



# Powercor 2017 Pricing Proposal



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# Table of contents

<b>1</b>	<b>INTRODUCTION</b>	<b>5</b>
1.1	Our business	7
1.2	Network and metering charges	8
1.3	Network tariff objectives	8
1.4	Summary of changes	9
1.5	Structure of this document	9
<b>2</b>	<b>TARIFF CLASSES AND TARIFFS</b>	<b>11</b>
2.1	Tariff classes	13
2.2	Tariff structure	13
2.3	kVA demand tariff	16
2.4	Price movements from 2016	17
<b>3</b>	<b>STANDARD CONTROL SERVICE CHARGES</b>	<b>19</b>
3.1	Distribution charges	21
3.2	Designated pricing proposal charges	28
3.3	Jurisdictional scheme charges	29
3.4	Indicative prices for 2018–2020	30
<b>4</b>	<b>ALTERNATIVE CONTROL SERVICES</b>	<b>31</b>
4.1	Tariff classes	33
4.2	Stand alone and avoidable costs of alternative control services	33
4.3	Long run marginal costs and revenue recovery	33
4.4	Compliance with the AER determination	34
4.5	Metering tariff class side constraints	36
4.6	Public lighting operation, maintenance and replacement	37
<b>A</b>	<b>STANDARD CONTROL SERVICES TARIFFS</b>	<b>39</b>
<b>B</b>	<b>ALTERNATIVE CONTROL SERVICES TARIFFS</b>	<b>59</b>
<b>C</b>	<b>GLOSSARY</b>	<b>73</b>
<b>D</b>	<b>ATTACHMENTS</b>	<b>79</b>

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# Introduction 1



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# 1 Introduction

This document, its appendices and attachments comprise our 2017 Pricing Proposal (**pricing proposal**) to the Australian Energy Regulator (**AER**). It covers all of our direct control services for 2017 in accordance with the National Electricity Rules (**Rules**) and the AER's Final Decision on Powercor's Distribution Determination for the 2016 to 2020 (**final decision**).<sup>1</sup>

Direct control services are divided into two subclasses:

- standard control services—network charges; and
- alternative control services—metering, public lighting and various customer requested service charges.

## 1.1 Our business

We are the most efficient and reliable regional and rural electricity network in Australia, and are one of Victoria's five privately owned electricity distributors. We own and manage assets that deliver electricity to more than 765,000 homes and businesses across Melbourne's outer western suburbs, and central and western Victoria.

We connect residential and commercial customers to a safe and reliable electricity supply. Our key distribution activities include:

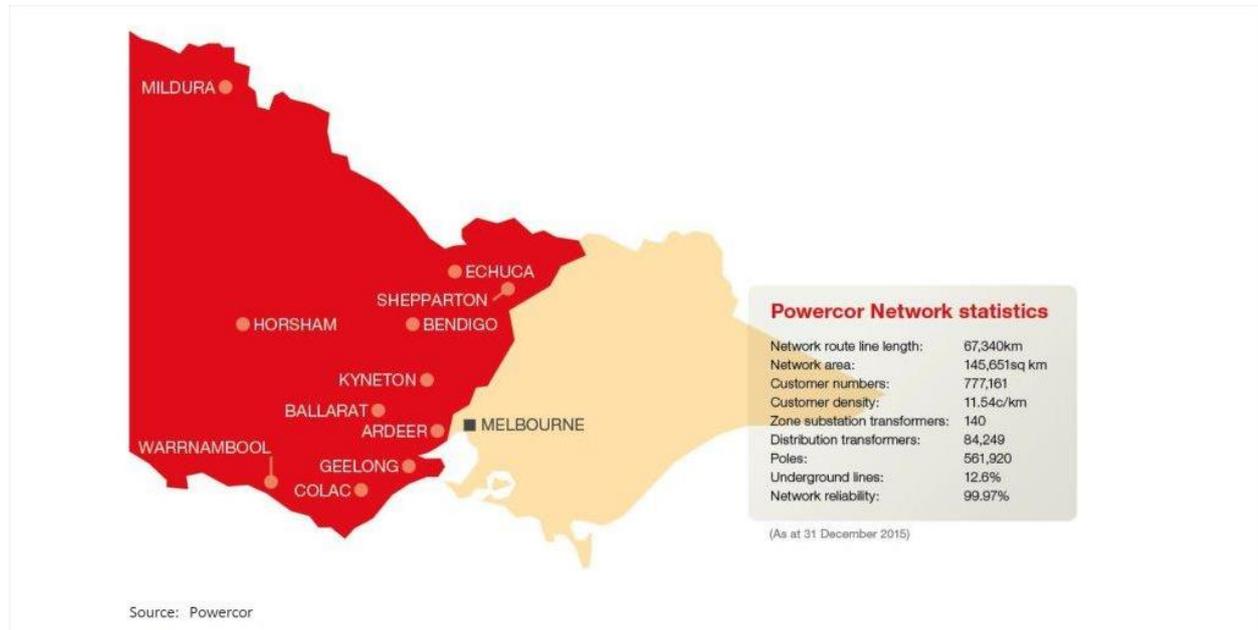
- maintaining network safety and reliability to meet the current power supply needs of our customers;
- extending and upgrading the network so that the future power supply needs of customers are met when required;
- operating the network on a day to day basis;
- connecting new customers to the network;
- maintaining the public lighting system;
- reading electricity meters; and
- providing meter data to retailers.

Our electricity distribution network is vast and complex, covering more than 145,000 square kilometres and traversing difficult and remote terrain in some parts of the state.

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<sup>1</sup> By reason of clause 11.76.1(b) of the Rules, the correct version of chapter 6 of the Rules to be applied for the purposes of Powercor's 2017 pricing proposal is version 82.

Figure 1.1 Powercor network statistics



Source: Powercor

## 1.2 Network and metering charges

Network tariffs cover the cost of transporting electricity from the generator through the transmission<sup>2</sup> and distribution networks to our customers' homes or businesses. Network tariffs also recover jurisdictional scheme costs which currently comprise the Victorian premium and transitional feed-in-tariff schemes.

Metering tariffs cover the cost of the meter and meter data services. We pass network and metering charges on to electricity retailers, who pass them on to customers via electricity bills.

## 1.3 Network tariff objectives

Network tariffs should reflect the efficient costs of providing network services to retail customers.

Our tariffs must comply with the following pricing principles:

- for each tariff class, the revenue expected to be recovered must lie on or between stand-alone and avoidable cost;
- each tariff must be based on the long run marginal cost of providing the service;
- the revenue expected to be recovered from each tariff must reflect the total efficient costs of serving customers and the total revenue should be in accordance with the relevant distribution determination;
- must consider the impact on retail customers of changes in tariffs from the previous regulatory year;
- the tariff must be reasonably capable of being understood by customers; and
- tariffs must comply with the Rules and all applicable regulatory instruments.

<sup>2</sup> Transmission charges are referred to as designated pricing proposal charges under the Rules.

On 14 April 2016 changes to the Victorian AMI Tariffs Order were gazetted which only allow a cost-reflective demand tariff to be opt-in for residential and small business customers using less than 40 MWh per annum. The Tariffs Order continues to require us to offer residential customers a flat tariff and a common form flexible time-of-use tariff.

## 1.4 Summary of changes

Changes to the 2017 network tariffs include:

- the introduction of the opt-in residential and small commercial cost-reflective demand tariffs; and
- the introduction of a medium business tariff; and
- reassigning small business customers with annual consumption greater than 60 megawatt hours (MWh) and demand less than 120 kW to the new medium business tariff from 1 January 2017.

These changes reflect the changes to our tariffs presented in our approved tariff structure statement (TSS).

Our 2017 network tariffs are set out in appendix A.

## 1.5 Structure of this document

This pricing proposal has been structured so as to allow compliance with the specific requirements of the Rules and the AER's final decision to be readily ascertained.

Table 1.1 Structure of our pricing proposal

Chapter	Title	Purpose	Clause
1	Introduction	Provides contextual information.	-
2	Tariff classes and tariffs	Outlines the tariff classes into which our customer's direct control services are divided, tariff structures and indicates how tariff charging parameters are expected to vary.	6.18.2(b)(2-3,9); 6.18.3; 6.18.4
3	Standard control service charges	Demonstrates our compliance with the requirements of the Rules and the final decision in respect of the control mechanism and pricing principles in relation to distribution use of system (DUoS), the designated pricing proposal charges (DPPC), jurisdictional scheme tariffs.	6.18.2(b)(4-7,8); 6.18.5 and 6.18.6, 6.18.7, 6.18.7A
4	Alternative control services	Sets out our tariffs for alternative control services.	6.2.2(a)
A	Standard control services tariffs	Provides our tariff schedules and tariff eligibility.	6.18.2(d)(e)
B	Alternative control services tariffs	Lists and describe the various charges classified as fee based and quoted alternative control services.	-
C	Glossary	Description of the defined terms within this pricing proposal.	-
D	Attachments	Lists the attachments to this pricing proposal.	-

Source: Powercor

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# Tariff classes and tariffs **2**



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# 2 Tariff classes and tariffs

This section details our tariff classes, tariff structures and expected price trends.

## 2.1 Tariff classes

The grouping of customers into standard control service tariff classes must take into account the following factors:

- the nature and extent of their usage;
- the nature of their connection to the network, such as the voltage of connection; and
- the type of meter installed at the premises.

We do not distinguish between customers with micro-generation and those without, in either the network tariff or network tariff class.

An important consideration in establishing tariff classes is to reduce the complexity of the overall arrangement by grouping customer tariffs with a similar connection and usage profile together on an economically efficient basis and thereby avoiding unnecessary transaction costs.

In establishing tariff classes that are to be used for the purpose of monitoring pricing compliance, it is desirable and appropriate that similar individual tariffs should be grouped together. This is particularly the case for some business tariffs, where one or a few large customers would dominate the class and the side constraint would not apply to a tariff class but would apply to those large customers.

We have categorised standard control services customer tariffs into the following five tariff classes which remain unchanged from the previous year:

- low voltage residential;
- low voltage business including unmetered supplies;
- large low voltage;
- high voltage; and
- sub-transmission.

The AER is required, under clause 6.18.4 of the Rules, to decide on the principles governing assignment or reassignment of retail customers to or between tariff classes. The principles are outlined under attachment 14, section D of the AER's final decision.

## 2.2 Tariff structure

This section provides a description of the different structured tariffs in each of the tariff classes and their charging parameters.

### 2.2.1 Low voltage residential tariff class

This tariff class includes the residential single rate, time-of-use, flexible pricing, cost-reflective and controlled load tariffs.

Table 2.1 Low voltage residential tariff charging parameters

Tariff Class	Tariff	Available to new customer	Meter Type	Charging parameters	Units
Low voltage Residential	Single rate	Yes	Basic or Interval	Fixed	\$ pa
				Usage	c/kWh
	Time of use	No	Basic or Interval	Fixed	\$ pa
				Usage - peak	c/kWh
				Usage - off peak	c/kWh
	Flexible pricing	Yes	AMI	Fixed	\$ pa
				Usage - summer peak	c/kWh
				Usage - summer shoulder	c/kWh
				Usage - summer off peak	c/kWh
				Usage - non summer peak	c/kWh
				Usage - non summer shoulder	c/kWh
	Cost-reflective	Yes	AMI	Fixed	\$ pa
				Demand – summer	\$/kW/month
				Demand – non summer	\$/kW/month
				Usage	c/kWh
Controlled load	Yes <sup>3</sup>	Single phase Basic or Interval	Usage - off peak	c/kWh	

Source: Powercor

<sup>3</sup> Controlled load tariffs open to new and existing single phase customers. D3HW, D2OP and D2DKOP are only available to customers already on the equivalent primary tariff.

## 2.2.2 Low voltage small business tariff class

Table 2.2 Low voltage small business tariff charging parameters including unmetered supplies

Tariff Class	Tariff	Available to new customer	Meter Type	Charging parameters	Units
Low voltage Small Business	Single rate	Yes	Basic or Interval	Fixed	\$ pa
				Usage	c/kWh
	Time of use	No	Basic or Interval	Fixed	\$ pa
				Usage - peak	c/kWh
				Usage - off peak	c/kWh
	Flexible pricing	No	AMI	Fixed	\$ pa
				Usage - summer peak	c/kWh
				Usage - summer shoulder	c/kWh
				Usage - summer off peak	c/kWh
				Usage - non summer peak	c/kWh
				Usage - non summer shoulder	c/kWh
				Usage - non summer off peak	c/kWh
	Small business cost-reflective	Yes	AMI	Fixed	\$ pa
				Demand – summer	\$/kW/month
				Demand – non summer	\$/kW/month
				Usage	c/kWh
	Medium business cost-reflective	Yes	AMI	Fixed	\$ pa
				Demand – summer	\$/kW/month
				Demand – non summer	\$/kW/month
				Usage - peak	c/kWh
Usage – off peak				c/kWh	
Unmetered	Yes	Unmetered	Usage - peak	c/kwh	
			Usage - off peak	c/kWh	

Source: Powercor

### 2.2.3 Reassignment of small business customers with annual consumption greater than or equal to 60MWh

We propose to reassign small business customers with an annual consumption greater than or equal to 60MWh and demand less than 120 kW to the new medium business cost-reflective tariff from 1 January 2017. This tariff will transition to a fully cost-reflective tariff by 2019 following the approach outlined Powercor’s revised TSS.

### 2.2.4 Large low voltage tariff classes

Table 2.3 Large low voltage kVA demand tariff charging parameters

Tariff Class	Tariff	Minimum demand	Supply voltage	Charging parameters	Units
Large low voltage	kVA demand	N/A	<1kV	Fixed	\$ pa
				Demand	\$/kVA pa
				Usage - peak	c/kWh
				Usage - off peak	c/kWh

Source: Powercor

### 2.2.5 High voltage tariff classes

Table 2.4 High voltage kVA demand tariff charging parameters

Tariff Class	Tariff	Minimum demand	Supply voltage	Charging parameters	Units
High voltage	kVA demand	N/A	>1kV and <66kV	Fixed	\$ pa
				Demand	\$/kVA pa
				Usage - peak	c/kWh
				Usage - off peak	c/kWh

Source: Powercor

### 2.2.6 Sub-transmission tariff classes

Table 2.5 Sub-transmission kVA demand tariff charging parameters

Tariff Class	Tariff	Minimum demand	Supply voltage	Charging parameters	Units
Sub-transmission	kVA demand	N/A	≥66kV	Fixed	\$ pa
				Demand	\$/kVA pa
				Usage - peak	c/kWh
				Usage - off peak	c/kWh

Source: Powercor

## 2.3 kVA demand tariff

The following section outlines the kVA tariff policy regarding the calculation of 12-month rolling maximum demand.

