capex model, January 2025.

CitiPower, Information request #032 - Metering, June 2025, Q2e; Powercor, Information request #032 - Metering, June 2025, Q2e; United Energy, Information request #029 - Metering, June 2025, Q2e.

CitiPower, Information request #032 - Metering, June 2025, Q3a; Powercor, Information request #032 - Metering, June 2025, Q3a; United Energy, Information request #029 - Meter Replacement, June 2025, Q3a; AusNet Services, AusNet EDPR 2026–31 - information request #048 - Metering, July 2025, Q5a; Jemena, Information request #022 - Metering Replacement, July 2025, Q3a.

CitiPower, *CP BUS 11.01 – Metering*, January 2025, p. 16; Powercor, *PAL BUS 12.01 – Metering*, January 2025, p. 16; United Energy, *UE BUS 12.01 – Metering*, January 2025, p. 16.

CitiPower, Information request #032 - Metering, June 2025, Q3d; Powercor, Information request #032 - Metering, June 2025, Q3d; United Energy, Information request #029 – Meter Replacement, June 2025, Q3d.

broader metering procurement strategy. ⁵⁶ However, we understand this process has been deferred until an expected update to the Victorian Advanced Metering Infrastructure Minimum Functional Specification is finalised. ⁵⁷

In terms of labour, CPU noted that as the proposed proactive replacement is planned it has a significantly higher chance of getting the level of labour resources required relative to reactive replacement. Further, that as the proactive replacement is expected to be carried out by external resources that are not specifically metering technicians, and can come from a pool of A grade electricians, this significantly increases the available labour pool.⁵⁸ CPU also stated in response to an information request that its regional approach to meter replacement will mean there is not competition for labour as each Victorian distributor will engage A grade electricians operating within their own local service region.⁵⁹ Given this, we are reasonably assured that labour should be available to resource the proactive replacement.

Together, we are not concerned by CPU's ability to procure the necessary meters and labour to deliver its proposed replacement program.

However, in reviewing CPU's proposals, we observed that its proposed proactive replacement volumes represent a significant increase relative to its current rate of meter replacement on failure. CPU proposed to commence proactive replacement from 2026–27 at a volume 6-times its forecast volumes of reactive replacement on fault or failure. While we acknowledge the operational efficiencies of a planned geographic replacement program, we consider this step change is unlikely to be deliverable in the early years of the program. This is also supported by CPU's meter procurement process having been deferred until the Victorian Advanced Metering Infrastructure Minimum Functional Specification is finalised.

We consider a more realistic approach would be a gradual ramp-up in replacement numbers over the next period. Given this, our draft decisions adjust the proactive replacement volumes to 50% of the proposed level in 2026–27 and 75% in 2027–28. To maintain the overall number of meters proactively replaced across the period we have redistributed these reduced volumes into 2029–30 and 2030–31.

A.5.1.2 Meter growth

Our draft decisions for CitiPower and Powercor are to accept the proposed volume of new meter installations over the 2026–31 period at annual growth rates of 1.3% and 2.4% for CitiPower and Powercor respectively. 60 This reflects that CitiPower and Powercor's proposed annual growth rates are consistent with historical average annual growth rates of 0.9% and

⁵⁶ CitiPower, *Information request #032 - Metering*, June 2025, Q4; Powercor, *Information request #032 - Metering*, June 2025, Q4; United Energy, *Information request #029 - Metering*, June 2025, Q4.

CitiPower, Information request #049 - Metering, July 2025, Q13; Powercor, Information request #052 - Metering, July 2025, Q13; United Energy, Information request #046 - Metering, July 2025, Q13.

⁵⁸ CitiPower, *CP BUS 11.01 – Metering*, January 2025, p. 22; Powercor, *PAL BUS 12.01 – Metering*, January 2025, p. 22; United Energy, *UE BUS 12.01 – Metering*, January 2025, p. 22.

⁵⁹ CitiPower, *Information request #032 - Metering*, June 2025, Q3a; Powercor, *Information request #032 - Metering*, June 2025, Q3a; United Energy, *Information request #029 - Metering*, June 2025, Q3a.

AER, Metering expenditure model – Draft decision – CitiPower distribution determination 2026–31, September 2025; CitiPower, CP MOD 11.03 – Standardised metering capex and opex, January 2025; AER, Metering expenditure model – Draft decision – Powercor distribution determination 2026–31, September 2025; Powercor, PAL MOD 12.03 - Standardised metering capex and opex, January 2025.

2.3%⁶¹, with slight increases following slower growth during and after COVID-19 lockdowns, as well as new meters requiring installation to support the shift away from gas connections. These growth rates are supported by our assessments of growth rates for metering opex, as well as SCS opex (see Attachment 3).

Our draft decision for United Energy is to not accept the proposed volume of new meter installations over the 2026–31 period. It proposed an annual growth rate of 2.0% and we have substituted it with an annual growth rate of 1.4%. This reflects our consideration that United Energy's proposed growth rate is materially higher than the historical average annual growth rate of 1.4%. and that this increase is not justified. This substitution of the growth rate reflects our considerations of the growth rate for SCS opex (see Attachment 3) and metering opex (see section A.6.2).

