FINAL DECISION

Jemena
Distribution Determination
2021 to 2026

Attachment 16
Alternative control services

April 2021

AUSTRALIAN ENERGY REGULATOR

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Note

This attachment forms part of the AER's final decision on the distribution determination that will apply to Jemena for the 2021–26 regulatory control period. It should be read with all other parts of the final decision.

The final decision includes the following attachments:

Overview

Attachment 1 – Annual revenue requirement

Attachment 2 – Regulatory asset base

Attachment 3 – Rate of return

Attachment 4 – Regulatory depreciation

Attachment 5 – Capital expenditure

Attachment 6 – Operating expenditure

Attachment 7 – Corporate income tax

Attachment 8 – Efficiency benefit sharing scheme

Attachment 9 – Capital expenditure sharing scheme

Attachment 10 – Service target performance incentive scheme

Attachment 12 – Not applicable to this distributor

Attachment 13 – Classification of services

Attachment 14 – Control mechanisms

Attachment 15 – Pass through events

Attachment 16 – Alternative control services

Attachment 18 – Connection policy

Attachment 19 – Tariff structure statement

Attachment A – Negotiating framework

Contents

16 Alternative control services

This attachment sets out our final decision on prices, or revenues, Jemena is allowed to charge, or recover from, customers for the provision of alternative control services (ACS):

- ancillary network services,
- public lighting services, and
- metering services.

Alternative control services are customer specific or customer requested services and so the full cost of the service is attributed to that particular customer, or group of customers, benefiting from the service. We set service specific prices or revenues to provide a reasonable opportunity to the distributor to recover the efficient cost of each service from customers using that service.

For more information on the classification of services and the form of control applied to each of the above services, see Attachment 13 − Classification of services, Attachment 14 − Control mechanisms and/or our final *Framework and Approach* (F&A) paper for the Victorian distributors.[1]

16.1 Ancillary network services

Ancillary network services share the common characteristic of being non-routine services provided to individual customers as requested. Our F&A paper outlines several types of services that can be considered as meeting this broad definition.[2] For ease of reference, ancillary network services in this attachment is to be taken to refer to the following service groupings, unless further explanation is provided:[3]

- Auxiliary metering services
- Basic connection services
- Connection application and management services
- Network ancillary services.

Ancillary network services are either charged on a fee or quotation basis, depending on the nature of the service.

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1 AER, *Final framework and approach: AusNet Services, CitiPower, Jemena, Powercor and United Energy: Regulatory control period commencing 1 January 2021*, January 2019.

2 AER, *Final framework and approach: AusNet Services, CitiPower, Jemena, Powercor and United Energy: Regulatory control period commencing 1 January 2021*, January 2019, pp. 29–34 and 100–104.

3 AER, *Final framework and approach: AusNet Services, CitiPower, Jemena, Powercor and United Energy: Regulatory control period commencing 1 January 2021*, January 2019, pp. 29–34 and 105–110.

We generally determine fee-based service price caps for the next regulatory control period as part of our determination, based on the cost inputs and the average time taken to perform each service. These services tend to be homogenous in nature and scope, and can be costed in advance of supply with reasonable certainty.

By comparison, prices for quoted services are based on quantities of labour and materials, with the quantities dependent on a particular task. Prices for quoted services are determined at the time of a customer's enquiry and reflect the individual requirements of the customer's service request. For this reason, it is not possible to list prices for quoted services in our decision. However, our final decision sets labour rates to be applied to ancillary network services provided on a quotation basis.

16.1.1 Final decision

Fee-based and quoted services

Our final decision, is to:

- Accept Jemena's proposed prices for fee-based services, namely:
    - clarification of the charging parameters for the Meter test of types 5, 6 and Advanced Metering Infrastructure (AMI) smart metering installations service,
    - abolishment of fees for the customer access to electricity consumption data service, and
    - revisions to simplify its wasted site attendance charges.
- Accept Jemena's proposed labour rates for quoted services, namely to add a vehicle allowance for its technical specialists' hourly rates.

Jemena's revised proposal was consistent with our draft decision prices and labour rates.

In our final decision, we adjust Jemena's proposed prices for year one (2021–26) of the 2021–26 regulatory control period for:

- actual inflation so the prices for the 2021–22 regulatory year are in nominal terms (see Appendix A of this attachment),
- our final decision labour price growth forecasts, and
- our final decision nominal vanilla weighted average cost of capital (WACC) (see Attachment 3 – Rate of return).

X factors for ancillary network services

We determine the prices and labour rates for Jemena's ancillary network services in the first year of the 2021–26 regulatory control period. For each year thereafter, the prices and labour rates are determined by a price cap control mechanism that adjusts prices for inflation, an X factor and any relevant adjustments. Our final decision control mechanism is set out in Attachment 14 – Control mechanisms.

As ancillary network services have a high share of labour and labour-related inputs, we use labour price growth forecasts as the ancillary network services X factor. In particular, we average wage price index growth forecasts from Deloitte Access Economics and BIS Oxford Economics to determine the X factors.

We have updated the labour price growth forecasts for our final decision to include the most recent forecasts. Our final decision X factors for ancillary network services are set out in Table 16.13 in Appendix A of this attachment.

16.1.2 Jemena's revised proposal

Jemena accepted our draft decision on the prices for all fee-based services and all quoted service labour rates except for technical specialists. Jemena's revised proposal includes a schedule of prices that is largely consistent with our draft decision.[4] [5]

In response to our draft decision on fee-based services, Jemena:

- Proposed offering the 'Customer access to data' service free of charge, with the clarification that more cumbersome requests of this service would be charged on a quoted basis.[6]
- Clarified that the meter test fee for 'Meter test of types 5, 6 and AMI smart metering installation' will apply only once, even when testing multiple meters at a customer's premises.[7]

For quoted services, Jemena accepted our draft decision to substitute the engineer and senior engineer hourly labour rates. However, Jemena also proposed to increase the hourly rate of the technical specialist labour type in order to include a $20 vehicle allowance.[8]

Stakeholders were invited to comment after the revised proposals were released. We received a submission from AGL recommending that Jemena should simplify its wasted site attendance charges.[9] Jemena responded by proposing to add a new wasted site attendance service using the prices we already accepted in the draft

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4 Jemena, *Revised regulatory proposal 2021–26, ATT 09-01 Response to the AER's draft decision - Alterative control services*, December 2020, pp. A1–A3.

5 This includes Jemena (along with AusNet Services) proposing to operate and maintain security and watchmen lights but not their installation as an alternative control service in the 2021–26 regulatory control period. The other Victorian distributors are offering to install them as a quoted service with no additional fee to operate and maintain them.

6 Jemena, *Revised regulatory proposal 2021–26, ATT 09-01 Response to the AER's draft decision - Alterative control services*, December 2020, p. 27.

7 Jemena, *Revised regulatory proposal 2021–26, ATT 09-01 Response to the AER's draft decision - Alterative control services*, December 2020, p. 27.

8 Jemena, *Revised regulatory proposal 2021–26, ATT 09-01 Response to the AER's draft decision - Alterative control services*, December 2020, pp. 27–28.