### 2.3.1 Calculation of the kVA demand tariff for a monthly bill

Table 2.6 Calculation of the kVA demand tariff for monthly bill

kVA tariff components	Calculation
Fixed charge	Annual charge (\$) × number of days in month / number of days in the year
Demand charge	(\$ per kVA pa x 12 month rolling maximum kVA) / 12
Peak usage charge	cents per peak kWh x peak kWh in month / 100
Off peak usage charge	cents per off-peak kWh x off-peak kWh in month / 100

Source: Powercor

### 2.3.2 Rolling demand

If there is a full 12 month history, the rolling 12-month maximum kVA demand will take effect immediately looking back 12 months. Demand for greenfield sites will be measured from energisation date to the end date of the bill, until 12 months of history is available when it will revert to a 12-month rolling demand.

### 2.3.3 Demand exclusions

The exclusion of temporary increases in demand from the 12-month rolling maximum demand charged to the customer at a supply point is allowed at our discretion if there is a specific, short term need, such as commissioning a new plant. The customer must apply in advance for a temporary increase in demand to be excluded from the supply point's 12-month rolling maximum demand charge.

Large customers that have moved into a premise will automatically continue to have their maximum demand charge based on the 12-month rolling maximum demand. If a customer wishes to exclude the previous customer's demand, they will need to apply to us.

### 2.3.4 Power factor correction

Customers installing power factor correction equipment will need to be cognisant of their obligations under the Victorian Electricity Distribution Code to keep harmonic distortion and power factor within prescribed levels. Power factor correction equipment has the potential to exacerbate harmonic distortion and can cause a leading power factor during times of low demand if the equipment is not designed properly.

If a customer installs power factor correction equipment, they may apply for their 12-month rolling maximum demand to be calculated from the date of commissioning of the equipment. This will only be granted where there is an observable improvement in power factor. Seasonal demand profiles will also be taken into account.

## 2.4 Price movements from 2016

Tariff structures over 2017-2020 were proposed in our Tariff Structure Statement and approved by the AER on 24 August 2016. Our aim in developing these tariffs was to reduce long-term average charges for using our network by promoting efficient network investment and utilisation. The approved revised tariff structure included an opt-in cost-reflective demand charge be introduced into low voltage residential and small business tariffs (excluding unmetered supplies) on an opt-in basis.

Table 2.7 Price movement from 2016 to 2017

Network tariff	Fixed charge	Peak energy rate	Shoulder energy rate	Off peak energy rate	Demand rate
Residential flat	↑	↓			
Residential ToU	↑	↑		↑	
Residential flexible pricing	↑	↓	↑	↑	
Controlled load				↑	
Small business flat	↑	↑			
Small business ToU	↑	↑		↑	
Small business flexible pricing	↑	↓	↑	↑	
LLV business (kVA)	↑	↑		↑	↑
HV business (kVA)	→	↓		→	→
Sub-transmission (kVA)	→	→		↑	→
Legend					
↑	Increase relative to the average network price movement.				
↓	Decrease relative to the average network price movement.				
→	No change relative to the average network price movement.				
	A blank cell indicates that the corresponding charging parameter is not applicable for a particular tariff.				

Source: Powercor

# Standard control service charges **3**



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# 3 Standard control service charges

This chapter demonstrates how our network tariffs for 2017 comply with the requirements of the Rules and the final determination in respect of the control mechanism and pricing principles.

Our final network charges are bundled charges that contain distribution charges, designated pricing proposal charges and recovery of jurisdictional scheme amounts.

## 3.1 Distribution charges

### 3.1.1 Control mechanism

For the 2016-2020 regulatory control period, our standard control services are subject to a revenue cap form of control. Attachment 1 of the AER's final decision contains the annual revenue requirements (**ARR**) for each year of the 2016-2020 regulatory control period. When calculating the ARR for each year, the AER takes into consideration the various costs facing the service provider and the trade-offs and interactions between these costs, service quality and across years.

The distributor must propose prices and quantity estimates for a particular year and demonstrate that they do not result in expected revenue which exceeds the total annual revenue allowance for that year. This includes a true-up for any under or over recovery of revenue in prior years. Attachment 14 of the AER's final decision sets out the formulae for calculating the total annual revenue allowance.

### 3.1.2 2017 prices for standard control services

#### Revenue cap formulae

The AER has determined our revenues must be consistent with the following total annual revenues formulae and side constraint:

Table 3.1 Revenue cap formulae

Revenue cap formulae		
1	$TAR_t \geq \sum_{i=1}^n \sum_{j=1}^m p_t^{ij} q_t^{ij}$	$i=1,..,n$ and $j=1,.., m$ and $t=1,..,5$
2	$TAR_t = AAR_t + I_t + T_t + B_t$	$t= 1, 2, .., 5$
3	$AAR_t = AR_t(1 + S_t)$	$t=1$
4	$AAR_t = AAR_{t-1}(1 + \Delta CPI_t)(1 - X_t)(1 + S_t)$	$t=2,..,5$

Source: AER

where:

$TAR_t$  is the total annual revenue for regulatory year t

$p_t^{ij}$  is the price of component "j" of tariff "i" in regulatory year t

$q_t^{ij}$  is the forecast quantity of component "j" of tariff "i" in regulatory year t

$AAR_t$  is the adjusted annual smoothed revenue requirement for regulatory year t

- $I_t$  is the annual adjustment f-factor scheme amount in year t. This amount will be calculated as per the method set out in the relevant f-factor scheme
- $T_t$  is the final carryover amount from the application of the Demand Management Incentive Scheme (DMIS) from the 2011-15 regulatory period. This amount will be calculated using the method set out in the DMIS and will be deducted from/added to the adjusted annual smoothed revenue requirement in the 2017 pricing proposal. It will cease to apply after the 2017 regulatory year
- $B_t$  is the sum of:
- the recovery of license fee charges by the Victorian Essential Services Commission indexed by one and a half years of interest, calculated using the following method:

**Table 3.2 License fee recovery**

License fee recovery
$L_{t-1}(1 + WACC_t)(1 + WACC_{t-1})^{1/2}$

Source: AER

where:

$L_{t-1}$  are the licence fees paid by Powercor to the Victorian Essential Services Commission in the financial year ending in June of regulatory year t-1

WACC is the approved nominal weighted average cost of capital (WACC) for the relevant regulatory year using the following method:

**Table 3.3 Nominal vanilla WACC**

Nominal vanilla $WACC_t$
$((1 + \text{real Vanilla } WACC_t) \times (1 + \Delta CPI_t)) - 1$

Source: AER

Where the real Vanilla  $WACC_t$  is as set out in our final decision PTRM and updated annually

- any under or over recovery of actual revenue collected through DUoS charges in regulatory year t-2 as calculated using the method in appendix A, attachment 14 of the AER's final decision
- the AER approved pass through amounts in respect of direct control services (positive or negative) with respect to regulatory year t

$AR_t$  is the annual smoothed revenue as stated in the post tax revenue model (PTRM) for regulatory year t (when t is the first year of the 2016-20 regulatory control period)

$S_t$  is the S factor determined in accordance with the service target performance incentive scheme (STPIS) for regulatory year t

$\Delta CPI_t$  is the annual percentage change in the Australian Bureau of Statistics (ABS) consumer price index (CPI) All groups, weighted average of eight capital cities from the June quarter in years 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 June quarter in regulatory year t-1 divided by

the ABS CPI all groups, weighted average of eight capital cities for June quarter in regulatory year t-2

minus one.

$X_t$  is the X factor for each year of the 2016-2020 regulatory control period as determined in the PTRM, and annually revised for the return on debt update in accordance with formula specified in attachment 3 of the AER final decision - rate of return - calculated for the relevant year

The derivation of the TAR constraint is presented in the AER's annual tariff model template provided for this purpose and summarised in the table below.

**Table 3.4 Total allowable revenue criteria summary**

Criterion	2017 value (\$,000)
$AAR_{t-1}$	614,406
$\Delta CPI_t$	1.02%
$X_t$	4.68%
$S_t$	5.10%
$AAR_t = AAR_{t-1}(1 + \Delta CPI_t)(1 - X_t)(1 + S_t)$	621,822
$I_t$	1,420
$T_t$	0
$B_t$	-5,448
$TAR_t = AAR_t + I_t + T_t + B_t$	617,794

Source: Powercor

### 3.1.3 Tariff class side constraints

The side constraint formula applied to the weighted average revenue raised for each tariff class for this regulatory control period is set out below.

**Table 3.5 AER side constraint formula**

Side constraint formula
$\frac{\sum_{i=1}^n \sum_{j=1}^m d_t^{ij} q_t^{ij}}{\sum_{i=1}^n \sum_{j=1}^m d_{t-1}^{ij} q_t^{ij}} \leq (1 + \Delta CPI_t) \times (1 - X_t) \times (1 + 2\%) \times (1 + S_t) + I'_t + T'_t + B'_t$

Source: AER

Where each tariff class has "n" tariffs, with each up to "m" components, and where:

$d_t^{ij}$  is the proposed price for component "j" of tariff "i" for regulatory year t

$d_{t-1}^{ij}$  is the price charged for component "j" of tariff "i" in regulatory year t-1

$q_t^{ij}$  is the forecast quantity of component "j" of the tariff "i" in regulatory year t

$\Delta CPI_t$  is the annual percentage change in the ABS CPI All Groups, Weighted Average of the Eight Capital Cities from the June quarter in regulatory year t-2 to the June quarter in regulatory 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

$X_t$  is the X factor for each year of the 2016–20 regulatory control period as determined in the PTRM, and annually revised for the return on debt update in accordance with the formula specified in attachment 3—rate of return—calculated for the relevant year. If  $X > 0$ , then X will be set equal to zero for the purposes of the side constraint formula

$S_t$  is the S factor determined in accordance with the STPIS for regulatory year t

$I'_t$  is the annual percentage change from the f-factor scheme amount in regulatory year t. This amount will be calculated as per the method set out in the relevant factor scheme

$T'_t$  is the annual percentage change from the final carryover amount from the application of the DMIS from the 2011–15 regulatory control period. This amount will be calculated using the method set out in the DMIS and will be deducted from/added to the adjusted annual smoothed revenue requirement in the 2017 pricing proposal

$B'_t$  is the annual percentage change from the sum of:

- the recovery license fee charges by the Victorian Essential Services Commission indexed by one and a half years of interest, calculated using the following method:

**Table 3.6 License fee recovery**

License fee recovery
$L_{t-1}(1 + WACC_t)(1 + WACC_{t-1})^{1/2}$

Source: AER

where

$L_{t-1}$  are the licence fees paid by Powercor to the Victorian Essential Services Commission in the financial year ending in June of regulatory year t-1

$WACC$  is the approved nominal weighted average cost of capital (WACC) for the relevant regulatory year using the following method:

**Table 3.7 Nominal vanilla WACC**

Nominal vanilla $WACC_t$
$((1 + \text{real Vanilla } WACC_t) \times (1 + \Delta CPI_t)) - 1$

Source: AER

Where the real Vanilla  $WACC_t$  is as set out in our final decision PTRM and updated annually

- any under or over recovery of actual revenue collected through DUoS charges in regulatory year t-2 as calculated using the method in appendix A of attachment 14 of the final decision

- AER approved pass through amounts in respect of direct control services (positive or negative) with respect to regulatory year t

With the exception of the CPI, X factor and S 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).

### Tariff class movement side constraint

The evaluation of the side constraint for 2017 is set out in Table 3.8.

Table 3.8 Side constraint criteria summary

Criterion	2017 value
$\Delta CPI_t$	1.02%
$X_t$	0.00%
$S_t$	5.10%
$I'_t$	0.23%
$T'_t$	0.00%
$B'_t$	-0.89%
Side constraint $(1 + \Delta CPI_t) \times (1 - X_t) \times (1 + 2\%) \times (1 + S_t) + I'_t + T'_t + B'_t$	7.64%

Source: Powercor

### Weighted average revenue

To demonstrate compliance with the side constraint formula and clause 6.18.2(b)(4) of the Rules, the following table sets out the expected weighted average revenue for standard control services and the percentage change from 2016 for each tariff class.

Table 3.9 Weighted average revenue

Tariff class	2016 $p_{t-1}q_t$ \$'000	2017 $p_t q_t$ \$'000	% change
Residential	268,143	245,457	(8.5%)
Small commercial	151,936	162,990	7.3%
Large low voltage	139,310	149,520	7.3%
High voltage	49,481	53,106	7.3%
Sub-transmission	6,250	6,720	7.5%

Source: Powercor

### 3.1.4 Compliance with pricing principles

This section demonstrates our compliance with the pricing principles set out in clause 6.18.5 of the Rules, which requires us to ensure that the revenue recovered for each tariff class lies between:

- an upper bound, representing the stand-alone cost of serving the customers who belong to that class; and
- a lower bound, representing the avoidable cost of not serving those customers.

The stand-alone and avoidable cost methodologies are described in detail in attachment A of this pricing proposal. These approaches are used to calculate the revenues for each standard control services tariff class associated with each cost methodology. These costs are compared with the weighted average revenue derived from our proposed tariffs.

#### Definition of stand-alone and avoidable costs

These two categories of cost may be defined as follows:

- the stand-alone cost of serving a tariff class is defined as the cost of developing and operating distribution infrastructure in order to serve the tariff class in question. Stand-alone cost is a forward looking concept and considers the costs of entry based on current market conditions and technology. Where the network business recovers more revenue than the stand-alone cost of serving a tariff class, it follows that a hypothetical alternate supplier may enter the market and supply that particular tariff class. Prices above the stand-alone cost could not therefore be sustained in an effectively competitive market and may create the possibility of efficient bypass of the existing infrastructure; and
- The avoidable cost for a tariff class is defined as the cost that would be avoided should the distribution business no longer serve that specific tariff class (whilst all other tariff classes remained supplied). If a tariff class were to be charged below the avoidable cost, it would be economically beneficial for the business to stop supplying that tariff class as the associated costs would exceed the revenue obtained from the customer. Further, where avoidable costs are higher than revenue recovered, the associated tariff levels may also result in inefficient levels of consumption, which therefore provides a rationale for having avoidable costs as a lower bound.