A.5.1.3 Reactive meter replacement

Our draft decisions are to accept CPU's proposed volume of reactive replacement of meters on fault or failure for the 2026–31 period at annual replacement rates of 1.5% (CitiPower), 1.4% (Powercor), and 1.5% (United Energy). 64 This reflects that CPU's proposed replacement rates are broadly consistent with the historically approved annual replacement rates (1.1%, 1.2%, and 0.8%) 65, with an increase in 2026–31 to reflect the expected increase as meters reach end of life and become more likely to fail. We note that CPU has not required as many reactive replacements on fault or failure as allowed for in the 2021–26 determination but consider the proposed annual replacement rates are acceptable considering the expected increase in failures. The capex for these reactive replacements is a product of the same meter and labour unit costs discussed at sections A.5.1.4 and A.5.1.5.

A.5.1.4 Meter installation – unit costs

Our draft decisions are to accept CPU's proposed meter unit costs for the 2026–31 period. CPU's proposed meter unit costs range from 12% decreases to 31% increases compared to

For the 2020–21 to 2023–24 years. AER analysis; CitiPower, *CP RIN 02 – Workbook 2 – historical*, January 2025; Powercor, *PAL RIN 02 – Workbook 2 – Historical*, January 2025.

AER, Metering expenditure model – Draft decision – United Energy distribution determination 2026–31, September 2025; United Energy, UE MOD 12.03 - Standardised metering capex and opex, January 2025.

For the 2020–21 to 2023–24 years. AER analysis; United Energy, *UE RIN 02 – Workbook 2 – historical*, January 2025.

AER analysis; AER, Metering expenditure model – Draft decision – CitiPower distribution determination 2026–31, September 2025; CitiPower, CP MOD 11.03 – Standardised metering capex and opex, January 2025; AER, Metering expenditure model – Draft decision – Powercor distribution determination 2026–31, September 2025; Powercor, PAL MOD 12.03 - Standardised metering capex and opex, January 2025; AER, Metering expenditure model – Draft decision – United Energy distribution determination 2026–31, September 2025; United Energy, UE MOD 12.03 - Standardised metering capex and opex, January 2025.

AER analysis; AER, Final Decision - CitiPower distribution determination - 2021–26 - ACS - Metering cost model, April 2021; AER, Final Decision - Powercor distribution determination - 2021–26 - ACS - Metering cost model, April 2021; AER, Final Decision - United Energy distribution determination - 2021–26 - ACS - Metering cost model, April 2021.

those approved in the 2021–26 period. ⁶⁶ This reflects the proposed move to a common meter cost across all 3 networks, where United Energy historically had higher costs than CitiPower and Powercor. This means that CitiPower and Powercor have slightly higher increases for some meters, but the proposed unit costs are broadly in line with, or less than, those previously approved for United Energy in the 2021–26 period.

While the proposed unit costs are the highest of those proposed by the Victorian distributors, we consider that they are in an acceptable range and are supported by the fact they are broadly consistent with, or less than, those unit costs we have previously considered for United Energy, and not significantly higher than those rates proposed by other distributors. CPU also provided support for their proposed unit rates in the form of procurement offers, which justified the unit rates proposed, as well as the individual communications components required for each meter to meet current and future data requirements.⁶⁷

A.5.1.5 Meter installation – labour costs

Labour costs are the product of the labour rate and average labour time for the relevant activity. We also apply our draft decision labour cost escalators to reflect wage price growth consistent with the rest of our draft decisions.

Our draft decisions accept CPU's proposed labour rate of \$146 per hour (\$2025–26)⁶⁸ for the 2026–31 period. This is for all activities other than reactive replacement of meters on fault or failure. This labour rate is lower than the maximum efficient labour rate for a field worker that we applied in our draft decision for ancillary network services (see Attachment 14). We consider that the field worker is the highest possible level of skilled worker required for meter replacement, with the only higher skill level being that of a senior engineer. We consider that most installations will be able to be achieved at lower skill levels, as evidenced by CPU's proposal of a lower labour rate for routine proactive replacement.

CPU proposed a higher alternate rate for reactive replacement of meters on fault or failure, to reflect the higher level of skilled technician required to diagnose faults and failures. We accept the inclusion of a higher alternate rate for reactive replacement, but have substituted the proposed labour rate of \$263 per hour (\$2025–26) with our maximum efficient labour rate for a field worker, being \$219 per hour for CitiPower and Powercor and \$215 per hour for

AER analysis; CitiPower, *CP MOD 11.03 – Standardised metering capex and opex*, January 2025; AER, Final Decision - CitiPower distribution determination - 2021–26 - ACS - Metering cost model, April 2021; Powercor, PAL MOD 12.03 - Standardised metering capex and opex, January 2025; AER, Final Decision - Powercor distribution determination - 2021–26 - ACS - Metering cost model, April 2021; United Energy, UE MOD 12.03 - Standardised metering capex and opex, January 2025; AER, Final Decision - United Energy distribution determination - 2021–26 - ACS - Metering cost model, April 2021.

⁶⁷ CitiPower, *Information request #032 - Metering*, June 2025; CitiPower, *Information request #049- Metering*, July 2025; Powercor, *Information request #032 - Metering*, June 2025; Powercor, *Information request #052- Metering*, July 2025; United Energy, *Information request #049- Meter Replacement*, June 2025; United Energy, *Information request #046- Metering*, July 2025.

AER, Metering expenditure model – Draft decision – CitiPower distribution determination 2026–31, September 2025; CitiPower, CP MOD 11.03 – Standardised metering capex and opex, January 2025; AER, Metering expenditure model – Draft decision – Powercor distribution determination 2026–31, September 2025; Powercor, PAL MOD 12.03 - Standardised metering capex and opex, January 2025; AER, Metering expenditure model – Draft decision – United Energy distribution determination 2026–31, September 2025; United Energy, UE MOD 12.03 - Standardised metering capex and opex, January 2025.

