



**PRELIMINARY DECISION**  
**United Energy distribution**  
**determination**  
**2016 to 2020**

**Attachment 16 – Alternative**  
**control services**

October 2015

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Inquiries about this publication should be addressed to:

Australian Energy Regulator  
GPO Box 520  
Melbourne Vic 3001

Tel: (03) 9290 1444

Fax: (03) 9290 1457

Email: [AERInquiry@aer.gov.au](mailto:AERInquiry@aer.gov.au)

## Note

This attachment forms part of the AER's preliminary decision on United Energy's revenue proposal 2016–20. It should be read with all other parts of the preliminary decision.

The preliminary 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 mechanism

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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
repex	replacement expenditure

Shortened form	Extended form
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. Metering is provided to all electricity customers, but also charged on a per customer basis.

In this attachment, we set out our preliminary decision on the prices United Energy is allowed to charge customers for the provision of ancillary network services, public lighting and metering.

### 16.1 Ancillary network services

For the purposes of this preliminary decision, we have referred to the service groups previously identified as 'fee based services' and 'quoted services' collectively as a single group called 'ancillary network services'.<sup>1</sup>

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

We classify ancillary network services as direct control services. Having decided to apply a direct control classification, we must further classify ancillary network services as either standard control or alternative control.<sup>4</sup> We have classified them as alternative control services because they are attributable to individual customers.<sup>5</sup>

#### 16.1.1 Preliminary decision

We generally accept United Energy's proposal for ancillary network services. We consider most of the labour inputs United Energy applied in developing its fee based service prices do not exceed maximum total labour rates which we consider efficient for providing these services. We also accept United Energy's proposed total labour

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

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

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

<sup>4</sup> AER, *Final framework and approach paper for the Victorian electricity distributors—Regulatory control period commencing 1 January 2016*, 24 October 2014, p. 61.

<sup>5</sup> AER, *Final framework and approach paper for the Victorian electricity distributors—Regulatory control period commencing 1 January 2016*, 24 October 2014, p. 61.

rates for quoted services as they also do not exceed the maximum total labour rates which we consider are efficient.

However, there are some aspects of United Energy's proposal we do not accept and we have subsequently made the following adjustments for our preliminary decision:

- Adjusted the labour inputs and times taken to perform some connection services based on our maximum total labour rates and benchmark times taken by other distributors.
- Adjusted the consumer price index (CPI) escalation from 2014 to 2015 to be based on the percentage changes in the Australian Bureau of Statistics (ABS) published September quarter index.
- Applied our preliminary decision labour price growth.

These adjustments have changed the ancillary network service prices proposed by United Energy. Our reasoning for these adjustments is detailed in section 16.1.4.

Appendix A contains our preliminary decision on the prices United Energy can charge for ancillary network services for the first year of the 2016–20 regulatory control period. Table 16.14 sets out the approved prices for fee based services and Table 16.15 sets out the approved labour rates for quoted services. We note these prices are in real 2015 dollar terms and will be escalated into real 2016 dollar terms in United Energy's initial pricing proposal.

We also note the Victorian Department of Economic Development, Jobs, Transport and Resources requested us to ensure that the Victorian distributors charge customers with manually read meters and customers with remote read meters accordingly.<sup>6</sup> Our preliminary decision is satisfied that wherever required, United Energy has developed separate prices for manually read and remotely read metering services. These separate prices are demonstrated in Table 16.14 and Table 16.15 in appendix A.

## Form of control

Our preliminary decision applies price cap forms of control to ancillary network services.<sup>7</sup> Figure 16.1 and Figure 16.2 set out the control mechanism formulae for fee based services and quoted services, respectively. They are consistent with the formulae which United Energy agreed on in its regulatory proposal.<sup>8</sup>

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<sup>6</sup> Victorian Department of Economic Development, Jobs, Transport & Resources, *Submission to Victorian electricity distribution pricing review—2016 to 2020*, 13 July 2015, p. 4.

<sup>7</sup> AER, *Final framework and approach for the Victorian electricity distributors: Regulatory control period commencing 1 July 2016*, 24 October 2014, pp. 89–93.

<sup>8</sup> AER, *Final framework and approach for the Victorian electricity distributors: Regulatory control period commencing 1 July 2016*, 24 October 2014, pp. 89–93; Powercor, *Regulatory proposal 2016–20*, 30 April 2015, pp. 301–302.



## Form of control—fee based services

Our preliminary decision applies a price cap form of control to fee based services.<sup>9</sup> Under this form of control, we approve a schedule of prices for the first year (2016) of the regulatory control period. These approved prices are set out in Table 16.14 of appendix A. From 2017 and for each subsequent year, the year t prices are determined by adjusting the previous year's prices by the formula set out in Figure 16.1. The X factors applied 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.

$CPI_t$  is the annual percentage change in the ABS CPI All Groups, Weighted Average of Eight Capital Cities<sup>10</sup> 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.<sup>11</sup>

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<sup>9</sup> AER, *Final framework and approach for the Victorian electricity distributors: Regulatory control period commencing 1 July 2016*, 24 October 2014, pp. 92–93.

<sup>10</sup> 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.

<sup>11</sup> 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

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

	2017	2018	2019	2020
X factor	-0.80	-1.28	-1.48	-1.37

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 preliminary decision applies a formula to determine the cost build-up of services that are priced on a ‘quoted’ basis.<sup>12</sup> Figure 16.2 and Table 16.15 in appendix A 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  $(1+\Delta CPI_t)(1-X_t)$ , where:

$CPI_t$  is the annual percentage change in the ABS CPI All Groups, Weighted Average of Eight Capital Cities<sup>13</sup> 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.

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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.

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

<sup>13</sup> 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.

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.<sup>14</sup>

*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 United Energy's proposal

United Energy proposed to use a cost build-up method to establish initial prices (or base prices) for fixed fee services in the first year of the 2016–20 regulatory control period.<sup>15</sup> Costs are based on those incurred by United Energy in 2014. It noted that 90 per cent of these service costs relate to services provided by competitively outsourced contracts.

United Energy assumed the price caps will operate in the following way for fixed fee services:<sup>16</sup>

- The initial price (or base price) will be set for each service in the first year of the regulatory control period.
- From year two onwards of the regulatory control period, services will be subject to the price caps using the controls provided in the formulae in Figure 16.1 and Figure 16.2.
- The price cap formula allows prices to be annually adjusted for:
  - inflation
  - real cost escalation.

The result of the above essentially limits the annual movement in prices to an annual adjustment or escalation. This is primarily driven by changes in CPI and other changes to underlying cost drivers for different services.

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<sup>14</sup> The X factors applied in this formula adjust for annual labour price growth.

<sup>15</sup> United Energy, *Regulatory proposal 2016–20*, 30 April 2015, pp. 163–167.

<sup>16</sup> United Energy, *Alternative Control Services—Fee-based and quoted alternative control services 2016–20*, 30 April 2015, p. 22.

### 16.1.3 Assessment approach

We have focused on the key inputs in determining prices for ancillary network services. We considered:

- United Energy's regulatory proposal<sup>17</sup>
- maximum total labour rates we developed for Victoria. Our findings are informed by our consultant, Marsden Jacob Associates', analysis<sup>18</sup>
- labour is the key input in determining an efficient level of prices for ancillary network services. Therefore, we focused on comparing United Energy's proposed total labour rates against maximum total labour rates that we developed. In this preliminary decision 'total labour rates' comprise raw labour rates, on-costs and overheads.
- the times taken to perform the services, as these times are another key input into the final price.

We note that United Energy primarily used contractors in delivering some of its ancillary network services. In assessing these contractor rates we considered:

- the competitiveness of the process in procuring the contractor
- our maximum total labour rates
- contractor rates we have previously approved
- contractor rates used by other Victorian distributors.

Our preliminary decision maximum total labour rates apply the following labour components to arrive at a maximum total labour rate (for particular labour types).

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

As we explain in more detail in section 16.1.4, we obtained maximum rates for each of these components. We applied these maximum (component) rates to derive maximum total labour rates. We consider that using our maximum labour rates to determine appropriate prices for services will provide United Energy 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

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<sup>17</sup> United Energy, *Regulatory proposal 2016–20*, 30 April 2015, pp. 163–167; and United Energy, *Alternative Control Services—Fee-based and quoted alternative control services 2016–20*, 30 April 2015, pp. 1–39.

<sup>18</sup> Marsden Jacob Associates, *Final provision of advice in relation to alternative control services—public version*, 20 October 2014.

commensurate with the regulatory and commercial risks involved for the provision of those services.<sup>19</sup>

Where a distributor's proposed total labour rates exceed 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 have benchmarked components of the Victorian distributors' proposed labour costs against one another.

## 16.1.4 Reasons for preliminary decision

### 16.1.4.1 Contractor rates

We generally accept the proposed contractor rates United Energy applied in delivering its ancillary network services. However, there are some proposed average unit contractor rates for connection services and temporary supplies we have not accepted as they exceed our maximum total labour rates which we consider are efficient. Therefore our preliminary decision has substituted in our maximum total labour rates in United Energy's cost build-up method to establish prices for these connection services.

We consider that using our maximum labour rates to determine appropriate prices for services will provide United Energy 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.<sup>20</sup> Our maximum total labour rates are discussed in section 16.1.4.2.

