

CitiPower 2016 Pricing Proposal



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Introduction **1**



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1 Introduction

This document, its appendices and attachments comprise our 2016 Pricing Proposal (**pricing proposal**) to the Australian Energy Regulator (**AER**). It covers all of our direct control services for 2016 in accordance with clause 6.18.2 of the National Electricity Rules (**Rules**)¹ and the AER's Preliminary Distribution Determination 2016 to 2020 (**preliminary determination**) published on 29 October 2015.

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.

In Part I of Chapter 6 of the Rules, clause 6.18 sets out the requirements concerning distribution pricing. These requirements include the pricing principles which must be followed, the requirement for this pricing proposal, and the matters the pricing proposal must address including:

- classification of services;
- the pricing control mechanism(s);
- assigning and reassigning customers to tariff classes;
- recovery of transmission costs; and
- recovery of jurisdictional scheme amounts.

1.1 Our business

We are one of the most efficient and reliable electricity distribution networks in Australia. As one of Victoria's five privately owned electricity distributors, we own and manage assets that deliver electricity to more than 325,000 homes and businesses across Melbourne's central business district and inner suburbs. This area includes some of Australia's most iconic sporting and cultural facilities such as the Melbourne Cricket Ground, the National Tennis Centre and the Victorian Arts Centre.

As the local distribution network service provider servicing the commercial centre of Victoria, our primary responsibility is planning, building, operating and maintaining the 'poles and wires' — a strategic community asset and core component of Victoria's and Melbourne's energy infrastructure. We seek to do this in a safe, reliable, efficient and prudent manner.

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

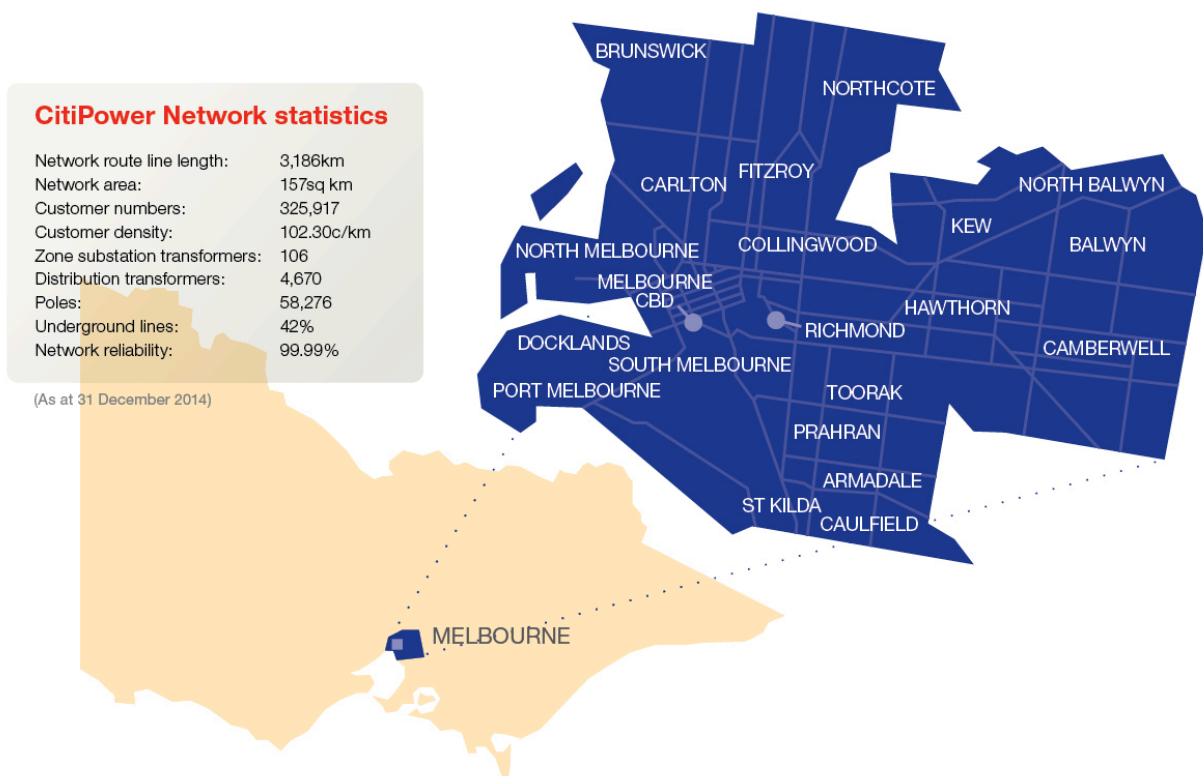
- maintaining network safety and reliability to meet the current power supply needs of our customers;
- extending and upgrading the network so that the future power supply needs of customers are met when required;
- operating the network on a day to day basis;
- connecting new customers to the network;