9 AGL, *Submission on the Victorian EDPR Revised Proposal and draft decision 2021–26,* January 2021, p. 3.

decision. Jemena also clarified in its new pricelist as to when the new wasted site attendance charge would apply.[10]

16.1.3 Assessment approach

The regulatory framework for assessing alternative control services is less prescriptive than for standard control services. That is, there is no requirement to apply the building block model exactly as prescribed in Part C of the National Electricity Rules (NER).[11]

On this basis, our approach involves an assessment of the efficient costs for providing ancillary network services. Labour costs are the major input in the cost build-up of prices for ancillary network services. Therefore, our assessment focusses on comparing Jemena's proposed labour rates against maximum total labour rates, which we consider efficient.

Where Jemena's proposed labour rates exceed our maximum efficient labour rates, we apply our maximum efficient labour rates to determine prices. We follow this assessment process for services provided on a fee or quotation basis.

We also considered relevant stakeholder feedback raised throughout the consultation process and benchmarked Jemena's proposed ancillary network services prices against prices for the 2016–20 regulatory control period and other relevant distributors. We made further adjustments to Jemena's ancillary network services prices where we considered it appropriate to do so.

Origin Energy noted in its submission that alternative control services can impose significant costs on customers. As such, Origin Energy appreciated the efforts made in examining the underlying cost structures associated with alternative control services.[12]

16.1.4 Reason for final decision

Sections 16.1.4.1 and 16.1.4.2 discuss our reasons for our final decision on Jemena's revised proposal where it has not accepted our draft decision or where it proposed new matters not considered in our draft decision.

Section 16.1.4.3 sets out our consideration of issues raised by AGL on the regulation of ancillary network services in general.

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10 Jemena, *Information request #066,* February 2021.

11 NER, cl. 6.2.6(c).

12 Origin Energy, *Submission on the Victorian EDPR Revised proposal and draft decision 2021–26*, January 2021, p. 2.

16.1.4.1 Fee-based services

Customer access to data

We accept Jemena's proposal to abolish fees for the 'Customer access to electricity consumption data' service.

In our draft decision, we required Jemena to abolish the charge for the 'Customer access to data' service, except in cumbersome situations where Jemena may offer this service on a quoted basis.[13]

Subsequently, Jemena proposed that the service be made free of charge, except when the request is not the first request made by the customer within the preceding year, or the requested interval data relates to a period before the preceding two years.[14]

We consider these terms are reasonable, and accept Jemena's abolition of this charge for simple requests. Complex customer requests, as defined by Jemena, will instead be charged on a quoted basis.

Clarification of meter test prices

We accepted Jemena's proposed meter test prices in our draft decision. However, we requested Jemena to clarify whether the 'Meter test of types 5, 6 and AMI smart metering installations' service would be charged only once when multiple meters were tested.[15]

Jemena's revised proposal stated that the service will only be charged once, even when multiple meters are tested.[16]

This clarification provides greater transparency to stakeholders for the provision of these services. As set out in our draft decision, we consider Jemena's proposed meter test prices are efficient. Therefore, we accept Jemena's proposed price for this service.

Simplification of Jemena's wasted site attendance charges

We accept Jemena's revisions to simplify its wasted site attendance charges, which includes a new service that covers wasted site attendance events.

AGL submitted that there was scope for Jemena to simplify its wasted site attendance charges to be in line with the other Victorian distributors. It also requested that Jemena clarify the differences in its wasted site attendance charges.[17]

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13 AER, *Draft Decision: Jemena distribution determination 2021 to 2026 - Attachment 16 - Alternative Control Services*, September 2020, pp. 13–14.

14 Jemena, *Revised regulatory proposal 2021–26, Att 09-01: Response to the AER's draft decision - Alternative control services*, December 2020, p. 27.

15 AER, *Draft Decision: Jemena distribution determination 2021 to 2026 - Attachment 16 - Alternative Control Services*, September 2020, p. 15.

16 Jemena, *Revised regulatory proposal 2021–26, Att 09-01: Response to the AER's draft decision - Alternative control services*, December 2020, p. 27.

In an information request, we requested additional information on these matters and asked whether Jemena was amenable to simplifying its charges.

As a result of AGL's submission, Jemena proposed to restructure its price list by adding a new service that represented the approved wasted site attendance charges from our draft decision. Jemena also provided information in the footnotes as to when a wasted site attendance charge would apply and which charge would apply for a particular service.[18]

We agree these measures will reduce the perceived complexity. The footnotes make it clear as to when wasted site attendance charges apply and what fees apply.
A reproduction of this new price list is included in Table 16.10 of this attachment.

16.1.4.2 Quoted services

This section sets out our final decision on the labour rates Jemena uses for its quoted services. Our final decision on Jemena's proposed inclusion of a margin in the quoted services control mechanism formula is set out in Attachment 14 – Control mechanisms.

Jemena accepted our draft decision labour rates for its quoted services with one amendment. In particular, it increased the hourly rate for technical specialists to include a vehicle allowance. We discuss this amendment below.

Vehicle allowance for technical specialists

We accept Jemena's revised proposal to add a vehicle allowance for its technical specialists' hourly rates as it reflects the efficient costs that Jemena incurs.

In our draft decision, we noted Jemena had omitted including a vehicle allowance in its technical specialist labour rate.[19] We accepted Jemena's proposed labour rates but noted we would revisit our decision should Jemena decide to include the vehicle allowance. Subsequently, Jemena's revised proposal acknowledged the omission was an oversight and added the vehicle allowance of approximately $20/hour.

We accept Jemena's revised technical specialist labour rate which includes the vehicle allowance:

- as it is consistent with the cost inputs to derive the maximum labour rates developed by our consultant,[20] and
- it is below the maximum labour rates we consider efficient.

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17 AGL, *Submission on the Victorian EDPR Revised Proposal and draft decision 2021–26,* January 2021, p. 3.

18 Jemena, *Information request #066,* February 2021.

19 AER, *Draft Decision: Jemena distribution determination 2021 to 2026 - Attachment 16 - Alternative Control Services*, September 2020, pp. 6–7.

20 Marsden Jacob, *Review of ancillary network services: CitiPower, Powercor, United Energy, Jemena and AusNet Services: Advice to the Australian Energy Regulator*, 30 June 2020, p. 13.

16.1.4.3 Issues raised on the regulation of ancillary network services

In its submission, AGL considered there is scope to improve the regulation of ancillary network services by standardising and simplifying the services that distributors offer.[21] This would allow retailers operating across the five distribution regions in Victoria to streamline their operations. For example, AGL noted how each Victorian distributor had different criteria on how they charged their connection service fees.

We agree with the feedback from AGL there is potential to standardise and simplify the ancillary network services offered across distributors and even across jurisdictions. The distributors different naming conventions, criteria for services, and service descriptions makes it difficult for us and other stakeholders to compare and benchmark prices. The standardisation and simplification of ancillary network services is an issue that merits further investigation in the future.

AGL further noted that it was important for distributors to justify differences in their after-hours rates with their business-hours rates. AGL considered distributors should not automatically assume their after-hours charges can be automatically marked up by 75 per cent. [22] This was in reference to the Marsden Jacob recommendation that after-hours labour rates be capped at 1.75 times the relevant ordinary rate.

In Jemena's case, the only after-hours rate proposed was for field workers. The proposed after-hours rate was below 1.75 times the maximum business-hours rate for field workers we consider efficient. In other words, its proposed after-hours charges did not require any adjustment due to our cap. We will continue to monitor the after-hours mark-ups in future determinations.

16.2 Metering

We are responsible for the economic regulation of the regulated metering services provided by the Victorian distributors. Metering services include the maintenance, reading, data services and recovery of capital costs related to installing meters.