There are two alternative concepts that could be used to calculate these costs:

- to ignore the sunk nature of the existing network and estimate the costs which would be associated with an optimally designed network, constructed to supply standard control services to the tariff class(es) concerned; or
- to base the estimation of costs on existing network configuration, to provide standard control services to the tariff class(es) concerned.

The Rules do not prescribe the methodology that should be used to calculate the stand-alone and avoidable costs of tariff classes of the network. We have chosen to base our cost estimations on the second concept, with hypothetical modification of the existing network, rather than by devising and costing optimal new network structures. This has been done for two reasons:

- to avoid the substantial resource requirements that would be involved in a full network redesign; and
- in recognition that the economic regulatory framework for distribution supports the existence and value of existing (sunk) network investments and does not support the optimisation of existing networks.

#### Stand-alone costs

Stand-alone costs comprise both the capital and operating costs of service provision. The stand-alone network capital cost for each tariff class was derived from an estimate of the proportions of the cost of providing network

infrastructure that would need to remain in place to service the load in each of the tariff classes in turn if the other tariff classes were no longer required to be supplied. The stand-alone operating cost for a tariff class has been estimated as the total of all operating cost less the avoidable operating costs of serving all the other tariff classes.

### Avoidable costs

In similar manner to the stand-alone cost, the avoidable cost associated with each of the tariff classes were derived from an estimate made of the network cost that could be avoided, in the event that each of the tariff classes were no longer served.

### Compliance with Rules clause 6.18.5(e)

The revenue expected to be recovered from each of our tariff classes in 2017 is compared with the calculated stand-alone and avoidable costs in the following table:

Table 3.10 Stand-alone and avoidable distribution network costs (\$'000)

Tariff class	Avoidable cost \$000, (nominal)	Tariff revenue \$000, (nominal)	Stand-alone cost \$000, (\$nominal)
Residential	113,256	251,159	434,034
Small commercial	54,215	166,777	341,938
Large low voltage	20,656	152,994	260,915
High voltage	6,005	54,340	220,536
Sub-transmission	1,184	6,877	191,920

Source: Powercor

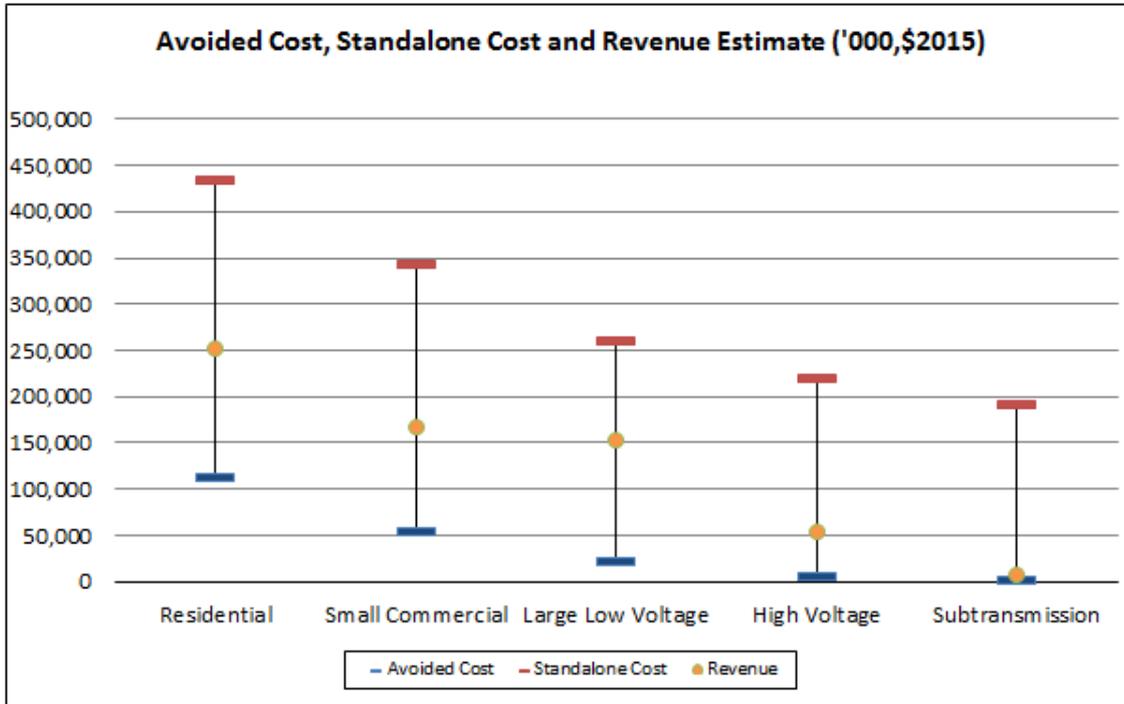
### 3.1.5 Long run marginal costs

Long run marginal cost (**LRMC**) is a measure of the change in the forward looking costs as output increases when all factors of production including plant and equipment are variable. The LRMC will relate broadly to the annualised cost of augmenting capacity (in case of electricity, at a particular voltage, at a particular location, at a particular time), generally per unit of additional capacity provided.

We have estimated our LRMC for each tariff class by annualising our cost of augmenting capacity (measured by the marginal cost of reinforcement) and scale growth in operating and maintenance costs associated with network augmentation, per unit of additional capacity provided.

A comparison of the stand-alone, avoidable, LRMC and 2017 tariff rates for our tariff classes is shown in the following figure:

Figure 3.1 Cost comparison (\$/kVA per annum)



Source: Powercor

It can be noted that:

- in compliance with 6.18.5(e) of the rules, the 2017 prices for each network tariff class fall within the bounds of the stand-alone and avoidable costs and hence are subsidy-free; and
- the LRMC of each tariff class determined from the approach described above yields a cost that does not vary greatly from that expected to be recovered through the 2017 prices in the case of the major business and high voltage business tariff classes.

## 3.2 Designated pricing proposal charges

### 3.2.1 Maximum revenue control

Designated pricing proposal charges (DPPC) recover the payments we make for transmission charges, avoided transmission payments and inter-distributor payments.

In accordance with 6.18.2(b)(6) and 6.18.7 of the Rules, attachment B of this pricing proposal provides the information specific to compliance with these requirements.

Table 3.11 summarises the calculation of the 2017 maximum revenue for DPPC.

Table 3.11 DPPC maximum revenue for 2017

Revenue item	2017 value (\$,000)
Transmission, avoided transmission and inter-distributor charges	172,923
Unders and overs amount	-9,239
Total DPPC revenue	163,684

Source: Powercor

### 3.3 Jurisdictional scheme charges

#### 3.3.1 Jurisdictional scheme eligibility

In accordance with the rule requirement clause 6.18.7A(e)(1)(iv), we submit that the Victorian Premium Feed-in tariff (**PFIT**) scheme fulfils the criteria for eligibility as a jurisdictional scheme.

In the National Electricity (Victoria) Act 2005, the Victorian Transitional Feed-in tariff (**TFIT**) is considered a jurisdictional scheme in accordance with rule requirement clause 6.18.7A(d)(1). We submit that the Victorian TFIT scheme fulfils the criteria for eligibility as a jurisdictional scheme.

The key principles of our Jurisdictional Scheme tariff methodology are:

- the total jurisdictional scheme revenue allocated to network tariffs aligns with the total estimated charge to be paid by us, adjusted for any overs and unders from previous regulatory years and also adjusted for the time value of money; and
- charges are allocated to tariffs in a manner that reflects the customers that the scheme serves.

TFIT payments will end on 31 December 2016. However, any TFIT unders and overs will be applied in 2017 and 2018.

#### 3.3.2 Maximum revenue control

Table 3.12 summarises the calculation of the 2017 maximum revenue for jurisdictional schemes.

Table 3.12 Jurisdictional schemes maximum revenue for 2017

Revenue item	2017 value (\$,000)
Premium feed-in-charges charges	22,671
Unders and overs amount	7,692
Total jurisdictional schemes revenue	30,363

Source: Powercor

#### 3.3.3 Charging parameters

Our jurisdictional scheme recovery tariffs are included in the bundled NUoS rates. The charging parameters associated with jurisdictional scheme cost recovery tariffs are shown in section A of this pricing proposal.

Jurisdictional scheme cost recovery charges are billed at the same frequency as the relevant tariff for standard control services.

### **3.4 Indicative prices for 2018–2020**

The indicative pricing levels for 2018–2020 are shown in section A.2 of this pricing proposal. The actual level of our charges will depend on the total allowable revenue of that regulatory year.

# Alternative control services **4**



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# 4 Alternative control services

Alternative control services can be broadly divided into:

- metering services;
- public lighting services; and
- ancillary alternative control services which includes both fee-based and quoted charges.

## 4.1 Tariff classes

Our metering tariff classes are:

- single phase meter;
- three phase direct connected meter; and
- three phase CT connected meter.

We have constituted a single separate tariff class named 'public lighting alternative control services'.

We have constituted a single separate tariff class named 'ancillary alternative control services'. This single tariff class has been defined to encompass all fee-based and quoted services.

## 4.2 Stand alone and avoidable costs of alternative control services

Clause 6.18.5(e) of the Rules requires the revenue of each tariff class to lie on or between the stand-alone and avoidable costs of serving the customers in the tariff class.

The 'bottom-up' methodology, used to determine the costs of alternative control services in respect of each of the tariffs, reflects the recovery of expected costs to provide a uniform service. The recovery consists entirely of variable costs. This methodology therefore delivers revenue from the alternative control services tariff class that reflects the cost that would be avoided by not serving those customers.

Furthermore, given that alternative control services customers are subject to variable services, stand-alone costs have been assessed as being equal to the revenue from the alternative control services metering services tariff class.

Our alternative control services class therefore meets the requirements of clause 6.18.5(e) of the Rules.

## 4.3 Long run marginal costs and revenue recovery

Clause 6.18.5(f) of the Rules requires each charging parameter for a tariff class to take into account the LRMC of providing that service.

The non-public lighting alternative control services are entirely related to operating and maintenance costs, i.e. the price signalling reflects the short term expenditure incurred in providing the service. In essence there are no long run costs associated with the provision of these services. Additionally, the charges have been developed using a bottom-up methodology which reflects the actual costs of providing the service, therefore the revenue directly reflects the costs of providing such services. This satisfies the requirement to reflect the LRMC of providing the service.

The tariffs for alternative control services were determined having regard to the variable transaction costs associated with the services relevant to each tariff. As noted by the AER in the final determination, we created tariffs to ensure that the tariffs relevant to customers most likely to respond to price signals are explicitly cost reflective.

Thus the requirements of clause 6.18.3(d)(2) and 6,18.5(f) of the Rules have been satisfied.

Our alternative control services each have a single charging parameter that recovers the whole of the expected revenue. As a consequence, clause 6.18.7(d) of the Rules is not applicable.

## 4.4 Compliance with the AER determination

In accordance with the final decision made by the AER under clause 6.12.1(13) of the Rules, we have demonstrated compliance with the control mechanism for alternative control services by providing, as part of this pricing proposal, the proposed tariffs that correspond to the price terms contained in the control mechanism equation.

The control mechanism equation applicable to our alternative control services tariff class for the next regulatory control period is set out in attachment 16 of the AER’s final decision. Appendix B sets out the alternative control services tariffs.

Clause 6.18.2(b)(5) of the Rules seeks advice on the nature of any adjustments to the tariffs during the course of the regulatory year. The structure of the tariffs disclosed in appendix B has been set for the 2016-2020 regulatory control period and we do not expect this structure to change. However, each year as part of the Annual Pricing Proposal, tariffs are adjusted by an X factor and CPI which was approved by the AER in its final decision. Adjustments outside of those determined in the final decision are not expected during the regulatory period.

### 4.4.1 Ancillary services form of control formulas

The form of control formulas for ancillary services set out in the final decision are reproduced below:

Table 4.1 Ancillary services form of control formulas

Ancillary services	Form of control formula
Fee based	$\bar{p}_t^i \geq p_t^i \quad i=1, \dots, n \text{ and } t=2,3,4,5$ $\bar{p}_t^i = \bar{p}_{t-1}^i(1 + CPI_t)(1 - X_t^i)$
Quoted services	Price = Labour + Contractor Services + Materials

Source: AER

Where:

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

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

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

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

$X_t^i$  is the X factor for service i in year t set in Table 4.2.

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  $(1 + \Delta CPI_t)(1 - X_t)$

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. Directs costs incurred are pass 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

**Table 4.2 AER final decision on X factors for each year of the 2016-2020 regulatory control period (percent)**

Year	2017	2018	2019	2020
X factor	4.68%	0.0%	-1.3%	-2.60%

Source: AER

#### 4.4.2 Metering form of control formulas

The form of control formulas for metering set out in the final decision are reproduced below:

**Table 4.3 Metering form of control formula**

Metering	Form control formula
Annual metering charges revenue cap formula	$TARM_t \geq \sum_{i=1}^n \sum_{j=1}^m p_t^{ij} q_t^{ij}$ $i=1,\dots,n \text{ and } j=1, m \text{ and } t=1,\dots,5$
	$TARM_t = AR_t + T_t + B_t \quad t=1,2,\dots,5$
	$AR_t = AR_{t-1}(1 + \Delta CPI_t)(1 - X_t) \quad t=1,2,\dots,5$

Source: AER

$TARM_t$  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 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.

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

**Table 4.4 Metering revenue criteria summary**

Criterion	2017 value (\$,000)
$AR_{t-1}$	79,145
$\Delta CPI_t$	1.02%
$X_t$	10.96%
$AR_t = AR_{t-1}(1 + \Delta CPI_t)(1 - X_t)$	71,192
$T_t$	0
$B_t$	1,833
$TARM_t = AR_t + T_t + B_t$	73,025

Source: Powercor

Metering prices are shown in table B.2 of section B.

## 4.5 Metering tariff class side constraints

The side constraint formula the AER has determined for us to apply to our metering services is reproduced below.

**Table 4.5 Metering tariff class side constraints**

Side constraints
$p_t^i \leq p_{t-1}^i(1 + \Delta CPI_t)(1 - X_t^i)(1 + 2\%) + T_t' + B_t'$

Source: AER

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 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.

- $X_t$  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 of Attachment 16 of the final decision.