¹ 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 CitiPower's 2016 pricing proposal is version 65. That this was the intention is confirmed in the Australian Energy Market Commission's (AEMC's) Distribution Network Pricing Arrangements, Rule Determination, 27 November 2014 (<http://aemc.gov.au/getattachment/de5cc69f-e850-48e0-9277-b3db79dd25c8/Final-determination.aspx>). The AEMC states that prices based on the new set of pricing principles will apply from 1 January 2017 (see page 108 and 110-112).

- maintaining the public lighting system;
- reading electricity meters; and
- providing meter data to retailers.

Our electricity distribution network is the densest in Australia, with more 102 customers per kilometre of line. It also has the highest proportion of CBD customers and proportion of underground assets in Australia (around 42 per cent).

Figure 1.1 CitiPower network statistics



Source: CitiPower

1.2 Network and metering tariffs

Network tariffs cover the cost of transporting electricity from the generator through the transmission² 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.

² Transmission charges are referred to as designated pricing proposal charges under the Rules.

1.3 Network tariff objectives

Network tariffs must balance the following objectives:

- revenue sufficiency – prices recover the permitted revenue caps;
- pricing efficiency – through their variable components, prices signal the economic cost of providing network service. Residual costs are recovered in a manner which least distorts customers’ consumption decisions;
- customer equity – customers should pay a reasonable allocated share of costs; and
- pricing simplicity – price structures should be understandable, simple and transparent.

1.4 Summary of changes

Changes to the 2016 network tariffs include:

- the removal of the inclining block energy charges;
- equalising the fixed charge across tariffs in the same tariff class;
- re-opening of the controlled load tariffs from 1 July 2016;
- closing of the commercial flexible tariffs; and
- reassigning large low voltage (**LV**), high voltage (**HV**) and sub-transmission customers from kilowatt (**kW**) demand tariffs to kilovolt amperes (**kVA**) demand tariffs from 1 July 2016.

Our 2016 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 preliminary determination 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)(1-3); 6.18.3; 6.18.4 |
| 3 | Distribution charges | Demonstrates our compliance with the requirements of the Rules and the preliminary determination in respect of the control mechanism and pricing principles in relation to distribution use of system (DUoS) tariffs. | 6.18.2(b)(4-5); 6.18.5 and 6.18.6 |
| 4 | Designated pricing proposal charges | Demonstrates our compliance with the designated pricing proposal charges (DPPC) unders and overs account. | 6.18.7 |

| Chapter | Title | Purpose | Clause |
|---------|--------------------------------------|---|----------|
| 5 | Jurisdictional scheme charges | Demonstrates our compliance with the jurisdictional scheme unders and overs account. | 6.18.7A |
| 6 | 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. | - |
| 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: CitiPower

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.

It should be noted that we do not distinguish between customers with micro-generation and those without, in either the network tariff or network tariff class in accordance with clause 6.18.4(a)(3) of the Rules.

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 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 preliminary determination.

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 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 |
| | Controlled load | Yes ³ | Single phase Basic or Interval | Usage - off peak | c/kWh |

Source: CitiPower

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 |

³ Controlled load tariffs open to new and existing single phase customers from 1 July 2016. C2ROP and C2RBOP is only available to customers already on the equivalent primary tariff

| Tariff Class | Tariff | Available to new customer | Meter Type | Charging parameters | Units |
|--------------|------------------|---------------------------|------------------|-----------------------------|-------|
| | 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 |
| | Unmetered | Yes | Unmetered | Usage - peak | c/kwh |
| | | | Usage - off peak | c/kWh | |

Source: CitiPower

2.2.3 Reassignment of large LV, HV and sub-transmission tariff class customers

We propose to reassign all large customers currently on a demand tariff (large LV, HV and sub-transmission tariff classes) to a more cost reflective tariff in 2016. We will replace the kW demand tariff with a kVA demand tariff from 1 July 2016.

Under a kVA demand tariff customers have an incentive to reduce the demand component of their electricity bill by installing power factor correction equipment. Currently, there is no tariff incentive for the customer to do so. An improvement in the customer's power factor will, in turn, reduce the total amount of reactive current flowing in our distribution system. Our network must supply kVA, which comprises kW and kilovolt-ampere reactive (**kVar**), but we currently only charge for kW. This is inefficient and inequitable. A kVA demand tariff is fairer and more efficient because it charges customers for what they use.

