



FINAL DECISION
Jemena distribution
determination
2016 to 2020

Attachment 16 – Alternative
control services

May 2016

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Note

This attachment forms part of the AER's final decision on Jemena's distribution determination for 2016–20. It should be read with all other parts of the final decision.

The final decision includes the following documents:

Overview

Attachment 1 – Annual revenue requirement

Attachment 2 – Regulatory asset base

Attachment 3 – Rate of return

Attachment 4 – Value of imputation credits

Attachment 5 – Regulatory depreciation

Attachment 6 – Capital expenditure

Attachment 7 – Operating expenditure

Attachment 8 – Corporate income tax

Attachment 9 – Efficiency benefit sharing scheme

Attachment 10 – Capital expenditure sharing scheme

Attachment 11 – Service target performance incentive scheme

Attachment 12 – Demand management incentive scheme

Attachment 13 – Classification of services

Attachment 14 – Control mechanisms

Attachment 15 – Pass through events

Attachment 16 – Alternative control services

Attachment 17 – Negotiated services framework and criteria

Attachment 18 – f-factor scheme

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Shortened forms

Shortened form	Extended form
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
AMI	Advanced metering infrastructure
augex	augmentation expenditure
capex	capital expenditure
CCP	Consumer Challenge Panel
CESS	capital expenditure sharing scheme
CPI	consumer price index
DRP	debt risk premium
DMIA	demand management innovation allowance
DMIS	demand management incentive scheme
distributor	distribution network service provider
DUoS	distribution use of system
EBSS	efficiency benefit sharing scheme
ERP	equity risk premium
Expenditure Assessment Guideline	Expenditure Forecast Assessment Guideline for Electricity Distribution
F&A	framework and approach
MRP	market risk premium
NEL	national electricity law
NEM	national electricity market
NEO	national electricity objective
NER	national electricity rules
NSP	network service provider
opex	operating expenditure
PPI	partial performance indicators
PTRM	post-tax revenue model
RAB	regulatory asset base
RBA	Reserve Bank of Australia

Shortened form	Extended form
repex	replacement expenditure
RFM	roll forward model
RIN	regulatory information notice
RPP	revenue and pricing principles
SAIDI	system average interruption duration index
SAIFI	system average interruption frequency index
SLCAPM	Sharpe-Lintner capital asset pricing model
STPIS	service target performance incentive scheme
WACC	weighted average cost of capital

16 Alternative control services

Alternative control services are services provided by distributors to specific customers. They do not form part of the distribution use of system revenue allowance approved by us for each distributor. Rather, distributors recover the costs of providing alternative control services through a selection of prices with most charged on a 'user pays' basis.

In this attachment, we set out our final decision on the prices Jemena is allowed to charge customers for the provision of alternative control services (ancillary network services, public lighting and metering).

16.1 Ancillary network services

For the purposes of this final decision, we refer to the service groups previously identified as 'fee based services' and 'quoted services' collectively as a single group called 'ancillary network services'.¹

Ancillary network services share the common characteristic of being non-routine services provided to individual customers on an as requested basis.² The existing fee based services and quoted services groupings describe the basis on which service prices are determined.³

Prices for fee based services are predetermined, based on the cost of providing the service and the average time taken to perform it. 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 and service requested. It is not possible to list prices for quoted services in this decision (any such list would only be for illustrative purposes).

16.1.1 Final decision

Our final decision accepts the following aspects of Jemena's revised proposal:

- the revised proposal prices which are consistent with our preliminary decision
- the addition of a new service for customers accessing their metering data

¹ AER, *Final framework and approach paper for the Victorian electricity distributors—Regulatory control period commencing 1 January 2016*, 24 October 2014, p. 60.

² AER, *Final framework and approach paper for the Victorian electricity distributors—Regulatory control period commencing 1 January 2016*, 24 October 2014, p. 60.

³ AER, *Final framework and approach paper for the Victorian electricity distributors—Regulatory control period commencing 1 January 2016*, 24 October 2014, p. 60.

- the capitalisation of total costs when calculating the tax liability for new and temporary connection services.⁴

For these aspects, we are satisfied Jemena has demonstrated these are the efficient costs it incurs in the provision of ancillary network services.

However, we do not accept the following aspects of Jemena's revised proposal:

- the proposed calculation of the tax liability for new and temporary connection services as it contained errors
- to true-up revenue shortfalls caused by the difference in prices between the preliminary and final decision given the difficulties in employing an accurate approach to revenue recovery and the relatively small amount of revenue that is required to be recovered.⁵

The detailed reasoning for our final decision is set out below.

Our final decision has also updated the labour price growth to reflect the most up-to-date forecast. Our final decision labour price growth is set out in Table 16.1 and is discussed in attachment 7—operating expenditure.

We also note that our preliminary decision inadvertently published a price for a reserve feeder charge as a fee based service, when this service is classified as a quoted service. In consultation with Jemena, this error was corrected for in Jemena's 2016 pricing proposal.⁶ Our final decision has reflected this correction in Table 16.13 in appendix A.1.

Our final decision prices and rates for Jemena's ancillary network services are in Table 16.12 and Table 16.13 in appendix A.1.

Forms of control

Our final decision is to apply price caps as the forms of control to ancillary network services. Figure 16.1 and Figure 16.2 set out the control mechanism formulas for fee based and quoted services, respectively. They are consistent with our final framework

⁴ Jemena, *2016–20 Electricity distribution price review—regulatory proposal—revocation and substitution submission: Attachment 10–1 alternative control services and negotiated services*, 6 January 2016, p. 4. (Jemena, *Revised regulatory proposal 2016–20: Attachment 10–1*, 6 January 2016).

⁵ Jemena, *Revised regulatory proposal 2016–20: Attachment 10–1*, 6 January 2016, pp. 5–6.

⁶ Email to AER from Jemena titled: *RE: AER queries on Jemena's 2016 electricity distribution pricing proposal*, 9 December 2015.

and approach,⁷ and our preliminary decision.⁸ Jemena accepted these formulas in its revised regulatory proposal.⁹

Form of control—fee based services

Our final decision applies a price cap form of control for fee based services. Under this form of control, we set a schedule of prices for 2016 which are set out in Table 16.12 of appendix A.1. For 2017 and for each subsequent year of the 2016–20 regulatory control period, the prices for ancillary network services are determined by adjusting the previous year's prices by the formula in Figure 16.1. The X factors in this formula adjust for annual labour price growth.

Figure 16.1 Fee based ancillary network services formula

$$\bar{p}_t^i \geq p_t^i \quad i=1,\dots,n \text{ and } t=2,3,4,5$$

$$\bar{p}_t^i = \bar{p}_{t-1}^i (1 + CPI_t)(1 - X_t^i)$$

Where:

\bar{p}_t^i is the cap on the price of service i in year t

p_t^i is the price of service i in year t

\bar{p}_{t-1}^i is the cap on the price of service i in year t–1

t is the regulatory year

CPI_t is the annual percentage change in the ABS consumer price index (CPI) All Groups, Weighted Average of Eight Capital Cities¹⁰ from the June quarter in year t–2 to the June quarter in year t–1, calculated using the following method:

The ABS CPI All Groups, Weighted Average of Eight Capital Cities for the June quarter in regulatory year t–1

divided by

⁷ AER, *Final framework and approach for the Victorian electricity distributors: Regulatory control period commencing 1 July 2016*, 24 October 2014, pp. 92–93.

⁸ AER, *Preliminary decision: Jemena distribution determination 2016 to 2020: Attachment 16—Alternative control services*, October 2015, pp. 6–9.

⁹ Jemena, *2016–20 Electricity distribution price review—regulatory proposal—revocation and substitution submission: Attachment 2–2 price control mechanisms*, 6 January 2016, p. 8. (Jemena, *Revised regulatory proposal 2016–20: Attachment 2–2*, 6 January 2016.)

¹⁰ If the ABS does not, or ceases to, publish the index, then CPI will mean an index which the AER considers is the best available alternative index.

The ABS CPI All Groups, Weighted Average of Eight Capital Cities for the June quarter in regulatory year t–2

minus one.

For example, for the 2017 year, t–2 is the June quarter 2015 and t–1 is the June quarter 2016 and in the 2018 year, t–2 is the June quarter 2016 and t–1 is the June quarter 2017 and so on.

X_t^i is the X factor for service i in year t, as set out in Table 16.1.¹¹

Table 16.1 AER final decision on X factors for each year of the 2016–20 regulatory control period (per cent)

	2017	2018	2019	2020
X factor	–0.37	–0.79	–0.96	–1.02

Source: AER analysis.

Note: To be clear, the labour price growth is positive for each year of the regulatory control period. However, in operating as de facto X factors in the price caps, positive labour price growth is presented as a negative value.

Form of control — quoted services

Our final decision applies a price cap formula to determine the cost build-up of services that are priced on a ‘quoted’ basis.¹² Figure 16.2 sets out the price cap formula and Table 16.13 in appendix A.1 sets out the approved 2016 labour rates for quoted services.

Figure 16.2 Quoted services formula

$$Price = Labour + Contractor Services + Materials$$

Where:

Labour consists of all labour costs directly incurred in the provision of the service which may include labour on-costs, fleet on-costs and overheads. Labour is escalated annually by $(1 + CPI_t)(1 - X_t^i)$, where:

¹¹ Our final F&A erroneously stated the X factor in this formula would incorporate annual adjustments for updates to the trailing cost of debt. However, we note these services do not incorporate a cost of capital and therefore the X factors will not be applied in this manner. Rather, consistent with the price caps applied to these services in other jurisdictions, the X factors will adjust for annual labour price growth as set out in Table 16.1.

¹² AER, *Final framework and approach for the Victorian electricity distributors: Regulatory control period commencing 1 July 2016*, 24 October 2014, p. 89.

CPI_t is the annual percentage change in the ABS CPI All Groups, Weighted Average of Eight Capital Cities¹³ from the June quarter in year t–2 to the June quarter in year t–1, calculated using the following method:

The ABS CPI All Groups, Weighted Average of Eight Capital Cities for the June quarter in regulatory year t–1

divided by

The ABS CPI All Groups, Weighted Average of Eight Capital Cities for the June quarter in regulatory year t–2

minus one.

For example, for the 2017 year, t–2 is the June quarter 2015 and t–1 is the June quarter 2016 and in the 2018 year, t–2 is the June quarter 2016 and t–1 is the June quarter 2017 and so on.