United Energy noted that 90 per cent of its fee based service costs are provided by outsourced contracts with third party service providers.<sup>21</sup> In assessing these contractor rates we consider:

- the competitiveness of the process in securing the contractor
- our maximum total labour rates
- contractor rates we have previously applied
- contractor rates used by other Victorian distributors.

We are satisfied with the competitiveness of the processes United Energy entered into contracts with third party providers. We note most of United Energy's proposed contractor rates in its cost build-up method were less than our maximum total labour rates and therefore we consider them to be efficient.

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<sup>19</sup> NEL, ss. 7A and 16.

<sup>20</sup> NEL, ss. 7A and 16.

<sup>21</sup> United Energy, *Regulatory proposal*, April 2015, p. 163.

However, we consider United Energy's average unit contractor rates for some connection services and temporary services exceed the maximum total labour rates which we consider efficient for providing these services. Therefore our preliminary decision has not accepted these average unit contractor rates.

United Energy's proposed inputs for these connection services and temporary services have been developed using average unit cost rates. These average unit cost rates are dollar values only and do not include times taken to perform the service. In gaining a better understanding of United Energy's proposed average unit costs we developed benchmarks to compare against them.

First we developed a benchmark time taken to perform these services by comparing the times taken by other Victorian distributors. We consider the benchmark time taken demonstrates the efficient time taken by distributors to perform the service. This is the same approach we applied for our assessment of fee based services for distributors in other jurisdictions and our analysis has been informed by the Marsden Jacob Associates' benchmarking analysis.

Our analysis demonstrated that the majority of distributors proposed a time of approximately two hours or less—including travel time—to undertake the connection tasks. We note the large rural networks of Powercor and AusNet Services which have increased travel times compared to the other Victorian distributors were included in the distributors which undertake these tasks in approximately two hours or less time. Therefore, we consider a benchmark time of two hours is a reasonable estimate of time for United Energy to perform these tasks.

We then compared United Energy's average unit cost rates for connection services during business hours against our maximum total labour rates. To do this we divided the applicable labour component of the proposed average unit cost rates by our benchmark time of two hours to deduce the hourly labour rates. Our analysis demonstrated that the hourly rates for some connection services exceeded our maximum total labour rates by over 40 per cent. As we consider our maximum total labour rates are efficient for providing these services, we do not accept United Energy's proposed average unit cost rates for these connection services during business hours.

We also undertook the same analysis for United Energy's proposed contractor rates for connection services during after hours. To establish an after hours rate for our maximum total labour rates, we applied a benchmark percentage increase based on other distributors increases from business hour labour rates to after hour labour rates. Our analysis included distributors from Queensland, Victoria and New South Wales and demonstrated that the percentage increase from business hour labour rates to after hour labour rates ranged from between 18 per cent up to 67 per cent. To be conservative we applied an increase of 67 per cent to our maximum total labour rates.

Our analysis demonstrated that United Energy's after hour contractor rates exceeded our benchmark after hour maximum total labour rates by between 6 and 16 per cent. As we consider our benchmark after hour maximum total labour rates are a conservative estimate of efficient labour rates for providing these services, we do not

accept United Energy's proposed connection services average unit cost rates for after hours.

We note that United Energy has applied its cost build-up for connection services to derive the prices for its proposed temporary supply services. Therefore, as the temporary supply services include the same average unit cost rates we do not accept them and have substituted in our maximum total labour rates.

#### 16.1.4.2 Maximum total labour rates

As set out in section 16.1.3, we compared United Energy's total labour rates against our developed maximum (rather than, for example, average) total labour rates. As labour is the major input in determining prices for ancillary network services, we consider it prudent to use maximum total labour rates as an input to assess prices for ancillary network services. Maximum total labour rates act as 'ceilings' on the rates we consider United Energy should pay for the various labour types. Where a distributor reveals rates lower than the maximum total labour rates, we consider those lower rates should be the inputs for deriving ancillary network services prices.

We note the Victorian distributors used different names and descriptions for different labour categories. However, we found that the types of labour used to deliver ancillary network services broadly fell into one of five categories:

- Administration
- Technical services
- Engineers
- Field workers, and
- Senior engineers.

As noted, United Energy's proposed labour rates have been derived by scaling its contractor rates.<sup>22</sup> As most of these rates are confidential we are unable to publish them. However, for transparency Table 16.2 shows the maximum total labour rates we developed for our assessment of United Energy's labour types.

In developing our maximum total labour rates, we assessed raw labour rates, on-costs and overheads separately and derived maximum rates for each component (discussed below). We then applied these maximum rates to produce the maximum total labour rates. It was this maximum rate that was important in our deliberations. The components that make up that maximum were of less relevance and individually did not form the basis of our reasoning.

We used these maximum total labour rates to determine whether United Energy's proposed prices for ancillary network services reflect the underlying cost of an efficient labour rate. We consider this to be a prudent approach. It provides the distribution

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<sup>22</sup> United Energy, *Regulatory proposal*, April 2015, p. 165.

business with a reasonable opportunity to recover at least its efficient costs. We consider prices based on labour rates higher than the maximum total labour rates would be inefficient.

**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.

### Raw labour rates

In developing maximum raw labour rates (that is, excluding on-costs and overheads), we examined Hays 2014 salary data. The Hays 2014 salary reports draw on information from 2,500 companies across Australia and New Zealand. Relevant distributors in the Hays data who gave permission to be named were ActewAGL, Jemena, and CitiPower.<sup>23</sup> The Hays rates draw from a wide pool of labour which the Victorian distributors would likely have access to. We therefore consider these rates provide a good representation of the competitive market rate for appropriate categories of labour.

We reviewed salary information from all Australian cities. However, we only used Victorian salary data to develop our maximum raw labour rates.<sup>24</sup>

For illustrative purposes, we also looked at raw labour rates (across the five benchmark labour categories) for Sydney and Auckland. Labour rates in each category did not vary significantly across these locations. The differences observed probably captured differences between locations including economic conditions, labour laws, and population. For these reasons, we consider that the Victorian rates alone were acceptable to develop maximum labour rates for ancillary network service charges for the Victorian distributors.

To calculate the maximum raw labour rates, we used job titles from Hays' energy specific salary guide.<sup>25</sup> We supplemented this with data from the Hays office support salary guide.<sup>26</sup> This ensured that the 'administration' category was sufficiently covered.

<sup>23</sup> A list of contributors to the Hays 2014 salary data who gave permission to be named is available on Hays, *Contributors—Hays 2014 Salary*, accessed 12 February 2015, Guide [http://www.hays.com.au/salary-guide/HAYS\\_375078](http://www.hays.com.au/salary-guide/HAYS_375078).

<sup>24</sup> Marsden Jacob Associates, *MJA analysis*.



We analysed 66 different job titles and used 36 of these to develop maximum raw labour rates for the five labour categories. Table 16.3 shows the job titles we used to develop maximum labour rates for each of the five labour categories. These 36 labour job titles involved tasks which clearly fell into either the 'administration', 'technical specialist', 'engineer', 'field worker', or 'senior engineer' labour categories. We excluded job titles that were not relevant to electricity distributors such as 'wind farm engineer'.

**Table 16.3: Job titles we used to develop maximum labour rates**

Labour category	Job title
Administration	Project secretary / Administrator
	Client liaison (residential)
	Data entry operator
	Records officer
	Administration assistant (12+ months experience)
	Project administration assistant (3+ years experience)
Technical specialist	Project coordinator
	Technician
	Control room operator
	Control room manager
	E&I technician
	Protection technician
	Generator technician
	Operator / manager
	Site engineer
	Planner / scheduler
	OHS supervisor
Engineer	OHS manager
	Design engineer
	Project engineer (EPCM)
	Power systems engineer
	Protection engineer
	Transmission line design engineer

<sup>25</sup> Hays, *The 2014 Hays salary guide: salary & recruiting trends*, 2014.

<sup>26</sup> Hays, *The 2014 Hays salary guide: salary & recruiting trends*, 2014.

Labour category	Job title
Field worker	Asset engineer (3 to 7 years)
	Project engineer
	Leading hand
	Electrician
	Mechanical fitter
	Line worker
	G&B linesworker
	Cable joiner
Senior engineer	Cable layer
	Senior design engineer
	Principal design engineer
	Senior project engineer (EPCM)
	Commissioning engineer

Source: Marsden Jacob Associates analysis.

We considered the range of data provided for each labour category across the various job titles. In doing this, we derived salary ranges for each labour category by:

- identifying the lowest salary from all job titles in the labour category
- identifying the highest salary from all job titles in the labour category.

We consider this range represents the full pool of labour (and raw labour rates) that United Energy would have access to in a competitive market. We consider that the maximum raw labour rate for each labour category should be used to develop its maximum total labour rate. We consider this to be a prudent approach. It provides the distribution business with a reasonable opportunity to recover at least its efficient costs, while promoting the efficient provision of services.

**Table 16.4: AER maximum raw labour rates**

Labour category	AER maximum raw labour rates (\$2014)
Administration	38.46
Technical	67.31
Engineer	72.12
Field worker	67.31
Senior engineer	96.15

Source: AER analysis.