**Table 4.6 Metering side constraint summary**

Criterion	2017 value
$\Delta CPI_t$	1.02%
$X_t$	0.00%
$T'_t$	0.00%
$B'_t$	2.33%
Side constraint $(1 + \Delta CPI_t)(1 - X_t^i)(1 + 2\%) + T'_t + B'_t$	5.38%

Source: Powercor

## 4.6 Public lighting operation, maintenance and replacement

The control mechanism for public lighting was implemented through a public lighting model under a building block approach. We have submitted our public lighting operation, maintenance and replacement (**OM&R**) prices in accordance with the AER’s final decision. Public lighting 2017 prices are shown in table B.6 of section B.

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# Standard control services tariffs **A**



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# A Standard control services tariffs

## A.1 Tariff schedules

Table A.1 Network (NUoS) Tariff 2017

Network Tariff 2017	Code	Available to new customers?	Fixed \$ pa	Demand Charges			Usage			Summer Time of Use Tariffs			Non-Summer Time of Use Tariffs		
				Jan-Dec	Dec-Mar	Apr-Nov	Anytime	Peak	Off-peak	Pk	Sh	Opk	Pk	Sh	Opk
				\$/kVA pa	\$/kW/month	\$/kW/month	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh
Residential Single Rate	D1	Yes	125	-	-	-	7.64	-	-	-	-	-	-	-	-
Climate Saver	D1CS	No	-	-	-	-	-	10.67	2.46	-	-	-	-	-	-
Climate Saver Interval	D3CS	No	-	-	-	-	-	10.67	2.46	-	-	-	-	-	-
Residential - Flexible Pricing	P13R	Yes	125	-	-	-	-	-	-	13.72	7.94	3.32	13.72	7.94	3.32
Residential Docklands - Flexible Pricing	P13RDK	Yes	125	-	-	-	-	-	-	7.58	4.33	1.73	7.58	4.33	1.73
Climate Saver - Flexible Pricing	P13RCS	No	-	-	-	-	-	-	-	10.67	-	-	2.46	-	-
Docklands single rate	P1DK	Yes	125	-	-	-	7.00	-	-	-	-	-	-	-	-
Residential Two Rate 5d	D2	No	125	-	-	-	-	13.13	2.79	-	-	-	-	-	-
Docklands Two Rate 5d	D2DK	No	125	-	-	-	-	12.31	2.46	-	-	-	-	-	-
Residential Interval	D3	No	125	-	-	-	-	13.13	2.79	-	-	-	-	-	-
Residential Two Rate 5d - controlled load	D2OP	Yes	-	-	-	-	-	-	2.46	-	-	-	-	-	-
Docklands Two Rate 5d - controlled load	D2DKOP	Yes	-	-	-	-	-	-	2.46	-	-	-	-	-	-
Dedicated circuit	DD1	Yes	-	-	-	-	-	-	2.46	-	-	-	-	-	-
Hot Water Interval	D3HW	Yes	-	-	-	-	-	-	2.46	-	-	-	-	-	-
Residential Demand	DD	Yes	125	-	10.61	3.54	3.58	-	-	-	-	-	-	-	-
Non-Residential Single Rate	ND1	Yes	160	-	-	-	8.30	-	-	-	-	-	-	-	-
Non-Residential Flexible Pricing	P14G	No	160	-	-	-	-	-	-	13.24	4.39	3.44	13.24	4.39	3.44
Non-Residential Two Rate 5d	ND2	No	160	-	-	-	-	13.40	3.30	-	-	-	-	-	-
Non-Residential Interval	ND5	No	160	-	-	-	-	13.40	3.30	-	-	-	-	-	-
Non-Residential Two Rate 7d	ND3	No	160	-	-	-	-	11.85	3.30	-	-	-	-	-	-
Non-Residential Demand	NDD	Yes	160	-	14.03	4.68	4.13	-	-	-	-	-	-	-	-
Medium business	NDM	Yes	900	-	-	-	-	10.98	4.61	-	-	-	-	-	-
Public Lighting	PL2	No	-	-	-	-	-	15.35	4.62	-	-	-	-	-	-
Large low Voltage	LLV	Yes	7,749	108.49	-	-	-	4.22	2.24	-	-	-	-	-	-
High Voltage	HV	Yes	44,000	91.52	-	-	-	2.55	0.97	-	-	-	-	-	-
High Voltage Docklands	HVD	Yes	35,200	74.80	-	-	-	2.02	0.79	-	-	-	-	-	-
Subtransmission	ST	Yes	238,000	23.80	-	-	-	2.55	0.77	-	-	-	-	-	-

Source: Powercor

<sup>1</sup> customers must already be on the equivalent primary tariff

**Table A.2 Distribution (DUoS) Tariff 2017**

Distribution Tariff 2017	Code	Available to new customers?	Fixed \$ pa	Demand Charges			Usage			Summer Time of Use Tariffs			Non-Summer Time of Use Tariffs		
				Jan-Dec	Dec-Mar	Apr-Nov	Anytime	Peak	Off-peak	Pk	Sh	Opk	Pk	Sh	Opk
				\$/kVA pa	\$/kW/month	\$/kW/month	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh
Residential Single Rate	D1	Yes	125	-	-	-	5.39	-	-	-	-	-	-	-	-
Climate Saver	D1CS	No	-	-	-	-	-	7.65	1.53	-	-	-	-	-	-
Climate Saver Interval	D3CS	No	-	-	-	-	-	7.65	1.53	-	-	-	-	-	-
Residential - Flexible Pricing	P13R	Yes	125	-	-	-	-	-	-	9.92	5.62	2.18	9.92	5.62	2.18
Residential Docklands - Flexible Pricing	P13RDK	Yes	125	-	-	-	-	-	-	5.35	2.93	0.99	5.35	2.93	0.99
Climate Saver - Flexible Pricing	P13RCS	No	-	-	-	-	-	-	-	7.65	-	-	1.53	-	-
Docklands single rate	P1DK	Yes	125	-	-	-	4.92	-	-	-	-	-	-	-	-
Residential Two Rate 5d	D2	No	125	-	-	-	-	9.48	1.78	-	-	-	-	-	-
Docklands Two Rate 5d	D2DK	No	125	-	-	-	-	8.87	1.53	-	-	-	-	-	-
Residential Interval	D3	No	125	-	-	-	-	9.48	1.78	-	-	-	-	-	-
Residential Two Rate 5d - controlled load	D2OP	Yes	-	-	-	-	-	-	1.53	-	-	-	-	-	-
Docklands Two Rate 5d - controlled load	D2DKOP	Yes	-	-	-	-	-	-	1.53	-	-	-	-	-	-
Dedicated circuit	DD1	Yes	-	-	-	-	-	-	1.53	-	-	-	-	-	-
Hot Water Interval	D3HW	Yes	-	-	-	-	-	-	1.53	-	-	-	-	-	-
Residential Demand	DD	Yes	125	-	7.90	2.63	2.37	-	-	-	-	-	-	-	-
Non-Residential Single Rate	ND1	Yes	160	-	-	-	6.65	-	-	-	-	-	-	-	-
Non-Residential Flexible Pricing	P14G	No	160	-	-	-	-	-	-	10.80	3.36	2.56	10.80	3.36	2.56
Non-Residential Two Rate 5d	ND2	No	160	-	-	-	-	10.93	2.45	-	-	-	-	-	-
Non-Residential Interval	ND5	No	160	-	-	-	-	10.93	2.45	-	-	-	-	-	-
Non-Residential Two Rate 7d	ND3	No	160	-	-	-	-	9.63	2.45	-	-	-	-	-	-
Non-Residential Demand	NDD	Yes	160	-	11.79	3.93	3.14	-	-	-	-	-	-	-	-
Medium business	NDM	Yes	900	-	-	-	-	8.90	3.55	-	-	-	-	-	-
Public Lighting	PL2	No	-	-	-	-	-	12.57	3.55	-	-	-	-	-	-
Large low Voltage	LLV	Yes	7,749	85.16	-	-	-	3.02	1.47	-	-	-	-	-	-
High Voltage	HV	Yes	44,000	56.28	-	-	-	1.57	0.60	-	-	-	-	-	-
High Voltage Docklands	HVD	Yes	35,200	46.00	-	-	-	1.24	0.49	-	-	-	-	-	-
Subtransmission	ST	Yes	238,000	4.57	-	-	-	0.49	0.15	-	-	-	-	-	-

Source: Powercor

<sup>1</sup> customers must already be on the equivalent primary tariff

**Table A.3 Transmission (TUoS) Tariff 2017**

Transmission Tariff 2017	Code	Available to new customers?	Fixed	Demand Charges			Usage			Summer Time of Use Tariffs			Non-Summer Time of Use Tariffs		
				Jan-Dec	Dec-Mar	Apr-Nov	Anytime	Peak	Off-peak	Pk	Sh	Opk	Pk	Sh	Opk
				\$ pa	\$/kVA pa	\$/kW/month	\$/kW/month	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh
Residential Single Rate	D1	Yes		-	-	-	1.85	-	-	-	-	-	-	-	-
Climate Saver	D1CS	No		-	-	-	-	2.62	0.53	-	-	-	-	-	-
Climate Saver Interval	D3CS	No		-	-	-	-	2.62	0.53	-	-	-	-	-	-
Residential - Flexible Pricing	P13R	Yes		-	-	-	-	-	-	3.40	1.92	0.74	3.40	1.92	0.74
Residential Docklands - Flexible Pricing	P13RDK	Yes		-	-	-	-	-	-	1.83	1.00	0.34	1.83	1.00	0.34
Climate Saver - Flexible Pricing	P13RCS	No		-	-	-	-	-	-	2.62	-	-	0.53	-	-
Docklands single rate	P1DK	Yes		-	-	-	1.68	-	-	-	-	-	-	-	-
Residential Two Rate 5d	D2	No		-	-	-	-	3.25	0.61	-	-	-	-	-	-
Docklands Two Rate 5d	D2DK	No		-	-	-	-	3.04	0.53	-	-	-	-	-	-
Residential Interval	D3	No		-	-	-	-	3.25	0.61	-	-	-	-	-	-
Residential Two Rate 5d - controlled load	D2OP	Yes		-	-	-	-	-	0.53	-	-	-	-	-	-
Docklands Two Rate 5d - controlled load	D2DKOP	Yes		-	-	-	-	-	0.53	-	-	-	-	-	-
Dedicated circuit	DD1	Yes		-	-	-	-	-	0.53	-	-	-	-	-	-
Hot Water Interval	D3HW	Yes		-	-	-	-	-	0.53	-	-	-	-	-	-
Residential Demand	DD	Yes		-	2.70	0.90	0.81	-	-	-	-	-	-	-	-
Non-Residential Single Rate	ND1	Yes		-	-	-	1.26	-	-	-	-	-	-	-	-
Non-Residential Flexible Pricing	P14G	No		-	-	-	-	-	-	2.05	0.64	0.49	2.05	0.64	0.49
Non-Residential Two Rate 5d	ND2	No		-	-	-	-	2.08	0.46	-	-	-	-	-	-
Non-Residential Interval	ND5	No		-	-	-	-	2.08	0.46	-	-	-	-	-	-
Non-Residential Two Rate 7d	ND3	No		-	-	-	-	1.83	0.46	-	-	-	-	-	-
Non-Residential Demand	NDD	Yes		-	2.24	0.75	0.60	-	-	-	-	-	-	-	-
Medium business	NDM	Yes		-	-	-	-	1.69	0.67	-	-	-	-	-	-
Public Lighting	PL2	No		-	-	-	-	2.39	0.68	-	-	-	-	-	-
Large low Voltage	LLV	Yes		23.33	-	-	-	0.83	0.40	-	-	-	-	-	-
High Voltage	HV	Yes		35.24	-	-	-	0.98	0.37	-	-	-	-	-	-
High Voltage Docklands	HVD	Yes		28.80	-	-	-	0.78	0.30	-	-	-	-	-	-
Subtransmission	ST	Yes		19.23	-	-	-	2.06	0.62	-	-	-	-	-	-

Source: Powercor

<sup>1</sup> customers must already be on the equivalent primary tariff

Table A.4 Jurisdictional Scheme (JUoS) Tariff 2017

Jurisdictional Tariff 2017	Code	Available to new customers?	Fixed \$ pa	Demand Charges			Usage			Summer Time of Use Tariffs			Non-Summer Time of Use Tariffs		
				Jan-Dec \$/kVA pa	Dec-Mar \$/kW/month	Apr-Nov \$/kW/month	Anytime c/kWh	Peak c/kWh	Off-peak c/kWh	Pk c/kWh	Sh c/kWh	Opk c/kWh	Pk c/kWh	Sh c/kWh	Opk c/kWh
Residential Single Rate	D1	Yes				0.40	-	-	-	-	-	-	-	-	-
Climate Saver	D1CS	No				-	0.40	0.40	-	-	-	-	-	-	-
Climate Saver Interval	D3CS	No				-	0.40	0.40	-	-	-	-	-	-	-
Residential - Flexible Pricing	P13R	Yes				-	-	-	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Residential Docklands - Flexible Pricing	P13RDK	Yes				-	-	-	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Climate Saver - Flexible Pricing	P13RCS	No				-	-	-	0.40	-	-	0.40	-	-	-
Docklands single rate	P1DK	Yes				0.40	-	-	-	-	-	-	-	-	-
Residential Two Rate 5d	D2	No				-	0.40	0.40	-	-	-	-	-	-	-
Docklands Two Rate 5d	D2DK	No				-	0.40	0.40	-	-	-	-	-	-	-
Residential Interval	D3	No				-	0.40	0.40	-	-	-	-	-	-	-
Residential Two Rate 5d - controlled load	D2OP	Yes				-	-	0.40	-	-	-	-	-	-	-
Docklands Two Rate 5d - controlled load	D2DKOP	Yes				-	-	0.40	-	-	-	-	-	-	-
Dedicated circuit	DD1	Yes				-	-	0.40	-	-	-	-	-	-	-
Hot Water Interval	D3HW	Yes				-	-	0.40	-	-	-	-	-	-	-
Residential Demand	DD	Yes				0.40	-	-	-	-	-	-	-	-	-
Non-Residential Single Rate	ND1	Yes				0.39	-	-	-	-	-	-	-	-	-
Non-Residential Flexible Pricing	P14G	No				-	-	-	0.39	0.39	0.39	0.39	0.39	0.39	0.39
Non-Residential Two Rate 5d	ND2	No				-	0.39	0.39	-	-	-	-	-	-	-
Non-Residential Interval	ND5	No				-	0.39	0.39	-	-	-	-	-	-	-
Non-Residential Two Rate 7d	ND3	No				-	0.39	0.39	-	-	-	-	-	-	-
Non-Residential Demand	NDD	Yes				0.39	-	-	-	-	-	-	-	-	-
Medium business	NDM	Yes				-	0.39	0.39	-	-	-	-	-	-	-
Public Lighting	PL2	No				-	0.39	0.39	-	-	-	-	-	-	-
Large low Voltage	LLV	Yes				-	0.37	0.37	-	-	-	-	-	-	-
High Voltage	HV	Yes													
High Voltage Docklands	HVD	Yes													
Subtransmission	ST	Yes													