United Energy (\$2025–26).⁶⁹ This reflects our considerations above of a field worker being the highest possible level of skilled worker required for meter replacement.

We benchmarked estimated labour time for reactive replacements on fault or failure across the Victorian distributors' proposals. We then considered the estimated labour time in relation to the proactive replacement program, and how the efficiencies of proactive replacement presented as a discount from the estimated labour time for reactive replacements, and how these efficiencies compared across the Victorian distributors.

CPU proposed estimated labour times for reactive replacements that benchmarked well, being the lowest times across those proposed by the Victorian distributors at:

- 1.6 hours for CitiPower and United Energy's single-phase meters
- 1.9 hours for Powercor's single-phase meters
- 2.0 hours for CitiPower and United Energy's multiphase DC meters
- 2.3 hours for Powercor's multiphase meters
- 3.4 hours for CPU's multiphase CT meters at 3.4 hours.⁷⁰

We consider these estimated labour times to be acceptable given they benchmark well.

CPU proposed estimated labour times for proactive replacement that reflected the reactive replacement labour times discounted by around 40%, except for multi-phase CT meters which are discounted by around 10%. The consider that this reflects an estimated 40% efficiency associated with proactively replacing meters. These efficiencies were the highest proposed across the Victorian distributors. We consider these efficiencies to be the benchmark for all Victorian networks to achieve and have applied them in both AusNet and Jemena's draft decisions. As such, we accept CPU's proposed estimated labour times.

A.5.1.6 Other meter-related capex

Our draft decisions accept CPU's proposed capex related to customer-initiated replacements, the replacement of legacy meters, hot water load shift meter firmware upgrade, and overheads. Our draft decision, which reflects other updated modelling inputs (such as updates for inflation and labour escalators), is set out in Table A.9.

AER, Metering expenditure model – Draft decision – CitiPower distribution determination 2026–31, September 2025; AER, Metering expenditure model – Draft decision – Powercor distribution determination 2026–31, September 2025; AER, Metering expenditure model – Draft decision – United Energy distribution determination 2026–31, September 2025.

CitiPower, CP MOD 11.03 – Standardised metering capex and opex, January 2025; Powercor, PAL MOD 12.03 - Standardised metering capex and opex, January 2025; United Energy, UE MOD 12.03 - Standardised metering capex and opex, January 2025.

AER analysis; CitiPower, *CP MOD 11.03 – Standardised metering capex and opex*, January 2025; Powercor, *PAL MOD 12.03 - Standardised metering capex and opex*, January 2025; United Energy, *UE MOD 12.03 - Standardised metering capex and opex*, January 2025.

Table A.9 Draft decision other capex (\$million, 2025-26)

Category	CitiPower	Powercor	United Energy
Customer-initiated replacements	5.6	9.7	6.2
Replacement of legacy meters	1.6	2.3	1.3
Project management for proactive meter replacement	4.5	13.0	9.5
Project management for legacy meter replacement	0.7	1.6	-
Hot water load shift meter firmware upgrade	0.6	1.0	0.7
Overheads	1.0	7.4	6.5

Note: Our draft decision on other capex for Powercor also corrects a modelling error that allocated incorrect expenditure to meter abolishment activities. Meter abolishment is not listed in this table as metering expenditure does not include any associated expenditure with meter abolishment. This does not affect CitiPower or United Energy and is not addressed further in this appendix.

Source: AER, Metering expenditure model – Draft decision – CitiPower distribution determination 2026–31, September 2025; AER, Metering expenditure model – Draft decision – Powercor distribution determination 2026–31, September 2025; AER, Metering expenditure model – Draft decision – United Energy distribution determination 2026–31, September 2025.

We consider the volumes of customer-initiated replacements and legacy meter replacements to be in line with what we would expect for the 2026–31 period. Specifically, there is an increase in customer-initiated replacements to support the shift away from gas connections and adoption of electric vehicles, and a requirement to replace legacy meters (including management of this replacement) that remain on the networks to meet the 100% rollout of smart meters by 2030 mandated by the AEMC.⁷² The capex for these activities is a product of the same meter and labour unit costs discussed at sections A.5.1.4 and A.5.1.5.

We consider CPU's proposed capex related to a meter firmware upgrade to support hot water load shift to be immaterial (0.5% of total metering capex for CitiPower, and 0.3% for Powercor and United Energy) and acceptable. We also consider CPU's proposed capitalised overheads of 0.9% for CitiPower, 2.0% for Powercor, and 2.8% for United Energy are acceptable and in line with historical overheads and the cost allocation methodologies. We note CitiPower and Powercor's lower capitalised overheads relative to United Energy reflect some shared overhead costs in line with the cost allocation methodologies, whereas United Energy incurs all separate overhead costs.

AEMC, Final rule determination, Accelerating smart meter deployment, November 2024, pp. 1–2.

CitiPower, Cost Allocation Methodology, August 2020, p. 12; Powercor, Cost Allocation Methodology, August 2020, p. 12; United Energy, Cost Allocation Methodology, August 2020, p. 12.

A.5.2 Communications capex

Communications capex for metering services consists of the installation and replacement of communications assets to support the remote capabilities of smart meters. This includes equipment such as access points and relays, antennas, modems, and batteries.