X_t^i is the X factor for service i in year t, as set out in Table 16.1.¹⁴

Contractor Services reflect all costs associated with the use of external labour including overheads and any direct costs incurred. The contracted services charge applies the rates under existing contractual arrangements. Direct costs incurred are passed on to the customer.

Materials reflect the cost of materials directly incurred in the provision of the service, material storage and logistics on-costs and overheads.

16.1.2 Jemena's revised proposal

Jemena did not accept our disallowance of the tax recovery costs it proposed for (new and temporary) connection services.¹⁵ Jemena accepted all other aspects of our preliminary decision on ancillary network services.¹⁶

Jemena's revised proposal also included a new service to charge customers for accessing remotely read interval meter data in some circumstances.¹⁷

Jemena also proposed a method to true-up revenue shortfalls due to the difference between our preliminary and final decisions on its alternative control services.¹⁸

¹³ If the ABS does not, or ceases to, publish the index, then CPI will mean an index which the AER considers is the best available alternative index.

¹⁴ The X factors applied in this formula adjust for annual labour price growth.

¹⁵ Jemena, *2016–20 Electricity distribution price review—regulatory proposal—revocation and substitution submission*, 6 January 2016, p.66 (Jemena, *Revised regulatory proposal 2016–20*, 6 January 2016); and Jemena, *Revised regulatory proposal 2016–20: Attachment 10–1*, 6 January 2016, p. 2.

¹⁶ Jemena, *Revised regulatory proposal 2016–20*, 6 January 2016, p. 66; and Jemena, *Revised regulatory proposal 2016–20: Attachment 10–1*, 6 January 2016, p. 2.

¹⁷ Jemena, *Revised regulatory proposal 2016–20: Attachment 10–1*, 6 January 2016, pp. 4–5.

¹⁸ Jemena, *Revised regulatory proposal 2016–20: Attachment 10–1*, 6 January 2016, pp. 5–6.

16.1.3 Assessment approach

Our final decision assessment approach is the same as our preliminary decision. We have also considered Jemena's revised regulatory proposal.¹⁹

Our preliminary decision undertook a detailed assessment of Jemena's initial proposal by focussing on the key inputs in determining prices for ancillary network services. In summary, our preliminary decision considered:

- maximum total labour rates we developed for Victoria. Our findings were informed by our consultant's, Marsden Jacob Associates', analysis²⁰
- since labour is the key input in determining an efficient level of prices for ancillary network services, we focused on comparing Jemena's proposed total labour rates against our developed maximum total labour rates
- the other key inputs, being:
 - proposed times taken to perform the service, and
 - contractor rates.

As per section 16.1.4.1 of our preliminary decision, we obtained maximum rates for the following labour components:

- a maximum raw labour rate
- a maximum on-cost rate
- a maximum overhead rate.

We applied these maximum (component) rates to derive maximum total labour rates (for particular labour types) which are presented in Table 16.2. We consider that using our maximum total labour rates to determine prices for services will provide Jemena with a reasonable opportunity to recover at least the efficient costs it incurs in providing these services. It will promote the efficient provision of electricity services and allow a return commensurate with the regulatory and commercial risks involved for the provision of those services.²¹

¹⁹ Jemena, *Revised regulatory proposal 2016–20*, 6 January 2016, pp. 1–65; and Jemena, *Revised regulatory proposal 2016–20: Attachment 10–1*, 6 January 2016; and Jemena, *Revised regulatory proposal 2016–20: Attachment 2–2*, 6 January 2016; and Jemena, *Revised regulatory proposal 2016–20: Attachment 10–3*, 6 January 2016, and Jemena, *Revised regulatory proposal 2016–20: Attachment 10–4*, 6 January 2016.

²⁰ Marsden Jacob Associates, *Final provision of advice in relation to alternative control services—public version*, 20 October 2014.

²¹ NEL, ss. 7A and 16.

Table 16.2 Maximum allowed total labour rates

AER labour category	AER maximum total labour rates (\$2014)
Administration	91.88
Technical	160.79
Engineer	172.28
Field worker	160.79
Senior engineer	229.70

Source: AER analysis.

Where a distributor's proposed total labour rates exceeded our maximum total labour rates—which we consider are efficient—we applied our maximum total labour rates to determine ancillary network service charges.

As a further check of our analysis, we benchmarked components of the Victorian distributors' proposed labour costs against one another.

Our final decision assessment on labour price growth is discussed in attachment 7—operating expenditure.

16.1.4 Reasons for final decision

We accept Jemena's revised proposal ancillary network services where it has accepted our preliminary decision. For these services, Jemena's proposed prices for 2016 do not exceed prices based on maximum labour rates (for the distributor's labour types) and times taken to perform the service, which we consider efficient in the provision of these services.

Our preliminary decision approved Jemena's prices for 2016 in \$2015 terms and noted that these were to be escalated into \$2016 terms in Jemena's 2016 pricing proposal using the approved CPI adjustment.²² We approved Jemena's 2016 pricing proposal in December 2015.²³ Jemena's revised proposal prices for these are the same as those we approved in Jemena's 2016 pricing proposal.

For 2017 and for each subsequent year of the 2016–20 regulatory control period, the prices for ancillary network services will be determined by applying our final decision forms of control which are set out above.

²² AER, *Preliminary decision: Jemena distribution determination 2016 to 2020: Attachment 16—Alternative control services*, October 2015, pp. 46–47.

²³ Jemena Electricity Networks (Vic) Ltd, *2016 JEN pricing proposal: 2016 pricing proposal—Public*, 10 December 2015.

The remainder of this section discusses our final decision regarding Jemena's revised proposed:

- addition of a new service for customers accessing their metering data
- tax recovery costs for new and temporary connection services
- true-up of revenue shortfalls between preliminary and final decision.

16.1.4.1 New service— customer access to metering data

We accept Jemena's revised proposal to charge customers for accessing remotely read interval meter data. This charge will apply where Jemena's customers elect not to use its free self-service portal facility, and the customer has either:

- requested this data within the last year, or
- the interval data concerns a period of over two years ago.²⁴

We accept this additional service as it is consistent with the advanced metering infrastructure (AMI) Order in Council and the Victorian electricity customer metering code.²⁵ Jemena's proposed price for this service is also consistent with what we approved for the other Victorian distributors.

16.1.4.2 Tax recovery costs—new and temporary connection services

We accept Jemena's revised proposal approach on tax recovery costs for new and temporary connection services. We consider Jemena has demonstrated that the total costs should be capitalised—including labour—when calculating the tax liability for these services.

We note our preliminary decision did not accept Jemena's proposed capitalisation of the total costs in determining the tax liability for these services.²⁶ Our preliminary decision noted that labour costs (or other operating expenditure) typically do not generate a tax liability since the increase in revenue from these costs are offset by an equal increase in tax expense in the same year.²⁷ Therefore, Jemena's proposed labour costs should be excluded from the tax liability calculation.

²⁴ Jemena, *Revised regulatory proposal 2016–20: Attachment 10–1*, 6 January 2016, p. 4.

²⁵ Essential Services Commission of Victoria, *Electricity customer metering code*, 13 October 2014, p. 11; and Victorian Government, *Consolidated version as at 1 July 2015—AMI costs recovery order—Electricity industry act 2000—Order under section 15A and section 46D—Order in Council [SENSITIVE: LEGAL CONFIDENTIAL]*, First published in Special Gazette No S200 on 28 August 2007, amended by Orders published in Special Gazette No S286 on 12 November 2007, Special Gazette No S314 on 25 November 2008, General Gazette No G14, page 856, on 2 April 2009, General Gazette No G42, page 2570, on 21 October 2010, General Gazette No G51, page 3026 on 22 December 2011.

²⁶ AER, *Preliminary decision: Jemena distribution determination 2016 to 2020: Attachment 16—Alternative control services*, October 2015, p. 17.

²⁷ AER, *Preliminary decision: Jemena distribution determination 2016 to 2020: Attachment 16—Alternative control services*, October 2015, p. 17.

Jemena did not accept our preliminary decision. Its revised proposal stated that because a regulatory asset base is not used to develop the cost build-up of these services that it does not on 'first appearance' give rise to the need for a tax allowance.²⁸ However, Jemena noted that given the capital nature of these services it must capitalise the total costs—including labour—for tax purposes.

In response to the revised proposal, we requested that Jemena provide further evidence to support its claims.²⁹ Based on Jemena's response, we are satisfied that Jemena must capitalise the total cost of these services consistent with:

- its capitalisation policy³⁰
- its taxation policy,³¹ and
- section 8–1 of the Income Tax Assessment Act.³²

Therefore, we accept Jemena's revised proposal approach on the tax recovery costs for new and temporary connection services.

While we accept the proposed approach, we do not accept Jemena's calculation of tax recovery costs as we consider it contained some minor calculation errors. We raised this issue with Jemena and provided a revised calculation correcting for these errors.³³ Jemena accepted our revised calculation of this tax liability.³⁴ Our final decision has updated the inputs for this calculation to reflect our final decision weighted average cost of capital which is discussed in attachment 3 — rate of return.

16.1.4.3 True-up of revenue

We also do not accept Jemena's revised proposal to apply an additional price adjustment to the 2017 to 2020 new and temporary connection services prices to 'true-up' the difference in revenues for 2016 had the final decision prices applied.³⁵ While we acknowledge that the NER makes provision for adjustments of this type,³⁶ we note that in practice such an approach is difficult to employ.

First, we note Jemena's proposed approach would require the cross-subsidisation of service cost recovery from the people who have these services provided in the future. That is, the intentionally inflated price for people who have these services provided

²⁸ Jemena, *Revised regulatory proposal 2016–20: Attachment 10–1*, 6 January 2016, pp. 2–4.

²⁹ AER, *AER information request—Jemena #042—Metering and connections—Taxes*, 2 March 2016, pp. 1–2.

³⁰ Jemena, *Policy paper—Property, plant and equipment—FIN-ACC-012*, 2012 (version 3), p.2.

³¹ Jemena, *Policy paper—Tax fixed assets—FIN-TAX-007*, 2015 (version 2), p.4.

³² Jemena, *Jemena Electricity Networks (Vic) Ltd—2016–20 Electricity Distribution Price Review—JEN AER IR#42—Response to AER questions—Public*, 2 March 2016, pp.4–5.

³³ AER, *AER information request—Jemena #042—Metering and connections—Taxes*, 2 March 2016.

³⁴ Jemena, *Jemena Electricity Networks (Vic) Ltd—2016–20 Electricity Distribution Price Review—JEN AER IR#42—Response to AER questions—Public*, 2 March 2016, pp.5–6.