Metering assets are used to measure electrical energy flows at a point in the network to record consumption for the purposes of billing, and include:

- type 5 (interval) and type 6 (accumulation) meters, including meters installed as part of the Advanced Metering Infrastructure (AMI or smart metering) program in Victoria, which are classified as type 5-6 meters, and
- type 7 meters, which relate to unmetered connections with predictable energy consumption patterns (such as public lighting connections).

Unlike other jurisdictions in the National Electricity Market (NEM), the Victorian distributors are the monopoly providers of most metering services, including smart

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[21] AGL, *Submission on the Victorian EDPR Revised Proposal and draft decision 2021–26,* January 2021, pp. 2–3.

[22] AGL, *Submission on the Victorian EDPR Revised Proposal and draft decision 2021–26,* January 2021, p. 2.

metering services. Since 2017, metering services have become contestable services in some jurisdictions and can be provided by a retailer or a third party instead, but not in Victoria.[23]

Jemena's current meter fleet includes 4 867 legacy non-AMI meters, accounting for 1.42 per cent of the 362 817 total meters on its network.[24]

In this section, we explain our final decision for Jemena on the following metering services:

- Type 5 and 6 (incl. smart metering) services, and
- Metering exit fees.

Our final decision on other regulated metering services (for example, type 7 metering services and auxiliary metering services other than metering exit fees) see section 16.1.1 on ancillary network services.

16.2.1 Final decision

Our final decision is to:

- Not accept Jemena's proposed revenues for type 5 and 6 (incl. smart metering) services and substitute alternative revenues for type 5 and 6 (incl. smart metering) services that have been calculated by:
    - applying our final decision rate of return, labour price growth forecasts, and inflation forecast consistent with standard control services.[25] These changes result in different forecast operating expenditure (opex) and capital expenditure (capex) to that proposed by Jemena in its revised proposal.
- Not accept Jemena's proposed metering exit fees and set alternate metering exit fees based on our changes to forecast opex and capex.

In our final decision, we adjust Jemena's metering model to derive charges for year one (2021–22) of the 2021–26 regulatory control period for:

- actual inflation and inflation forecast consistent with standard control services,
- our final decision labour price growth forecasts, and
- our final decision nominal vanilla WACC (see Attachment 3 - Rate of return).

Our final decision also includes an adjustment in the first year (2021–22) of the 2021–26 regulatory control period to true-up the allowed revenue amounts we set for the six-month extension period (see section 16.2.1.4).

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[23] In some instances, a customer is charged for metering services from both the distributor and retailer. More information on these arrangements can be found in the AER's distribution determination for each distributor.

[24] Jemena, *Jemena 2019 – Category Analysis RIN – Templates,* May 2020.

[25] For further information, see the Overview, Attachment 3 - Rate of return and Attachment 6 - Operating expenditure of this final decision.

16.2.1.1 Type 5 and 6 (incl. smart metering) services revenue

Our final decision allows for a revenue requirement for type 5 and 6 (incl. smart metering) services for the 2021–26 regulatory control period of $113.61 million ($ nominal) compared to Jemena's revised proposal of $112.89 million ($nominal).

Table 16.1 provides the building block components that make up the total revenue requirement.

Table 16.1 Final decision – metering annual revenue requirement 2021–26 regulatory control period ($ million, nominal)

	2021–22	2022–23	2023–24	2024–25	2025–26	Total
Return on Capital	2.97	2.71	2.36	2.01	1.75	11.80
Return of Capital (regulatory depreciation)	7.43	8.22	8.80	9.36	10.37	44.17
Operating Expenditure	9.99	10.34	10.73	11.14	11.58	53.77
Revenue Adjustments	-	-	-	-	-	-
Net Tax Allowance	0.72	0.64	0.80	0.89	0.93	3.97
Annual Revenue Requirement (unsmoothed)	21.11	21.90	22.68	23.40	24.63	113.71
X factor	27.27%	–0.75%	–0.75%	–0.75%	–0.75%	
Smoothed revenue	21.50	22.10	22.71	23.33	23.98	113.61

Source: AER - *Final Decision - Jemena distribution determination 2021–26 - Metering PTRM and exit fees*, April 2021.

Having calculated the total revenue requirement for the 2021–26 regulatory control period, we smooth the revenue for each regulatory year across that period. This step reduces revenue variations between years, and calculates the expected revenue and X factor for each year. The X factors equalise (in net present value terms or NPV) the total expected revenues to be earned by the distributor with the total revenue requirement for the 2021–26 regulatory control period. For Jemena, this NPV is $99.16 ($2020–21).

16.2.1.2 Metering charges

Our final decision will lead to a slightly higher net present value of Jemena's total metering revenue (smoothed) over the 2021–26 regulatory control period compared to

that proposed by Jemena in its revised proposal. As metering services are subject to a revenue cap,[26] we have not set metering charges in this final decision. Actual metering charges will be approved during our annual pricing process.

Broadly we expect the price path to follow the X factors included in Table 16.2 and Table 16.3. Table 16.3 provides the first year adjustment (2021–22) relative to the revenues in the last year of the 2016–20 regulatory control period and X factors for remaining years of 2021–26 regulatory control period. We further note that negative first year adjustments and X factors reflect increases in revenues due to the CPI–X revenue control formula.

Table 16.3 provides the resulting expected or 'smoothed' revenue for the 2021–26 regulatory control period as proposed by Jemena, and set by our final decision.

Table 16.2 Final decision first year adjustments and X factors for remaining years of the 2021–26 regulatory control period (per cent)

	2021–22	2022–23	2023–24	2024–25	2025–26
Proposal	17.53	0.00	0.00	0.00	0.00
Draft Decision	27.96	0.00	0.00	0.00	0.00
Revised Proposal	28.67	-0.84	-0.84	-0.84	-0.84
Final Decision	27.27	-0.75	-0.75	-0.75	-0.75

Source: Jemena, *Att 07-24 ACS Metering PTRM FY22–26*, January 2020; AER - *Draft Decision - Jemena distribution determination 2021–26 - Metering PTRM and exit fees*, September 2020; Jemena, *Att - 09-01M ACS Metering PTRM FY22–26*, December 2020; AER - *Final Decision - Jemena distribution determination 2021–26 - Metering PTRM and exit fees,* April 2021.

Note: First year adjustment for draft decision calculated from approved 2020 revenue, and indexed to $2020–21 for comparison.

Table 16.3 Final decision smoothed revenue 2021–26 ($ million, nominal)

Smoothed revenue	2021–22	2022–23	2023–24	2024–25	2025–26	Total
Proposal	24.46	25.04	25.63	26.23	26.85	128.21
Draft Decision	21.37	21.88	22.40	22.93	23.48	112.06
Revised Proposal	21.16	21.85	22.55	23.28	24.04	112.89
Final Decision	21.50	22.10	22.71	23.33	23.98	113.61

Source: Jemena, *Regulatory Proposal - Att 07-24 ACS Metering PTRM FY22–26*, January 2020; *AER - Draft Decision - Jemena distribution determination 2021–26 - Metering PTRM and exit fees*, September 2020;

[26] AER, *Final framework and approach: AusNet Services, CitiPower, Jemena, Powercor and United Energy - Regulatory control period commencing 1 January 2021*, January 2019. See also attachment 14 of this final decision.

Jemena - *Att - 09-01M ACS Metering PTRM FY22–26* Dec 2020; AER - *Final Decision - Jemena distribution determination 2021–26 - Metering PTRM and exit fees*, April 2021.