Key changes proposed are:

- replace a kW historical maximum demand charge with a kVA 12 month rolling maximum demand charge (still measured over a 15 minute period);
- remove the minimum chargeable demand;
- introduce a fixed charge to ensure the right incentives for voltage level connection; and
- consolidation of existing kW demand tariffs into a smaller number of kVA demand tariffs.

A mapping of tariffs is provided in the following table:

Table 2.3 kVA demand tariff mapping table

| Tariff class | kVA Tariff | kW Tariff Code | kW Tariff |
|-------------------|------------|-----------------------------|---|
| Large low voltage | CLLV | C2DL C2DLER C2DLEG | Large low voltage demand Large low voltage demand R Large low voltage demand G |
| | CLLVB | C2DLB C2DLBER C2DLBEG | Large low voltage demand Bulk Large low voltage demand Bulk R Large low voltage demand Bulk G |
| High voltage | CHV | C2DH C2DHEG | High voltage demand High voltage demand bulk G |
| Sub-transmission | CST | C2DT | Sub-transmission demand |

Source: CitiPower

2.2.4 kW demand tariff classes

The following kW demand tariffs will only be applicable between 1 January 2016 and 30 June 2016. From 1 July 2016, these tariffs will be closed.

Table 2.4 Large low voltage kW demand tariff charging parameters

| Tariff Class | Tariff | Applies to new and existing customers | Minimum demand | Supply voltage | Charging parameters | Units |
|-------------------|-----------|---------------------------------------|----------------|----------------|---------------------|----------|
| Large low voltage | kW demand | 1 January 2016 - 30 June 2016 | 120 kW | <1kV | Demand | \$/kW pa |
| | | | | | Usage - peak | c/kWh |
| | | | | | Usage - off peak | c/kWh |

Source: CitiPower

Table 2.5 High low voltage kW demand tariff charging parameters

| Tariff Class | Tariff | Applies to new and existing customers | Minimum demand | Supply voltage | Charging parameters | Units |
|--------------|-----------|---------------------------------------|---------------------|----------------|---------------------|----------|
| High voltage | kW demand | 1 January 2016 - 30 June 2016 | 1,000 kW - 4,000 kW | >1kV and ≤22kV | Demand | \$/kW pa |
| | | | | | Usage - peak | c/kWh |
| | | | | | Usage - off peak | c/kWh |

Source: CitiPower

Table 2.6 Sub-transmission kW demand tariff charging parameters

| Tariff Class | Tariff | Applies to new and existing customers | Minimum demand | Supply voltage | Charging parameters | Units |
|------------------|-----------|---------------------------------------|----------------------|-----------------|---------------------|----------|
| Sub-transmission | kW demand | 1 January 2016 - 30 June 2016 | 1,000 kW - 10,000 kW | ≥22kV and ≤66kV | Demand | \$/kW pa |
| | | | | | Usage - peak | c/kWh |
| | | | | | Usage - off peak | c/kWh |

Source: CitiPower

From the 1 July 2016, kVA demand tariffs will replace the existing kW demand tariffs. The changes in the charging parameters include:

- removal of the minimum chargeable demand;
- introduction of a maximum 12 month rolling kVA demand measured over 15-minute intervals; and
- introduction of a fixed charge.

Customers must have an interval meter capable of recording E, B, Q and K data streams in order to be eligible for assignment to these network tariffs.

Table 2.7 Large low voltage kVA demand tariff charging parameters

| Tariff Class | Tariff | Applies to new and existing customers | Minimum demand | Supply voltage | Charging parameters | Units |
|-------------------|------------|---------------------------------------|----------------|----------------|---------------------|-----------|
| Large low voltage | kVA demand | 1 July 2016 - onwards | N/A | <1kV | Fixed | \$ pa |
| | | | | | Demand | \$/kVA pa |
| | | | | | Usage - peak | c/kWh |
| | | | | | Usage - off peak | c/kWh |

Source: CitiPower

Table 2.8 High voltage kVA demand tariff charging parameters

| Tariff Class | Tariff | Applies to new and existing customers | Minimum demand | Supply voltage | Charging parameters | Units |
|--------------|------------|---------------------------------------|----------------|----------------|---------------------|-----------|
| High voltage | kVA demand | 1 July 2016 - onwards | N/A | >1kV and ≤22kV | Fixed | \$ pa |
| | | | | | Demand | \$/kVA pa |
| | | | | | Usage - peak | c/kWh |
| | | | | | Usage - off peak | c/kWh |