## On-costs

We consider that a maximum on-cost rate of 44.78 per cent should apply to the Victorian distributors. We calculated this maximum on-cost rate by developing a 'bottom up' estimate of on-costs for the Victorian distributors, with reference to the following factors:

- the superannuation levels included in each distributor's enterprise bargaining agreement
- a conservative estimate of workers compensation premium
- standard payroll tax rates in Victoria
- annual leave loading of 17.5 per cent loading on four weeks annual leave, which equates to 1.35 per cent of total salary.
- a conservative long service leave allowance based on three months leave for every ten years of service, equating to 2.5 per cent per year.
- an assumed rate of 18.18 per cent standard leave (including annual leave, sick leave, and public holidays) for all businesses.
- Victorian State Payroll Tax.<sup>27</sup>

We used this maximum on-cost rate of 44.78 per cent in deriving our maximum total labour rates. It provides the distribution business with a reasonable opportunity to recover at least its efficient costs.

Table 16.5 shows our maximum on-cost rate and the breakdown of that on-cost rate.

**Table 16.5: On-cost rate breakdown and maximum, per cent**

On-cost rate component	Maximum rates
Standard leave	18.18
Superannuation	10.00
Workers compensation	2.25
Payroll tax	4.85
Annual leave loading	1.35
Long service leave allowance	2.5
Total on-cost rate	44.78

Source: AER analysis.

<sup>27</sup> State Revenue Office of Victoria, *Payroll tax—current rates* (<http://www.sro.vic.gov.au/payroll-tax-current-rates>), accessed 31 July 2015.

## Overheads

Our determination of the maximum overhead rate is informed by the Marsden Jacob Associates' report which assessed alternative control services for NSW and ACT distributors. Marsden Jacob Associates recommended a 65 per cent overhead rate maximum in its report.<sup>28</sup> We consider 65 per cent is a conservative estimate for the Victorian distributors which have historically applied an overhead rate of less than 65 per cent to its ancillary network services. Therefore, we consider that a maximum overhead rate of 65 per cent should apply to all Victorian distributors as it provides the distributors with a reasonable opportunity to recover at least its efficient costs.

### 16.1.4.3 Consumer price index escalation

We do not accept the CPI escalation United Energy applied in its cost build-up method to escalate inputs from 2014 dollar terms into 2015 dollar terms. We note United Energy's method applied an escalation to December 2015 which is on different terms to that applied historically, which is based on percentage changes in the annual ABS September quarter index. We consider in developing first year prices that percentage changes in the ABS September quarter index should be applied as it is consistent with the historical application and is transparent. Therefore, our preliminary decision has substituted in escalation based on the ABS September quarter index in United Energy's cost build-up method to develop first year prices.

We also note in demonstrating compliance with the price caps over the 2016–20 regulatory control period, United Energy will need to apply annual CPI escalation based on the percentage changes in the ABS June quarter index. The change in timing of the escalation is due to distributors being required to submit their annual pricing proposals a month earlier than they were previously required to do so.<sup>29</sup> This change will create an overlap of the September quarter CPI when the transition to the June quarter CPI occurs (this will occur in the distributors 2017 annual pricing proposals). This is because the CPI for the September quarter 2015 will be reflected in both 2016 and 2017 prices. However, we consider this is only a transitional issue and will not have a material impact on United Energy's prices or revenue.

### 16.1.4.4 Labour price growth

We have applied our preliminary decision on labour price growth in United Energy's cost build-up method for developing prices for its ancillary network services. We note it is not apparent in United Energy's cost build-up method as to its proposed labour price growth as it was contained in an aggregate escalator United Energy applied. Therefore, we have applied our preliminary decision labour price growth which is discussed in attachment 7 — operating expenditure.

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<sup>28</sup> Marsden Jacob Associates, *Provision of advice in relation to alternative control services—advice prepared for the Australian Energy Regulator*, 20 October 2014, p. 5.

<sup>29</sup> NER, cl. 6.18.2(a).

## 16.2 Public Lighting

### 16.2.1 Preliminary decision

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

- a real pre-tax WACC of 4.28 per cent instead of the proposed 5.37 per cent
- a labour rate per hour for night patrols of \$119.78 instead of the proposed \$132 in 2016
- a capex overhead of 0 per cent instead of the proposed 25 per cent
- an error in the proposed model not deducting capital contributions from capital expenditure
- amendments to the proposed public lighting model as detailed below

In all other respects we have approved the proposal.

Classification of the Victorian distributors public lighting services and the reasons for departing from the classification of all dedicated public lighting services as a negotiated service, is discussed in this section and further set out in attachment 13 — Classification of Services.

### Form of Control

We are applying caps on the prices 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 United Energy's proposal

United Energy have proposed:

- on average, the proposed fees for 2016 will be approximately 15 per cent lower than the current (2015) fees in real terms, and will then increase by approximately 2 per cent per annum in real terms for the remaining four years of the forthcoming regulatory period.<sup>30</sup>

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<sup>30</sup> United Energy, *Regulatory Proposal, Public Lighting Overview*, April 2015, p. 7.

United Energy state the price reduction is attributable to lower borrowing costs and the operating and maintenance efficiency gains that they have been able to achieve under their new contracting model.

### 16.2.3 AER's assessment approach

We assess the distributor's public lighting proposals by analysing the assumptions used in the build-up of proposed costs and benchmarking these costs and assumptions amongst distributors and against independent data and information. This approach is consistent with the assessment approach used in the New South Wales and Queensland public lighting determinations.<sup>31</sup>

Our primary assessment approach is to benchmark inputs and costs of Victorian distributors against their peers. We have also done this based on the inputs decided in the 2011–15 determination and included in the modelling. In this way we achieve consistency with the approach we adopted for the 2011 determination and by the State regulator before that.<sup>32</sup>

This approach seeks to achieve consistency in assumptions and costs across distributors; nonetheless public lighting prices 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.<sup>33</sup>

### 16.2.4 Reasons for preliminary decision

In our preliminary decision for public lighting, 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.

The labour rate for night patrols proposed by United Energy is a significant increase from the labour rate for night patrols of \$103.09 for 2015 (real \$2015) set in the 2011-15 determination.<sup>34</sup> We agree with the submission from Victorian Greenhouse Alliances that the proposed night time labour rates vary significantly.<sup>35</sup>

United Energy has not justified this increase in its labour rate for night patrols and we do not consider it efficient in comparison to the labour rates proposed by other distributors. We do not accept the proposed increase and we consider it efficient to

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<sup>31</sup> AER, *Draft decision Ausgrid distribution determination – Attachment 16 – Alternative control services*, p. 16-81, November 2015.

AER, *Preliminary decision Ergon Energy – Attachment 16 – Alternative control services*, p. 16-56, April 2015.

<sup>32</sup> Essential Services Commission of Victoria, *Review of Public Lighting Excluded Services*, August 2004 Final Decision, pp. 70-73.

<sup>33</sup> AER, *2011-15 Victorian Electricity Distribution, Final Decision*, p. 836.

<sup>34</sup> AER, *2011-15 Victorian Electricity Distribution, Final Decision*, p. 851.

<sup>35</sup> Victorian Greenhouse Alliances, *Local Government Response to the Victorian Electricity Distribution Price Review 2016-20*, July 2015, p. 13.

allow a smaller increase. AusNet Services for instance has proposed a night time labour rate per hour of \$119.78 (real \$2015) for 2016, \$12.22 (real \$2015) or 10 per cent below what United Energy has proposed.

We consider AusNet Services approved labour rate of \$119.78 per hour efficient and have used it as a benchmark for Victorian distributors and substituted for that proposed by United Energy. This allows an increase in United Energy's night time labour rate but maintains a level of consistency across labour rates for Victorian distributors.

The application of a capex overhead of 25 per cent has not been justified and we do not consider it efficient. Public lighting in Victoria has had an opex overhead of 25 per cent applied across all distributors since the 2011 determination, based on Impaq consulting analysis.<sup>36</sup> The Impaq analysis recommended a low case of 7 per cent and a high case of 25 per cent for opex overheads. We continue to consider it prudent and efficient. Capex overheads have not previously been applied in setting Victorian public lighting prices and AusNet Services, CitiPower and Powercor have not proposed a capex overhead.

If United Energy wants to implement an overhead on its capex, we consider that it should reduce the 25 per cent capex and opex overhead rates so as to not increase the total overheads bucket. We observe that the 25 per cent opex overhead benchmark has been maintained in AusNet Services proposals. We are continuing to apply a 25 per cent opex overhead consistently across all Victorian distributors as the prudent and efficient amount to account for overheads.

We accept the proposed Geographical Information System (GIS) costs. Without a GIS system, the Victorian distributors will not be able to track lights within their network. This system is necessary to meet the minimum requirements set out in clauses 2.3.1, 5.1 and 5.2 of the Victorian Public Lighting Code 2005 (the Code), regarding provision of public lighting data to customers.<sup>37</sup>

We have considered the Streetlight Group of Councils (SLG's) claims that GIS costs are a one-off for the establishment of these systems and should not continue to be paid by customers.<sup>38</sup> GIS services costs were included for distributors to establish the spatial location of assets and to provide web based access to public lighting customers back in 2004. However, GIS component costs are required for the ongoing maintenance of the Victorian distributor's public lighting data and are ongoing. Accordingly, we maintain the position established in our 2011 determination to allow an annual GIS component cost.