Our draft decisions are for total communications capex for metering services over the 2026–31 period of:

- \$1.6 million (\$2025–26) for CitiPower.⁷⁴ This is a decrease of \$1.1 million (\$2025–26) or 39.4% from CitiPower's proposed total communications capex of \$2.7 million (\$2025–26) for this period.⁷⁵ CitiPower's proposed communications capex was 11.6% higher than the approved communications capex for the 2021–26 period.
- \$26.5 million (\$2025–26) for Powercor.⁷⁶ This is a decrease of \$12.9 million (\$2025–26) or 32.8% from Powercor's proposed total communications capex of \$39.4 million (\$2025–26) for this period.⁷⁷ Powercor's proposed communications capex was 125.3% higher than the approved communications capex for the 2021–26 period.
- \$8.1 million (\$2025–26) for United Energy.⁷⁸ This is a decrease of \$4.1 million (\$2025–26) or 33.7% from United Energy's proposed total communications capex of \$12.2 million (\$2025–26) for this period.⁷⁹ United Energy's proposed communications capex was 34.3% higher than the approved communications capex for the 2021–26 period.

Our draft decisions on communications capex are set out in Tables A.10, A.11, and A.12.

AER, *Metering expenditure model – Draft decision – CitiPower distribution determination 2026–31*, September 2025.

⁷⁵ CitiPower, CP MOD 11.03 – Standardised metering capex and opex, January 2025.

AER, Metering expenditure model – Draft decision – Powercor distribution determination 2026–31, September 2025.

Powercor, PAL MOD 12.03 - Standardised metering capex and opex, January 2025.

AER, Metering expenditure model – Draft decision – United Energy distribution determination 2026–31, September 2025.

⁷⁹ United Energy, *UE MOD 12.03 - Standardised metering capex and opex*, January 2025.

Table A.10 Draft decision communications capex - CitiPower (\$million, 2025-26)

Category	2026–31 proposal	2026–31 draft decision	Change from proposal	Change as a prop. of total comms capex
Growth – equipment	1.2	0.9	-28.6%	40.6%
Growth – installation	1.0	0.4	-59.5%	18.5%
Replacements – equipment	1.1	0.7	-33.9%	33.0%
Replacements – installation	0.3	0.2	-36.3%	7.9%
Net total (including SCS allocations)	3.6	2.2	-39.4%	
Net total (excluding SCS allocations)	2.7	1.6	-39.4%	

Note: Communications capex includes 25% of expenditure allocated to SCS. Categorised expenditure is presented in this table inclusive of expenditure allocated to SCS.

Source: CitiPower, *CP MOD 11.03 – Standardised metering capex and opex*, January 2025; AER, *Metering expenditure model – Draft decision – CitiPower distribution determination 2026–31*, September 2025.

Table A.11 Draft decision communications capex - Powercor (\$million, 2025-26)

Category	2026–31 proposal	2026–31 draft decision	Change from proposal	Draft decision prop. of total comms capex
Growth – equipment	6.9	4.9	-28.9%	13.8%
Growth – installation	2.4	2.3	-6.4%	6.5%
Replacements – equipment	32.4	19.5	-39.7%	55.3%
Replacements – installation	10.9	8.6	-20.5%	24.4%
Net total (including SCS allocations)	52.6	35.3	-32.8%	
Net total (excluding SCS allocations)	39.4	26.5	-32.8%	

Note: Communications capex includes 25% of expenditure allocated to SCS. Categorised expenditure is presented in this table inclusive of expenditure allocated to SCS.

Source: Powercor, *PAL MOD 12.03 - Standardised metering capex and opex*, January 2025; AER, *Metering expenditure model – Draft decision – Powercor distribution determination 2026–31*, September 2025.

Table A.12 Draft decision communications capex – United Energy (\$million, 2025–26)

Category	2026–31 proposal	2026–31 draft decision	Change from proposal	Draft decision prop. of total comms capex
Growth – equipment	4.5	3.2	-28.8%	29.5%
Growth – installation	2.4	1.9	-20.7%	17.7%
Replacements – equipment	7.0	4.0	-43.7%	36.7%
Replacements – installation	2.4	1.7	-26.2%	16.1%
Net total (including SCS allocations)	16.2	10.8	-33.7%	
Net total (excluding SCS allocations)	12.2	8.1	-33.7%	

Note: Communications capex includes 25% of expenditure allocated to SCS. Categorised expenditure is presented in this table inclusive of expenditure allocated to SCS.

Source: United Energy, *UE MOD 12.03 - Standardised metering capex and opex*, January 2025; AER, *Metering expenditure model – Draft decision – United Energy distribution determination 2026–31*, September 2025.

CPU's proposed annual growth and replacement rates mostly benchmarked well. Those that did not were broadly consistent with that approved for the 2021–26 period and we consider are sufficiently justified as being needed to support the increasing volumes of data being produced by the new meters required to report in 5-minute intervals (as opposed to the historical 30-minute intervals). Our draft decisions accept these annual growth and replacement rates.

Some of CPU's proposed equipment and installation unit costs were materially higher than those proposed by the other Victorian distributors, and materially higher than approved in the 2021–26 period. We do not consider these proposed unit costs to be prudent and efficient, nor have the increases been justified. As such, our draft decisions substitute these unit costs with those approved in the 2021–26 period, escalated for inflation. Table A.13 sets out the percentage change in these communications equipment unit costs that we have made in our draft decisions to bring these unit costs into line with those we approved in the 2021–26 period. They also reflect other updated modelling inputs (such as updates for inflation and labour escalation).