16.2.1.3 Metering exit fees

Our final decision metering exit fees reflect adjustments we made to the building block components for type 5 and 6 (incl. smart metering) revenue. These metering exit fees reflect:

- apportionment of the meter, IT, communications, and any other regulated asset base to reflect foregone revenue based on the average remainder of life of an asset
- administration costs of removing the meter
- tax allowances, and other relevant costs.

These costs are sourced from the calculations of the building block components for type 5 and 6 (incl. smart metering) revenue, and are therefore subject to the same assessment and reasoning as for the type 5 and 6 (incl. smart metering) revenue.

Our final decision metering exit fees for 2021–22 are set out in Appendix B. Prices for subsequent years will be determined by the control mechanism formula set out in Attachment 14 - Control Mechanisms. Our final decision on the X factors for metering exit services is also set out in Appendix B.

16.2.1.4 True-up for six month extension period

Our final decision also includes an adjustment of $8,629 ($2020–21) in the first year (2021–22) of the 2021–26 regulatory control period to true-up the allowed revenue amounts we set for the six-month extension period. We used a placeholder WACC to determine the allowed revenues for the six-month extension period. Now that the actual WACC has been determined for this period, an adjustment is required to account for the differences between the placeholder and actual WACCs.

The adjustment will be made through the C factor as set out in Attachment 14 – Control mechanisms. The true up for the placeholder WACC is discussed further in Attachment 3 – Rate of return.

16.2.2 Jemena's revised proposal

Jemena's revised proposal accepted the majority of our draft decision except for the following changes:

- Jemena calculated the forecast labour price growth based on the average of the most recent BIS forecast and then averaged the BIS forecast with our DAE

forecast.[27] This change resulted in revised forecast opex and capex for the regulatory control period 2021–2026[28]

- updated rate of return and inflation[29]
- modified the X factors to apply evenly between the second and last regulatory years of the next regulatory control period to satisfy the requirement to minimise the difference between unsmoothed and smoothed revenue in the final year
- updated the P0 to account for all other changes in the proposed revised annual revenue requirement for smart metering services.[30]

16.2.2.1 Type 5 and 6 (incl. smart metering) services revenue requirement

Table 16.4 shows Jemena's proposed building block components and revenue requirements (unsmoothed).

Table 16.4 Jemena's revised proposal building block components ($ million, nominal)

	2021–22	2022–23	2023–24	2024–25	2025–26	Total
Return on Capital	2.80	2.57	2.25	1.92	1.68	11.22
Return of Capital (regulatory depreciation)	7.24	8.06	8.69	9.32	10.39	43.70
Operating Expenditure	10.00	10.38	10.81	11.29	11.81	54.29
Revenue Adjustments	0.00	0.00	0.00	0.00	0.00	0.00
Net Tax Allowance	0.67	0.59	0.76	0.86	0.91	3.79
Annual Revenue Requirement (unsmoothed)	20.70	21.60	22.51	23.39	24.79	113.00
X factor	n/a	-0.84%	-0.84%	-0.84%	-0.84%	n/a
Smoothed revenue	21.16	21.85	22.55	23.28	24.04	112.89

Source: Jemena, *Regulatory Proposal 2021–26 - Supporting document - Att 09–01M ACS Metering PTRM FY22–26*, December 2020.

[27] Jemena, *2021–26 electricity distribution price review - revised proposal, Attachment 09-01*, p.18
[28] Jemena, *2021–26 electricity distribution price review - revised proposal, Attachment 09-01*, p.10
[29] Jemena, *2021–26 electricity distribution price review - revised proposal, Attachment 09-01*, p.10
[30] Jemena, *2021–26 electricity distribution price review - revised proposal, Attachment 09-01*, p.11

16.2.2.2 Annual metering charges

Jemena's revised annual metering charges are set out in Table 16.5.

Table 16.5 Jemena's proposed metering service charges for 2021–22 ($ nominal)

Meter type	2021–22
Single phase single element	56.21
Single phase two element with contactor	56.21
Three phase (direct connect)	68.81
Three phase (current transformer (CT) connect	91.54
Multiphase CT connected	114.46

Source: Jemena, *Revised Regulatory Proposal 2021–26 - Supporting document - Att 09-01 Response to AER's draft decision - Alternative control services*, December 2020, p.21.

16.2.2.3 Metering exit fees

Jemena's revised meter exit fees as set out in Table 16.6.

Table 16.6 Jemena's proposed metering exit fees ($2021–22)

	2021–22	2022–23	2023–24	2024–25	2025–26
Single Phase	235.82	222.90	206.46	191.60	178.28
Single Phase, Two Element	235.82	222.90	206.46	191.60	178.28
Three Phase DC	235.82	222.90	206.46	191.60	178.28
Three Phase CT	235.82	222.90	206.46	191.60	178.28

Source: Jemena, *Revised Regulatory Proposal2021–26 - Supporting document - Att 09-01 Response to AER's draft decision - Alternative control services*, Dec 2020, p.22.

16.2.3 Assessment approach

In our final *Framework and Approach*, we classified type 5 and 6 (incl. smart metering) services and Metering exit services as alternative control services.[31]

[31] AER, *Final framework and approach: AusNet Services, CitiPower, Jemena, Powercor and United Energy - Regulatory control period commencing 1 January 2021*, January 2019.

16.2.3.1 Type 5 and 6 (incl. smart metering) services revenue

As type 5 and 6 (incl. smart metering) services are classified as an alternative control service, we have a greater discretion under the NER in making our assessment compared to standard control services.[32]

The regulatory framework for assessing alternative control services is less prescriptive than for standard control services. That is, there is no requirement to apply the building block model exactly as prescribed in Part C of the NER.[33]

Consistent with the approach adopted for our draft decision and the current regulatory control period we have chosen to apply a limited version of a building block approach[34] for our final decision.

For our final decision we also had regard, where relevant, to:

- the wider regulatory context in determining the allocation of metering service costs, including the possibility of Victoria adopting a competitive metering framework at some point in the future
- cost allocation principles, and particularly our Cost Allocation Methodology Guideline[35] and the approved Cost Allocation Methodology for each distributor[36]
- consistency of approach with other regulated services, including the WACC and labour price growth forecasts used for standard control services
- comparisons between the Victorian distributors
- the Victorian distributors revised proposals, and
- stakeholder feedback in response to our draft decision.

16.2.3.2 Metering exit fees

Metering exit services allow the distributor to recover the written down value, as well as the efficient costs of removing and disposing, of AMI meters. This currently occurs when an existing site with multiple meters, such as an apartment building becomes an embedded network, resulting in the removal of existing meters.[37]

Consistent with the approach for our draft decision, the inputs we used to calculate metering exit fees for our final decision are:

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32 NER, cl. 6.2.6(c).

33 NER, cl. 6.2.6(c).

34 The building block model calculates the allowed revenue for a regulated business for each year of the regulatory control period. Where the revenue requirement = opex + depreciation + tax + (WACC x regulatory asset base). The building block model requires inputs/forecasts for each year of the regulatory control period. These include; the regulatory asset base, opex, capex, interest rates, inflation and incentive payments. Our metering building block model is streamlined because it does not include any adjustment for incentive schemes.