Source: Powercor

<sup>1</sup> customers must already be on the equivalent primary tariff

## A.2 Indicative pricing schedules for network tariffs (NUOS)

Table A.5 2018 NUoS tariffs

Network Tariff 2018	Available to new customers?	Fixed \$ pa	Demand Charges			Usage			Summer Time of Use Tariffs			Non-Summer Time of Use Tariffs		
			Jan-Dec \$/kVA pa	Dec-Mar \$/kW/mth	Apr-Nov \$/kW/mth	Anytime c/kWh	Peak c/kWh	Off-peak c/kWh	Pk c/kWh	Sh c/kWh	Opk c/kWh	Pk c/kWh	Sh c/kWh	Opk c/kWh
Residential Single Rate	Yes	135	-	-	-	7.95	-	-	-	-	-	-	-	-
Climate Saver	No	-	-	-	-	-	11.10	2.56	-	-	-	-	-	-
Climate Saver Interval	No	-	-	-	-	-	11.10	2.56	-	-	-	-	-	-
Residential - Flexible Pricing	Yes	135	-	-	-	-	-	-	14.27	8.26	3.45	14.27	8.26	3.45
Residential Docklands - Flexible Pricing	Yes	135	-	-	-	-	-	-	7.88	4.50	1.80	7.88	4.50	1.80
Climate Saver - Flexible Pricing	No	-	-	-	-	-	-	-	11.10	-	-	2.56	-	-
Docklands single rate	Yes	135	-	-	-	7.28	-	-	-	-	-	-	-	-
Residential Two Rate 5d	No	135	-	-	-	-	13.66	2.90	-	-	-	-	-	-
Docklands Two Rate 5d	No	135	-	-	-	-	12.80	2.56	-	-	-	-	-	-
Residential Interval	No	135	-	-	-	-	13.66	2.90	-	-	-	-	-	-
Residential Two Rate 5d - controlled load	Yes	-	-	-	-	-	-	2.56	-	-	-	-	-	-
Docklands Two Rate 5d - controlled load	Yes	-	-	-	-	-	-	2.56	-	-	-	-	-	-
Dedicated circuit	Yes	-	-	-	-	-	-	2.56	-	-	-	-	-	-
Hot Water Interval	Yes	-	-	-	-	-	-	2.56	-	-	-	-	-	-
Residential Demand	Yes	135	-	11.03	3.68	3.72	-	-	-	-	-	-	-	-
Non-Residential Single Rate	Yes	170	-	-	-	8.63	-	-	-	-	-	-	-	-
Non-Residential Flexible Pricing	No	170	-	-	-	-	-	-	13.77	4.57	3.58	13.77	4.57	3.58
Non-Residential Two Rate 5d	No	170	-	-	-	-	13.94	3.43	-	-	-	-	-	-
Non-Residential Interval	No	170	-	-	-	-	13.94	3.43	-	-	-	-	-	-
Non-Residential Two Rate 7d	No	170	-	-	-	-	12.32	3.43	-	-	-	-	-	-
Non-Residential Demand	Yes	170	-	14.59	4.86	4.30	-	-	-	-	-	-	-	-
Medium business	Yes	936	-	7.29	2.43	-	8.11	4.79	-	-	-	-	-	-
Public Lighting	No	-	-	-	-	-	15.96	4.80	-	-	-	-	-	-
Large low Voltage	Yes	8,100	112.83	-	-	-	4.39	2.33	-	-	-	-	-	-
High Voltage	Yes	45,800	95.18	-	-	-	2.65	1.01	-	-	-	-	-	-
High Voltage Docklands	Yes	36,600	77.79	-	-	-	2.10	0.82	-	-	-	-	-	-
Subtransmission	Yes	247,500	24.75	-	-	-	2.65	0.80	-	-	-	-	-	-

Source: Powercor

Table A.6 2019 NUoS tariffs

Network Tariff 2019	Available to new customers?	Fixed \$ pa	Demand Charges			Usage			Summer Time of Use Tariffs			Non-Summer Time of Use Tariffs		
			Jan-Dec \$/kVA pa	Dec-Mar \$/kW/month	Apr-Nov \$/kW/month	Anytime c/kWh	Peak c/kWh	Off-peak c/kWh	Pk c/kWh	Sh c/kWh	Opk c/kWh	Pk c/kWh	Sh c/kWh	Opk c/kWh
Residential Single Rate	Yes	145	-	-	-	8.26	-	-	-	-	-	-	-	-
Climate Saver	No	-	-	-	-	-	11.54	2.66	-	-	-	-	-	-
Climate Saver Interval	No	-	-	-	-	-	11.54	2.66	-	-	-	-	-	-
Residential - Flexible Pricing	Yes	145	-	-	-	-	-	-	14.84	8.59	3.59	14.84	8.59	3.59
Residential Docklands - Flexible Pricing	Yes	145	-	-	-	-	-	-	8.20	4.68	1.87	8.20	4.68	1.87
Climate Saver - Flexible Pricing	No	-	-	-	-	-	-	-	11.54	-	-	2.66	-	-
Docklands single rate	Yes	145	-	-	-	7.57	-	-	-	-	-	-	-	-
Residential Two Rate 5d	No	145	-	-	-	-	14.20	3.02	-	-	-	-	-	-
Docklands Two Rate 5d	No	145	-	-	-	-	13.31	2.66	-	-	-	-	-	-
Residential Interval	No	145	-	-	-	-	14.20	3.02	-	-	-	-	-	-
Residential Two Rate 5d - controlled load	Yes	-	-	-	-	-	-	2.66	-	-	-	-	-	-
Docklands Two Rate 5d - controlled load	Yes	-	-	-	-	-	-	2.66	-	-	-	-	-	-
Dedicated circuit	Yes	-	-	-	-	-	-	2.66	-	-	-	-	-	-
Hot Water Interval	Yes	-	-	-	-	-	-	2.66	-	-	-	-	-	-
Residential Demand	Yes	145	-	11.47	3.82	3.87	-	-	-	-	-	-	-	-
Non-Residential Single Rate	Yes	180	-	-	-	8.98	-	-	-	-	-	-	-	-
Non-Residential Flexible Pricing	No	180	-	-	-	-	-	-	14.32	4.75	3.72	14.32	4.75	3.72
Non-Residential Two Rate 5d	No	180	-	-	-	-	14.49	3.57	-	-	-	-	-	-
Non-Residential Interval	No	180	-	-	-	-	14.49	3.57	-	-	-	-	-	-
Non-Residential Two Rate 7d	No	180	-	-	-	-	12.82	3.57	-	-	-	-	-	-
Non-Residential Demand	Yes	180	-	15.17	5.06	4.47	-	-	-	-	-	-	-	-
Medium business	Yes	1,350	-	15.17	5.06	-	4.99	4.99	-	-	-	-	-	-
Public Lighting	No	-	-	-	-	-	16.60	5.00	-	-	-	-	-	-
Large low Voltage	Yes	8,400	117.34	-	-	-	4.56	2.42	-	-	-	-	-	-
High Voltage	Yes	47,600	98.99	-	-	-	2.76	1.05	-	-	-	-	-	-
High Voltage Docklands	Yes	38,100	80.90	-	-	-	2.18	0.85	-	-	-	-	-	-
Subtransmission	Yes	257,400	25.74	-	-	-	2.76	0.83	-	-	-	-	-	-

Source: Powercor

Table A.7 2020 NUoS tariffs

Network Tariff 2020	Available to new customers?	Fixed \$ pa	Demand Charges			Usage			Summer Time of Use Tariffs			Non-Summer Time of Use Tariffs		
			Jan-Dec \$/kVA pa	Dec-Mar \$/kW/month	Apr-Nov \$/kW/month	Anytime c/kWh	Peak c/kWh	Off-peak c/kWh	Pk c/kWh	Sh c/kWh	Opk c/kWh	Pk c/kWh	Sh c/kWh	Opk c/kWh
Residential Single Rate	Yes	155	-	-	-	8.59	-	-	-	-	-	-	-	-
Climate Saver	No	-	-	-	-	-	12.00	2.77	-	-	-	-	-	-
Climate Saver Interval	No	-	-	-	-	-	12.00	2.77	-	-	-	-	-	-
Residential - Flexible Pricing	Yes	155	-	-	-	-	-	-	15.43	8.93	3.73	15.43	8.93	3.73
Residential Docklands - Flexible Pricing	Yes	155	-	-	-	-	-	-	8.53	4.87	1.95	8.53	4.87	1.95
Climate Saver - Flexible Pricing	No	-	-	-	-	-	-	-	12.00	-	-	2.77	-	-
Docklands single rate	Yes	155	-	-	-	7.87	-	-	-	-	-	-	-	-
Residential Two Rate 5d	No	155	-	-	-	-	14.77	3.14	-	-	-	-	-	-
Docklands Two Rate 5d	No	155	-	-	-	-	13.85	2.77	-	-	-	-	-	-
Residential Interval	No	155	-	-	-	-	14.77	3.14	-	-	-	-	-	-
Residential Two Rate 5d - controlled load	Yes	-	-	-	-	-	-	2.77	-	-	-	-	-	-
Docklands Two Rate 5d - controlled load	Yes	-	-	-	-	-	-	2.77	-	-	-	-	-	-
Dedicated circuit	Yes	-	-	-	-	-	-	2.77	-	-	-	-	-	-
Hot Water Interval	Yes	-	-	-	-	-	-	2.77	-	-	-	-	-	-
Residential Demand	Yes	155	-	11.93	3.98	4.03	-	-	-	-	-	-	-	-
Non-Residential Single Rate	Yes	190	-	-	-	9.34	-	-	-	-	-	-	-	-
Non-Residential Flexible Pricing	No	190	-	-	-	-	-	-	14.89	4.94	3.87	14.89	4.94	3.87
Non-Residential Two Rate 5d	No	190	-	-	-	-	15.07	3.71	-	-	-	-	-	-
Non-Residential Interval	No	190	-	-	-	-	15.07	3.71	-	-	-	-	-	-
Non-Residential Two Rate 7d	No	190	-	-	-	-	13.33	3.71	-	-	-	-	-	-
Non-Residential Demand	Yes	190	-	15.78	5.26	4.65	-	-	-	-	-	-	-	-
Medium business	Yes	1,360	-	15.78	5.26	-	5.19	5.19	-	-	-	-	-	-
Public Lighting	No	-	-	-	-	-	17.27	5.20	-	-	-	-	-	-
Large low Voltage	Yes	8,700	122.04	-	-	-	4.75	2.52	-	-	-	-	-	-
High Voltage	Yes	49,500	102.95	-	-	-	2.87	1.09	-	-	-	-	-	-
High Voltage Docklands	Yes	39,600	84.14	-	-	-	2.27	0.89	-	-	-	-	-	-
Subtransmission	Yes	267,700	26.77	-	-	-	2.87	0.87	-	-	-	-	-	-

Source: Powercor

## A.3 Tariff eligibility

### A.3.1 Tariffs available to new and existing customers in 2017

All times are in Eastern Standard Times unless otherwise specified.

Table A.8 Tariffs available to new and existing customers in 2017

Tariff code	Tariff description	Supply voltage (V) <sup>4</sup>	Supply capacity (kW) <sup>5</sup>	Demand	Peak periods	Shoulder periods	Off peak periods	Eligible customers
<b>Embedded generation</b>								
GENR13	Embedded generation	N/A	N/A	N/A	7 days, 24 hrs	N/A	N/A	<ul style="list-style-type: none"> <li>Must have an interval meter</li> <li>May be required for Feed-In tariffs (FIT), refer to retailer for details</li> </ul>
<b>Low voltage residential tariff class</b>								
D1	Residential single rate	<1,000	<120	N/A	7 days, 24 hrs	N/A	N/A	<ul style="list-style-type: none"> <li>This is the default tariff for greenfield new connections not located in the Docklands where the retailer does not specify an alternative open tariff</li> </ul>
P1DK	Residential single rate - Docklands	<1,000	<120	N/A	7 days, 24 hours	N/A	N/A	<ul style="list-style-type: none"> <li>1-phase residential customers connected in the Docklands area</li> <li>This is the default tariff for greenfield new connections in the Docklands area where the retailer does not specify an alternative open tariff</li> </ul>
P13R	Flexible pricing - residential	<1,000	<120	N/A	Mon-Fri 1500-2100	Mon-Fri 0700-1500 Mon-Fri 2100-2200 Sat-Sun 0700-2200	Mon-Sun 2200-0700	<ul style="list-style-type: none"> <li>Residential customers not connected in Docklands area.</li> <li>Requires an active market interval read meter</li> <li>Times are in local time.</li> </ul>

<sup>4</sup> The supply voltage is the first minimum criteria a customer must satisfy to be eligible for each tariff. Where a customer requests to transfer from a capacity based tariff to an energy based tariff and the customer is capable of a greater supply capacity than the energy based tariff allows for, then a supply capacity control device is to be installed by the customer before the tariff reassignment can occur.