Table A.13 Changes in communications equipment unit costs (%, draft decision compared to proposal)

Category	Equipment unit costs – CPR	Installation unit costs – CPR	Equipment unit costs – PCR	Installation unit costs – PCR	Equipment unit costs – UEY	Installation unit costs – UEY
Access points	-29.1%	-50.7%	-29.1%	-24.0%	-29.5%	-9.0%
Relays	-39.9%	-30.5%	-39.9%	-24.2%	-49.1%	-41.8%
Micro access points	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Antennas, low profile	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Antennas, high profile	0.1%	-84.5%	0.1%	-83.0%	0.1%	-95.6%
Batteries	-64.5%	-21.0%	-64.5%	-5.2%	-64.5%	-41.0%

Note: CPR = CitiPower, PCR = Powercor, UEY = United Energy.

Source: AER analysis; CitiPower, *CP MOD 11.03 – Standardised metering capex and opex*, January 2025; AER, *Metering expenditure model – Draft decision – CitiPower distribution determination 2026–31*, September 2025; Powercor, *PAL MOD 12.03 - Standardised metering capex and opex*, January 2025; AER, *Metering expenditure model – Draft decision – Powercor distribution determination 2026–31*, September 2025; United Energy, *UE MOD 12.03 - Standardised metering capex and opex*, January 2025; AER, *Metering expenditure model – Draft decision – United Energy distribution determination 2026–31*, September 2025.

A.5.3 Information technology capex

Information technology (IT) capex for metering services consists of expenditure on IT systems to manage metering data for billing and network management purposes, for asset management, or to make the most of the capabilities of smart meters. This expenditure can be recurrent for regular upgrades and security updates, or non-recurrent for time-in-point investments or overhauls of systems.

Our draft decisions are for total IT capex for metering services over the 2026–31 period of:

- \$4.2 million (\$2025–26) for CitiPower.⁸⁰ This is an increase of \$0.1 million (\$2025–26) or 2.0% from CitiPower's proposed total IT capex of \$4.2 million (\$2025–26) for this period.⁸¹
- \$9.1 million (\$2025–26) for Powercor.⁸² This is an increase of \$0.2 million (\$2025–26) or 2.0% from Powercor's proposed total IT capex of \$8.9 million (\$2025–26) for this period.⁸³

AER, Metering expenditure model – Draft decision – CitiPower distribution determination 2026–31, September 2025.

⁸¹ CitiPower, *CP MOD 11.03 – Standardised metering capex and opex*, January 2025.

AER, Metering expenditure model – Draft decision – Powercor distribution determination 2026–31, September 2025.

Powercor, PAL MOD 12.03 - Standardised metering capex and opex, January 2025.

\$14.4 million (\$2025–26) for United Energy.⁸⁴ This is an increase of \$0.3 million (\$2025–26) or 1.9% from United Energy's proposed total IT capex of \$14.1 million (\$2025–26) for this period.⁸⁵

Our draft decision IT capex is set out in Table A.14.

Table A.14 Draft decision IT capex (\$million, 2025–26)

Category	CitiPower	Powercor	United Energy
Lifecycle upgrades – metering systems	1.5	3.4	4.9
Asset management system improvement	0.7	1.6	2.3
Digital inspections systems enhancement	0.2	0.4	0.6
New meter model introduction	1.9	3.7	5.8
SAP upgrade for testing, investigations, and faults	-	-	0.8
Net total	4.2	9.1	14.4

Source: AER, Metering expenditure model – Draft decision – CitiPower distribution determination 2026–31, September 2025; AER, Metering expenditure model – Draft decision – Powercor distribution determination 2026–31, September 2025; AER, Metering expenditure model – Draft decision – United Energy distribution determination 2026–31, September 2025.

CPU proposed recurrent IT capex for lifecycle upgrades and management of systems, particularly in relation to systems that collate metering data, manage the network and manage metering assets. 86 These amounts were relatively immaterial and in line with approved amounts for the 2021–26 period.

CPU also proposed non-recurrent IT capex relating to enhancement of systems to accommodate digital inspections, including the higher volumes of inspections and replacements of meters, as well as to support new meter models required.⁸⁷ We consider this expenditure supports the increased requirements for inspections and replacements, in line with the metering assets reaching end of life, which require capacity enhancements to relevant IT systems. In addition, enhancements are required to support new metering makes and models being used as other makes and models become obsolete, as well as newer functionality becoming available or requested.

AER, Metering expenditure model – Draft decision – United Energy distribution determination 2026–31, September 2025.

United Energy, UE MOD 12.03 - Standardised metering capex and opex, January 2025.

CitiPower, CP MOD 11.03 – Standardised metering capex and opex, January 2025; Powercor, PAL MOD 12.03 - Standardised metering capex and opex, January 2025; United Energy, UE MOD 12.03 - Standardised metering capex and opex, January 2025.

CitiPower, CP MOD 11.03 – Standardised metering capex and opex, January 2025; Powercor, PAL MOD 12.03 - Standardised metering capex and opex, January 2025; United Energy, UE MOD 12.03 - Standardised metering capex and opex, January 2025.

In addition, United Energy proposed non-recurrent IT capex relating to the implementation of a different interface for metering testing, investigations, and faults.⁸⁸ This expenditure reflects the ongoing transition of United Energy into the common systems used by CPU.