³⁵ Jemena, *Revised regulatory proposal 2016–20: Attachment 10–1*, 6 January 2016, pp. 5–6.

³⁶ NER, cl. 11.60.4(d)(2).

between 2017 and 2020 would cross-subsidise the cost recovery from the people who had the service provided in 2016 and paid the preliminary decision price.

However, we note an element of classifying a service as an alternative control service is so that the costs of providing the relevant service is directly attributable to the person to whom the service is provided.³⁷ That is, an element of classifying a service as an alternative control service is to remove the ability for the cross-subsidisation of cost recovery. Therefore, we consider Jemena's approach is inconsistent with this element of classifying these services as alternative control services.

We also note that given the nature of fee based services it is difficult to employ a forward looking true-up approach with any accuracy. We note Jemena's proposed approach is unlikely to recover the actual difference in revenue for 2016, but rather is likely to lead to an under or over recovery of revenue. This under or over recovery occurs as the revenues for fee based services are a function of the price of the service multiplied by the volume of services provided. As Jemena's approach only makes an adjustment to the price the actual revenue recovered will be determined by the amount of these services it provides. Since Jemena's approach is based on the assumption of the same level of services provided every year between 2017 and 2020, any deviation from these level of services will create an under or over recovery of revenue.

In theory, the most accurate way to make the true-up is to recover the difference between the preliminary and final decision prices from the people who had these services provided in 2016. This approach would allow Jemena to recover the actual difference in revenue for 2016 with no under or over recovery of revenue. This approach would also be consistent with the intent of classifying these services as alternative control services as the costs of providing the relevant service would be directly attributable to the person to whom the service is provided.³⁸

However, we note this approach is not without its own difficulties in implementation. We consider that given the true-up amount is relatively small (approximately \$0.1 million based on Jemena's proposed approach) the administrative costs in undertaking the recovery is likely to outweigh the incremental revenue to be recovered. We also consider that such an approach would not be received well by the people who had the services provided in 2016 as they would be required to pay an additional cost on top of the approved price of the service at the time the service was undertaken.

Therefore, our final decision has not made a true-up given the difficulties in employing an accurate approach to revenue recovery and the relatively small amount of revenue that is required to be recovered.

Our final decision for Jemena's 2016 prices—including updated prices for new and temporary connection services—are presented in Table 16.12 in appendix A.1.

³⁷ NER, cl. 6.2.2(c)(5).

³⁸ NER, cl. 6.2.2(c)(5).

16.2 Public Lighting

16.2.1 Final decision

We do not approve the proposed public lighting charges because we have determined;

- a real pre-tax WACC of 4.72 per cent instead of the proposed 7.39 per cent
- labour escalation of 0.37 per cent instead of the proposed 0.80 per cent in 2017

In all other respects we have approved the proposal.

Form of control

We are applying caps on the charges of individual services consistent with the current regulatory arrangements in Victoria.

Although the public lighting service is subject to an alternative control classification the control mechanism is implemented through a public lighting model under a building block approach.

Compliance with the control mechanism is to be demonstrated by the Victorian distributors through the annual pricing proposal, by updating the forecast CPI for the actual CPI each year.

16.2.2 Jemena's revised proposal

Jemena did not accept the AER's preliminary decision;

- real pre-tax WACC
- traffic management cost allowed for minor road lights
- the assumed rate of bulk changes and repairs per day for T5 lights

Jemena accepted all other aspects of the AER's preliminary decision.³⁹ Jemena proposed the addition of frangible poles into public lighting prices and a true up mechanism for the preliminary decision.

16.2.3 Assessment approach

Our final decision assessment approach is the same as our preliminary decision. We have also considered Jemena's revised regulatory proposal.⁴⁰

Our preliminary decision undertook a detailed assessment of Jemena's initial proposal by focussing on the key inputs in determining charges for public lighting. It benchmarked inputs and costs of Victorian distributors against their peers. We did this

³⁹ Jemena , *Revised regulatory proposal: Attachment 10–1*, 6 January 2016, pp. 7–12.

⁴⁰ Jemena , *Revised regulatory proposal: Attachment 10–1*, 6 January 2016.

based on the inputs decided in the 2011-15 determination and included in the modelling. In this way we achieved consistency with the approach we adopted for the 2011 determination and by the State regulator before that.⁴¹

This approach achieves consistency in assumptions and costs across distributors; nonetheless public lighting charges will always vary somewhat amongst the five Victorian distributors because of each distributor's particular circumstances (size of asset base, geographic patch to cover, mix of luminaire types, among others). We have previously explained this in prior public lighting determinations.⁴²

16.2.4 Reasons for final decision

We have adopted the same estimate of WACC as for standard control services. The reasons for the real pre-tax WACC are discussed in attachment 3 — Rate of return.

Our final decision approved labour escalation is set out in attachment 7 — operating expenditure. The approved labour escalators are consistent with standard control services.

We accept the addition of frangible poles into public lighting charges in response to VicRoads request to distributors. This will allow distributors to more efficiently replace these poles and meet VicRoads needs.

We accept the materials prices proposed. The Greenhouse Alliance submission argued that the proposed materials prices are in some instances excessive.⁴³ We however consider that the proposed prices are within the efficient range of prices that are available from suppliers in the market place and that the least cost product will not necessarily be the most efficient option for distributors.

The prices provided in Greenhouse Alliance submission were not at all dissimilar to those that have been provided by distributors, and we understand the Greenhouse Alliance recommends distributors select the cheapest face value material prices available. The least cost purchase price is not necessarily the most effective or efficient for distributors, as distributors need to take into account the reliability of the supplier, the quality of the products that they supply and the total costs for distributors over the life of the materials.

Distributors may also want to source materials from more than one supplier, in order to ensure competitive tension in the market for public lighting inputs. To source from only one supplier runs the risk of supplier monopoly pricing and service quality issues.

For these reasons, we have decided not to simply go with the cheapest costs for public lighting inputs. We think the range of input costs set out by the distributors in their

⁴¹ Essential Services Commission of Victoria, *Review of Public Lighting Excluded Services, August 2004 Final Decision*, pp. 70-73.

⁴² AER, *2011-15 Victorian Electricity Distribution, Final Decision*, p. 836.

⁴³ Greenhouse Alliance, *Submission to AER Preliminary Decision*, 6 January 2016, p. 2.

models—consistent with past practice—still provides the best estimate of materials costs over the 2016–20 regulatory control period. We accept that Jemena must and rightly has taken into account a range of factors in selecting efficient materials supplier's products such as the life time cost, reliability and quality of the material supplied. This is consistent with how Jemena has sought to procure public lighting cost inputs, and recovered them through the public lighting charges model.

Consistent with our approach in ancillary network services we do not accept the need for Jemena's proposed true up mechanism and consider that updating preliminary decision charges for the final decision charges and adjusting these prices in the annual pricing approval process will ensure efficient revenue recovery for public lighting services.

Final decision charges for each light type are set out in Table 16.3.

Victorian Public Lighting Framework

The framework for public lighting in Victoria is set out in the Victorian Public Lighting Code 2005 (the Code).

Distributors' licences' stipulate that the terms and conditions for providing public lighting services must be consistent with the Code. Importantly, the Code only extends to the provision by distributors of the ongoing operation, maintenance and replacement of public lighting assets that they own (clause 1.3).

The explanatory note in clause 3 of the Code states that the distributor and the public lighting customer may agree that after the construction and commissioning of the assets, ownership of the assets will transfer to the distributor. Where such an agreement is made, the assets become subject to the applicable provisions of the Code. If no agreement is reached, asset ownership remains with the public lighting customer and are not subject to regulation under the Code.

Our decision on public lighting charges is made in accordance with the Code and as such, we are only determining the charges to be levied by distributors for assets that they own.

Service Standards

The Code sets out minimum levels of service from distribution businesses and protections for Councils for public lighting in Victoria.

In relation to service standards we consider that there is a trade-off between the charges paid by Councils and the service provided by distribution businesses.

We see our role as setting a minimum level of protection. Councils can seek to negotiate with distributors to secure lower charges than those set by our determination but the Code mandates minimum service standards. Regulated charges are set for these minimums. Councils can negotiate for superior service but the trade-off is likely to be higher charges for a customised service.

Table 16.3 Public Lighting Charges (\$ nominal)

	2016	2017	2018	2019	2020
Mercury Vapour 80 watt	52.61	53.77	55.59	56.44	57.76
Sodium High Pressure 150 watt	95.63	99.21	102.48	103.73	106.06
Sodium High Pressure 250 watt	96.83	100.44	103.74	105.01	107.36
55W Ind	65.77	67.22	69.48	70.55	72.20
Fluorescent 20 watt	65.77	67.22	69.48	70.55	72.20
Fluorescent 40 watt	65.77	67.22	69.48	70.55	72.20
Fluorescent 80 watt	65.77	67.22	69.48	70.55	72.20
Mercury Vapour 50 watt	65.77	67.22	69.48	70.55	72.20
Mercury Vapour 125 watt	77.34	79.05	81.71	82.96	84.90
Mercury Vapour 250 watt	92.95	96.43	99.59	100.81	103.06
Mercury Vapour 400 watt	104.57	108.48	112.04	113.41	115.94
Sodium High Pressure 50 watt	119.53	124.02	128.10	129.67	132.58
Sodium Low Pressure 90 watt	101.36	105.17	108.63	109.96	112.43
Sodium High Pressure 100 watt	131.01	135.92	140.40	142.12	145.31
Sodium High Pressure 400 watt	128.78	133.59	137.97	139.66	142.78
Metal Halide 70 watt	135.22	138.20	142.85	145.04	148.44
Metal Halide 150 watt	212.29	220.26	227.51	230.29	235.46
Metal Halide 250 watt	208.18	215.96	223.04	225.76	230.81
Incandescent 100 watt	82.08	83.89	86.71	88.04	90.10
Incandescent 150 watt	102.60	104.86	108.39	110.05	112.63
Sodium High Pressure 250 watt (24 hrs)	151.05	156.69	161.83	163.81	167.47
Metal Halide 100 watt	212.29	220.26	227.51	230.29	235.46
T5 2X14W	33.74	35.83	37.68	38.75	40.17
T5 (2x24W)	38.00	40.35	42.43	43.64	45.24
LED 18W	19.79	22.00	24.03	25.25	26.54
Compact Fluoro 32W	29.11	30.90	32.50	33.42	34.65
Compact Fluoro 42W	32.83	34.85	36.65	37.69	39.08

Source: AER analysis.