<sup>5</sup> Connection capacity is the determining factor in tariff selection not actual capacity

Tariff code	Tariff description	Supply voltage (V) <sup>4</sup>	Supply capacity (kW) <sup>5</sup>	Demand	Peak periods	Shoulder periods	Off peak periods	Eligible customers
P13RDK	Flexible pricing – residential - Docklands	<1,000	<120	N/A	Mon-Fri 1500-2100	Mon-Fri 0700-1500  Mon-Fri 2100-2200  Sat-Sun 0700-2200	Mon-Sun 2200-0700	<ul style="list-style-type: none"> <li>Residential customers connected in the Docklands area</li> <li>Requires an active market interval read meter</li> <li>Times are in local time</li> </ul>
DD	Residential Demand Tariff	<1,000	<120	Summer: Dec – Mar  Non-summer: Apr - Nov  Mon-Fri (excl. public holidays) 1500-2100	7 days, 24 hrs	N/A	N/A	<ul style="list-style-type: none"> <li>Requires an active market interval read meter</li> <li>Times are in local time</li> </ul>
D3HW	Hot Water Interval	<1,000	<120	N/A	N/A	N/A	7 days	<ul style="list-style-type: none"> <li>Available from 1 July 2016</li> <li>1-phase residential customers with supply on D3 (closed tariff) with dedicated circuit connected to a controlled load</li> <li>1-phase electric hot water service with a total load of &lt;30Amps.</li> </ul> <p><b>Switching Times:</b></p> <ul style="list-style-type: none"> <li>Any 7-day switching configuration (at Powercor’s discretion) providing a total of up to 8 hours supply daily between 2100-0700 only.</li> </ul>
D2DKOP	Docklands Two Rate 5d – controlled load	<1,000	<120	N/A	N/A	N/A	7 Days, 24 hours	<ul style="list-style-type: none"> <li>Available from 1 July 2016</li> <li>Where GP&amp;L is connected to D2DK (closed tariff)</li> <li>Applicable to hot water only</li> <li>Where metering permits</li> <li>Existing customers connected in the Docklands area</li> <li>1-phase electric hot water service with a total load of &lt;30Amps.</li> </ul> <p><b>Switching Times:</b></p> <ul style="list-style-type: none"> <li>Typically switching times will occur between 11pm and 7am. These times may vary depending on localised demand management activities.</li> </ul>

Tariff code	Tariff description	Supply voltage (V) <sup>4</sup>	Supply capacity (kW) <sup>5</sup>	Demand	Peak periods	Shoulder periods	Off peak periods	Eligible customers
D2OP	Residential Two Rate 5d – controlled load	<1,000	<120	N/A	N/A	N/A	7 Days, 24 hours	<ul style="list-style-type: none"> <li>Available from 1 July 2016</li> <li>Where GP&amp;L is currently connected to D2 (closed tariff)</li> <li>Applicable to hot water only</li> <li>Where metering permits</li> <li>1-phase electric hot water service with a total load of &lt;30Amps.</li> </ul> <p><b>Switching Times:</b></p> <ul style="list-style-type: none"> <li>Typically switching times will occur between 11pm and 7am. These times may vary depending on localised demand management activities.</li> </ul>
DD1	Dedicated Circuit	<1,000	<120	N/A	N/A	N/A	7 days	<ul style="list-style-type: none"> <li>Residential customers with dedicated circuit connected to a controlled load</li> <li>Available from 1 July 2016</li> <li>1-phase electric hot water service with a total load of &lt;30Amps.</li> <li>Available to customers on a Residential single rate tariff and Residential demand tariff</li> </ul> <p><b>Switching Times:</b></p> <ul style="list-style-type: none"> <li>Typically switching times will occur between 11pm and 7am. These times may vary depending on localised demand management activities.</li> </ul> <p><b>Slab heating</b></p> <ul style="list-style-type: none"> <li>Typically switching times will vary depending on localised demand management activities.</li> <li>11pm and 7am.</li> <li>An afternoon boost between 1pm and 4pm may occur during winter.</li> </ul>
<b>Low voltage small business tariff class</b>								

Tariff code	Tariff description	Supply voltage (V) <sup>4</sup>	Supply capacity (kW) <sup>5</sup>	Demand	Peak periods	Shoulder periods	Off peak periods	Eligible customers
ND1	Non-residential single rate	<1,000	<120	N/A	7 days, 24 hrs	N/A	N/A	<ul style="list-style-type: none"> <li>Annual consumption &lt;60MWh</li> <li>Non-residential customers or</li> <li>Builder's temporary supplies</li> <li>No controlled load</li> </ul>
NDD	Non-Residential Demand Tariff	<1,000	<120	Summer: Dec – Mar Non-summer: Apr - Nov Mon-Fri (excl. public holidays) 1000-1800	7 days, 24 hrs	N/A	N/A	<ul style="list-style-type: none"> <li>Annual consumption &lt;60MWh</li> <li>Non-residential customers or</li> <li>Builder's temporary supplies</li> <li>Requires an active market interval read meter</li> <li>Times are in local time</li> </ul>
NDM	Medium business	<1,000	<120	Summer: Dec – Mar Non-summer: Apr - Nov Mon-Fri (excl. public holidays) 1000-1800	Mon-Fri (work days) 0700-2300	N/A	All other times	<ul style="list-style-type: none"> <li>Annual consumption &gt;60MWh</li> <li>Non-residential customers or</li> <li>Builder's temporary supplies</li> <li>Requires an active market interval read meter</li> <li>Times are in local time</li> </ul>

Tariff code	Tariff description	Supply voltage (V) <sup>4</sup>	Supply capacity (kW) <sup>5</sup>	Demand	Peak periods	Shoulder periods	Off peak periods	Eligible customers
DD1	Dedicated Circuit	<1,000	<120	N/A	N/A	N/A	7 days	<ul style="list-style-type: none"> <li>Non-residential customers with dedicated circuit connected to a controlled load</li> <li>1-phase electric hot water service with a total load of &lt;30Amps.</li> <li>Available from 1 July 2016</li> <li>Available to customers on a Non-Residential single rate tariff and Non-Residential demand tariff</li> </ul> <p><b>Switching Times:</b></p> <ul style="list-style-type: none"> <li>Typically switching times will occur between 11pm and 7am. These times may vary depending on localised demand management activities.</li> </ul> <p><b>Slab heating</b></p> <ul style="list-style-type: none"> <li>Typically switching times will vary depending on localised demand management activities.</li> <li>12am and 7am.</li> <li>An afternoon boost between 1pm and 4pm will occur during winter.</li> </ul>
PL2	Unmetered Supplies / Public Lighting	<1,000	N/A	N/A	Mon-Fri 0700-2300	N/A	Mon-Thurs 2300-0700 Fri 2300 - Mon 0700	<ul style="list-style-type: none"> <li>Customers with an approved unmetered load</li> <li>Public Lighting to a public lighting customer</li> <li>Note: New customer connections are required to install a load-limiting device</li> </ul>
<b>Large low voltage kVA demand tariff class</b>								
LLV	Large low voltage (kVA demand tariff)	<1,000	≥120	7 days, 24 hrs	Mon-Fri 0700 - 2300	N/A	All other times	<ul style="list-style-type: none"> <li>Billed demand is the maximum kVA over a 12 month rolling period</li> <li>Interval meter capable of recording E, Q, B, K data stream</li> </ul>
<b>High voltage kVA demand tariff class</b>								
HV	High voltage (kVA demand tariff)	≥1,000 and <66,000	N/A	7 days, 24 hrs	Mon-Fri 0700 - 2300	N/A	All other times	<ul style="list-style-type: none"> <li>Billed demand is the maximum kVA over a 12 month rolling period</li> <li>Interval meter capable of recording E, Q, B, K data stream</li> </ul>

Tariff code	Tariff description	Supply voltage (V) <sup>4</sup>	Supply capacity (kW) <sup>5</sup>	Demand	Peak periods	Shoulder periods	Off peak periods	Eligible customers
HVD	High Voltage Dockland ((kVA demand tariff)	≥1,000 and <66,000	N/A	7 days, 24 hrs	Mon-Fri 0700 - 2300	N/A	All other times	<ul style="list-style-type: none"> <li>High voltage customers connected to the Docklands Area Billed demand is the maximum kVA over a 12 month rolling period</li> <li>Interval meter capable of recording E, Q, B, K data stream</li> </ul>
<b>Sub-transmission kVA demand tariff class</b>								
ST	Sub-transmission (kVA demand tariff)	≥66,000	N/A		Mon-Fri 0700 - 2300	N/A	All other times	<ul style="list-style-type: none"> <li>Sub-transmission voltage customers</li> <li>Billed demand is the maximum kVA over a 12 month rolling period</li> <li>Interval meter capable of recording E, Q, B, K data stream</li> </ul>

Source: Powercor

### A.3.2 Tariffs only available to existing customers already assigned this tariff at 1 January 2017 (closed to new customers)

Table A.9 Tariffs only available to existing customers already assigned this tariff at 1 January 2017

Tariff code	Tariff description	Supply voltage (V) <sup>6</sup>	Min bill demand (kW) <sup>7</sup>	Peak periods	Shoulder periods	Off peak periods	Eligible customers	Allowed controlled loads
<b>Embedded generation</b>								
PFIT	Premium Feed-in tariff	N/A	N/A	7 days, 24 hrs	N/A	N/A	<ul style="list-style-type: none"> <li>• Must have a compliant meter</li> <li>• Produces electricity from a qualifying photo voltaic generation unit</li> <li>• Has a name-plate generation capacity &lt;= 5kW</li> <li>• Is not a part of an embedded network</li> <li>• Customers taking up this tariff will have their GP&amp;L load remain on its existing tariff unless otherwise advised by the retailer to move to an existing open tariff. If the customer has a controlled load hot water or slab heating then the customer will be automatically transferred to a ToU tariff</li> <li>• Must meet other legislative eligibility criteria<sup>8</sup></li> </ul>	<p><b>New or changed:</b> None</p> <p><b>Existing:</b> Must forfeit controlled load and climate saver</p>
GENR	Embedded generation (non PFIT or TFiT)	N/A	N/A	7 days, 24 hrs	N/A	N/A	<ul style="list-style-type: none"> <li>• Must have a compliant meter.</li> <li>• May be required for Feed-In tariffs, refer to your retailer for details</li> </ul>	
<b>Low voltage residential tariff class</b>								

<sup>6</sup> The supply voltage is the first minimum criteria a customer must satisfy to be eligible for each tariff. Where a customer requests to transfer from a capacity based tariff to an energy based tariff and the customer is capable of a greater supply capacity than the energy based tariff allows for, then a supply capacity control device is to be installed by the customer before the tariff reassignment can occur.

<sup>7</sup> Connection capacity is the determining factor in tariff selection not actual capacity

<sup>8</sup> Eligibility criteria as specified in the “Electricity Industry Amendment (Premium Solar Feed-in Tariff) Act 2009”

Tariff code	Tariff description	Supply voltage (V) <sup>6</sup>	Min bill demand (kW) <sup>7</sup>	Peak periods	Shoulder periods	Off peak periods	Eligible customers	Allowed controlled loads
D2	Residential Two Rate 5d	<1,000	<120	Mon-Fri 0700-2300	N/A	Mon-Thurs 2300-0700 Fri 2300 - Mon 0700	<ul style="list-style-type: none"> <li>Residential customers who requested a 2-rate tariff</li> <li>Existing customers only</li> </ul>	<p><b>Existing customers:</b></p> <ul style="list-style-type: none"> <li>1-phase electric hot water service with a total load of &lt;30Amps.</li> <li>Slab heating and Heat banks</li> </ul> <p><b>Changed customers:</b></p> <p>None</p>
P13RCS	Climate Saver	<1,000	<120	7 days, 24 hrs	N/A	N/A	<ul style="list-style-type: none"> <li>This tariff is “stapled” to the flexible pricing parent tariff P13R, the conditions applicable to P13R also apply to this tariff</li> <li>Must be on an existing Climate Saver tariff</li> <li>Existing residential customers only (non-docklands)</li> <li>Requires an active market interval read meter</li> <li>Residential customers with dedicated circuit connected to a reverse-cycle air-conditioning load</li> </ul> <p><b>Notes:</b> Dedicated circuit must include a primary reverse-cycle air-conditioner (RCAC) load with the following specification:</p> <ul style="list-style-type: none"> <li>must be split system and have a minimum output capacity of 4.0kW on the heating cycle</li> <li>must have a minimum 3 star rating according to the Australian Energy labelling program</li> </ul> <p>OR</p> <ul style="list-style-type: none"> <li>Ducted system or inverter technology system, regardless of star rating or whether they are a split system</li> <li>Provided primary RCAC meets requirements, any additional hard-wired RCAC or hard-wired electric heater may be connected to the dedicated circuit</li> </ul>	

Tariff code	Tariff description	Supply voltage (V) <sup>6</sup>	Min bill demand (kW) <sup>7</sup>	Peak periods	Shoulder periods	Off peak periods	Eligible customers	Allowed controlled loads
D2DK	Docklands Two Rate 5d	<1,000	<120	Mon-Fri 0700-2300	N/A	Mon-Thurs 2300-0700 Fri 2300 - Mon 0700	Existing 1-phase residential customers connected in the Docklands area.	N/A
D3	Residential	<1,000	<120	Mon-Fri 0700-2300	N/A	Mon-Thurs 2300-0700 Fri 2300 - Mon 0700	<ul style="list-style-type: none"> <li>Existing Residential customers not in Docklands area</li> </ul>	N/A
D1CS	ClimateSaver	<1,000	<120	01 Nov – 31 Mar	N/A	01 Apr – 31 Oct	<ul style="list-style-type: none"> <li>Existing customers only (non-docklands)</li> <li>Residential customers with dedicated circuit connected to a reverse-cycle air-conditioning load</li> </ul> <p><b>Notes:</b> Dedicated circuit must include a primary reverse-cycle air-conditioner (RCAC) load with the following specification:</p> <ul style="list-style-type: none"> <li>must be split system and have a minimum output capacity of 4.0kW on the heating cycle</li> <li>must have a minimum 3 star rating according to the Australian Energy labelling program</li> </ul> <p>OR</p> <ul style="list-style-type: none"> <li>Ducted system or inverter technology system, regardless of star rating or whether they are a split system</li> </ul> <p>Provided primary RCAC meets requirements, any additional hard-wired RCAC or hard-wired electric heater may be connected to the dedicated circuit</p>	N/A