We assessed CPU's proposed IT capex to determine if it was prudent and efficient. We consider the recurrent IT capex was in line with historically allowed expenditure. We consider the non-recurrent IT capex to enhance systems to support increasing digital inspections, and new metering makes and models, is prudent and efficient and is also supported by the lower proposed amounts for general lifecycle upgrades for systems. We also consider United Energy's increased non-recurrent IT capex is justified given it will facilitate improved interoperability of the meter IT systems across CPU. Our draft decision IT capex reflects updates to other modelling inputs (such as inflation and labour escalation).

A.6 Operating expenditure

Our draft decisions are for total opex for metering services over the 2026-31 period of:

- \$30.3 million (\$2025–26) for CitiPower.⁸⁹ This is a decrease of \$0.4 million (\$2025–26) or 1.2% from CitiPower's proposed total opex of \$30.7 million (\$2025–26).⁹⁰
- \$70.9 million (\$2025–26) for Powercor.⁹¹ This is a decrease of \$1.0 million (\$2025–26) or 1.4% from Powercor's proposed \$71.9 million (\$2025–26).⁹²
- \$40.2 million (\$2025–26) for United Energy.⁹³ This is a decrease of \$1.7 million (\$2025–26) or 4.1% from United Energy's proposed \$41.9 million (\$2025–26).⁹⁴

These opex amounts for the draft decisions reflect the base-step-trend estimates provided by CPU adjusted for updates to labour cost escalation and inflation, as well as our draft decision growth rates for United Energy. Our draft decisions on opex are set out in Tables A.15, A.16, and A.17 and we discuss each of the base, trend and step components in the following sections.

⁸⁸ United Energy, UE MOD 12.03 - Standardised metering capex and opex, January 2025.

⁸⁹ AER, Metering PTRM - Draft decision - CitiPower distribution determination 2026-31, September 2025.

⁹⁰ CitiPower, *CP MOD 11.01 – Metering PTRM*, January 2025.

⁹¹ AER, Metering PTRM – Draft decision – Powercor distribution determination 2026–31, September 2025.

⁹² Powercor, *PAL MOD 12.01 – Metering PTRM*, January 2025.

⁹³ AER, *Metering PTRM – Draft decision – United Energy distribution determination 2026–31*, September 2025.

⁹⁴ United Energy, *UE MOD 12.01 – Metering PTRM*, January 2025.

Table A.15 Draft decision opex - CitiPower (\$million, 2025-26)

Category	2026–31 proposal	2026–31 draft decision	Change from proposal	Draft decision proportion of total opex
Base opex	22.1	22.1	0.0%	73.0%
Trend: Output growth	0.8	0.8	0.0%	2.8%
Trend: Price growth	1.3	1.0	-26.5%	3.2%
Total trend	2.2	1.8	-16.3%	6.1%
Step change: Meter testing	6.2	6.2	-	20.4%
Total step changes	6.2	6.2	-	20.4%
Debt raising costs	0.2	0.2	-10.7%	0.6%
Total opex	30.7	30.3	-1.2%	

Source: CitiPower, *CP MOD 11.03 – Standardised metering capex and opex*, January 2025; CitiPower, *CP MOD 11.01 – Metering PTRM*, January 2025; AER, *Metering expenditure model – Draft decision – CitiPower distribution determination 2026–31*. September 2025; AER, *Metering PTRM – Draft decision – CitiPower distribution determination 2026–31*, September 2025.

Table A.16 Draft decision opex - Powercor (\$million, 2025-26)

Category	2026–31 proposal	2026–31 draft decision	Change from proposal	Draft decision proportion of total opex
Base opex	54.0	54.0	0.0%	76.1%
Trend: Output growth	4.6	4.6	0.0%	6.5%
Trend: Price growth	3.2	2.3	-26.5%	3.3%
Total trend	8.1	7.2	-11.3%	10.1%
Step change: Meter testing	9.2	9.2	1	13.0%
Total step changes	9.2	9.2	-	13.0%
Debt raising costs	0.7	0.6	-14.0%	0.9%
Total opex	71.9	70.9	-1.4%	

Source: Powercor, *PAL MOD 12.03 – Standardised metering capex and opex*, January 2025; Powercor, *PAL MOD 12.01 – Metering PTRM*, January 2025; AER, *Metering expenditure model – Draft decision – Powercor distribution determination 2026–31*, September 2025; AER, *Metering PTRM – Draft decision – Powercor distribution determination 2026–31*, September 2025.

Table A.17 Draft decision opex – United Energy (\$million, 2025–26)

Category	2026–31 proposal	2026–31 draft decision	Change from proposal	Draft decision proportion of total opex
Base opex	32.1	32.0	-0.3%	79.8%
Trend: Output growth	1.7	0.8	-55.5%	1.9%
Trend: Price growth	1.9	1.4	-26.7%	3.5%
Total trend	3.8	2.2	-41.2%	5.5%
Step change: Meter testing	5.6	5.6	-	13.9%
Total step changes	5.6	5.6	-	13.9%
Debt raising costs	0.4	0.3	-16.5%	0.9%
Total opex	41.9	40.2	-4.1%	

Source: United Energy, *UE MOD 12.03 – Standardised metering capex and opex*, January 2025; United Energy, *UE MOD 12.01 – Metering PTRM*, January 2025; AER, *Metering expenditure model – Draft decision – United Energy distribution determination 2026–31*, September 2025; AER, *Metering PTRM – Draft decision – United Energy distribution determination 2026–31*, September 2025.