16.3 Metering

We are responsible for the economic regulation of the regulated metering services provided by the Victorian distribution businesses.

Type 1–4 (advanced) meters for large customers are competitively provided in Victoria and are therefore unregulated. We regulate all other metering in Victoria.

Since 2009, there has been a derogation in Victoria which has meant that the scope of our regulation has been set under the Advanced Metering Infrastructure Cost Recovery Order-in-Council (the Order) made by the Victorian Government. The Order mandated distributors install advanced remotely read interval meters together with appropriate communications and information technology systems for all small electricity customers in Victoria.

Our Framework and Approach Paper (F&A) introduced the term 'smart meters' to refer to the advanced remotely read interval meters installed under the derogation.⁴⁴ From 2009 to 2015, the Order directed the AER to set budgets and charges for the AMI rollout under a prescribed regime instead of the NER.

The rollout of smart meters in Victoria is now effectively complete with almost 2.8 million meters installed across the state.⁴⁵ As a result, metering in Victoria is entering a "business-as-usual" phase in the 2016-20 regulatory control period. To facilitate this transition, metering services will now be regulated under the NEL and NER, subject to certain modifications set out in the Order.

The AEMC published its final rule change on expanding competition in metering on 26 November 2015.⁴⁶ For jurisdictions that are part of the national metering framework, the new rules will take effect from 1 December 2017.⁴⁷ It is not clear at this stage the extent to which the Victorian Government will adopt the national framework.

We make this final decision taking into account the current jurisdictional context. This final decision focuses on facilitating smooth transition from the Order to the NER, noting the national context for introducing competition to metering. We have maintained many of the same elements currently in the Order: a revenue cap and recovering the capital for new and upgraded meters as part of the annual charge. However, the Order requires us to set restoration and exit fees in accordance with the Order and also provides additional factors we may have regard to when determining 2016-20 metering service charges.

⁴⁴ AER, *Final Framework and Approach for the Victorian Electricity Distributors*, October 2014, p. 48.

⁴⁵ Victorian Government, Department of Economic Development, Jobs, Transport and Resources <http://www.smartmeters.vic.gov.au/about-smart-meters/end-of-rollout>, accessed 11 October 2015.

⁴⁶ AEMC, *National Electricity Amendment (Expanding competition in metering and related services) Rule 2015*, 26 November 2015.

⁴⁷ AEMC, *National Electricity Amendment (Expanding competition in metering and related services) Rule 2015*, 26 November 2015.

In this section of the alternative control services attachment, we explain our decision on 'default' metering services that are common to regulated metering customers:

- Type 5–6 and smart metering services (regulated service only), referred to as annual metering charges (revenue cap)
- Type 5–6 and smart metering exit fees (individual price caps)
- Type 7 metering charges (individual price caps).

Our determination on ancillary metering services (specifically requested services) is set out in the ancillary network services section of this chapter (section 16.1).

16.3.1 Final decision

16.3.1.1 Cost Allocation

Our final decision does not accept the advanced meter infrastructure (AMI) cost allocation proposed by Jemena. Our final decision on the allocation between alternative control services and standard control services is set out in Table 16.4 below.

Table 16.4 Final decision - Jemena's allocation of AMI IT and Comms (% allocated to ACS and SCS)

	Percentage allocated to ACS	Percentage allocated to SCS
Initial proposal	44	56
AER preliminary decision	100	0
Revised proposal	44	56
AER final decision	46	54

Source: AER analysis.

16.3.1.2 Annual metering charges

Our final decision accepts a total revenue requirement of \$169.6 million (\$ nominal) over the 2016–20 regulatory control period for metering services. It includes the following building blocks:

- forecast capex of \$11.5 million (\$2015), amounting to 97 percent of Jemena's proposal
- forecast opex of \$61.9 million (\$2015), amount to 99 percent of Jemena's proposal
- an opening metering regulatory asset base as at 1 January 2016 of \$119.9 million (\$ nominal)
- with respect to depreciation, standard asset lives of 15 years for metering assets and 7 years for communications/IT assets

- the same WACC and gamma values for standard control network services, subject to annual adjustments for the return on debt.

The above building blocks result in the following approved revenue requirement for metering shown in Table 16.5.

Table 16.5 Final decision – metering annual revenue requirement for the 2016–20 regulatory control period (\$nominal)

	2015	2016	2017	2018	2019	2020
Depreciation		16.2	16.1	11.3	12.0	12.1
Return on capital		7.6	6.8	6.0	5.3	4.6
Opex		12.4	13.3	13.3	13.7	14.1
Tax		0.0	0.0	0.9	2.4	2.4
Unsmoothed revenue requirement		36.2	36.2	31.4	33.3	33.2
X-factor (%)		42.91	34.61	-1.50	-1.50	-1.50
Smoothed revenue requirement	75.7	44.2	29.6	30.7	31.9	33.1

Source: AER analysis.

(a) Operating expenditure includes debt raising costs.

(b) The X factor from 2017 to 2020 will be revised to reflect the annual return on debt update. Under the CPI-X framework, the X factor measures the real rate of change in annual expected revenue from one year to the next. A negative X factor represents a real increase in revenue. Conversely, a positive X factor represents a real decrease in revenue.

Our final decision on Jemena's approved revenue requirement will lead to lower metering prices over the 2016–20 regulatory control period. As metering services are subject to a revenue cap, we have not set prices in this final decision. Actual metering prices will be approved during the annual pricing process.

Broadly we expect the price path to follow the X factors included in Table 16.5 above. That is, a substantial decrease in prices in 2016 as a consequence of the large positive X factor we set in our preliminary decision. Under the CPI-X framework a positive X factor represents a real decrease in revenue. This will then be followed by another significant decrease in prices as a result of the large positive X factor we have set for 2017 in this final decision. Our revenue smoothing approach then applies relatively modest increases in prices in the outer years of the 2016–20 regulatory control period.

There are two key drivers effecting our final decision on Jemena's revenue requirement, and hence its price path for metering services. The first is Jemena has now entered into a business as usual (BAU) phase in the 2016–20 regulatory control period. This BAU phase has more modest cost requirements than in the previous

period when Jemena was rolling out its advanced metering infrastructure. The other key driver is a reallocation of a proportion of Jemena's operating costs. In our preliminary decision, we allocated all of Jemena's metering related opex to alternative control services. This final decision looks at the allocation of these costs more carefully following submissions to the preliminary decision (see 16.3.1.1). As a consequence, a proportion of opex allocated to alternative control services in our preliminary decision has been reallocated to standard control services in this final decision. This has a downward effect on Jemena's revenue for alternative control metering services from 2017 onwards, but a corresponding upward effect on standard control services.

16.3.1.3 Form of control for annual metering charges

As per our preliminary decision, our final decision applies a revenue cap form of control to annual metering charges.⁴⁸ Under this form of control, annual metering charges revenues are capped for each year of the 2016–20 regulatory control period. Figure 16.3 contains the annual metering charges revenue cap formula.

Under a revenue cap, Jemena's annual metering charges revenue will be adjusted annually to clear (or true-up) any under or over recovery of actual revenue collected. These true-ups will be calculated through the annual metering charges unders and overs account in accordance with appendix B.

Our final decision has changed the approach to true-up under and over recovered revenues from our preliminary decision. Our final decision includes an additional true-up for estimated under and over recovery of revenues for regulatory year $t-1$.⁴⁹ We have made this change to be consistent with the approach applied for the distribution use of system charges unders and overs account.⁵⁰

Our final F&A stated the revenue cap for any given regulatory year is the maximum allowable revenue for annual metering charges. However, our preliminary decision considered the use of maximum allowable revenue might be confused with maximum allowed revenue which is a defined term in the NER relating to transmission services. To avoid confusion, we used 'total annual revenue for metering' (or TARM) for clarity. This has been retained for our final decision.

For each year after the first year of a regulatory control period, side constraints will apply. The side constraint formula is set out in Figure 16.4.

⁴⁸ AER, *Final framework and approach for the Victorian electricity distributors: Regulatory control period commencing 1 July 2016*, 24 October 2014, pp. 89–93.

⁴⁹ Year t represents the forthcoming regulatory year. Therefore, year $t-2$ and year $t-1$ are the two regulatory years prior to year t . By way of example, if year t is the year 2018 then year $t-2$ is 2016 and year $t-1$ is 2017.

⁵⁰ Our final distribution use of system unders and overs account is discussed in attachment 14 – Control mechanisms.

Jemena's revised proposal considered the side constraint should not apply to metering services.⁵¹ It considered that it should not apply because the NER is prescriptive on applying side constraints to standard control services but not prescriptive on the application to alternative control services.⁵²

We do not accept Jemena's proposal. The NER provides greater flexibility to the distribution determination to set the control mechanism for alternative control services than it does for standard control services.⁵³ Specifically, the NER states that the basis of the alternative control mechanism will be stated in the distribution determination. Therefore, our final decision application of the side constraint for annual metering charges is consistent with the requirements of the NER.

As per our preliminary decision, the final decision side constraint permissible percentage increase will be the greater of CPI–X plus 2 per cent or CPI plus 2 per cent. This approach is consistent with the application of side constraints for standard control services.

Figure 16.3 Annual metering charges revenue cap formula

$$(1) \quad TARM_t \geq \sum_{i=1}^n \sum_{j=1}^m p_t^{ij} q_t^{ij} \quad i=1,\dots,n \text{ and } j=1,\dots,m \text{ and } t=1,\dots,5$$

$$(2) \quad TARM_t = AR_t + T_t + B_t \quad t = 1,2,\dots,5$$

$$(3) \quad AR_t = AR_{t-1}(1 + \Delta CPI_t)(1 - X_t) \quad t = 1,2,\dots,5$$

where;

$TARM_t$ is the total annual revenue for annual metering charges in year t.

p_t^{ij} is the price of component 'j' of metering service 'i' in year t.

q_t^{ij} is the forecast quantity of component 'j' of metering service 'i' in year t.

AR_t is the annual revenue requirement for year t. When year t is the first year of the 2016–20 regulatory control period, AR_t is the annual revenue requirement in the annual metering charges Post Tax Revenue Model (PTRM) for year t.

⁵¹ Jemena Electricity Networks (Vic) Ltd, *2016–20 Electricity distribution price review regulatory proposal: Revocation and substitution submission — Attachment 2–2 Price control mechanisms*, 6 January 2016, p. 7.