We disagree with SLG's contention that the network use of system charges for unmetered supplies recovers GIS costs. Rather, that charge recovers the costs of

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<sup>36</sup> AER, *2011-15 Victorian Electricity Distribution, Draft Decision*, pp. 799-800.

<sup>37</sup> Victorian Public Lighting Code, pp. 2, 7-8.

<sup>38</sup> Streetlight Group of Councils, *Response to Distributor regulatory proposals and the AER's proposed negotiated distribution service criteria*, pp. 9-10, July 2015.

energy consumption emitted by the public lighting luminaire only. It does not recover GIS costs which are instead recovered as part of the annual operating, maintenance and replacement charges set out in this section.

We consider the GIS system cost of \$113,443 and complaints handling costs of \$34,033 (updated from the benchmark costs set in the 2011 determination) are prudent and efficient.

We have made amendments to the proposed public lighting model, including:

- Material premium in poles & brackets capex
  - Jemena have included this in their model and we accepted it and included it in all distributors' models.
- Material premium for rural areas
  - A 5 per cent premium has been included
- Written down value of public lighting asset base – Mercury Vapour 80 W Luminaire
  - removed overheads in the calculation of customer contributions

Preliminary decision prices have also been split out into the replacement (capex) and opex components in the public lighting decision model as requested by stakeholders.<sup>39</sup>

Preliminary decision prices for each light type are set out in Table 16.6.

**Table 16.6 Public Lighting Charges (\$ nominal)**

	2016	2017	2018	2019	2020
Mercury Vapour 80 watt	51.35	54.06	57.80	61.29	65.06
Sodium High Pressure 150 watt	66.01	71.32	77.43	79.97	84.39
Sodium High Pressure 250 watt	67.64	73.05	74.09	81.80	86.29
Fluorescent 2x20 watt	66.24	69.73	74.56	79.07	83.93
Fluorescent 3x20 watt	66.24	69.73	74.56	79.07	83.93
Mercury Vapour 50 watt	76.00	80.00	85.54	90.71	96.30
Mercury Vapour 125 watt	76.00	80.00	85.54	90.71	96.30
Mercury Vapour 250 watt	61.55	66.48	67.43	74.43	78.53
Mercury Vapour 400 watt	85.22	92.05	93.36	103.06	108.73
Mercury Vapour 700 watt	85.22	92.05	93.36	103.06	108.73

<sup>39</sup> Streetlight Group of Councils, *Response to Distributor regulatory proposals and the AER's proposed negotiated distribution service criteria*, p. 3, July 2015.



Sodium High Pressure 70 watt	112.46	118.38	126.58	134.23	142.49
Sodium High Pressure 100 watt	72.61	78.46	85.17	87.96	92.83
Sodium High Pressure 400 watt	85.22	92.05	93.36	103.06	108.73
Metal Halide 70 watt	89.11	96.29	104.53	107.95	113.93
Metal Halide 100 watt	89.11	96.29	104.53	107.95	113.93
Metal Halide 150 watt	89.11	96.29	104.53	107.95	113.93
Metal Halide 250 watt	91.31	98.62	100.03	110.42	116.50
Metal Halide 400 watt	91.31	98.62	100.03	110.42	116.50
T5 2X14W	36.57	34.71	33.40	32.44	31.85
Twin 24w Fluorescent	36.57	34.71	33.40	32.44	31.85
Compact Fluoro 32W	36.57	34.71	33.40	32.44	31.85
Compact Fluoro 42W	36.57	34.71	33.40	32.44	31.85

Source: AER Analysis.

### Victorian Public Lighting Framework

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

Distributor's 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 prices 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 prices 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.

### Classification of Public Lighting

In the framework and approach we classified dedicated public lights as a negotiated service in response to submissions we received from stakeholders during the framework and approach. A dedicated public light is a light that sits on a dedicated public lighting pole, not shared with electricity distribution assets.

However we departed from this classification in response to the submissions we received on distributor's proposals, arguing against classifying dedicated public lights as a negotiated service.

Classification of the Victorian distributors public lighting services and the reasons for departing from the classification of all dedicated public lighting services as negotiated services are set out in attachment 13 — Classification of Services.

We however remain open towards considering a move towards a negotiated classification for public lighting in the 2021-25 regulatory control period if there is a desire from stakeholders for such a change and other appropriate amendments are made to relevant jurisdictional requirements.

Councils and other stakeholders that want such a change should use the time before the 2021–25 regulatory control period to consider all of the issues that might be involved, seek to engage with all of the stakeholders involved and submit their proposal with a workable framework for public lighting to become a negotiated service.

## 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.<sup>40</sup> 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.<sup>41</sup> 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's expanding competition in metering final rule change will be published in November 2015.<sup>42</sup> As such, some of the details have yet to be confirmed. For jurisdictions that are part of the national metering framework, the new rules are expected to take effect from 1 December 2017.<sup>43</sup> It is not clear at this stage the extent to which the Victorian Government will adopt the national framework.

We make this preliminary decision taking into account the current jurisdictional context. This preliminary 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.

In this section of the alternative control services chapter, 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)

United Energy have chosen not to propose a meter restoration fee.<sup>44</sup>

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

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<sup>40</sup> AER, Final Framework and Approach for the Victorian Electricity Distributors, October 2014, p. 48.

<sup>41</sup> 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.

<sup>42</sup> AEMC, *Information: Extension of time for final rule on provision of metering services*, 2 July 2015.

<sup>43</sup> AEMC, *Information: Extension of time for final rule on provision of metering services*, 2 July 2015.

<sup>44</sup> United Energy, *2016-20 Regulatory Proposal*, pp. 154-155.

## 16.3.1 Preliminary decision

### 16.3.1.1 Cost allocation

Our preliminary decision is that all metering costs should be recovered through alternative control services.

To give effect to this, we reallocated \$18.9 million (\$2015) in metering opex. This is from United Energy's proposed base opex for standard control services, to its proposed base opex for alternative control metering services. We also reallocated a net amount of \$7.4 million (\$2015) from standard control services capex to alternative control services metering capex relating to various IT projects.

### 16.3.1.2 Annual metering charges

Our preliminary decision accepts a total revenue requirement of \$281.9 million (\$ nominal) over the 2016–20 regulatory control period for metering services. It includes the following building blocks:

- forecast capex of \$13.5 million (\$2015), amounting to 45 percent of United Energy's proposal
- forecast metering opex of \$109.1 million (\$2015), amounting to 87 percent of United Energy's proposal
- an opening metering regulatory asset base as at 1 January 2016 of \$213.2 million
- with respect to depreciation, standard asset lives of 15 years for metering assets and 7 years for communications, IT and other metering assets
- the same WACC and gamma values for standard control network service. We will also annually adjust for the return on debt.

The above building blocks result in the following approved revenue requirement for metering shown in Table 16.7.

**Table 16.7 Preliminary Decision - metering annual revenue requirement 2016–20 regulatory control period (\$nominal)**

	2015	2016	2017	2018	2019	2020
Depreciation		23.6	25.2	26.9	18.3	15.7
Return on capital		13.0	11.9	10.5	9.0	8.0
Opex		22.5	23.0	23.6	24.2	24.8
Tax		-	-	-	-	1.7
Unsmoothed revenue requirement		59.1	60.1	61.0	51.5	50.3
X factor (%) <sup>b</sup>		42.20	8.60	8.60	8.60	8.50
Smoothed revenue requirement	105.4	62.7	59.4	56.1	53.1	50.3

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 preliminary decision on the approved revenue requirement will result in metering prices decreasing over the 2016–20 regulatory control period. As metering services is subject to a revenue cap, we have not set prices in this preliminary decision. Actual metering prices will be approved during the annual pricing process.

Broadly, however, we expect the price path to follow the X factors included in the table above. That is, a large decrease in 2016 followed by more modest decreases in the following years of the regulatory control period.

### 16.3.1.3 Form of control for annual metering charges

Our preliminary decision applies a revenue cap form of control to annual metering charges.<sup>45</sup> 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, United Energy’s annual metering charges revenue will be adjusted annually to clear (or true-up) any under or over recovery of actual revenue

<sup>45</sup> AER, *Final framework and approach for the Victorian electricity distributors: Regulatory control period commencing 1 July 2016*, 24 October 2014, pp. 89–93.

collected. With these arrangements, there is a two year lag between the year in which the under or over recovery of revenue occurs and the year in which adjustments are made to 'clear' the under or over recovery. To account for this lag our method includes net present value adjustments. These adjustments are calculated in the unders and over account detailed in appendix B and applied to the forthcoming annual metering charges revenue through the B factor detailed in Figure 16.3.

Our final F&A stated the revenue cap for any given regulatory year is the maximum allowable revenue for annual metering charges. However, we consider 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, this preliminary decision uses 'total annual revenue for metering' (or TARM) for clarity.

For each year after the first year of a regulatory control period, side constraints will apply. Consistent with the application of side constraints for standard control services, the permissible percentage increase will be the greater of CPI–X plus 2 per cent or CPI plus 2 per cent. The side constraint formula is set out in Figure 16.4.

**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.

$T_t$  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.

$\Delta CPI_t$  is the annual percentage change in the ABS CPI All Groups, Weighted Average of Eight Capital Cities<sup>46</sup> 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.