35 AER, *Victorian electricity distribution network service providers - cost allocation guidelines*, June 2008.

36 Jemena, *Cost Allocation Methodology*, March 2019.

37 AER, *Final Framework and Approach for Victorian Electricity Distributors*, October 2014, p. 101.

- Our final decision on Jemena's opening metering asset base value for type 5 and 6 (incl. smart metering) services as of 1 July 2021, split into meter categories (meter, IT and communications) for the purpose of modelling the exit fee, as opposed to the broader category of 'remotely read interval meter'
- Our final decision on forecast metering capex and opex for type 5 and 6 (incl. smart metering) services for Jemena 2021–26 regulatory control period.
- Depreciation lives (meters – 15 years, communications and IT – 7 years), which we have accepted in this final decision.

16.2.4 Reason for final decision

This section sets out in greater detail the reasons for our draft decision for each relevant service.

16.2.4.1 Price growth forecasts and inflation

We have updated the metering post-tax revenue model (PTRM) and metering capex and opex models to include our final decision inputs relating to the rate of change, inflation and price growth forecasts. For our labour price growth forecasts for metering services we apply the average of WPI growth forecasts from Deloitte Access Economics (DAE) and BIS Oxford Economics.

16.2.4.2 Metering asset base

In its initial proposal, Jemena proposed a 2021–22 opening metering asset base of $60.34 million ($2021–22).[38]

In its revised proposal, Jemena accepted our draft decision 2021–22 metering asset base of $60.60 million ($2021–22).

16.2.4.3 Metering revenue and charges

Capital expenditure

Jemena initially proposed capex of $21.54 million ($2020–21) in its proposal for the 2021–26 regulatory control period.[39]

In our draft decision we accepted the unit rates and related costs Jemena proposed in relation to these elements of capex.[40] However, due to the COVID-19 pandemic, we did not find Jemena's forecast new connection growth rate to be appropriate. In our draft decision we made adjustments to the forecast customer numbers to reflect an

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38 Jemena, *Att 07-24 ACS Metering PTRM FY22–26*, 24 February 2020.

39 Jemena, *Revised regulatory proposal 2021–26 - Supporting document - Attachment 07-09 - Advanced Metering Infrastructure*, January 2020, p. 16.

40 AER, *Draft Decision Jemena Distribution Determination 2021–26 Attachment 16 Alternative control services*, September 2020, p.27.

adjusted growth rate for the 2021–26 years. As we did not accept Jemena's proposed customer growth rates and meter volumes in our draft decision we therefore did not accept the total proposed capex. We also updated 2019 meter volumes for those reported by Jemena in its annual regulatory information notices (RINs). [41]

Our draft decision capex also reflected our draft decision labour price growth forecasts[42] and forecast inflation[43]. We also updated forecast inflation with actual inflation.

In its revised proposal, Jemena accepted our draft decision inflation and lower customer growth rates.[44] However, Jemena did not accept our labour escalation forecasts and has provided updated forecasts from BIS which it has then averaged with the AER's draft decision DAE forecast. Jemena submitted the updated BIS forecasts account for the impacts of the COVID-19 pandemic and superannuation guarantee changes.

We do not accept Jemena's revised labour price growth forecasts. We have updated the labour price growth forecasts for our final decision to include the most recent forecasts. Our change to the price growth forecasts results in revised forecast capex for the regulatory control period 2021–26.

Our final decision forecast capex is set out in Table 16.7 below.

Table 16.7 Forecast capital expenditure ($2020–21)

Forecast Capex	2021–22	2022–23	2023–24	2024–25	2025–26	Total
Proposal	4.96	3.36	3.01	5.08	5.12	21.54
Draft Decision	4.34	3.01	2.94	4.92	4.96	20.18
Revised Proposal	4.36	3.01	2.95	5.00	5.04	20.35
Final Decision	4.37	3.02	2.95	5.01	5.05	20.39

Source: Jemena, *Regulatory Proposal 2021–26 - Supporting document - Att 07-24 ACS Metering PTRM FY22–26*, January 2020; AER, *Draft Decision - Jemena distribution determination 2021–26 - Metering PTRM*, September 2020; Jemena, *Regulatory Proposal 2021–26 - Supporting document - Att 09–01M ACS Metering PTRM FY22–26*, Dec 2020; AER, *Final Decision - Jemena distribution determination 2021–26 - Metering PTRM*, April 2021.

41 AER, *Draft Decision Jemena Distribution Determination 2021–26 Attachment 16 Alternative control services*, September 2020, pp.27-8.

42 See Attachment 6 of our draft decision - Operating expenditure.

43 See Attachment 3 of our draft decision - Rate of return.

44 Jemena, *Revised regulatory proposal 2021–26, Att. 09-01*, December 2020, p.13.

Forecast operational expenditure

In its initial proposal Jemena proposed opex of $63.88 million ($2020–21) for the 2021–26 regulatory control period.[45]

In our draft decision we made the following changes to Jemena's proposed opex:

- replaced Jemena's estimate for base year opex in 2019 with actual opex reported in their annual RIN.
- revised Jemena's proposed customer growth forecasts to reflect the expected impact of the COVID-19 pandemic.
- replaced Jemena's forecast for labour escalation with a revised DAE forecast, and
- updated the CPI calculations to reflect the latest actual and forecast inflation data.[46]

In its revised proposal, Jemena accepted the changes we made to its opex forecasts except for our draft decision price growth forecasts.[47] As discussed above, under our discussion on capital expenditure, Jemena proposed updated forecasts from BIS, which it has averaged with the AER's draft decision DAE forecast.

We do not accept Jemena's revised price growth forecasts. We have updated the labour price growth forecasts for our final decision to include the most recent forecasts. Our change to the price growth forecasts results in revised forecast opex for the regulatory control period 2021–26.

Table 16.8 sets out our final decision on Jemena's forecast opex for the 2021–26 regulatory control period.

Table 16.8 Forecast operating expenditure ($2020–21)

Forecast Opex	2021–22	2022–23	202–/24	2024–25	2025–26	Total
Proposal	12.26	12.51	12.77	13.04	13.30	63.88
Draft Decision	9.67	9.76	9.89	10.05	10.25	49.63
Revised Proposal	9.77	9.90	10.08	10.28	10.50	50.53
Final Decision	9.79	9.94	10.11	10.29	10.49	50.62

Source: Jemena, *Regulatory Proposal 2021–26 - Supporting document - Att 07-24 ACS Metering PTRM FY22-26*, January 2020; AER, *Draft Decision - Jemena distribution determination 2021–26 - Metering PTRM*, September 2020; Jemena, *Revised Regulatory Proposal 2021–26 - Supporting document - Att 09–01M ACS Metering PTRM FY22-26*, Dec 2020; AER, *Final Decision - Jemena distribution determination 2021–26 - Metering PTRM*, April 2021.

[45] Jemena, *Attachment 07-09 - Advanced Metering Infrastructure*, January 2020, p. 9.

[46] AER, *Jemena Distribution Determination 2021–26, Attachment 16 Alternative Control Services*, September 2020, pp. 28-29.

[47] AER, *Jemena Distribution Determination 2021–26, Attachment 16 Alternative Control Services*, September 2020, p.10.

16.3 Public lighting services

Public lighting services are defined as the:

- operation, maintenance, repair and replacement of public lighting assets in line with the Public lighting Code or the relevant legislation;
- alteration and relocation of public lighting assets;
- provision of new public lights.

16.3.1 Final decision

Our final decision is to:

- Accept Jemena's revised number of repairs that can be completed in a standard day for Category P lights.[48]
- Accept updates to the public lighting model for 2019 actual volumes.
- Accept updates to the public lighting model for actual reported capital and operating expenditures for 2019 in line with the RIN response.