A.6.1 Base opex

If we find the distributor is operating efficiently, our preferred methodology is to use the distributor's historical or 'revealed' costs in a recent year as a starting point for our opex forecast.

CPU proposed 2024–25 opex as the base year. Opex in 2024–25 is an estimate, with actual opex not being known until the revised proposal. The estimates are in line with previous years and the opex allowed for the 2021–26 period. ⁹⁵ We consider that 2024–25 is an appropriate base year for our draft decisions and have accepted CPU's proposed base year and its current estimate of opex in that year. We expect CPU to update the base opex for 2024–25 actuals in its revised proposal, and we will consider that for our final decision. No adjustments to the base were proposed. ⁹⁶

A.6.2 Rate of change (trend)

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

Our draft decisions apply labour cost escalators consistent with SCS to forecast the expected growth in input prices. For more information, see Attachment 3.

OitiPower, CP MOD 11.03 – Standardised metering capex and opex, January 2025; Powercor, PAL MOD 12.03 – Standardised metering capex and opex, January 2025; United Energy, UE MOD 12.03 – Standardised metering capex and opex, January 2025.

CitiPower, CP MOD 11.03 – Standardised metering capex and opex, January 2025; Powercor, PAL MOD 12.03 – Standardised metering capex and opex, January 2025; United Energy, UE MOD 12.03 – Standardised metering capex and opex, January 2025.

Our draft decisions also apply CitiPower and Powercor's proposed changes in meter volumes to calculate the expected growth in outputs. This reflects CitiPower and Powercor's proposed growth rates being consistent with historical growth, with a slight increase following slower growth during and after COVID-19 lockdowns, as well as new meters requiring installation to support the shift away from gas connections. These growth rates are supported by our assessments of growth rates for metering capex (section A.5.1.2), as well as SCS opex (Attachment 3).

Our draft decision substitutes United Energy's proposed changes in meter volumes⁹⁸ for an alternate forecast to calculate the expected growth in outputs. This reflects our consideration that United Energy's proposed growth rate is materially higher than historical growth, and that this increase was not justified. This substitution of the growth rate reflects our considerations of the growth rate for SCS opex (Attachment 3) and metering capex (see section A.5.1.2).

A.6.3 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 ensure prudent and efficient costs are recovered.

Our draft decisions accept CPU's proposed metering step changes to fund the forecast increase in testing planned for their meter fleets. CPU noted it conducted very concentrated rollouts of smart meters from 2010 to 2013 that resulted in significant peaks in meter scheduled meter testing. The next peak is expected from 2025 for smart meter families that have operated more than 15 years. CPU noted that this peak, along with its proposed base year opex in 2024–25 not including these costs, justified its proposed step changes.⁹⁹

We consider the proposed step changes are prudent and efficient. The step changes reflect the expected costs based on existing labour durations for existing testing programs and hourly labour rates that are escalated appropriately. ¹⁰⁰ The forecast testing volumes are based on the existing meter family volumes from 2009 to 2023 and applying their approved testing plan ¹⁰¹, including sample testing volumes on 3-year initial, 10-year and subsequent 5-

AER, Metering expenditure model – Draft decision – CitiPower distribution determination 2026–31, September 2025; CitiPower, CP MOD 11.03 – Standardised metering capex and opex, January 2025; AER, Metering expenditure model – Draft decision – Powercor distribution determination 2026–31, September 2025; Powercor, PAL MOD 12.03 - Standardised metering capex and opex, January 2025.

AER, Metering expenditure model – Draft decision – United Energy distribution determination 2026–31, September 2025; United Energy, UE MOD 12.03 - Standardised metering capex and opex, January 2025.

OitiPower, *CP BUS 11.01 – Metering*, January 2025, p. 34; Powercor, *PAL BUS 12.01 – Metering*, January 2025, p. 34; United Energy, *UE BUS 12.01 – Metering*, January 2025, p. 34.

CitiPower, CitiPower EDPR 2026–31 – information request #049 – Metering, July 2025; Powercor, Powercor EDPR 2026–31 – information request #052 – Metering, July 2025; United Energy, United Energy EDPR 2026–31 – information request #046 – Metering, July 2025.

CitiPower, CitiPower EDPR 2026–31 – information request #049 – Metering, July 2025; Powercor, Powercor EDPR 2026–31 – information request #052 – Metering, July 2025; United Energy, United Energy EDPR 2026–31 – information request #046 – Metering, July 2025.

year routine testing cycles. 102 We consider the remote nature of this testing creates efficient costs.

A.7 Expenditure allocated to SCS

We considered the allocations of metering expenditure to SCS in the 2021–26 determinations for Victorian distributors, reflecting the increasing use of metering data for uses other than billing, including voltage management and other network operations. ¹⁰³ We considered the main causal allocator for SCS allocations to be data volumes. In our 2021–26 determinations we established the expectation that any proposed changes to allocations going forward would need to be supported by comprehensive cost-benefit analysis, including efficiencies gained and how those efficiencies manifest in SCS cost savings, and any alternative causal factors.

Our draft decisions accept CPU's proposal to continue its current allocation of 25% of communications assets capex to SCS.

A.8 Metering exit fees

Metering exit fees allow CPU to recover the written down value, as well as the efficient costs of removing and disposing, of meters. An example of where these fees may occur is when an existing site with multiple meters, such as an apartment building, becomes an embedded network, resulting in the removal of existing meters from the RAB.