$\Delta CPI_t$  is the annual percentage change in the ABS CPI All Groups, Weighted Average of Eight Capital Cities<sup>47</sup> 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

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<sup>46</sup> 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.

<sup>47</sup> 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.

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 United Energy.<sup>48</sup> The exit fees we have accepted in this preliminary decision are set out in Table 16.8.

**Table 16.8—Preliminary determination on United Energy's exit fees (\$nominal)**

Meter category	2016	2017	2018	2019	2020
Single phase single element meter	372.37	339.81	306.84	278.71	259.02
Single phase single element meter with contactor	371.72	341.97	311.56	286.17	269.40
Three phase direct connected meter	426.28	391.02	357.15	328.02	307.29
Three phase current	596.17	549.11	503.33	462.47	430.60

<sup>48</sup> NER, cl. 11.17.6.



transformer  
connected meter

Source: AER analysis.

### 16.3.1.5 Type 7 metering services

United Energy provides Type 7 metering services to public lighting customers.

Our preliminary decision is to accept United Energy's proposed type 7 meter charges, which are set out in Table 16.9.

**Table 16.9 AER preliminary decision type 7 metering services (\$ 2015)**

Service	Preliminary decision price (per light)
Type 7 metering service	1.29

Source: AER analysis; United Energy, *Alternative Control Services—Fee-based and quoted alternative control services 2016–20*, 30 April 2015, pp. 12–13.

## 16.3.2 United Energy's proposal

### 16.3.2.1 Cost allocation

United Energy proposed to change how some of its costs are allocated. In particular, it proposed to reallocate a significant proportion of its base metering opex from alternative to standard control services.

To give effect to its cost allocation, United Energy adjusted its proposed base opex. Table 16.10 sets out the adjustments and their magnitude. It shows that United Energy moved \$18.9 million in base opex to standard control services, leaving a proposed alternative control metering base opex of \$5.1 million (\$2015).

**Table 16.10 Proposed reallocation of base year opex (\$million)**

Unadjusted base year opex	24.01
IT support adjustment	-12.8
Back office adjustment	-5.4
AMI NOC support adjustment	-0.7
Total base year adjustment - to standard control services	-18.9
Adjusted alternative control services base	5.1

Source: United Energy, Regulatory proposal 2016-20, UE revenue capped metering services overview paper, April 2015, p. 17.

United Energy also proposed to allocate IT capex across standard and alternative control services.<sup>49</sup>

### 16.3.2.2 Annual metering charges

United Energy proposed a revenue cap as the price control for annual metering charges in the 2016–20 regulatory control period.<sup>50</sup> This price control is consistent with our F&A for type 5, 6 and smart metering (regulated service).<sup>51</sup>

To forecast its proposed revenue, United Energy used a building block approach.<sup>52</sup> It built up a revenue forecast by estimating the value of discrete cost categories, or "building blocks". For the 2016–20 regulatory control period, United Energy used this approach to propose:

- a forecast metering alternative control capex of \$22.7 million (\$2015)<sup>53</sup>
- when both alternative and standard control costs are combined, a forecast metering opex of \$125.7 million (\$2015)<sup>54</sup>
- an opening metering regulatory asset base as at 1 January 2016 of \$205.8 million (\$2015)<sup>55</sup>
- a standard asset life of 15 years for smart meters and 7 years for communications, IT and other metering assets<sup>56</sup>
- the same WACC and gamma values for standard control network service.<sup>57</sup>

Using its forecast building block components, United Energy calculated its proposed annual revenue requirement for the 2016–20 regulatory control period. This is set out in Table 16.11.

**Table 16.11—Proposed metering annual revenue requirement (\$nominal)**

	2016	2017	2018	2019	2020
Depreciation	28.2	30.8	17.0	15.3	15.7
Return on capital	15.2	13.9	12.1	11.0	10.0
Opex	5.5	5.7	5.8	5.9	6.0

<sup>49</sup> United Energy, *Regulatory proposal 2016–20, Revenue Capped Metering Services—Supporting Paper*, 30 April 2015, p. 30.

<sup>50</sup> United Energy, *Regulatory proposal 2016–20*, 30 April 2015, p. 153.

<sup>51</sup> AER, *Framework and approach: Victorian distribution determination 2016–20*, 24 October 2014, p. 73.

<sup>52</sup> United Energy, *Regulatory proposal*, 30 April 2015, p. 155.

<sup>53</sup> United Energy, *Regulatory proposal 2016–20, UE - Distribution PTRM AMI*, tab 'PTRM input', 20 April 2015.

<sup>54</sup> AER analysis; United Energy, *Regulatory proposal 2016–20, UE revenue capped metering services overview paper*, 30 April 2015, p. 1; United Energy, *Regulatory proposal 2016–20, UE – Distribution PTRM AMI*, 30 April 2015.

<sup>55</sup> United Energy, *Regulatory proposal 2016–20, UE – Distribution RFM AMI*, 30 April 2015.

<sup>56</sup> United Energy, *Regulatory proposal 2016–20, UE – Distribution RFM AMI*, 30 April 2015.

<sup>57</sup> United Energy, *Regulatory proposal 2016–20, UE – Distribution PTRM AMI*, 30 April 2015

Tax	-	-	-	-	-
Adjustments	2.57				
Unsmoothed revenue requirement	51.5	50.4	35.0	32.2	31.7
X factors (%)	64.6	0.0	0.0	0.0	0.0
Smoothed revenue requirement	38.4	39.2	41.1	42.6	44.0

Source: United Energy, *Regulatory proposal 2016–20, UE – Distribution PTRM AMI*, 30 April 2015, "X factors" tab.

### 16.3.2.3 Metering exit fee

An exit fee was proposed to apply when a metering customer chooses to replace a regulated meter installed under the derogation with a competitively sourced meter. United Energy noted that the Advanced Metering Infrastructure Order in Council (the Order) states that:

- An exit fee must be paid by the retailer to the distributor, where the retailer becomes responsible for the metering installation that was previously the responsibility of the distributor.<sup>58</sup>

The proposed exit fee has the following components:

- recovery or sunk capital costs (residual asset base value)
- reasonable and efficient costs of removing the metering installation.<sup>59</sup>

Departing customers will be charged the fee when they choose to take their metering services from a competitively provided source. In this instance, we will no longer regulate the customer's metering charge. The corollary is that customers will not pay this fee at all if they continue to receive metering services from their distributor.

**Table 16.12—United Energy proposed meter exit fees (\$ nominal)**

Meter category	2016	2017	2018	2019	2020
Single phase single element meter	381.00	339.01	303.74	271.00	243.71
Single phase single element meter with contactor	380.29	341.23	307.96	278.20	253.38

<sup>58</sup> United Energy, *Regulatory proposal 2016–20, Fees application—AMI exit fee*, 30 April 2015, p. 4.

<sup>59</sup> United Energy, *Regulatory proposal 2016–20, Fees application—AMI exit fee*, 30 April 2015, pp. 8–9.

Three phase direct connected meter	438.74	391.96	353.54	318.63	288.68
Three phase current transformer connected meter	620.70	555.45	499.65	448.52	403.53

Source: United Energy, *Regulatory proposal 2016–20, Fees application—AMI exit fee*, 30 April 2015.

### 16.3.2.4 Type 7 metering installations

With respect to type 7 meter installations or "prescribed metering services", United Energy proposed to continue with its existing practice to charge on a per light basis. It further proposed that the price per light would be \$1.29 (\$2015) in 2016.<sup>60</sup>

### 16.3.2.5 Restoration fee

United Energy has chosen not to propose a meter restoration fee.<sup>61</sup> It stated that, instead, it would charge a customer the AER approved service vehicle fee in the limited circumstances where it is required to restore metering services on a regulated basis.<sup>62</sup>

## 16.3.3 Assessment approach

### 16.3.3.1 Cost allocation

We had regard to United Energy's approved CAM<sup>63</sup> and the wider regulatory context. That is, the future prospect of competition in metering in Victoria and how the allocation of costs across standard and alternative control service may affect competitive entry.

### 16.3.3.2 Annual metering charge

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. We benchmarked proposed meter hardware unit costs across the businesses. We

<sup>60</sup> United Energy, *Regulatory Proposal 2016–20, UE ACS - Fee based and Quoted Services - Public*, p. 13.

<sup>61</sup> United Energy, *Regulatory Proposal 2016–20*, p. 154.

<sup>62</sup> United Energy, *Regulatory Proposal 2016–20*, p. 154.

<sup>63</sup> United Energy, *Approved cost allocation method*, October 2014.

consider it appropriate to directly compare the costs in this manner because the Victorian businesses all use the same six meter types. Further, as these are proposed amounts by the businesses themselves, we are confident that these are current, commercially available unit costs in Victoria and therefore are a reasonable benchmark.

We compared the overall amounts of communications/IT capex proposed across the businesses to understand the relative overall amounts of expenditure being proposed. If a business proposed a relatively high amount of metering communications/IT metering capex, we did a further review on an individual project basis.

### **Forecast Opex**

We considered United Energy'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.<sup>64</sup> In particular, we:

- used the "revealed costs" approach as the starting point
- 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.

Each of these components to our assessment is discussed in more detail below.