For our final decision, we have updated Jemena's proposed public lighting charges for:

- actual inflation where relevant
- our final decision on labour price growth, and
- our final decision on WACC (see Attachment - 3 Rate of return).

Our final decision sets the public lighting prices for the first year (2021–22) of the 2021–26 regulatory control period. Prices for the subsequent years of the regulatory control period will be escalated by actual inflation and the X factors set out in Table 16.17.

16.3.2 Jemena's revised proposal

In response to our draft decision, Jemena's revised proposal:

- Accepted our draft decision LED (Light Emitting Diode) unit prices.
- Did not accept our draft decision of undertaking 29 repairs per day (for urban area and 24 repairs for rural area) which was benchmarked in line with United Energy's initial proposal. Instead Jemena proposed that 20 repairs per day (for urban and 16 for rural) better indicates the number of repairs that could be achieved in an 8 hour day. Jemena considered that 20 and 16 repairs per day is more realistic and helps the distributor to comply with the obligations of the Public lighting Code.
- Updated the public lighting model for real pre-tax WACC and actual inflation.

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[48] Category P lights are typically installed on minor roads and streets, while category V lights are typically installed on highways and major roads.

- Replaced the labour price growth rate based on the average of AER's DAE forecast and forecasts provided by BIS.

16.3.2.1 Repairs per day for Category P lights

Jemena did not accept our draft decision of 29 repairs per day for urban and 24 repairs per day for rural areas. Instead Jemena proposed lower repair rates based on:[49]

- how the public lighting cost of repairs are structured in the public lighting model for urban, remote and rural areas
- comparison of repair rates with other Victorian distributors and AER final decisions for previous regulatory control periods
- analysis of daily activities of public lighting crew and specific activities involved in repairing a light, and
- consideration of obligations under the public lighting code.

Table 16.9 Jemena's repairs per day

	Initial proposal	Draft decision	Revised proposal
Urban	15	29	20
Rural	12	24	16

Source: Jemena, *Regulatory proposal 2021–26 – Attachment 07-32 – Public Lighting Model,* January 2020, "Input O&M"; AER – *Draft Decision – Jemena distribution determination 2021–26*, Public Lighting Model– September 2020,"Input O&M"; Jemena *–Revised Regulatory Proposal–2021–26–09–09M Public lighting Model*, December 2020.

In support of its proposal, Jemena detailed the step-by-step process of light replacement by a single crew of two persons using an elevated work platform (EWP) vehicle and the average time taken for each activity in the process.

Jemena explained on average it takes a total of 23 minutes to repair one light including time to travel to the next job. In addition, the crew does extra activities at the start, during and end of the day such as additional paperwork, pre-start checklist, travel time to the depot and rest break.

Considering a typical 8 hour work day and the total time taken for repairs plus other miscellaneous activities, Jemena considered 18 repairs are feasible in a day.[50]

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[49] Jemena*, Revised regulatory proposal 2021–26 – Supporting document – Attachment 09–01 –Response to the AER's draft decision –Alternative Control Service,* December 2020, p. 34.

[50] Jemena*, Revised regulatory proposal 2021–26 – Supporting document – Attachment 09–01 –Response to the AER's draft decision –Alternative Control Service,* December 2020, p. 35.

However, Jemena revised upwards its proposed repairs per day to 20 for urban areas taking into account the average repair times outlined by other Victorian distributors. Jemena noted the Victorian distributors[51] with similar network characteristics to its own network averaged 20.7 to 22.7 repairs per day.[52]

Comparison with United Energy's repair per day rate

In response to our draft decision benchmarking, Jemena did not consider United Energy's repairs per day rates by themselves were comparable and considered that a sense check is necessary when applying benchmarks across distributors. Jemena noted:

- that United Energy's repair per day rate for 2016–20 regulatory control period is unrealistically high at 49 to 50 lights for T5 lights per day for urban areas[53]
- that United Energy proposed the same number of Category P light repairs per day as Powercor, except for T5 lights.[54] Jemena points that Powercor did not alter its repair rates between the two regulatory control periods.
- the exact alignment of repairs per day data between United Energy and Powercor seemed to indicate that their common ownership is driving convergence of repairs, and
- it did not consider the lower number of repairs suggested by United Energy is due to any efficiency tests or analysis performed on the historical assumption for repairs.

Further Jemena considered that AusNet Services and Powercor's urban areas are more representative of Jemena's urban areas compared to United Energy.

Public Lighting Code obligations

Jemena noted that Public Lighting Code requires Jemena to fix public lighting faults within certain timeframes.[55] It is therefore not always possible for Jemena to cluster the repairs per day in the same vicinity but optimise the resources as much as possible while conducting the repair work. Jemena urged that for assessment of repairs per day for Category P lights, a consideration to the obligations under the Public Lighting Code needs to be done.

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51 Jemena compared its repairs per day against Powercor, United Energy and AusNet Service. Jemena did not include CitiPower as it has its urban area inclusive of Melbourne CBD and considered it may not be representative of the urban areas in other distributors' region.

52 Jemena, *Revised regulatory proposal 2021–26 – Supporting document – Attachment 09–01 –Response to the AER's draft decision –Alternative Control Service,* December 2020, Table 3-4, p. 36.

53 Jemena, *Revised regulatory proposal 2021–26 – Supporting document – Attachment 09–01 –Response to the AER's draft decision –Alternative Control Service,* December 2020, p. 36.

54 Jemena, *Revised regulatory proposal 2021–26 – Supporting document – Attachment 09–01 –Response to the AER's draft decision –Alternative Control Service,* December 2020, Table 3-4, p. 36.

55 Jemena, *Revised regulatory proposal 2021–26 – Supporting document – Attachment 09–01 –Response to the AER's draft decision –Alternative Control Service,* December 2020, Table 3-4, p. 36.

16.3.3 Assessment approach

To determine prices for public lighting services we assessed Jemena's public lighting model, considered historical data and benchmarked proposed costs against other NEM distributors and against independent data and information as relevant. Specifically, we assessed proposed labour price growth rates, other input assumptions and stakeholder submissions to derive proposed public lighting charges. We also updated model parameters where appropriate.

We also noted the detailed analysis presented by Jemena for number of repairs per day including the bottom up approach, cost structures and obligations under the Public Lighting Code. We studied the step by step activities table provided by Jemena and reassessed our draft decision in light of this additional information.

16.3.4 Reason for final decision

16.3.4.1 LED unit prices

We have accepted Jemena's forecast (from its revised proposal) to increase deployment of LED lights from 24 per cent to 43 per cent.[56] We encourage Jemena to continue engaging with customers and promoting LED bulk replacements through customer led replacement programs.

In response to our draft decision, the Local Government Response (LGR) acknowledged our support for distributors and councils on matters such as:[57]

- enhancements to enable smart lighting
- improve levels of recycling of redundant street lighting assets
- ensure distributors utilise the latest approved technologies when recycling failed and ageing assets (such as LEDs), and
- clearly define asset lifecycle to ensure timely asset renewals.

In particular, the LGR's submission commented that benchmarking was important where product prices decline over time such as LEDs. Our draft decision recommended the most recent tender prices with respect to LED unit rates be used as inputs to the public lighting model for the five year revenue determination.[58]

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[56] Jemena, *Revised Regulatory Proposal 2021 –26 – ATT 09 –01 – Alternative control services,* December 2020, p.29.

[57] Local Government Response, *Submission on the Victorian EDPR Revised proposal and draft decision 2021–26,* December 2020, p 6.