Our draft decisions accept CPU's proposed approach to setting these price-capped fees, using the calculation of the building blocks for metering services ARR, in line with the historical approach. We substitute our metering exit fees to apply updates to forecast inflation and inputs related to the 2022 rate of return instrument, as well as our substituted capex and opex forecasts.

The price caps applicable in the first year of the 2026–31 period, as well as the X factors to escalate those prices in subsequent years, are set out in Tables A.18, A.19, and A.20. These X factors are calculated based on the real difference between the calculated price caps for each year, based on the RAB and building blocks for metering services. Increases are represented by negative X factors, and decreases represented by positive X factors, as the price cap is escalated using the CPI-X form.

CitiPower, *CP BUS 11.01 – Metering*, January 2025, p. 34; Powercor, *PAL BUS 12.01 – Metering*, January 2025, p. 34; United Energy, *UE BUS 12.01 – Metering*, January 2025, p. 34.

AER, Final decision – AusNet Services distribution determination 2021–26 – Attachment 16 – Alternative control services, April 2021, pp. 25–31.

Table A.18 Draft decision metering exit fee year 1 price caps (\$2025–26) and year 2–5 X factors – CitiPower

Category	2026–27 price cap	2027–28 X factor	2028–29 X factor	2029–30 X factor	2030–31 X factor
Single phase meter	\$232.64	-9.6%	-8.5%	-9.1%	-9.3%
Multi-phase meter	\$285.56	-11.1%	-10.4%	-10.9%	-11.0%
Multi-phase meter CT	\$399.24	-12.9%	-12.7%	-13.0%	-13.0%
Basic or MRIM	\$55.67	-0.9%	-1.1%	-1.2%	-1.1%

Source: AER, Metering PTRM - Draft decision - CitiPower distribution determination 2026-31, September 2025.

Table A.19 Draft decision metering exit fee year 1 price caps (\$2025–26) and year 2–5 X factors – Powercor

Category	2026–27 price cap	2027–28 X factor	2028–29 X factor	2029–30 X factor	2030–31 X factor
Single phase meter	\$319.86	-8.9%	-8.4%	-8.6%	-8.4%
Multi-phase meter	\$378.36	-9.7%	-9.4%	-9.7%	-9.5%
Multi-phase meter CT	\$507.65	-10.8%	-11.0%	-11.3%	-10.9%
Basic or MRIM	\$55.67	-0.9%	-1.1%	-1.2%	-1.1%

Source AER, Metering PTRM - Draft decision - Powercor distribution determination 2026-31, September 2025.

Table A.20 Draft decision metering exit fee year 1 price caps (\$2025–26) and year 2–5 X factors – United Energy

Category	2026–27 price cap	2027–28 X factor	2028–29 X factor	2029–30 X factor	2030–31 X factor
Single phase meter	\$244.85	-11.7%	-10.2%	-11.0%	-10.7%
Multi-phase meter	\$294.70	-12.9%	-12.1%	-13.0%	-12.5%
Multi-phase meter CT	\$399.44	-14.4%	-14.6%	-15.4%	-14.6%
Basic or MRIM	\$55.67	-0.9%	-1.1%	-1.2%	-1.1%

Source: AER, Metering PTRM – Draft decision – United Energy distribution determination 2026–31, September 2025.

The price path over the 2026–31 period reflects the increases in the RAB that result from the proactive replacement program. We are concerned that the price paths for exit fees, where there are expected increases over the coming 2026–31 period and beyond, may incentivise exiting activities.

We intend to consider whether it is appropriate to smooth these price paths, likely adopting a flat price path in years 2–5 as per our smoothing approach for metering revenues, in our final decisions. As such, we encourage CPU to consider this as part of its revised proposals. We

also encourage stakeholders to provide feedback in response to our draft decisions and CPU's revised proposals on this matter.

A.9 Cost pass through mechanism

The Victorian distributors' proposals all included expenditure (either in metering services or in SCS) to support services that may become regulated as a result of upcoming legislative changes. We have not accepted these proposed expenditures at this time as the legislative changes are yet to occur, and therefore there is uncertainty about where this expenditure should be recovered. If this uncertainty continues into the final decision, the distributors may not be allowed expenditure to cover these regulatory changes that may arise within the 2026–31 period.

The NER provides a cost pass-through framework for SCS to enable distributors to recover the costs of defined yet unpredictable, high-cost events that are not built into the distribution determination. We are seeking views about a proposed approach for considering and implementing any metering cost pass-throughs via the annual pricing process, which we consider has a level of administrative burden that is more relative to the magnitude of metering services revenues. This is set out in Attachment 12 and we seek feedback on the proposed approach.

Shortened forms

Term	Definition
2026–31 period	2026–31 regulatory control period
ARR	Annual revenue requirement
AusNet	AusNet Services
Capex	Capital expenditure
CPI	Consumer price index
CPR	CitiPower
CPU	CitiPower, Powercor, and United Energy
IT	Information technology
NEM	National Electricity Market
NER	National Electricity Rules
NPV	Net present value
Opex	Operating expenditure
PCR	Powercor
PTRM	Post tax revenue model
RAB	Regulatory asset base
RFM	Roll forward model
RIN	Regulatory information notice
SCS	Standard control services
UEY	United Energy
WACC	Weighted average cost of capital