### Base

We began our assessment of the base by applying the revealed costs approach.<sup>65</sup>

The revealed costs approach uses a network service provider's historical costs to derive a base level of opex. In applying this approach, we sought to identify a level of opex that would be most reflective of future efficient operating costs. When applying the revealed costs approach, we considered if we should select a single, or an average of multiple, years' worth of historical metering opex.

The next step we took was to remove any non-recurrent expenditure. To do this we considered the operating environment in the selected base year(s). In particular, we had regard to the extent to which the network service provider had completed its rollout of AMI and, by virtue of this, entered into a business-as-usual operating environment.

Once we were satisfied that non-recurrent expenditure had been removed, we assessed whether the base contained any material inefficiencies. If we observed any, then we applied an efficiency adjustment.

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<sup>64</sup> AER, *Better regulation: Expenditure forecast assessment guideline for distribution*, November 2013, p. 32.

<sup>65</sup> Victorian Cost Recovery Order In Council, cl. 5K(iv).

## Benchmarking

In past metering decisions we have used data on "opex per customer" as a partial performance indicator to benchmark the relative efficiency of non-Victorian distribution businesses' base opex. We, however, consider that the rollout of AMI services means that circumstances in Victoria are sufficiently different to other regions. In Victoria, metering costs are largely fixed and relate to IT and communications that tend not to vary according to customer numbers. In contrast, a majority of operating costs in the other regions are not fixed. Specifically these relate to 'manual meter reads' – the cost of which does vary according to the number of customer. As such, we have not used benchmarking techniques.

This conclusion should not be taken to exclude the use of benchmarking in other decisions. Additionally, in the future new circumstances or additional data may come to light which makes the use of benchmarking with respect to smart metering a reasonable technique for the AER to apply.

## Step changes

We considered whether we should apply any step changes. These are adjustments which increase or decrease a distribution business' efficient expenditure.<sup>66</sup>

As outlined in our *Expenditure Forecast Assessment Guideline*, our approach to step changes is that we will only accept them if they are associated with a new regulatory obligation or a capex/opex trade off.<sup>67</sup>

For step changes arising from new regulatory obligations, we will assess (among other things):

- whether there is a binding (that is, uncontrollable) change in regulatory obligations that affects their efficient forecast expenditure
- when this change event occurs and when it is efficient to incur expenditure to comply with the changed obligation
- what options were considered to meet the change in regulatory obligations
- whether the option selected was an efficient option—that is, whether the distribution business took appropriate steps to minimise its expected cost of compliance from the time there was sufficient certainty that the obligation would become binding.<sup>68</sup>

For capex/opex trade-off step changes, we will assess whether it is prudent and efficient to substitute capex for opex or vice versa.<sup>69</sup>

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<sup>66</sup> AER, *Expenditure assessment forecast guideline*, November 2013, p. 9.

<sup>67</sup> AER, *Expenditure assessment forecast guideline*, November 2013, p. 11.

<sup>68</sup> AER, *Expenditure assessment forecast guideline*, November 2013, p. 11.

<sup>69</sup> AER, *Expenditure assessment forecast guideline*, November 2013, p. 11.

## Trend

We trended forward base opex (plus any step changes) by considering forecast changes in output, price and productivity.

## **Depreciation**

With respect to depreciation, we considered United Energy's proposed standard asset lives and had regard to the opening of competition to metering services.

## **Opening metering regulatory asset base**

In assessing the proposed opening metering RAB value as at 1 January 2016, we reviewed how United Energy had rolled forward its metering RAB.

### **16.3.3.1 Exit fee**

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

- our preliminary decision on United Energy's opening metering RAB value as of 1 January 2016
- the forecast metering capex and opex which we have accepted in this preliminary decision for United Energy's 2016–20 regulatory control period
- in relation to an administration component of the exit fee, our preliminary 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).

### **16.3.3.2 Type 7 meter installations**

When assessing United Energy's proposed type 7 charges, we considered how it proposed to escalate the current prices per light and the business' previous charging practices.

### **16.3.3.3 Interrelationships**

We apply the same WACC and gamma values for all direct control services (standard and alternative control services).

Our preliminary decision on United Energy's alternative control metering proposal, therefore, interrelates with our preliminary decisions on rate of return and imputation credits. Please refer to Attachments 3 and 4 for the WACC and gamma values we accept for direct control services, along with our reasons.

## **16.3.4 Reasons for preliminary decision**

### **16.3.4.1 Cost allocation**

This is not a straightforward application of United Energy's approved Cost Allocation Method because of the wider regulatory context related to metering.

We consider some of the key framework issues for Victorian metering in the 2016–20 regulatory control period are:

- facilitating 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.

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. They have all, to varying extent, allocated some metering related opex to standard control services. AusNet Services, United Energy and Jemena have allocated proportions of metering related IT/communications capex to standard control. As well, AusNet Services has proposed to include past AMI IT/communications assets into the standard control regulatory asset base.

We consider a consistent approach across Victorian service providers is preferable to the allocation of costs that previously were regulated under the Order.

While metering services are not currently subject to competition, given policy developments in this area, it is likely they will be at some point in time.<sup>70</sup> The cost allocation approaches by incumbent providers have the potential to affect competition from new entrants and competition between existing providers in Victoria.

Based on the current guidance from the AEMC, we will be required to develop and publish distribution ring fencing guidelines by 1 December 2016.<sup>71</sup> We consider any cost allocation issues relating to metering costs would be best dealt with in the development of this guideline in accordance with a nationally consistent approach.

In the interim, before these guidelines are developed, our preferred approach is to allocate all costs formerly regulated under the Order to alternative control services. This maintains the status quo until we consider this further through the ring fencing guideline process.

We note that the allocation of costs between standard control services and metering services makes no difference to the assessment of the efficiency of these costs. Further, as both metering services and standard control services are regulated under a revenue cap, the ability of the Victorian businesses to recover their efficient costs is not affect.

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<sup>70</sup> AEMC, *Draft Rule Determination - National Electricity Amendment (Expanding Competition in Metering and Related Services) 2015*, 26 March 2015.

<sup>71</sup> AEMC, *Information: Extension of time for final rule on provision of metering services*, 2 July 2015.



### 16.3.4.2 Annual metering charges

#### Forecast capex

##### Remotely read interval meters

We approve \$5.8 million (\$ 2015) for metering capex related to remotely read interval meters. This includes meter hardware and installation costs.

##### *Meter hardware unit costs*

United Energy propose expenditure relating to two types of meters: three phase direct connected meter and three phases current transformer connected meter. We do not accept the proposed unit costs for either type of meter. Our substitute unit costs are based on the lowest forecast unit costs for each meter type submitted by a Victorian business in its proposal.

United Energy note that its forecast unit cost increases are due to the loss of the AMI volume discount and a further increase advised by the meter manufacturer.

We do not consider these reasons justify United Energy's higher unit costs. Our substitute unit costs are based on the proposed unit rates by another Victorian business in the 2016–20 regulatory control period. Firstly, the other Victorian businesses are in a similar position and are no longer in a rollout phase where they can obtain volume discounts. Secondly, contrary to United Energy's advice from its meter manufacturer, other Victorian businesses have been able to obtain lower unit costs for the same meter types which indicates to us that our substitute unit costs are currently commercially available.

##### *Meter volumes*

For the preliminary decision, we have accepted United Energy's metering volume forecasts. We may revisit forecast metering volumes in the final decision if more information becomes available. For example, if the Victorian government confirms whether the derogation will expire or continue.

##### *Meter installation expenditure*

When compared against the other Victorian business, United Energy has proposed a modest amount in forecast meter installation costs. We therefore accept United Energy's meter installation expenditure in full.

##### IT

We approve \$7.5 million (\$ 2015) in IT metering capex.

As a result of our cost allocation decision, only IT projects that primarily relate to metering (i.e. attribute 50% or more to alternative control service metering) were assessed as alternative control service metering capex. The rest of the projects were assessed as part of our standard control service capex assessment in attachment 6.

We do not accept forecast expenditure relating to Power of Choice - Metering Competition. We do not consider it prudent to allow the forecast \$16.4 million for this IT project when there is uncertainty regarding the start date and requirements of metering contestability in Victoria.

We consider that a cost pass event would be a more appropriate mechanism for addressing any under or over recovery in costs which are associated with an expansion of metering contestability.

We have accepted United Energy's two other IT metering capex projects for the SSN UIQ Lifecycle Refresh and Meter Asset Management.

**Communications**

United Energy proposed \$0.2 million (\$2015) in communications metering capex<sup>72</sup>. This is a modest amount of expenditure and so we have approved this amount in full.

**Forecast opex**

We accept \$109.1 million (\$2015) in opex for annual metering charges. This is equal to approximately 87 percent of United Energy’s proposed \$125.9 million (\$2015).

**Base**

Our determination on United Energy’s base level of metering opex applied the revealed costs approach. We also adjusted for any non–recurrent costs or material inefficiencies. Table 16.13 breaks down each component of our preliminary decision regarding United Energy’s base metering opex.

**Table 16.13 AER assessment of the base**

Component	(\$m, 2015)
Raw base	24.0
Adjustment for non–recurrent costs	–2.2
Adjustment for material inefficiencies	0.0
Total	21.8

Source: AER analysis.

Using the revealed costs approach, we selected United Energy’s actual metering opex in 2014 as our starting point. United Energy’s actual metering opex in 2014 was \$24.0 million (\$2015).