Tariff code	Tariff description	Supply voltage (V) <sup>6</sup>	Min bill demand (kW) <sup>7</sup>	Peak periods	Shoulder periods	Off peak periods	Eligible customers	Allowed controlled loads
D3CS	Climate Saver Interval	<1,000	<120	01 Nov – 31 Mar	N/A	01 Apr – 31 Oct	<ul style="list-style-type: none"> <li>Existing customers only (non-docklands)</li> <li>Residential customers with GP&amp;L supply on D3 tariff with dedicated circuit connected to a reverse-cycle air-conditioning load</li> </ul> <p><b>Notes:</b> Dedicated circuit must include a primary reverse-cycle air-conditioner (RCAC) load with the following specification:</p> <ul style="list-style-type: none"> <li>must be split system and have a minimum output capacity of 4.0kW on the heating cycle</li> <li>must have a minimum 3 star rating according to the Australian Energy labelling program</li> </ul> <p>OR</p> <ul style="list-style-type: none"> <li>Ducted system or inverter technology system, regardless of star rating or whether they are a split system</li> </ul> <p>Provided primary RCAC meets requirements, any additional hard-wired RCAC or hard-wired electric heater may be connected to the dedicated circuit</p>	N/A
<b>Low voltage small business tariff class</b>								
ND2	Non-Residential Two Rate 5d	<1,000	<120	Mon-Fri 0700-2300	N/A	Mon-Thurs 2300-0700 Fri 2300 - Mon 0700	<ul style="list-style-type: none"> <li>Existing customers only</li> <li>Non residential customers with an annual consumption of &lt;60MWh</li> </ul>	<p><b>Existing customers:</b> 1-phase electric hot water service with a total load of &lt;30Amps.</p> <p><b>Changed customers:</b> None</p>
ND3	Non-Residential Two Rate 7d	<1,000	<120	Mon-Sun 0700-2300	N/A	Mon-Sun 2300-0700	<ul style="list-style-type: none"> <li>Existing customers only</li> <li>Non residential customers with an annual consumption of &lt;60MWh</li> </ul>	None
ND5	Non-Residential	<1,000	<120	Mon-Fri 0700-2300	N/A	Mon-Thurs 2300-0700 Fri 2300 - Mon 0700	<ul style="list-style-type: none"> <li>Existing customers only</li> <li>Non-residential customers not connected in Docklands area with an annual consumption of &lt;60MWh</li> <li>Builder's temporary supply</li> </ul>	None

Tariff code	Tariff description	Supply voltage (V) <sup>6</sup>	Min bill demand (kW) <sup>7</sup>	Peak periods	Shoulder periods	Off peak periods	Eligible customers	Allowed controlled loads
P14G	Non-residential	<1,000	<120	Mon-Fri 0700-1900	Sat-Sun 0700-1900	Mon-Sun 1900-0700	<ul style="list-style-type: none"> <li>Existing customers only</li> <li>Non residential customers with an annual consumption of &lt;60MWh</li> <li>Requires an AMI meter</li> <li>Times are in local time</li> </ul>	None

Source: Powercor

# Alternative control services tariffs **B**



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# B Alternative control service tariffs

Alternative control services are a set of activities provided by us that fall under a particular focus of regulation due to their monopoly or semi-monopoly nature.

Alternative control services are:

- ancillary network services;
- public lighting operating and maintenance services; and
- metering services.

We endeavour to perform all alternative control services within normal business hours however, if a circumstance arises where after hours activities are required, this work can only be undertaken where resources are available. The charge applicable will be based on the resource utilised. After hours work includes weekends and public holidays.

All prices are exclusive of GST.

Table B.1 Overview of hours

Hours of operation	Details
Business hours	8am-5pm Monday to Friday (excluding public holidays) <sup>9</sup>
After hours	All other times and only where resources are available <sup>10</sup>

Source: Powercor

The following sections list and describe the various charges classified as fee based and quoted alternative control services which apply throughout the electricity distribution area served by us.

## B.1 Ancillary network services

Ancillary network services are non-routine types of services which are provided to individual customers on an 'as needs' basis. Ancillary network services are divided into two subclasses:

- fee based; and
- quoted services.

### B.1.1 Fee based network ancillary services

Fee based services are relatively fixed in nature and charges are levied on a per activity basis.

#### De-energisation of existing connections

A disconnection (includes disconnections for non-payment (**DNP**)) charge applies when a request for fuses less than 100 amps by a field visit. The service requires that all supply assets remain at the customer's installation.

If at the time of disconnection it is discovered that the installation has been damaged or is defective and will be unsafe to energise if a future reconnection occurs, other charges may be applicable once the defect is repaired. These charges will be based on the nature of the works required.

<sup>9</sup> Times for De-energisation of existing connections and Re-energisation differ from these times

<sup>10</sup> Times for De-energisation of existing connections and Re-energisation differ from these times

In a normal instance a de-energisation is performed by a special reader. However, there are scenarios where a Service Truck Visit may be required in its place and accordingly a service truck visit charge will be applied.

Some examples where a truck or other resource may be required include:

- special reader resource is not available after hours and an alternative time is not acceptable to the customer;
- no access to distribution equipment - metering and main fuse, including a veranda restricting access to the main fuse;
- no isolation point, necessitating disconnection at the pole;
- multiple NMI's fused at a common isolation point;
- current transformer (CT) metered site;
- isolation point in restricted area – substation; or
- safety disconnection for non-prescribed electrical works.

Where the request for disconnection is received by us before 3pm, the disconnection will occur within 2 business days or the earliest permissible day thereafter.

### **Re-energisation**

A re-energisation charge when a request is received to re-energise a supply point for fuses less than 100 amps by a field visit.

Three options for re-energisation are available:

- reconnections (same day) business hours only;
- reconnections (incl. customer transfer) business hours; and
- reconnections (incl. customer transfer) after hours.

If the reconnection is required on the same day and we receive the request before 3pm, the 'reconnections (same day) business hours' charge will be applied and the reconnection will occur that day.

If the reconnection is required on the same day as requested and received by us between 3pm and 9pm the 'reconnections (incl. customer transfer) after hours' charge is applied.

If the reconnection is required for the next business day and we receive the request before 3pm on the previous business day the 'reconnections (incl. customer transfer) business hours' charge is applied.

In the instance that a customer does not provide reasonable access or where equipment is not in a reasonable state, the customer will be charged for the requested service however, supply will not be re-energised. Before the service can be provided, the customer may need to undertake rectification works. When the issue(s) have been resolved another request will need to be raised and a new charge will apply.

In a normal instance a re-energisation is performed by a special reader. However, there are scenarios where a service truck visit may be required in its place and accordingly a service truck visit charge will be applied.

Some examples where a truck or other resource may be required include:

- special reader resource is not available after hours and an alternative time is not acceptable to the customer;
- no access to distribution equipment - metering and main fuse, including a veranda restricting access to the main fuse;
- no isolation point, necessitating disconnection at the pole;

- multiple NMI's fused at a common isolation point;
- CT metered site;
- isolation point in restricted area – substation; or
- safety reconnection for non-prescribed electrical works.

The charge will not be applied when:

- the customer changes retailer on a scheduled read; or
- the customer changes name; and
- a field visit is not necessary.

### **Metering services**

The charges for each service apply where uninhibited site access is granted. If access to the site is restricted then a service truck may be required therefore attracting a service truck fee.

### **Meter investigation**

A meter investigation charge applies when a request is received to investigate the metering at a given supply point. A need to investigate can arise in a number of situations, such as:

- interval data analysis;
- meter malfunction;
- wiring transposition investigation;
- contestable metering investigation; and
- meter tampering or bypass.

### **Meter testing**

A meter testing charge applies when a request is made to test the accuracy of a meter at a given supply point. Different charges apply depending on the type of meter being tested, if it is the first or subsequent meters and whether the meter is single or multi-phase and whether the service is provided during or after business hours.

Refer to the Meter investigation charge for metering issues other than accuracy testing.

### **Special meter reading**

The special meter reading charge applies when a request for a special meter read is to be performed by a field visit outside the scheduled meter reading cycle. Where customers have multiple metering installations, such as farms and units, a separate charge applies to each meter on the property. This charge is only available during business hours.

### **Wasted attendance – not distributor fault**

The wasted attendance charge will apply where we receive a request for a service truck and:

- the crew arrives to find the site is not ready for the scheduled work within 15 minutes of arriving;
- the truck attendance is no longer required once on site;
- 24 hours notice is not provided for a cancellation;
- the site is locked with a non industry lock;

- asbestos removal or warning on site;
- scaffolding obstructing meter position;
- non adherence to VESI Service and Installation Rules; or
- other issues associated with safety assessment of the site.

A wasted truck charge will apply where we receive a request for a service truck to complete an abolishment < 100 amps or abolishment > 100 amps and one of the events above occurs.

Once the site is ready for the service truck visit, another appointment needs to be booked and the normal service truck visit charge applies.

Business hours and after hours charges apply where appropriate.

### **Service truck visit**

Service truck visit charges apply when a service crew is requested for up to an hour in a number of circumstances including:

- disconnection of complex site (refer De-energisation of existing connections);
- reconnection of complex site (refer Re-energisation);
- metering additions or alterations; and
- shutdowns.

Larger scale works will be charged through a quoted service 'after hours truck by appointment' charge (refer to After hours truck by appointment). Where the job unexpectedly exceeds 1 hour, additional half hourly intervals will be charged up to two hours.

A service truck visit charge is not applicable to an appointment made to upgrade a basic meter site to a CT meter site. In this situation a quoted service charge will apply.

Customers are not charged when a service truck is sent to attend emergency and fault calls, unless the customer is clearly at fault, for example, not checking that main switch or safety switch is on.

In the instance where a service truck visit is requested and the truck arrives to find the site is not ready for work to be carried out then a wasted attendance charge will apply (refer to Wasted attendance – not distributor fault).

### **Remote reconfiguration**

The remote reconfiguration charge applies when a request is received to reconfigure a smart meter and has the related infrastructure in place.

### **Remote de-energisation**

The remote de-energisation charge applies when a request is received to de-energise a customer that has smart metering and related infrastructure in place when is then used to disconnect the customer from our network.

### **Remote re-energisation**

The remote re-energisation charge applies when a request is received to re-energise a customer that has smart metering and related infrastructure in place when is then used to reconnect the customer to our network.

### **Manual meter reading**

The manual meter reading charge applies to customers who have elected not to have their manually read meter replaced with a remotely read smart meter.

### **Access to meter data**

The access to meter data charge applies when a request is received from a customer more than four times in any given 12 month period; or in a different manner or form than specified in the Australian Energy Market Operator metering data provision procedures; or by a customer authorised representative as part of a request for information about more than one customer.

### **B.1.2 Quoted services**

Quoted services are charges levied on a time and materials basis where the services are highly variable. The following is considered to be quoted services:

- routine connections – customers above 100 amps;
- supply abolishment (>100 amps);
- rearrangement of network assets at customer request, excluding alteration and relocation of existing public lighting assets;
- audit design and construction;
- specification and design enquiry;
- elective underground where above ground service currently exists;
- damage to overhead service cables caused by high load vehicles;
- high load escorts – lifting overhead lines;
- covering of low voltage mains for safety reasons;
- after hours truck by appointment and;
- reserve feeder maintenance.

Labour rates on which quotes are based on include:

- skilled electrical worker (BH & AH) and;
- support staff.

All quoted services are based on the greater of actual hours worked or minimum chargeable hours, multiplied by the approved labour rates plus materials used.

### **Routine connections – customer above 100 amps**

A routine connections quoted service charge is applied when customers above 100 amps request a routine connection, additional charges may apply where augmentation is required to meet the customer's supply requirements > than 40 amperes per phase.

Customers moving from direct connect metering to CT metering due to an increase in load on site will attract a quoted service for the removal of the direct connect meter and service for a new CT site connection. This is in addition to the augmentation project costs to upgrade the supply assets in the street to supply the additional load.

Charges apply where a request is made for a new supply connection at a specified address (including unmetered supply sites), except where the supply is for security lighting (also known as watchman lighting). This charge also applies where a builder wishes to provide permanent or temporary supply to new properties under construction.

For new premises an additional charge will apply for the checking of the installation for compliance to Service and Installations Rules and other related Connection Standards. Further, it does not include inspection of prescribed works for the purpose of issuing of a Certificate of Electrical Safety (CES); this should be organised by a Registered Electrical Contractor (REC). Separate charges will apply for additional truck or field officer visits to complete connection works.

In some circumstances traffic management will be required to comply with the Roads Management Act to provide the requested services. We can assist in arranging for traffic control and a pass through fee shall apply.

On occasions when a 'builders temporary supply' is installed and subsequently replaced with a permanent supply each new-connection is considered a distinct site visit and separate new-connection charges are applied, the first to the builder for establishing a new-connection for which the builder uses supply for construction purposes and a second new-connection charge to the customer for connecting the supply. This charge includes the removal/disconnection of the overhead service / underground cable and meter supplying the temporary supply pole where applicable.

An additional attendance charge in the form of a wasted truck visit charge is applied in those situations where we have been to the site and returned to complete works that have been delayed due to the fault of the responsible party or their representative. Where an application for supply is made and the site is found to be defective, the wasted truck visit charge will be applied.

Where the determined maximum demand of any separately metered portion of an electrical installation exceeds 90 amperes per active conductor, then CT metering will be required.

Customers moving from direct connect metering to CT metering due to an increase in load on site will attract a quoted service for the removal of the direct connect meter and service for a new CT site connection. This is in addition to the augmentation project costs to upgrade the supply assets in the street to supply the additional load.

### **Supply abolishments (>100 amps)**

The supply abolishment quoted service charge is applied when customers above 100 amps request a permanent removal of our supply assets. A separate charge applies per site.

### **Rearrangement of network assets at customer request, excluding alteration and relocation of existing public lighting assets**

This charge is applied when a customer requests capital work for which the prime purpose is to satisfy a customer requirement other than new or increased supply, other than where Guideline 14 is applied.

Examples include:

- Vic Roads and Council requested asset relocations to allow for new road works; and
- customer removal or relocation of service wire to allow work on private installation.

### **Audit design and construction**

This charge may be applied when either a third party requests or we deem it necessary to review, approve or accept work undertaken by a third party.

The charge may be applied in situations including, but not limited to:

- customer provided buildings, conduits or ducts used to house our electrical assets;
- customer provided connection facilities including switchboards used in the connection of an electricity supply to their installation;

- any electrical distribution work completed by a Powercor approved contractor that has been engaged by a customer under Option 2 provisions;
- provision of system plans and system planning scopes, for Option 2 designers; and
- reviewing and/or approving plans submitted by Option 2 designers.

The charge may also be applied if we are requested to assess a contractor seeking VEDN or Option 2 contractor accreditation.

#### **Specification and design enquiry**

This charge may be applied where we determine an element of detailed design is required to fairly assess the costs so that an offer for connection services can be issued to the customer.

- the charge is considered appropriate if uncertainty exists with respect to matters including, but not limited to:
  - the route of the network extension required to reach the customer’s property;
  - the location of other utility assets;
  - environmental considerations including tree clearing; and
  - obtaining necessary permits from State and local government bodies.

The charge may also be applied where a customer requests us to provide information to assist them to undertake feasibility studies or to provide budget estimates.