[58] AER Draft decision –*Jemena distribution determination - 2021–26 – Attachment 16 – Alternative control services* - September 2020, p.36.

Our draft decision also noted stakeholders' views on a review of the Victorian Public Lighting Code.[59] We encouraged stakeholders to work with Essential Services Commission Victoria for the review.

16.3.4.2 Number of repairs per day

We accept Jemena's revised number of repairs per day for Category P lights of 20 repairs for urban and 16 repairs for rural areas. In making our final decision, we have taken into consideration Jemena's bottom-up analysis of the number of repairs that can be achieved in a standard 8 hour day in addition to benchmarking.

In our draft decision, we substituted Jemena's proposed repairs per day rate based on benchmarks being maintained and achieved by United Energy.[60] We also conducted informal discussions with Jemena to understand the underlying cost build up and the reasons as to why the proposed repairs per day rate is efficient.

We consider benchmarking and comparative analysis can enable distributors to improve performance and pass on the benefits to customers. However, we also note at times that elements such geographical parameters, cost structures and external contractors' rates can influence the input assumptions for different distributors.

Our draft decision benchmarking of repairs per day provided Jemena with an opportunity to review and analyse the input assumption. We consider Jemena's response provides a satisfactory balance of consideration between input assumption and benchmarking.

As noted, Jemena provided time calculations of various activities involved in repair work and derived that it can achieve 18 repairs per day in urban arears in a reasonably safe manner for urban areas.[61] However, Jemena has proposed 20 repairs per day based upon benchmarking with other relevant distributors.[62]

On balance, we welcome Jemena's revised repair per day rates which are 5 and 4 repairs respectively more per day for urban and rural customers compared to their initial proposal.

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59 AER, *Draft decision: Jemena distribution determination 2021–26, Attachment 16 Alternative control services*, September 2020, p.51.

60 AER Draft decision – *Jemena distribution determination - 2021–26 – Attachment 16 – Alternative control services* - September 2020, p.40.

61 Jemena, *Revised Regulatory Proposal 2021–26 – ATT 09 –01 – Alternative control services,* December 2020, p.35.

62 Jemena compared its repairs per day for Powercor, United Energy and AusNet and did not include CitiPower as it has its urban area inclusive of Melbourne CBD and therefore Jemena considered it may not be representative of the urban areas in other distributors' region.

16.3.4.3 Modelling changes

In addition to changing of the numbers of repairs per day rate to our draft decision Public Lighting Model, Jemena also updated the model for:

- forecast labour price growth rates, consistent with those proposed for standard control services
- updated real pre-tax WACC and inflation
- actual light volumes for 2019, and
- replacing allowances for capital expenditure and operating expenditure with the actuals for 2019.

We reviewed the public lighting model and we accept the above changes proposed by Jemena. We have made a few minor corrections which have been listed in a separate sheet in the approved final decision model.

16.3.4.4 Price movements

In its revised proposal, Jemena updated its public lighting model:

- with actual public lighting volumes for 2019, and
- actual capital expenditure and operating expenditure for 2019.

Jemena's updated volumes resulted in a downward movement to public lighting prices. However, our final decision pre-tax WACC (3.1 per cent) for the public lighting model is high than Jemena's revised proposal (2.4 per cent) resulting in a marginal increase for the first year of the 2021–26 regulatory control period. In spite of this first year increase, total revenue has decreased by 0.3 per cent for the 2021–26 regulatory control period when compared to historical trends.

Our final decision public lighting prices and the corresponding X factors are set out in Appendix C of this attachment.

A Ancillary network services prices

Prices in this appendix are in $2021–22.

Table 16.10 Fee-based ancillary network services prices for 2021–22, final decision ($2021–22)

Connection services	Final decision prices[1]	
	Business hours	After hours
Connection services		
Basic single-phase connection *	$563.99	$746.97
Basic three-phase connection *	$693.87	$876.85
Ancillary network services		
Temporary single-phase connection *	$563.99	$746.97
Temporary three-phase connection *	$693.87	$876.85
Field-based energisation	$49.50	$86.40
Field-based de-energisation	$70.98	$70.98
Disconnection (temporary) requiring a service vehicle	$367.05	$519.55
Reconnection requiring a service vehicle	$425.28	$605.51
Basic connection upgrade (single-phase to three-phase) *	$693.87	$876.85
Replacement of overhead basic connection (single-phase) *	$676.40	$859.38
Replacement of overhead basic connection (three-phase) *	$750.72	$933.70
Reserve feeder maintenance - $/kVa/annum	$12.98	$12.98
Other ancillary network services		
Customer access to electricity consumption data	$0.00	$0.00
Security lighting (operation and maintenance) - $/light/annum	$136.31	$136.31
Auxiliary metering services		
Remote special meter read	$0.00	$0.00
Remote energisation	$0.00	$0.00
Remote de-energisation	$0.00	$0.00
Remote meter re-configuration	$49.91	$49.91
Meter alteration (or relocation)	$472.07	$652.30
Field-based special meter reads	$47.69	$47.69
Meter test of types 5, 6 and AMI smart metering installations (No charge for additional meters)	$514.17	$698.04

Type 7 metering (meter data service) - $/light/annum	$1.44	$1.44
Non-contestable unmetered metering $/unmetered installation/annum	$16.58	$16.58
Wasted Site Attendance		
Waste attendance - site visit	$472.07	$652.30

Source: AER, *Final decision - Jemena distribution determination 2021–26 - ACS - Fee-based Services Model*, April 2021.

Notes: 1. Jemena will apply a Wasted Site Attendance fee in circumstances where on arrival at the site, it is found the customer's premises are not ready for the scheduled work, or if the site is not safe to undertake the work or access to the site is limited.

2. For services marked (*), the Wasted Site Attendance fee applies. For all other services, the Wasted Site Attendance fee is the service fee shown applicable to the service.

3. This table is based on a restructured presentation of these services, following our information request. For a more detailed discussion, see section 16.1.4.1.

Table 16.11 Non-exhaustive list of ancillary network services provided on a quotation basis

Description of service
Supply abolishment (non-basic)
Temporary covering of low voltage mains and service lines (fitting of tiger tails)
Rearrangement of network assets at customer request, excluding alteration and relocation of public lighting assets
Elective undergrounding
Reserve feeder construction
Access permits, oversight and facilitation
Sale of approved materials or equipment
Notices of arrangement and completion notices
Network related property services
Network safety services
High load escorts
Fitting of possum guards and aerial markers
Site visit relating to location of underground cables/assets
Third party request for de-energising wires for safe approach
Provision of traffic control and safety observer services by the distributor where required
Planned interruption – customer requested
Customer requested supply interruption
Inspection and auditing services
Provision of training to third parties for network related access

Description of service
Authorisation and approval of third party service providers
Replacement of security lights that are beyond repair
Provision of electricity network data to customers or third parties outside of legislative obligations
Third party requested network alterations or other improvements
Community network upgrades
Non-standard metering services (eg. initial setup of load and inventory table of non-contestable unmetered devices)
Connection management services
Temporary non-basic connections
Temporary disconnection of non-basic connections
Reconnection of non-basic connection after temporary disconnection
Protection and power quality assessment
Customer requested change requiring secondary and primary plant studies
Calculation of a site-specific distribution loss factor on request
Embedded network management
Connection application related services
Alteration and relocation of public lighting assets
New public lighting services including greenfield sites and new light types (distributor provided)
Provision, construction and maintenance of emerging public lighting technology.