⁵² Jemena Electricity Networks (Vic) Ltd, *2016–20 Electricity distribution price review regulatory proposal: Revocation and substitution submission — Attachment 2–2 Price control mechanisms*, 6 January 2016, p. 7.

⁵³ NER, cl. 6.2.6(c).

T_t is equal to zero for all years except 2017 and is a once off adjustment to 2017 charges for the unders and overs recoveries relating to Advanced Metering Infrastructure actual revenues and actual costs incurred in 2014 and 2015.

B_t is the sum of annual adjustment factors in year t as calculated in the unders and overs account in appendix B.

AR_{t-1} is the annual revenue requirement for year t-1.

ΔCPI_t is the annual percentage change in the ABS CPI All Groups, Weighted Average of Eight Capital Cities⁵⁴ from the June quarter in year t-2 to the June quarter in year t-1, calculated using the following method:

The ABS CPI All Groups, Weighted Average of Eight Capital Cities for the June quarter in regulatory year t-1

divided by

The ABS CPI All Groups, Weighted Average of Eight Capital Cities for the June quarter in regulatory year t-2

minus one.

For example, for the 2017 regulatory year, t-2 is June quarter 2015 and t-1 is June quarter 2016 and for the 2018 regulatory year, t-2 is June quarter 2016 and t-1 is June quarter 2017 and so on.

X_t is the X factor for each year of the 2016-20 regulatory control period as determined in the annual metering charges PTRM.

Figure 16.4 Side constraints

$$p_t^i \leq p_{t-1}^i (1 + \Delta CPI_t) (1 - X_t^i) (1 + 2\%) + T_t^i + B_t^i$$

where:

p_t^i is the price of annual metering charges service 'i' in year t.

p_{t-1}^i is the price of annual metering charges service 'i' in year t-1.

ΔCPI_t is the annual percentage change in the ABS CPI All Groups, Weighted Average of Eight Capital Cities⁵⁵ from the June quarter in year t-2 to the June quarter in year t-1, calculated using the following method:

⁵⁴ If the ABS does not or ceases to publish the index, then CPI will mean an index which the AER considers is the best available alternative index.

The ABS CPI All Groups, Weighted Average of Eight Capital Cities for the June quarter in regulatory year $t-1$

divided by

The ABS CPI All Groups, Weighted Average of Eight Capital Cities for the June quarter in regulatory year $t-2$

minus one.

For example, for the 2017 regulatory year, $t-2$ is June quarter 2015 and $t-1$ is June quarter 2016 and for the 2018 regulatory year, $t-2$ is June quarter 2016 and $t-1$ is June quarter 2017 and so on.

X_t is the X factor for each year of the 2016–20 regulatory control period as determined in the annual metering charges PTRM.

T_t' is the annual percentage change for the unders and overs recoveries relating to Advanced Metering Infrastructure actual revenues and actual costs incurred in 2014 and 2015. It is equal to zero for all years except 2017 and is a once-off adjustment to 2017 charges.

B_t' is the annual percentage change from the sum of annual adjustment factors in year t as calculated in the unders and overs account in appendix B.

With the exception of the CPI and the X factor, the percentage for each of the other factors above can be calculated by dividing the incremental revenues (as used in the total annual revenue formula) for each factor by the expected revenues for regulatory year $t-1$ (based on the prices in year $t-1$ multiplied by the forecast quantities for year t).

16.3.1.4 Metering exit fees

We are required to specify an exit fee for Jemena.⁵⁶

The exit fees we have accepted in this final decision are set out in Table 16.6.

⁵⁵ If the ABS does not or ceases to publish the index, then CPI will mean an index which the AER considers is the best available alternative index.

⁵⁶ NER, cl. 11.17.6.

Table 16.6 Final determination on Jemena's exit fees (\$ nominal)

Meter type	2016	2017	2018	2019	2020
Single Phase	611.70	573.53	600.54	574.46	553.95
Single Phase, Two Element	612.50	571.77	598.19	574.43	556.37
Three Phase Direct Connect	631.23	596.68	630.79	604.99	584.78
Three Phase Current Transformer	637.17	599.91	633.07	606.76	585.89

Source: AER analysis.

16.3.2 Jemena's revised proposal

16.3.2.1 Cost Allocation

The Victorian businesses have all proposed different ways to allocate the costs that were previously regulated under the Order across standard and alternative control services. Our preliminary decision was that the metering costs should be recovered through alternative control services and we reallocated Jemena's metering costs from standard control services to alternative control.⁵⁷

Jemena has maintained its proposal that a proportion of the metering costs should be allocated to standard control services.⁵⁸

16.3.2.2 Annual metering charges

With regard to the annual metering charge, Jemena's revised proposal:

- applied the general pricing structure set out in our preliminary decision
- submitted a revised capex of \$11.9 million for annual metering charges,⁵⁹ compared to the AER's preliminary decision accepting \$14.4 million (\$2015)⁶⁰
- submitted a revised opex of \$62.7 million for annual metering charges,⁶¹ compared to the AER's preliminary decision accepting \$110.0 million (\$2015)⁶²

⁵⁷ AER, Preliminary Decision, *Jemena distribution determination 2016 to 2020, Attachment 16 - Alternative control services*, October 2015, p. 16-28.

⁵⁸ Jemena, *Revised regulatory proposal 2016–20*, January 2016, Attachment 9-1, p. 21.

⁵⁹ Jemena, *Revised ACS metering PTRM*, January 2016, Attachment 9-2, 'PTRM input' tab.

⁶⁰ AER, *Preliminary Decision, Jemena distribution determination 2016 to 2020, Attachment 16 - Alternative control services*, October 2015, p. 16-28. This is lower than our preliminary decision on account that Jemena have maintained an allocation of metering cost to standard control services, rather than our preliminary decision to allocate all the costs to alternative control services.

⁶¹ Jemena, *Revised ACS metering – Opex forecast model*, March 2016, Attachment 9-4, 'Output | Models' tab.

⁶² AER, *Preliminary Decision, Jemena distribution determination 2016 to 2020, Attachment 16 - Alternative control services*, October 2015, p. 16-28. This is lower than our preliminary decision on account that Jemena have

- accepts our preliminary decision with respect to the opening metering asset base (MAB) value.⁶³

Jemena's revised proposal annual revenue requirement for the 2016–20 regulatory control period is set out in Table 16.7 below.

Table 16.7 Proposed metering annual revenue requirement (\$ nominal)

	2016	2017	2018	2019	2020
Depreciation	16.4	16.3	11.4	12.1	12.2
Return on capital	10.4	9.2	7.9	6.8	5.7
Opex	12.1	13.0	13.3	14.0	14.8
Tax	0.0	0.0	2.2	3.5	3.3
Unsmoothed revenue requirement	38.9	38.5	34.8	36.4	36.1
X-factor (%)	43.01	27.14	-1.91	-1.89	-1.81
Smoothed revenue requirement	44.2	32.9	34.3	35.7	37.1

Source: Jemena, *Revised regulatory proposal 2016–20, Attachment 9.2: JEN ACS Metering PTRM*, January 2016, 'Revenue summary' tab.

16.3.2.3 Metering exit fee

Jemena did not accept our preliminary decision and maintained its approach to calculating the metering exit fee.⁶⁴ The revised proposal meter exit fees are set out in Table 16.8 below.

maintained an allocation of metering cost to standard control services, rather than our preliminary decision to allocate all the costs to alternative control services.

⁶³ Jemena, *Revised regulatory proposal 2016–20*, January 2016, Attachment 9-1, p. 9.

⁶⁴ Jemena, *2016–20 Electricity Distribution Price Review Regulatory Proposal, Revocation and substitution submission, Attachment 9-1: Alternative control metering services*, 5 January 2016, p. 19.

Table 16.8 Jemena proposed meter exit fees (\$ nominal)

Meter type	2016	2017	2018	2019	2020
Single Phase	611.70	573.53	600.54	574.46	553.95
Single Phase, Two Element	612.50	571.77	598.19	574.43	556.37
Three Phase Direct Connect	631.23	596.68	630.79	604.99	584.78
Three Phase Current Transformer	637.17	599.91	633.07	606.76	585.89

Source: Jemena, *2016–20 Electricity Distribution Price Review Regulatory Proposal, Revocation and substitution submission, Attachment 9-1: Alternative control metering services*, 5 January 2016, pp 18-19, Table 4–1; AER analysis.

16.3.3 Assessment Approach

16.3.3.1 Cost Allocation

For the preliminary decision we had regard to the wider regulatory context in determining the allocation of metering service costs, including key framework issues for Victorian metering in the 2016–20 regulatory control period, such as:

- the need to facilitate a smooth transition of governance under the Order to regulation under the modified NER
- the possibility of Victoria adopting the competitive metering framework sometime in the future.⁶⁵

We considered that any cost allocation issues relating to metering costs would be best dealt with in the development of the ring-fencing guideline in accordance with a nationally consistent approach. On this basis, our preliminary decision allocated all costs formerly regulated under the Order to alternative control services.⁶⁶

For the final decision we have reconsidered our preliminary decision approach to the allocation of metering costs between alternative control services and standard control services. We engaged Energy Market Consulting Associates to help develop a cost allocation approach that could be applied across the Victorian service providers.

Our revised approach to the allocation of AMI costs is set out in the discussion on the base opex – Appendix A of Attachment 7.

⁶⁵ AER, *Preliminary Decision, Jemena distribution determination 2016 to 2020, Attachment 16 - Alternative control services*, October 2015, p. 16-39.

⁶⁶ AER, *Preliminary Decision, Jemena distribution determination 2016 to 2020, Attachment 16 - Alternative control services*, October 2015, p. 16-39.

16.3.3.2 Annual metering charges

As an alternative control service, the AER has a greater discretion under the NER in making our assessment compared to standard control services. We have chosen to apply a streamlined version of a building block approach.

Forecast capex

There are three categories of metering capex: remotely read interval meters, IT and communications. To assess remotely read interval meter capex, we reviewed unit rates and volumes.

In the preliminary decision we benchmarked the proposed meter hardware unit costs across the businesses. We considered this to be appropriate because the Victorian businesses all use the same six meter types and so the costs can be compared.⁶⁷

We substituted unit costs based on the lowest forecast unit costs for each meter type submitted by a Victorian business in its proposal for the 2016–20 regulatory control period.⁶⁸

For the final decision we have reconsidered our preliminary decision approach taking account further submissions from the network businesses.