#### **Elective underground where above ground service currently exists**

This charge applies when a customer with an existing overhead service requests an underground service, other than where Electricity Industry Guideline 14 is applied.

#### **Damage to overhead service cables caused by high load vehicles**

This charge applies to an identifiable third party when overhead service cables require repairing because they have been damaged by high load vehicles pulling down cables.

#### **High load escorts – lifting overhead lines**

This charge applies when a third party requires safe clearance of overhead lines to allow high load vehicles to pass along roads.

#### **Covering of low voltage mains for safety reasons**

This charge applies when customers request coverage of power lines for safety reasons. The charge applied will depend on the time taken to perform the service. Differing charges can arise as a result of the type of line being covered; street mains (two wires or all wire) or service cables.

#### **After hours truck by appointment**

This charge is applied to larger scale works requiring an after-hours service truck appointment. Examples of types of works include:

- disconnection of complex site (refer section to De-energisation of existing connections);
- reconnection of complex site (refer section to Re-energisation);
- metering additions or alterations; and
- shutdowns (includes preparation works).

### **Reserve feeder maintenance**

The reserve feeder maintenance charge applies when a customer requests continuity of electricity supply should the feeder providing normal supply to their connection experience interruption.

The reserve feeder capacity is made available from an alternative feeder that has the available capacity to facilitate the requirements that the customer has nominated. The feeder facilitating reserve capacity may emanate from another zone substation or an alternative bus from the same zone substation facilitating electricity supply to the substation on the customer site.

The fee covers the operation and maintenance of the service, it does not include the capital required to implement or replace the service as this is covered in the connection agreement.

The reserve feeder service will not be available to new customers.

## **B.2 Public lighting services**

Charges apply for public lighting services provided to public lighting customers in accordance with the Victorian Public Lighting Code. The following services are included:

- operation of public lighting assets; including handling enquiries and complaints about public lighting and dispatching crews to repair public lighting assets; and
- maintenance, repair and replacement of public lighting assets.

Where a public lighting customer requests the replacement of a light with another light of a different type, then the activities required to fulfil this request fall outside of general OM&R activities. In this circumstance, the following charges (rebates) are applied:

- replacement luminaire - WDV recovery (charge);
- replacement luminaire - avoided costs (rebate); and
- installation costs of new light (refer to section on negotiated services).

## **B.3 Metering services**

We are responsible for metering services associated with types 5, 6 and 7 meters which are installed in residential and small commercial premises consuming up to 160 megawatt hours (**MWh**) per annum. The services provided in relation to these meters include:

- meter provision – includes purchasing meters and installing these meters at the customer’s premise;
- meter maintenance – includes inspecting, testing, maintaining and repairing meters;
- meter replacement – replacement of a meter and associated equipment, at a site with existing metering infrastructure, with a modern equivalent where the meter has reached the end of its economic life;
- meter reading and data services – includes collection, processing, storage and delivery of metering data to other participants for billing and market settlement purposes and the management of the relevant National Meter Identifier (NMI); and
- meter communications – includes maintaining and installing communication devices required to operate the mesh radio network and management of the day to day operation of the meter communications systems including meter data delivery, testing, fault detection, investigation and resolution.

The charges that fall under metering include:

- metering charges;

- manual meter reading charge; and
- metering exit fees.

### Meter charges

Metering charges are applied to all meters. This charge covers the cost of maintaining, operating and replacing the meter once it has reached the end of its economic life. The charge varies depending on the meter installed.

#### Manual meter reading charge

This charge applies to customers with a basic manually read meter who have refused to have an AMI meter installed on their premises.

#### Meter exit fee

The meter exit fee is charged to customers who opt to remove or replace a Powercor installed meter with a competitive sourced meter.

When metering contestability for customers consuming less than 160 MWh pa commences, a metering exit fee will be charged to a customer to whom we provide metering services who elects to use an alternative metering provider or elects to become an embedded network customer. These exit fees are set out in table B.4 of section B.

## B.4 Alternative control service rates for 2017

Table B.2 Metering charges (nominal, GST exclusive)

Section reference	Metering charges	\$/NMI/p.a.
B.3	Single phase meter	88.16
B.3	Three phase direct connected meter	116.29
B.3	Three phase CT connected meter	154.36

Source: Powercor

Table B.3 Manual meter reading charge (nominal, GST exclusive)

Section reference	Metering charges	\$/read
B.1.1	Manual meter reading	43.02

Source: Powercor

Table B.4 Metering exit fees (nominal, GST exclusive)

Section reference	Metering exit fees	\$
B.3	AMI 1P	498.48
B.3	AMI 3P	606.01
B.3	AMI 3P CT	1,188.43
B.3	Basic or MRIM all	41.80

Source: Powercor

Table B.5 Ancillary network Services (nominal, GST exclusive)

Section reference	Alternative control service	Business hours (\$)	After hours (\$)
B.1.1	Meter investigation	371.33	425.40
B.1.1	Meter accuracy test - single phase	409.97	470.78
B.1.1	Meter accuracy test - single phase additional meter	172.04	N/A
B.1.1	Meter accuracy test - multi phase	493.94	569.39
B.1.1	Meter accuracy test - multi phase additional meter	313.71	N/A
B.1.1	Meter accuracy test - CT	578.43	668.61
B.1.1	Reconnections (incl. customer transfer)	48.99	N/A
B.1.1	Reconnections (same day)	79.84	216.38
B.1.1	Disconnection	52.08	N/A
B.1.1	Disconnection for non payment	52.08	N/A
B.1.1	Special reading	43.02	N/A
B.1.1	Access to meter data	43.70	N/A
B.1.1	Service truck visit	585.10	703.17
B.1.1	Wasted truck visit	321.84	371.86
B.1.1	Remote meter reconfiguration	50.99	N/A
B.1.1	Remote re-energisation	9.62	N/A
B.1.1	Remote de-energisation	9.62	N/A
<b>New Connection Responsible For Metering</b>			
B.1.1	Single phase	468.71	525.31
B.1.1	Multi phase DC	580.48	637.07
B.1.1	Multi phase CT	2,272.83	2,818.86
<b>New Connection Not Responsible For Metering</b>			
B.1.1	Single phase	438.40	489.71
B.1.1	Multi phase DC	550.16	601.47
B.1.1	Multi phase CT	1,943.86	2,205.28

Source: Powercor

Table B.6 Public lighting services fee based (nominal, GST exclusive)

Section reference	Public lighting charges	Annual charge (\$)
B.2	Fluorescent T5 (2 X 14W)	37.50
B.2	Replacement luminaire - WDV recovery	82.69
B.2	Replacement luminaire - avoided costs	-27.02
B.2	Fluorescent 20 watt	101.53
B.2	Fluorescent 40 watt	101.53
B.2	Mercury vapour 50 watt	66.57
B.2	Mercury vapour 80 watt	47.89
B.2	Mercury vapour 125 watt	64.65
B.2	Mercury vapour 250 watt	70.14
B.2	Mercury vapour 400 watt	81.21
B.2	Mercury vapour 700 watt	122.74
B.2	Sodium 90 watt	122.87
B.2	Sodium 150 watt	91.02
B.2	Sodium 180 watt	122.87
B.2	Sodium 250 watt	92.28
B.2	Sodium 400 watt	122.74
B.2	Incandescent 100 watt	133.14
B.2	Incandescent 150 watt	133.14
B.2	Metal halide 250 watt	122.74
B.2	Metal halide 400 watt	122.74
B.2	Metal halide 70 watt	101.53
B.2	Metal halide 150 watt	121.05
B.2	T5 2X14W	37.50
B.2	T5 2X24W	36.89
B.2	Compact Fluoro 32W	36.05
B.2	Compact Fluoro 42W	36.05

Section reference	Public lighting charges	Annual charge (\$)
B.2	Category P LED 18 Watt	23.93
B.2	Category P LED 47 Watt	23.93

Source: Powercor

**Table B.7** Quoted services hourly labour rates (nominal, GST exclusive)

Section reference	Alternative control charges	Business hours (\$/hr)	After hours (\$/hr)
B.1.2	Skilled electrical worker <sup>11</sup>	117.66	138.17
B.1.2	Support staff <sup>12</sup>	66.54	N/A

Source: Powercor

<sup>11</sup> Quoted service labour categories include labour costs directly incurred in the provision of the service. An additional 31.36% will be applied to the direct labour rates for labour on-costs, fleet on-cost and overheads.

<sup>12</sup> Quoted service labour categories include labour costs directly incurred in the provision of the service. An additional 31.36% will be applied to the direct labour rates for labour on-costs, fleet on-cost and overheads.

# Glossary C



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# C Glossary

Table C.1 Glossary

Term	Definition
ABS	Australian Bureau of Statistics
Active Market Interval Read Meter	A meter that records energy use over short intervals and communicates the data to the energy supplier and is operating in the national energy market as an interval meter
AEMC	Australian Energy Market Commission
AER	Australian Energy Regulator
AMI	Advanced Metering Infrastructure
Amps	Amperes
ARR	Annual revenue requirement
Augmentation	Investment in new network assets to meet increased demand
Capacity	The amount of energy that a part of the network is able to carry
CES	Certificate of Electrical Safety
Controlled Load	The DNSP controls the hours in which the supply is made available
CPI	Consumer price index
Demand	Energy consumption at a point in time
Demand Management	Attempt to modify demand behaviour so as to constrain demand at critical times
Distribution Network	The assets and service which links energy customers to the transmission network
Distributor	Distribution Network Service Provider ( <b>DNSP</b> )
DMIS	Demand management incentive scheme
DNP	Disconnection for non-payment
DPPC	Designated pricing proposal charges
DUoS	Distribution use of system
Eastern Standard Time ( <b>EST</b> )	EST is 10 hours ahead of Coordinated Universal Time ( <b>UTC</b> )
Final decision	The Australian Energy Regulator's final decision determination 2016 to 2020, May 2016
FIT	Feed in Tariff

Term	Definition
Flexible Pricing	Flexible pricing means different rates for electricity at different times of the day as defined by the Victorian Governments policy on ToU pricing
GP&L	General Power & Light
Guideline 14	Electricity Industry Guideline 14, Provision of Services by Electricity Distributors, 13 April 2004
High voltage (HV)	Equipment or supplies at voltages of 22 or 11kV
Inclining Block	A network tariff energy rate in which the rate increase above specific consumption thresholds
JUoS	Jurisdictional scheme use of system
kVA, MVA	Kilovolt amperes and Megavolt amperes, units of instantaneous total electrical power demand. Usually the peak demand is referenced. See also PF for the relationship between power demand quantities
kVAr, MVAR	Kilovolt amperes (reactive) and Megavolt amperes (reactive) units of instantaneous reactive electrical power demand. Usually the peak demand is referenced. See also PF for the relationship between power demand quantities
kW, MW	Kilowatt and Megawatt, units of instantaneous real electrical power demand. Usually the peak demand is referenced. See also PF for the relationship between power demand quantities
kWh, MWh	Kilowatt hour and Megawatt hour, units of electrical energy consumption
Local Time	Daylight savings time in accordance with the Victorian Government's requirements
Low voltage (LV)	Equipment or supply at a voltage of 220 V single phase or 415 V, three phase
LRMC	Long Run Marginal Costs
Marginal Cost	The cost of providing a small increment of service. The Long Run Marginal Cost (LRMC) includes future investment; Short Run Marginal Cost (SRMC) considers only the costs involved without extra investment
NMI	National Meter Identifier
Non Summer	Calendar months March to November, based on Eastern Standard Time (EST)
NUoS	Network use of system. The utilisation of the total electricity network in the provision of electricity to consumers (NUoS = DUoS + TUoS + JUoS)
OM&R	Operation, maintenance and replacement
PFIT	Premium Feed-in tariff

Term	Definition
Power factor (PF)	A measure of the ratio of real power to total power of a load. The relationship between real, reactive and total power is as follows: $PF = \text{Real Power (kW)} / \text{Total Power (kVA)}$ $\text{Total Power (kVA)} = (\text{kW}^2 + \text{kVAr}^2)^{0.5}$
Preliminary determination	The Australian Energy Regulator's preliminary distribution determination 2016 to 2020, October 2015
Price signal	Prices set to convey a desired behaviour because of the costs associated with supplying the service
Price structure	The components that make up a Price available to customers
Pricing proposal	Powercor's 2017 Pricing Proposal, submitted in accordance with the Rules (this document)
PTRM	Post tax revenue model
REC	Registered Electrical Contractor
Retailer	A financially responsible market participant supplying electricity to customers
Revenue cap	A form of regulatory control which limits the total revenue in a given period.
Rules	Australian Energy Market Commission, National Electricity Rules (NER), Version 65, 1 October 2014
STPIS	Service target performance incentive scheme
Sub-transmission (ST)	Equipment or supplies at voltage levels of 66kV
Summer	Calendar months December, January and February, based on Eastern Standard Time (EST) For flexible pricing Summer is defined to be calendar months December, January and February based on Day Light Saving Time
Tariff	A grouping of customers who are subject to the same network price components and conditions of supply
Tariff class	A class of customers for one or more direct control services who are subject to a particular tariff or particular tariffs
TAR	Total annual revenue
TFiT	Transitional Feed-in tariff
ToU	Time of Use, a system of pricing where energy or demand charges are higher in periods of peak utilisation of the network
Transmission Network	The assets and service that enable generators to transmit their electrical energy to population centres

Term	Definition
TSS	Tariff structure statement
TUoS	Transmission Use of System
Unmetered supply	A connection to the distribution system which is not equipped with a meter and has estimated consumption. Connections to public lights, phone boxes, traffic lights and the like are not normally metered
WACC	Weighted average cost of capital
WAPC	Weighted Average Price Cap, a form of regulatory price control, where the allowable price change is based on the weighted historic consumption of each price
WDV	Written down value

Source: Powercor

# Attachments **D**



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# D Attachments

Table D.1 Attachments

Reference	Topic	Model	Confidential
Attachment A	Standalone, Avoidable and Long Run Marginal Cost	Attachment A 2017 Standalone Avoidable LRMC PAL.xlsx	No
Attachment B	Revenue Cap Compliance Model	Attachment B AER Tariff Approval Model 2017 PAL.xlsm	No
Attachment C	Alternative Control Services	Attachment C ACS Charges 2017 PAL.xls	No
Attachment D	Public lighting	Attachment D Public lighting model 2017 PAL.xlsm	No

Source: Powercor