Source: Jemena, *Attachment 07-30 ACS Quoted Services Model*, 31 January 2020.

Table 16.12 Quoted service hourly labour rates for 2021–22, final decision ($2021–22)

	AER final decision maximum total hourly rate - Business hours	AER final decision maximum total hourly rate - After hours
Administration	$92.22	NA
Field worker	$157.05	$239.03[1]
Technical	$166.25	NA
Engineer	$153.15	NA
Senior engineer	$200.26	NA

Source: AER, *Final decision - Jemena distribution determination - 2021–26 - ACS - Quoted Services Model*, April 2021

Note: 1. Jemena did not propose after-hours rates for other labour types.

Table 16.13 AER final decision on X factors for each year of the 2021–26 regulatory control period for ancillary network services (per cent)

	2022–23	2023–24	2024–25	2025–26
X factor	-0.6627	-0.6091	-0.7328	-0.9509

Source: AER, *Final decision - Jemena distribution determination - 2021–26 - ACS - Fee-based Services Model*, April 2021; AER, *Final decision - Jemena distribution determination - 2021–26 - ACS - Quoted Services Model*, April 2021.

Note: We do not apply an X factor for 2021–22 because we set the 2021–22 ancillary network service prices in this determination.

To be clear, the labour price growth forecasts in this table are operating as de facto X factors. Therefore, positive labour price growth forecasts are represented as negative in this table and vice versa.

B Type 5 and 6 (incl. smart metering) metering exit fees

Prices in this appendix are in $2021–22.

Table 16.14 AER final decision metering exit fees ($2021–22)

Meter type	2021–22
Single phase single element	$234.36
Single phase two element with contactor	$234.36
Multiphase	$234.36
Multiphase CT connected	$234.36

Source: AER, *Final decision - Jemena distribution determination - 2021–26 - Metering exit fees*, April 2021, "Output|Exit Fee Table" tab.

Table 16.15 AER final decision on X factors for each year of the 2021–26 regulatory control period for metering exit fees (per cent)

X factor	2022–23	2023–24	2024–25	2025–26
AMI single phase	7.6719	9.5564	9.3801	9.1488
AMI three phase	7.6719	9.5564	9.3801	9.1488
AMI three phase current transformer	7.6719	9.5564	9.3801	9.1488
Basic or MRIM	7.6719	9.5564	9.3801	9.1488

Source: AER, *Final decision - Jemena distribution determination - 2021–26 - Metering exit fees*, April 2021, "Output|Exit Fee Table" tab.

C Public lighting services

Prices in this appendix are in $2021–22.

Table 16.16 Public lighting prices – Final Decision ($2021–22)

Jemena Lights	Revised Proposal	Final Decision
Mercury Vapour 80 watt	$57.43	$57.88
Sodium High Pressure 150 watt	$120.92	$121.21
Sodium High Pressure 250 watt	$123.74	$124.05
Fluorescent 20 watt	$71.78	$72.35
Fluorescent 40 watt	$71.78	$72.35
Fluorescent 80 watt	$71.78	$72.35
Mercury Vapour 50 watt	$71.78	$72.35
Mercury Vapour 125 watt	$84.42	$85.08
Mercury Vapour 250 watt	$118.79	$119.09
Mercury Vapour 400 watt	$133.64	$133.97
Sodium Low Pressure 90 watt	$128.17	$128.48
Sodium High Pressure 100 watt	$165.66	$166.05
Sodium High Pressure 400 watt	$164.58	$164.99
Metal Halide 70 watt	$147.59	$148.75
Metal Halide 150 watt	$268.44	$269.08
Metal Halide 250 watt	$266.05	$266.71
Incandescent 100 watt	$89.59	$90.29
Incandescent 150 watt	$111.98	$112.86
T5 (2 x 14 W)	$61.36	$61.61
T5 (2 x 24 W)	$69.11	$69.38
LED 18W (incl. other standard Category P LED variants)	$28.13	$28.43
Compact Fluoro 32W	$58.18	$58.41
Compact Fluoro 42W	$58.18	$58.41
L1 - LED 70W	$53.26	$53.61
L2 - LED 118W, 155W, 162W	$53.80	$54.17
L4 - LED 275W	$58.62	$59.14

Source: AER, *Final decision - Jemena distribution determination - 2021–26 - Public Lighting Model*, April 2021

Table 16.17 Public lighting – X factors (per cent)

Jemena Lights	2022–23	2023–24	2024–25	2025–26
Mercury Vapour 80 watt	3.2960	3.4442	-1.3002	0.5261
Sodium High Pressure 150 watt	1.7075	1.6531	-0.8762	0.0548
Sodium High Pressure 250 watt	1.8154	2.3908	-0.8657	0.0673
Fluorescent 20 watt	3.2960	3.4442	-1.3002	0.5261
Fluorescent 40 watt	3.2960	3.4442	-1.3002	0.5261
Fluorescent 80 watt	3.2960	3.4442	-1.3002	0.5261
Mercury Vapour 50 watt	3.2960	3.4442	-1.3002	0.5261
Mercury Vapour 125 watt	3.2960	3.4442	-1.3002	0.5261
Mercury Vapour 250 watt	1.8154	2.3908	-0.8657	0.0673
Mercury Vapour 400 watt	1.8154	2.3908	-0.8657	0.0673
Sodium Low Pressure 90 watt	1.7075	1.6531	-0.8762	0.0548
Sodium High Pressure 100 watt	1.7075	1.6531	-0.8762	0.0548
Sodium High Pressure 400 watt	1.8154	2.3908	-0.8657	0.0673
Metal Halide 70 watt	3.2960	3.4442	-1.3002	0.5261
Metal Halide 150 watt	1.7075	1.6531	-0.8762	0.0548
Metal Halide 250 watt	1.8154	2.3908	-0.8657	0.0673
Incandescent 100 watt	3.2960	3.4442	-1.3002	0.5261
Incandescent 150 watt	3.2960	3.4442	-1.3002	0.5261
T5 (2 x 14 W)	-2.9006	-2.5020	-2.2825	-2.0758
T5 (2 x 24 W)	-2.9006	-2.5020	-2.2825	-2.0758
LED 18W (incl. other standard Category P LED variants)	-4.8331	-4.1264	-3.6925	-3.3051
Compact Fluoro 32W	-2.9006	-2.5020	-2.2825	-2.0758
Compact Fluoro 42W	-2.9006	-2.5020	-2.2825	-2.0758
L1 - LED 70W	-4.1440	-3.4937	-3.0921	-2.6756
L2 - LED 118W, 155W, 162W	-4.2823	-3.5995	-3.1737	-2.7280
L4 - LED 275W	-5.4049	-4.4476	-3.8223	-3.1411

Source: AER, *Final decision - Jemena distribution determination - 2021–26 - Public Lighting Model*, April 2021

Shortened forms

Shortened form	Extended form
ACS	alternative control services
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
AMI	advanced metering infrastructure
capex	capital expenditure
CCP17	Consumer Challenge Panel, sub-panel 17
CPI	consumer price index
Distributor	distribution network service provider
ECA	Energy Consumers Australia
F&A	framework and approach
LED	light-emitting diode
MV	mercury vapour
NEL	National Electricity Law
NEM	National Electricity Market
NER	National Electricity Rules
opex	operating expenditure
PTRM	post-tax revenue model
RIN	regulatory information notice
SCS	standard control services
WACC	weighted average cost of capital