Submissions received suggested that any benchmarking should account for differences between the businesses reflecting their circumstances and the way each has contracted with third parties for the supply of meters. This included differences in meter design, meter volumes and exchange rates that effect meter costs expressed in Australian dollars. We conducted an assessment of the tendering processes each business had followed when entering into contracts with suppliers. Where we were satisfied that the applied process is prudent, based on a competitive tender arrangement, we accepted the proposed metering hardware unit costs.

We sought further information from Jemena on its meter tender and evaluation processes.⁶⁹

We also reviewed our 2012–15 AMI budget and charges determinations.⁷⁰

⁶⁷ AER, *Preliminary Decision, Jemena distribution determination 2016 to 2020, Attachment 16 - Alternative control services*, October 2015, p. 16-36.

⁶⁸ AER, *Preliminary Decision, Jemena distribution determination 2016 to 2020, Attachment 16 - Alternative control services*, October 2015, p. 16-40.

⁶⁹ AER Information Request #037, response from Jemena, dated 19 February 2016.

⁷⁰ The AER's AMI budget and charges determination 2012–15 can be found at https://www.aer.gov.au/networks-pipelines/determinations-access-arrangements/pricing-proposals-tariffs?ff0=type%3Aaccr_aer_ami_charges&ff1=field_accr_aer_effective_date%3A2012

Forecast opex

We considered Jemena's proposed metering opex by developing our own alternative forecast. To do this we used a top-down 'base–step–trend' approach. This is our preferred approach to assessing most opex categories.⁷¹ In particular, we:

- used the "revealed costs" approach as the starting point and removed any non–recurrent expenditure
- in contrast to past metering decisions for non–Victorian distribution businesses, decided against the use of benchmarking
- adjusted for any step changes if we were satisfied that a prudent and efficient service provider would require them
- trended forward the base opex (plus any step changes) by considering the forecast changes in output, price and productivity.⁷²

16.3.3.3 Exit fee

When calculating the exit fee required under the Order, the inputs we used were:

- our final decision on Jemena's opening metering RAB value as of 1 January 2016
- the forecast metering capex and opex which we have accepted in this final decision for Jemena's 2016–20 regulatory control period
- in relation to an administration component of the exit fee, our final decision on the real labour cost escalators applicable in Victoria.

We also had regard to the revenue and pricing principles that the distributors should be afforded full cost recovery (see also clause 7.2 of the Order).

16.3.4 Reasons for final decision

16.3.4.1 Cost allocation

Our final decision does not accept the AMI cost allocation proposed by Jemena. Our final decision on the allocation between alternative control services and standard control services is set out in Table 16.4 above.

Our revised approach and reasons for the final decision on the allocation of AMI costs is set out in the discussion on the base opex –Appendix A of Attachment 7.

⁷¹ AER, *Better regulation: Expenditure forecast assessment guideline for distribution*, November 2013, p. 32.

⁷² For a further discussion on the opex assessment approach, see; AER, *Preliminary Decision, Jemena distribution determination 2016 to 2020, Attachment 16 - Alternative control services*, October 2015, pp. 16-36 to 16-38.

16.3.4.2 Annual metering charges

Forecast capex

Our final decision approves \$11.5 million (\$2015) in capex for Jemena's alternative control metering services. This is equal to 97 percent of the \$11.9 million (\$2015) Jemena revised capex forecast.

Table 16.9 sets out our final decision on each component making up Jemena's metering capex.

Table 16.9 Final decision on Jemena's metering capex (\$2015)

	Revised proposed	Approved
Remotely read interval meters	4.2	3.9
IT	3.2	3.2
Communications	4.5	4.5
Total	11.9	11.5

Source: AER analysis; Jemena, *Revised ACS metering PTRM, January 2016, Attachment 9-2, 'PTRM input' tab.*

Remotely read interval meters

Our final decision approves \$3.9 million (\$2015) in capex for 'remotely read interval meters'. This is 91 percent of Jemena's revised capex forecast of \$4.2 million (\$2015).

In reaching our substitute capex forecast for remotely read interval meters, we accepted Jemena's proposed hardware and installation unit costs. However, our final decision does not accept Jemena's forecast volume of meter replacements.

Meter hardware unit costs

We accept Jemena's proposed meter hardware costs.

Jemena did not accept our preliminary decision on the meter hardware costs.⁷³

For the final decision we have reconsidered our preliminary decision approach.

We accept that the approach adopted in the preliminary decision of applying the lowest forecast unit costs submitted by a Victorian distributor for each meter type was inappropriate. This approach did not take into account the businesses' conditions in procuring meters, including differing communications technology and volume assumptions. This lowest unit cost approach did not have sufficient regard to the differing network circumstances across the businesses and is not reflective of any

⁷³ Jemena, *Revised Regulatory Proposal 2016–20*, January 2016, Appendix 9–1 Alternative control metering services pp. 25–27.

inherent inefficiency. This led to the establishment of a comparison that was not based on a like-for-like benchmark.

Instead, we conducted an assessment of the tendering processes each business had followed when entering into contracts with suppliers. A review of the governance and procurement practices and procedures is a reasonable approach to assessing efficient costs where services are being sourced through a competitive tender in an open market. This approach is also consistent with the approach adopted for the procurement of meters for the smart meter rollout in Victoria under the Order. Where we were satisfied that the applied process is prudent, based on a competitive tender arrangement, we accepted the proposed metering hardware unit costs.

Jemena and United Energy formed a partnership to undertake the AMI roll-out and contracted with Jemena Asset Management (JAM) to manage this. JAM undertook a tender process and appointed a sole provider, Secure Meters, for its AMI roll out.⁷⁴

Having examined Jemena's tendering process for the procurement of metering hardware, we consider that the contracts have been determined on a competitively tendered basis and the meter unit costs represent competitively sourced market rates.

Our 2012–15 AMI budget and charges determination supports this.⁷⁵ Our consultants, Impaq Consulting also maintained that Jemena's vendor contracts had been let on a competitively tendered basis.⁷⁶

Jemena will continue to procure meters from its existing suppliers. We consider this to be reasonable in the circumstances. Running a further tender process for the supply of meters for the 2016-2020 regulatory control period is unlikely to provide any additional value to customers given:

- the costs involved in undertaking a tender process are not insignificant
- the contract will be for a short term because metering contestability commences in Victoria on 1 December 2017
- the low volume of meters required.

We consider that the cost of engaging alternative vendors is likely to outweigh the benefits. In addition to the above limitations, even if Jemena is able to procure meters at a lower cost through an alternative vendor, it will incur other operating costs. In particular, end to end testing programs required for communication systems and data collection compliance in accordance with the mandated service levels.

⁷⁴ Energeia, *Review of Victorian DNSP's AMI Budget Applications*, October 2011, p. 73.

⁷⁵ AER, *Final Determination—AMI budget and charges applications 2012–15*, 31 October 2011, p. 146; <http://www.aer.gov.au/networks-pipelines/determinations-access-arrangements/pricing-proposals-tariffs/jemena-ami-budget-and-charges-determination-2012-15>

⁷⁶ Impaq Consulting, *Review of DNSP's AMI Budget Submissions for 2012 to 2015*, dated 20 July 2011, p. 50.

Meter installation costs

We accept Jemena's proposed installation costs.

Jemena accepted our decision to apply the time taken for new connections to meter replacements but submitted that the preliminary decision made no allowance for the back office costs incurred to administer and support the replacement of a meter installation.⁷⁷ Jemena proposed that we adopt the back office rate and time taken that we accepted in the preliminary decision for new connections. This rate is \$82.33 per job.⁷⁸

We accept that Jemena will incur back office costs associated with meter replacement. The administrative component for Jemena's meter replacement is consistent with our approach adopted for its new connections.

We approve a meter replacement installation cost of \$293.16 (\$2015).

Meter volumes

Our final decision does not accept Jemena's meter volumes.

We accepted Jemena's metering volumes in our preliminary decision.⁷⁹ We also indicated that we may revisit forecast metering volumes in the final decision if more information becomes available. We did this because at the time of the release of our preliminary decision the AEMC's final rule determination on metering contestability had not been finalised. The implementation timeframe and whether this would apply to Victoria remained uncertain.

Jemena has revised its metering volumes to take into account that metering contestability will be introduced in Victoria on 1 December 2017, in accordance with the AEMC's final rule determination.⁸⁰ Accordingly, Jemena has reduced meter deployment in the years following metering competition to zero.⁸¹ However, Jemena also considers that it is more efficient to accelerate its deployment of AMI meters under the AMI Order to reduce its costs of having to manually read non AMI meters.⁸²

We sought further information from Jemena on its revised meter deployment profile for 2016 and 2017.⁸³ In response Jemena stated that it believes it is able to perform more meter exchanges in 2016 than 2017 by focusing on those customer sites with relatively

⁷⁷ Jemena, *Revised Regulatory Proposal 2016–20*, January 2016, Appendix 9–1 Alternative control metering services p. 28.

⁷⁸ Jemena, *Revised Regulatory Proposal 2016–20*, January 2016, Appendix 9–1 Alternative control metering services p. 28.

⁷⁹ AER, *Preliminary Decision, Jemena distribution determination 2016 to 2020, Attachment 16 - Alternative control services*, October 2015, p. 16-40.

⁸⁰ AEMC, *National Electricity Amendment (Expanding competition in metering and related services) Rule 2015*, 26 November 2015.

⁸¹ Jemena, *Revised regulatory proposal 2016–20*, January 2016, Attachment 9-1, p. 7.

⁸² Jemena, *Revised regulatory proposal 2016–20*, January 2016, Attachment 9-1, p. 7.

⁸³ AER Information request to Jemena #051, response dated 30 March 2016.

less complex site issues including those who have moved out of premises. Further, Jemena states that it has stepped up its customer engagement process (including writing letters to customers, telephone calls and setting up appointments) and expects a much higher number of customers will take up AMI meters.⁸⁴

Table 16.10 below provides a comparison of the initial and revised forecast meter volumes. The table also sets out our preliminary and final decision on Jemena's meter volume forecast. This shows that Jemena is proposing to install 5034 meters in 2016 and 2017, prior to metering contestability, compared to its initial proposal of 4486 meters for 2016-2020.

Table 16.10 Forecast meter volumes

Meter volume	2016	2017	2018	2019	2020	Total
Initial proposal	1122	1049	849	759	707	4486
Preliminary decision	1122	1049	849	759	707	4486
Revised proposal	3264	1769	0	0	0	5034
Final decision	2448	1327	0	0	0	3775

Source: AER analysis; Jemena, *AER information request #051*, March 2016;

We accept that Jemena will no longer be able to install meters once metering competition is in place from 1 December 2017 and this be reduced to zero beyond that date. However, we do not accept Jemena's accelerated deployment of 5034 meters in 2016 and 2017.