<sup>72</sup> United Energy, *Regulatory Proposal 2016–20, Revenue capped metering services - Supporting Paper*, 30 April 2015, p. 21.

We selected United Energy's actual metering opex in 2014 for two reasons. First, it is the last completed year from which we have audited accounts on United Energy'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 United Energy had been set a target to have completed its rollout of AMI before the commencement of the 2014 year.<sup>73</sup>

When applying the revealed costs approach, we considered if we should select an average of multiple, instead of a single, years' worth of historical metering opex. Such an approach would be consistent with previous AER metering decisions.<sup>74</sup> This is where we used an average of multiple years of a business's actual metering opex to derive the base. In the case of United Energy, the adoption of this approach would involve calculating the base by taking an average of its actual opex in years inclusive of and prior to 2014.

We have decided against using a multi-year approach. In years prior to 2014, United Energy was in the midst of its AMI rollout. In the 2016–20 regulatory control period, however, its metering operations should be in a business-as-usual phase. We therefore decided against using the multiple-year approach since it would capture costs incurred in a different operating environment to that which United Energy will experience in the forecast period.

The next step in our assessment of the base involved considering whether we should make any adjustments for non-recurrent expenditure. For all the other Victorian electricity distributors, we considered the adjustments which they proposed to make to their base. United Energy, however, did not propose to adjust for non-recurrent expenditure. We considered whether this aspect of its proposal should be accepted, or if we should make an adjustments to the base.

Our preliminary decision is that United Energy's base should be adjusted for non-recurrent expenditure. In the 2014 base year United Energy had not yet fully completed its AMI rollout.<sup>75</sup> In comparison, in the 2016–20 regulatory control period it should be in a business-as-usual phase of delivering smart metering services to customers. We thereby consider any costs incurred in 2014 that is related to United Energy's AMI rollout should be regarded as non-recurrent, or "one-off", expenditure which should be removed from the base.

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<sup>73</sup> AMI Cost Recovery Order, cl. 14.1.

<sup>74</sup> AER, *Ausgrid: Final decision for 2014–19 regulatory control period, Attachment 16*, April 2015; AER, *Endeavour Energy: Final decision for 2014–19 regulatory control period, Attachment 16*, April 2015; AER, *Essential Energy: Final decision for 2014–19 regulatory control period, Attachment 16*, April 2015; AER, *ActewAGL: Final decision for 2014–19 regulatory control period, Attachment 16*, April 2015; AER, *SA Power Networks: Preliminary decision for 2015–16 to 2019–20, Attachment 16*, April 2015; AER, *Energex: Preliminary decision for 2015–16 to 2019–20, Attachment 16*, April 2015; AER, *Ergon Energy: Preliminary decision for 2015–16 to 2019–20, Attachment 16*, April 2015.

<sup>75</sup> United Energy, *2015 Charges revision application*, 26 June 2014, p. 3.

Taking this position, we adjusted United Energy's base by \$2.2 million (\$2015) for non-recurrent expenditure. This amount was calculated by applying the same percentage adjustment which Jemena's proposal applied to its base. This resulted in a 9.25 per cent, or \$2.2 million (\$2015), adjustment. We consider Jemena's proposed adjustment to its metering base to be a good "benchmark" to apply because it is a similar size to United Energy in terms of customers.

After we removed non-current expenditure, we considered if there are any material inefficiencies in the base for which we should adjust. In past metering decisions, we have used benchmarking to conduct this assessment. We, however, consider this approach to be inappropriate for United Energy circumstances for the reasons outlined in section 16.3.3.2 above.

We consider that following the removal of non-recurrent expenditure, United Energy's actual opex in 2014 does not contain material inefficiencies. We reached this conclusion on the basis that the Victorian distribution businesses are generally efficient. This is compared to their counterparts in other regions of the national electricity market.<sup>76</sup> We have therefore decided not to make an efficiency adjustment to the base level of opex.

We consider a base of \$21.8 million (\$2015) is efficient.

### Step

United Energy proposed a step change for the introduction of metering contestability. If accepted, the proposed step change would increase United Energy's opex in the 2016-20 regulatory control period by \$3.5 million (\$2015). We have, however, decided to not accept it.

We will only accept a proposed step change if it is associated with a new regulatory obligation or a capex/opex trade-off.<sup>77</sup> This position is consistent with our *Expenditure forecast assessment guideline*.<sup>78</sup>

We are satisfied that the propose step change relates to a potential change in regulation.

Nonetheless, we are not satisfied that this change in regulation will lead to an increase in United Energy's operating costs. In fact, the introduction of metering contestability may lead to cost savings. This is apparent with respect to CitiPower's and Powercor's metering proposals. Both of these Victorian electricity distribution businesses removed opex from their metering base. This is after forecasting fewer overheads as consequence of, among other things, the introduction of contestability in metering. More broadly, we do not consider it prudent to allow for any step changes related to

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<sup>76</sup> See Attachment 3.

<sup>77</sup> AER, *Expenditure assessment forecast guideline*, November 2013, p. 11.

<sup>78</sup> AER, *Expenditure assessment forecast guideline*, November 2013, p. 11.

metering contestability when there is uncertainty regarding the start date and requirements of metering contestability in Victoria.

We consider that a cost pass through event would be a more appropriate mechanism for addressing any under or over recovery in costs which are associated with an expansion of metering contestability.

Our preliminary decision is to not accept United Energy's proposed step change because we are not satisfied that the event underpinning it (metering contestability) will give rise to an increase in costs.

### Trend

We trended forward the base. In doing so we did not adjust for metering customer growth. We also applied zero forecast real price and productivity growth.

We have decided not to adjust for customer growth on the basis that the majority of operating costs associated with delivering AMI services are fixed. More specifically, the relevant costs involve IT and communications infrastructure; the cost of which tends not to vary according to the number of customers a service provider has. We conclude that it is unnecessary to adjust for any growth in metering customers United Energy may experience.

Additionally, we expect United Energy's opex to be relatively flat over the 2016–20 regulatory control period. This is on account of the fact that it will be entering a business-as-usual phase of its AMI operations. Because of this, we have decided to apply zero forecast real price and productivity growth. We also reached this conclusion after adopting the view that United Energy should be able to manage any real price changes through productivity improvements.

Once trended forward, we calculated an alternative metering opex forecast of \$109.1 million (\$2015).

### **Depreciation**

We accept United Energy's proposed approach to depreciation. As a result, this preliminary decision specifies a standard asset life of:

- 15 years for remotely read interval meters and transformers
- 7 years for IT, communications, and other metering related assets.

Our preliminary decision is to accept the proposed asset lives because, in each instance, they reflect the likely technical life of the assets. We consider this to arrive at an efficient outcome whereby the economic and technical lives of the assets are likely to coincide.

### **Opening metering regulatory base**

We did not accept United Energy's proposed opening metering RAB value.

We have instead used forecast capex for 2014 and 2015 from the AMI Charges Model (2015 Charges Application), updated for CPI, to calculate our substitute opening metering RAB value.

#### 16.3.4.3 Meter Exit fee

We have not accepted United Energy's proposed exit fees.

The exit fee recovers United Energy's historical, sunk capital costs. To calculate it, we therefore adjusted for our assessment of United Energy's opening metering RAB as of 1 January 2016. Our preliminary decision on the opening metering RAB is set out in section 16.3.1.2.

United Energy's annual metering services expenditure for the 2016–20 regulatory control period is an input into the calculation of the exit fee. We accordingly adjusted United Energy's proposed exit fees for our preliminary decision on United Energy's forecast capex and opex. Our preliminary decision on these aspects of United Energy's proposal is set out in 16.3.1.2.

We have also approved an administrative cost component of the exit fee. It should be noted that the approval of this aspect of United Energy's proposal is potentially in contrast with the decisions we made during the New South Wales, Queensland, South Australia and Australian Capital Territory determinations in April 2015. Specifically, we rejected the administrative costs those distributors proposes in the case of removing a meter.<sup>79</sup> While we found that the costs were not sufficiently material in those jurisdictions, the Order requires that we set an exit fee; and thus we have accepted the inclusion of an administrative cost component. We have nonetheless adjusted it for our preliminary decision on the labour cost escalators applicable in Victoria in the 2016–20 regulatory control period.

Our substitute exit fees are set out in attachment A and section 16.3.1.4.

#### 16.3.4.4 Type 7 metering services

We accept United Energy's proposed metering charges for type 7 metering services. This charge will increase by CPI for each year of the regulatory control period.<sup>80</sup> We consider United Energy's approach for type 7 metering services to be reasonable on the basis that it is consistent with past charging practice.

We have set out the type 7 metering services charge which this preliminary decision has accepted in section 16.3.1.5.

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<sup>80</sup> United Energy, *Regulatory proposal 2016-20, Public lighting alternative control services*, p. 13.