As at 31 December 2015, Jemena has 5450 customers remaining on non-AMI meters.⁸⁵ Given this, Jemena is proposing to install AMI meters to 92% of its customers who remain on a non-AMI meter within the next 2 years. We consider this to be a bold program to deliver, particularly where, and this has been acknowledged by Jemena, 'there are a number of customers who have steadfastly refused an AMI meter, whilst others have not provided either site access or have technical constraints at their meter board, which they need rectify before an AMI meter can be installed'.⁸⁶

It is reasonable to expect that a proportion of customers will continue to refuse installation of AMI meter and there will remain access issues to the premises. This is evident from the Victorian Auditor-General's most recent report on the smart meter program in Victoria.⁸⁷ This report provides the most up to date status of the smart meter rollout and shows that of the sites that were yet to have an AMI meter installed, around 32% were due to customer refused access/installation and 68% due to access

⁸⁴ AER Information request to Jemena #051, response dated 30 March 2016, p. 3.

⁸⁵ AER Information request to Jemena #051, response dated 30 March 2016, p. 3.

⁸⁶ AER Information request to Jemena #051, response dated 30 March 2016, p. 3.

⁸⁷ Victorian Auditor-General's Report, *Realising the Benefits of Smart Meters*, September 2015

preventing installation (i.e. locked gate).⁸⁸ There will continue to be a group of customers who refuse the installation of a smart meter, for various reasons, notwithstanding Jemena's best endeavours to do so. Increased customer engagement will assist in addressing access to the metering installation and may sway a customer's view on refusing a smart meter, but it will not address this entirely. Taking this into account, we do not consider the installation of 5034 AMI meters to be a reasonable forecast. Our substituted forecast has scaled back Jemena's revised forecast by 25%, and in our view provides a more reasonable reflection of those customers who refuse access/installation and premises where access is prevented.

Our final decision approves a meter volume forecast of 3775 as set out in Table 16.10 above.

IT/Communications

Our final decision is to accept Jemena's IT and communications capex.

We accepted Jemena's metering IT and communications capex in our preliminary decision.⁸⁹

Jemena has accepted our IT and communications preliminary decision.⁹⁰

Forecast opex

Our final decision approves \$61.9 million (\$2015) in opex for Jemena's 2016–20 regulatory control period. After our approach to cost allocation is applied, this is equal to 99 percent of Jemena's revised forecast of \$62.7 million (\$2015).

Base

We determined Jemena's base annual opex to be \$11.8 million (\$2015).

Table 16.11 sets out the components of our final decision regarding Jemena's base opex for the 2016–20 regulatory control period.

⁸⁸ Victorian Auditor-General's Report, *Realising the Benefits of Smart Meters*, September 2015, Figure 2A, p. 17. As at 30 June 2014, of the total number of target sites with issues (1.36%), 0.43% were customer refused access and 0.93 were access prevents installation.

⁸⁹ AER, Preliminary Decision, Jemena distribution determination 2016 to 2020, Attachment 16 - Alternative control services, October 2015, p. 16-41.

⁹⁰ Jemena, Attachment 09-03 JEN ACS Metering - Capex Forecast Model [CONFID].

Table 16.11 AER's assessment of Jemena's base (\$2015)

Cost category	Revised proposal	Final decision
<u>Raw base</u>		
2014 reported opex	25.5	25.5
<u>Non–recurrent costs</u>		
Claims and complaints	(1.4)	(1.4)
Meter data management	(0.8)	(0.8)
<u>Reallocation of costs</u>		
Costs moved out of alternative control services	(11.8)	(11.6)
<u>Adjusted base</u>		
AER assessed base	11.5	11.8

Source: AER analysis; AER, *Final decision - Jemena - Metering opex - AER allocation - May 2016*, 'Table 16.10' tab; Jemena, *Revised ACS metering – Opex forecast model*, March 2016, Attachment 9-4, 'Input | Reported opex' tab.

Our determination on Jemena's base annual opex applied the revealed costs approach. We also had regard to our final decision on Jemena's allocation of opex between standard and alternative control metering services.

Using the revealed costs approach, we selected Jemena's actual opex in 2014 as our starting point. In 2014, Jemena's actual opex was \$25.5 million (\$2015).⁹¹ We selected Jemena's actual metering opex in 2014 for two reasons. First, it is the last completed year from which we have audited accounts on Jemena's metering opex. Second, the costs incurred in 2014 should best resemble 'business as usual' opex for metering in the forthcoming 2016–20 regulatory control period. This is because Jemena had been set a target to have completed its rollout of AMI before the commencement of the 2014 year.⁹²

The next step in our assessment of Jemena's base involved considering whether we should make any adjustments for non–recurrent expenditure. In developing its proposal, Jemena removed certain costs from its base.⁹³ We consider these adjustments to be sufficient to remove non–recurrent expenditure. Table 16.11 sets out the adjustments and their magnitude. We have applied them to our assessment of Jemena's base level of opex.

We consider that following the removal of non–recurrent expenditure, Jemena's actual opex in 2014 does not contain material inefficiencies. We reached this conclusion on

⁹¹ AER, *Final decision - Jemena - Metering opex - AER allocation - May 2016*, 'Table 16.10' tab.

⁹² AMI Cost Recovery Order, cl. 14.1.

⁹³ Jemena, *Revised ACS metering – Opex forecast model*, March 2016, Attachment 9-4, 'Input | Reported opex' tab.

the grounds that the Victorian distribution businesses are generally efficient. This is compared to their counterparts in other regions of the national electricity market.⁹⁴ We have decided not to make an efficiency adjustment to the base level of opex.

We had regard to Jemena's proposal that its base should be upwardly adjusted for an 'accounting error'.⁹⁵ In its revised proposal Jemena stated that this error occurred when it recorded certain costs in its accounting systems as incurred in 2013. This is rather than in 2014, when the costs in question were actually incurred. We accept that this would have the effect of understating Jemena's actual opex in the base year we have selected (2014). Our final decision accordingly adjusts the base year opex by \$0.4 million (\$2015) which is how much Jemena stated that its base was understated.⁹⁶ Jemena provided a KPMG report to us confirming that the accounting error had occurred.⁹⁷

The final step we took in determining Jemena's base was a cost allocation process between standard and alternative control metering services. This process is outlined in section 16.3.1.1 above. After applying our approach to cost allocation, we determined Jemena's base opex to be \$11.8 million (\$2015).⁹⁸

Step

We accept Jemena's proposed one-off opex step change of \$0.4 million (\$2015).

The proposed step change relates to the 'Power of Choice' rule change made by the AEMC. As a result of this rule change Jemena submitted that it will experience a consequent need for reaccreditation as a type 4 meter data provider and meter provider. Its revised proposal states that this will involve the establishment of 'an appropriate security management plan and associated infrastructure and communications systems'.⁹⁹

Consistent with our Expenditure forecast assessment guideline, we will only accept a proposed step change if it is associated with a new regulatory obligation or a capex/opex trade-off.¹⁰⁰ We are satisfied that the Power of Choice rule change fits into the category of a new regulatory obligation giving rise to additional costs not already capture in the base. Our final decision therefore accepts Jemena's proposed one-off step change.

⁹⁴ See Attachment 7 to this final decision.

⁹⁵ Jemena, *2016–20 Electricity Distribution Price Review Regulatory Proposal, Revocation and substitution submission*, Attachment 9-1: Alternative control metering services, 5 January 2016, p. 29.

⁹⁶ AER, *AER information request—Jemena #046—One-off accounting adjustment*, March 2016, p. 3.

⁹⁷ Jemena, *2016–20 Electricity Distribution Price Review Regulatory Proposal, Revocation and substitution submission*, Attachment 9-8: KPMG - Report on metering base year adjustment (confidential), January 2016.

⁹⁸ See Table 16.11 above.

⁹⁹ Jemena, *Revised regulatory proposal 2016–20*, January 2016, Attachment 7–17 p. 28.

¹⁰⁰ AER, *Expenditure assessment forecast guideline*, November 2013, p. 11.

Trend

We trended forward the base over the 2016–20 regulatory control period.

When trending forward the base we applied an opex rate of change. This comprised of real price growth adjustment for labour and an output growth adjustment based on forecast customer numbers.

With respect to the real price growth adjustment for labour we accepted Jemena's proposed escalators. But consistent with our final decision for standard control services we applied an escalation weighting of 62:38 between labour and non–labour. This is in contrast to Jemena's higher weighting of 83:17.¹⁰¹

In regards to output growth we accepted Jemena's revised proposal that an adjustment should be made based on customer numbers. This is because customer numbers are the sole driver for output growth with respect to the provision of alternative control meter services.

When modelling output growth we took into account the AEMC's rule change introducing metering contestability in 2017. To do this, we assumed that Jemena's customer numbers will not continue to grow from 2018 onwards. This approach is consistent with Jemena's forecast number of new connections, which feeds into its revised capex forecast.

Once trended forwarded, we calculated an alternative metering opex forecast of \$61.9 million (\$2015) for Jemena's 2016–20 regulatory control period. This is equal to 99 per cent of Jemena's revised opex forecast.

16.3.4.3 Metering exit fee

Our final decision does not accept Jemena's proposed exit fee.

Jemena's proposed exit fee includes administrative, capital and tax cost components. The administrative component recovers clerical costs associated with a customer leaving Jemena's metering service. This will be possible when metering contestability is introduced in 2017. The capital component recovers the remaining written down value of metering assets corresponding to the customer leaving Jemena's service. This is derived from the opening metering asset base which we approve for Jemena in this final decision. Jemena states that it has included a 'tax allowance component of the exit fee, where [Jemena] is forecast to be in a tax loss position (calculated from the AER's PTRM'.¹⁰²

¹⁰¹ Jemena, *2016–20 Electricity Distribution Price Review Regulatory Proposal, Revocation and substitution submission, Attachment 9-1: Alternative control metering services*, 5 January 2016, p. 31.

¹⁰² Jemena, *2016–20 Electricity Distribution Price Review Regulatory Proposal, Revocation and substitution submission, Attachment 9-1: Alternative control metering services*, 5 January 2016, p. 19.

To calculate the administrative component to its proposed exit fee, Jemena forecast the hourly rate of a worker performing the clerical tasks involved. It then multiplied that hourly rate by its estimation of the time it would take to perform the clerical tasks. We accept these aspects of Jemena's forecast of the administrative component to its exit fee. However, we have not accepted Jemena's proposed real cost escalators. We substituted them for the labour cost escalators we have accepted in this final decision for standard and alternative control metering services.

Our administrative cost component of the exit fee is potentially in contrast with the decisions we made during the New South Wales, Queensland, South Australia and the Australian Capital Territory determinations in April 2015. Specifically, we rejected the administrative costs those distributors proposed in the case of removing a meter.¹⁰³ While we found that the costs were not sufficiently material in those jurisdictions, the Order applicable to the Victorian distribution businesses requires that we set an exit fee; and thus we have accepted the inclusion of an administrative cost component.

We have accepted most, but not all, of the capital component to Jemena's proposed exit fee. The capital component is derived from Jemena's approved opening metering asset base. After updating for actual CPI, our final decision accepts an opening metering asset base value as of 1 January 2016 of \$119.9 million (\$ nominal) rather than Jemena's proposed \$120.4 million (\$ nominal). As a result, we have not accepted the capital component to Jemena's exit fee proposal. In terms of Jemena's exit fee charges, this leads to lower than proposed capital component.

We have accepted Jemena's proposal to include a tax component to its exit fee charges.

Our substitute exit fees are set out in section 16.3.1.4.

¹⁰³ The reasons for this decision are set out in, for example; Preliminary Decision, *Energex distribution determination 2015–16 to 2019–20, Attachment 16 – Alternative control services*, November 2014, p. 16–52.

A Ancillary network services prices

A.1 Ancillary network services

Table 16.12 Fee based and quoted ancillary network services prices for 2016, final decision (\$2016)

Fee based service	Hours	Final decision price
Connection services where Jemena is responsible for metering		
Routine single-phase connection to new premises	Business hours	572.69
	After hours	572.69
Routine three-phase connection to new premises	Business hours	742.08
	After hours	742.08
Temporary single-phase connection	Business hours	557.80
	After hours	557.80
Temporary three-phase connection	Business hours	713.80
	After hours	713.80
Connection services where Jemena is not responsible for metering		
Routine single-phase connection to new premises	Business hours	572.69
	After hours	572.69
Routine three-phase connection to new premises	Business hours	742.08
	After hours	742.08
Temporary single-phase connection	Business hours	557.80
	After hours	557.80
Temporary three-phase connection	Business hours	713.80
	After hours	713.80
Energisation and de-energisation services		
Reconnection after temporary disconnection for non-payment	Business hours	66.18
	After hours	73.90
Manual energisation (new and existing premises)	Business hours	34.98
	After hours	55.58
Manual re-energisation	Business hours	34.98
	After hours	55.58

Fee based service	Hours	Final decision price
Manual de-energisation	Business hours	53.97
	After hours	70.86
Remote de-energisation	Business hours	9.45
Remote re-energisation	Business hours	9.45
Ancillary connection services		
Service vehicle visit	Business hours	434.69
	After hours	571.36
Wasted service truck visit - not Jemena's fault	Business hours	403.14
	After hours	571.36
Fault response - not Jemena's fault	Business hours	434.69
	After hours	571.36
Ancillary metering services		
Manual special meter reads	Business hours	31.24
Remote special meter read	Business hours	No charge
Re-test types 5, 6 and AMI smart metering installations	Business hours	368.19
	After hours	605.97
Remote meter re-configuration	Business hours	49.45
Type 7 metering (meter data service)	Business hours	0.58
Customer access to metering data	Business hours	53.96

Source: Jemena, Pricing proposal *Jemena Electricity Networks (Vic) Ltd—2016 JEN pricing proposal—Public*, 10 December 2015, pp. 53–54; and Jemena, Revised regulatory proposal *Jemena Electricity Networks (Vic) Ltd—2016–20 electricity distribution price review regulatory proposal—Revocation and substitution submission—Attachment 10–1 alternative control services and negotiated services—Public*, 6 January 2016, pp. A-1 to A-2.

Table 16.13 Quoted service ancillary network services hourly labour rates for 2016, final decision (\$2016)

Quoted service labour category	Final decision labour rate
Back office / administration	83.57
Linesperson / field worker – Business hours	103.65
Linesperson / field worker – After hours	128.30
Technical officer – Business hours	143.42
Technical officer – After hours	167.84

Quoted service labour category	Final decision labour rate
Engineer – Business hours	186.59
Engineer – After hours	204.27

Source: Jemena, Pricing proposal *Jemena Electricity Networks (Vic) Ltd—2016 JEN pricing proposal—Public: Attachment 5*, 10 December 2015; Jemena, Revised regulatory proposal *Jemena Electricity Networks (Vic) Ltd—2016–20 electricity distribution price review regulatory proposal—Revocation and substitution submission—Attachment 10–1 alternative control services and negotiated services—Public*, 6 January 2016, p. A-3; and Jemena, Revised regulatory proposal *Jemena Electricity Networks (Vic) Ltd—2016–20 electricity distribution price review regulatory proposal—Revocation and substitution submission—Attachment 10–04 JEN ACS ancillary network services—Forecast charges model*, 6 January 2016.

Table 16.14 Quoted services

Quoted service	Description
Temporary cover of low voltage wires	A quoted service charge will be applied to customers or contractors who request covering of service cable or low voltage power lines for safety reasons, for example, if those power lines that are close to a construction site. The charge will depend on the time taken to install and remove the covers, plus the rental costs of the covers for duration of time the mains are covered.
Elective undergrounding	A quoted service charge will be applied to change an existing overhead electricity supply to an underground supply.
Rearrangement of network assets at a customer's request (excluding alterations and relocation of public lighting assets)	
Damage to overhead service cables cause by high load vehicles	A quoted service charge will be applied to an identifiable third party when overhead service cables require repair due to the damage caused by the by high load vehicles.
High load escorts	A quoted charge will be applied to a person requiring lifting of overhead services to allow high load vehicles to safely pass along roads.
After hours truck appointment	A quoted service charge will be applied to a customer, retailer or contractor that requests attendance of a service vehicle by appointment after hours. Examples of situation where a service truck attendance is required are as follows: <ul style="list-style-type: none"> – De-energisation (fuse removal) and or opening an isolator where supply is greater than 100 amps – Supply alteration, additions and upgrades – Other related distribution network work undertaken by Jemena due to a customer's request.
Auditing design and construction	A quoted service charge will be applied where a customer requests Jemena to audit a design or construction works undertaken by a customer or a third party in relation to a connection service.
Specification and design enquiry	A quoted service charge will be applied to a customer

Quoted service	Description
<p>Routine connection > 100 amps</p>	<p>where a customer requests Jemena to provide information to assist them to undertake feasibility studies, designs or to provide budget estimates.</p> <p>A quoted service charge will be applied for the following connection services:</p> <ul style="list-style-type: none"> • routine connections that are greater than 100 amps and above • supply abolishment that is greater than 100 amps.
<p>Reserve feeder maintenance</p>	<p>A maintenance rate (\$/kW) will apply based on a customer's reserve feeder capacity.</p>

Source: Jemena, Pricing proposal *Jemena Electricity Networks (Vic) Ltd—2016 JEN pricing proposal—Public: Attachment 5*, 10 December 2015, pp. 53–54; and Jemena, Revised regulatory proposal *Jemena Electricity Networks (Vic) Ltd—2016–20 electricity distribution price review regulatory proposal—Revocation and substitution submission—Attachment 10–04 JEN ACS ancillary network services—Forecast charges model*, 6 January 2016.

B Annual metering charges unders and overs account

To demonstrate compliance with the distribution determination applicable to it during the 2016–20 regulatory control period, Jemena must maintain an annual metering charges unders and overs account in its annual pricing proposal.

Jemena must provide the amounts for the following entries in their annual metering charges unders and overs account for the most recently completed regulatory year (t–2), the current regulatory year (t–1) and the next regulatory year (t):

1. An opening balance for year t–2, year t–1 and year t;
2. An interest charge for one year on the opening balance for each regulatory year (t–2, t–1 and t). These adjustments are to be calculated using the respective nominal weighted average cost of capital (WACC) for each intervening year between regulatory year t–2 and year t.¹⁰⁴ The WACC applied for each year will be that approved by the AER for the relevant year;
3. The amount of revenue recovered from metering charges in respect of that year, less the total annual revenue for the year in question;
4. An adjustment to the net amount in item 3 by six months of interest. These adjustments are to be calculated using the approved nominal WACC;
5. The total sum of items 1–4 to derive the closing balance for each year.

Jemena must provide details of calculations in the format set out in Table 16.15. Amounts provided for the most recently completed regulatory year (t–2) must be audited. Amounts provided for the current regulatory year (t–1) will be regarded as an estimate. Amounts for the next regulatory year (t) will be regarded as a forecast.

In proposing variations to the amount and structure of annual metering charges, Jemena is expected to achieve a closing balance as close to zero as practicable in its annual metering charges unders and overs account in each forecast year in its annual pricing proposals during the 2016–20 regulatory control period.

¹⁰⁴ The WACC for each year will be that approved by the AER for the respective year and as calculated as set out in figure 14.1 of Attachment 14 to this final decision.

Table 16.15 Example calculation of annual metering charges unders and overs account (\$'000, nominal)

	Year t-2 (actual)	Year t-1 (estimate)	Year t (forecast)
(A) Revenue from annual metering charges	8 449	7 389	6 460
(B) Less TARM for regulatory year =	7 366	7 422	7 573
+ Annual revenue requirement (AR _t)	7 349	7 412	7 559
+ T factor (T _t) – true-ups relating to the AMI–Order in Council	17	10	14
(A minus B) Under/over recovery of revenue for regulatory year	1 083	-33	-1 113^a
Annual metering charges unders and overs account			
Nominal WACC (per cent)	5.00%	5.50%	6.00%
Opening balance	-50	1 057 ^b	1 081
Interest on opening balance	-3	58	65
Under/over recovery of revenue for regulatory year	1 083	-33	-1 113 ^b
Interest on under/over recovery for regulatory year	27	-1	-33
Closing balance	1 057	1 081	0^c

Notes: (a) Approved annual metering charges revenue under/over recovery for regulatory year t. This is the B_t parameter in the annual metering charges revenue cap formula.
(b) Opening balance is the previous year's closing balance.
(c) Jemena is expected to achieve a closing balance as close to zero as practicable in its annual metering charges unders and overs account in each forecast year in its annual pricing proposals in the 2016–20 regulatory control period.