# A Approved prices for ancillary network services

## A.1 Ancillary network services

**Table 16.14 Fee based ancillary network services prices for 2016, preliminary decision (\$2015)**

Fee based service	Hours	Proposed price	Preliminary decision price
<b>New (routine) connection of customers up to 100 amps – where United Energy is the responsible person</b>			
Single phase single element	Business hours	601.35	447.54
	After hours	725.09	683.48
Single phase two element (off-peak)	Business hours	601.35	447.54
	After hours	725.09	683.48
Three phase direct connected	Business hours	653.16	447.35
	After hours	778.88	683.30
<b>New (routine) connection of customers up to 100 amps – where United Energy is NOT the responsible person</b>			
Single phase single element	Business hours	416.53	415.31
	After hours	725.09	683.48
Single phase two element (off-peak)	Business hours	416.53	415.31
	After hours	725.09	683.48
Three phase direct connected	Business hours	416.53	415.31
	After hours	725.09	683.48
<b>Temporary supplies (excluding inspection – where United Energy is the responsible person)</b>			
Standard single phase	Business hours	601.35	447.54
	After hours	725.09	683.48
Multi phase to 100 A	Business hours	653.16	447.35
	After hours	778.88	683.30
<b>Temporary supplies (excluding inspection) – where United Energy is NOT the responsible person</b>			
Standard single phase – Servicing and energisation only	Business hours	416.53	415.31
	After hours	725.09	683.48
Multi phase to 100A – Servicing and energisation only	Business hours	416.53	415.31
	After hours	725.09	683.48
<b>Field officer visits</b>			
Special read (basic meter)	Business hours	20.87	20.81
Special read (interval meter)	Business hours	20.87	20.81

<b>Re-energisation and de-energisation of existing premises (&lt;100A)</b>			
Re-energisation (fuse insert)	Business hours	44.44	44.31
	After hours	78.87	78.64
De-energisation (fuse removal)	Business hours	44.44	44.31
	Express move in reenergise (fuse insert)	Business hours	67.02
	After hours	124.02	123.66
De-energisation at point of supply attachment (pole/pit) or house	Business hours	343.54	342.54
	<b>Service vehicle visit (without inspection)</b>		
Service truck – first 30 minutes between hours and minimum two hours after hours	Business hours	318.90	317.96
	After hours	705.77	703.70
Each additional 15 minutes	Business hours	65.94	65.75
	After hours	91.45	91.18
Truck visit plus 1x additional 15 minutes	Business hours	384.84	383.71
	After hours	797.22	794.88
Truck visit plus 2x additional 15 minutes	Business hours	450.78	449.46
	After hours	888.67	886.07
Truck visit plus 3x additional 15 minutes	Business hours	516.72	515.20
	After hours	980.12	977.25
Truck visit plus 4x additional 15 minutes	Business hours	582.66	580.95
	After hours	1071.57	1068.43
Truck visit plus 5x additional 15 minutes	Business hours	648.60	646.70
	After hours	1163.02	1159.61
Truck visit plus 6x additional 15 minutes	Business hours	714.54	712.44
	After hours	1254.47	1250.80
Wasted service truck visit	Business hours	276.60	275.79
	After hours	705.77	703.70
<b>Meter equipment test</b>			
Single phase	Business hours	248.46	247.73
	Single phase (each additional meter)	Business hours	119.22
Multi phase	Business hours	248.46	247.43
	Multi phase (each additional meter)	Business hours	119.22
<b>Remote AMI services</b>			



Remote meter configuration	Business hours	59.26	59.08
Remote special meter read	Business hours	0.80	0.80
Remote re-energise	Business hours	10.01	9.98
Remote de-energise	Business hours	10.01	9.98

Source: AER analysis; United Energy, *Alternative Control Services—Fee-based and quoted alternative control services 2016–20*, 30 April 2015, pp. 12–13.

Note: Our preliminary decision prices will be escalated into real 2016 dollar terms using the percentage changes in the annual ABS September quarter index in United Energy's 2016 pricing proposal.

**Table 16.15 Quoted service ancillary network services hourly labour rates for 2016, preliminary decision (\$2015)**

Quoted service labour category	Proposed labour rate	Preliminary decision labour rate
Field worker – one person – business hours	121.42	121.42
Field worker – one person – after hours	172.44	172.44
Field worker – one person plus vehicle – business hours	142.34	142.34
Field worker – one person plus vehicle – after hours	193.36	193.36
Administration – business hours	93.82	93.82
Senior engineer – business hours	178.82	178.82
Project planner – business hours	178.82	178.82

Source: AER analysis; United Energy, *Alternative Control Services—Fee-based and quoted alternative control services 2016–20*, 30 April 2015, p. 18.

Note: Our preliminary decision prices will be escalated into real 2016 dollar terms using the percentage changes in the annual ABS September quarter index in United Energy's 2016 pricing proposal.

**Table 16.16 United Energy's quoted services**

Quoted service
Rearrangement of network assets at customer request, excluding alteration and relocation of existing public lighting assets
Auditing of design and construction
Specification and design enquiry fees
High load escorts - lifting overhead lines
Damage to overhead service cables pulled down by high load vehicles
After hours truck by appointment
Elective underground service where an existing overhead service exists

Covering of low voltage mains for safety reasons

**New (routine) connections of customers > 100 amps – Where United Energy is the responsible person**

Three phase 200 CT metering S type 0 to 150Kva

Three phase 800 CT metering T type 150 to 600Kva

Three phase 1500 CT metering W type 600 to 1500Kva

**New (routine) connections of customers > 100 amps – Where United Energy is NOT the responsible person (supply of CT and energisation)**

Three phase 200 CT metering S type 0 to 150Kva

Three phase 800 CT metering T type 150 to 600Kva

Three phase 1500 CT metering W type 600 to 1500Kva

**New (routine) connections of customers > 100 amps – Where United Energy is NOT the responsible person (energisation only)**

New (routine) connections, for customers > 100 amps – energisation only

**Supply abolishment (per premises/unit)**

Supply abolishment CT metered sites

**Reserve feeder maintenance**

Reserve feeder maintenance

Source: United Energy, *Alternative Control Services—Fee-based and quoted alternative control services 2016–20*, 30 April 2015, p. 17.

## 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, United Energy must maintain an annual metering charges unders and overs account in its annual pricing proposal.

United Energy must provide the amounts for the following entries in their annual metering charges unders and overs account for the most recently completed regulatory year ( $t-2$ ) and the next regulatory year ( $t$ ):

1. The amount of revenue recovered/to be recovered from annual metering charges, less the TARM for the regulatory years  $t-2$  and  $t$ .
2. The calculated under/over recovery of revenue for regulatory years  $t-2$  and  $t$ .
3. An interest charge for two years on the under/over recovery of revenue for regulatory year  $t-2$ . This adjustment is to be calculated using the approved nominal weighted average cost of capital (WACC). This adjustment is to be calculated using the respective approved nominal weighted average cost of capital (WACC) for each intervening year between regulatory year  $t-2$  and year  $t$ .<sup>81</sup> The WACC applied for each year will be that approved by the AER for the relevant year.
4. Sum of items 2–3 to derive a closing balance for regulatory year  $t-2$ .
5. Opening balance in regulatory year  $t$  which is the closing balance in item 4.
6. Offsetting over/under recovery of revenue amount in item 5 to derive a closing balance as close to zero as practicable for regulatory year  $t$ . This amount will become the approved annual metering charges revenue under/over recovery for regulatory year  $t$ .

United Energy must provide details of calculations in the format set out in Table 16.17. Amounts provided for the most recently completed regulatory year ( $t-2$ ) must be audited. Amounts provide for the next regulatory year ( $t$ ) will be regard as a forecast.

In proposing variations to the amount and structure of annual metering charges, United Energy 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 proposal during the 2016–20 regulatory control period.

As this is the first time United Energy will be subject to a revenue cap form of control mechanism there will be no adjustments for under or over recovery of revenue until regulatory year  $t$  is 2018. Therefore, the annual metering charges unders and overs

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<sup>81</sup> For clarity, two WACC adjustments are applied: one for a year of interest between year  $t-2$  and year  $t-1$ ; and a second for a year of interest between year  $t-1$  and year  $t$ . The WACC for each year will be that approved by the AER for the respective year, such that rolling WACC's are applied.

account must show a zero under/over recovery of revenue for regulatory year t–2 when regulatory year t is 2016 and 2017.

**Table 16.17 Example calculation of annual metering charges unders and overs account (\$'000, nominal)**

	Year t–2 (actual)	Year t (forecast)
<b>(A) Revenue from annual metering charges</b>	<b>8449</b>	<b>6360</b>
<b>(B) Less TARM for regulatory year =</b>	<b>7349</b>	<b>6360</b>
+ Annual revenue requirement revenues (ARt)	7382	7559
+ T factor (Tt) – true-ups relating to the AMI–Order in Council	17	14
+ B factor (Bt) – revenue under/over recovery approved	–50a	–1213b
<b>(A minus B) Under/over recovery of revenue for regulatory year</b>	<b>110</b>	<b>0</b>
<b>Annual metering charges unders and overs account</b>		
Nominal WACC t–2 (per cent)	5.00%	
Nominal WACC t–1 (per cent)	5.00%	
Opening balance	n/a	1213
Under/over recovery of revenue for regulatory year	1100	–1213b
Interest on under/over recovery for 2 regulatory years	113	n/a
<b>Closing balance</b>	<b>1213</b>	<b>0c</b>

Notes: (a) Approved annual metering charges revenue under/over recovery for regulatory year t–2.  
 (b) Amount should offset the closing balance for annual metering charges unders and overs account for year t–2.  
 (c) United Energy 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 proposal during the 2016–20 regulatory control period.