Source: CitiPower

Table 2.9 Sub-transmission kVA demand tariff charging parameters

| Tariff Class | Tariff | Applies to new and existing customers | Minimum demand | Supply voltage | Charging parameters | Units |
|------------------|------------|---------------------------------------|----------------|----------------|---------------------|-----------|
| Sub-transmission | kVA demand | 1 July 2016 - onwards | N/A | ≥22kV or ≤66kV | Fixed | \$ pa |
| | | | | | Demand | \$/kVA pa |
| | | | | | Usage - peak | c/kWh |
| | | | | | Usage - off peak | c/kWh |

Source: CitiPower

2.3 kVA demand tariff

The following section outlines the kVA tariff policy regarding rolling demand, calculation of the tariff components, power factor correction and demand resets.

2.3.1 Rolling demand

The rolling 12 month kVA demand will take effect immediately looking back 12 months; therefore the July 2016 bill will be based on the maximum kVA over the period 1 August 2015 to 31 July 2016.

Greenfield sites connected prior to 1 July 2016 will be set up on a kW tariff and will transition to the appropriate kVA tariff on 1 July 2016. The demand will be measured kVA 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.

2.3.2 Demand resets

There are no changes in our current process for demand resets which follows the deemed electricity distribution contract. Temporary increases in demand at a supply point is allowed at our discretion if there is a specific, short term need, such as commissioning a new plant.

Large customers that have moved into a premise will not receive an automatic demand reset. If a customer wishes to reset the demand, they will need to negotiate a new maximum demand with us. If a customer does not provide adequate notification they will, by default, continue with the previous arrangement.

2.3.3 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 a demand reset from the date of commissioning of the equipment. The demand reset will only be granted where there is an observable improvement in power factor. Seasonal demand profiles will also be taken into account.

2.3.4 Meter data (Q data stream - kVARh)

If no Q (kVARh) meter data is received (either null or zero), kVARh will be counted as zero.

2.3.5 Calculation of the kVA tariff for a standard calendar month

Table 2.10 Calculation of the KVA tariff for a standard calendar month

| kVA tariff components | Calculation |
|-----------------------|--|
| Fixed charge | Annual charge (\$) / 12 |
| 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: CitiPower

2.4 Expected network price trends 2016-2020

Tariff structures over 2017-2020 will be subject to the AER’s approval of our Tariff Structure Statement which is due by July 2016. We have proposed that a demand charge be introduced into low voltage residential and small business tariffs (excluding unmetered supplies). The table below assumes that the AER approves our proposed Tariff Structure Statement which was submitted to the AER on 25 September 2015.

Table 2.11 Indicative relative charging parameter movement in the 2016-2020 regulatory control period

| Distribution 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 (kW) | Not applicable as tariff will be closed from 1 July 2016 | | | | |
| HV business (kW) | | | | | |
| Sub-transmission (kW) | | | | | |
| LLV business (kVA) | ↑ | ↓ | | ↓ | → |
| HV business (kVA) | ↑ | ↓ | | ↓ | → |
| Sub-transmission (kVA) | ↑ | ↓ | | ↓ | → |
| Legend | | | | | |
| ↑ | Increase relative to the average network price movement. | | | | |

| Distribution tariff | Fixed charge | Peak energy rate | Shoulder energy rate | Off peak energy rate | Demand rate |
|---------------------|---|------------------|----------------------|----------------------|-------------|
| ↓ | Decrease relative to the average network price movement. | | | | |
| → | No anticipated 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: CitiPower

Distribution charges 3



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3 Distribution charges

This chapter demonstrates how our distribution tariffs for 2016 comply with the requirements of the Rules and the preliminary determination in respect of the control mechanism and pricing principles.

It should be noted that the information and comparisons in this chapter relate solely to distribution tariffs. Our final network charges are bundled charges that contain distribution charges, designated pricing proposal charges and recovery of jurisdictional scheme amounts.

A discussion of designated pricing proposal charges and jurisdictional scheme amounts is set out in chapter 4 and chapter 5, respectively.

3.1 Control mechanism

For the 2016-2020 regulatory control period, our standard control services will be subject to a revenue cap form of control whereas previously, our standard control services were subject to a weighted average price cap (**WAPC**) form of control. Attachment 1 of the AER's preliminary determination 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 two years prior. Attachment 14 of the AER's preliminary determination set out the formulae for calculating the total annual revenue allowance.

3.2 2016 prices for standard control services

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

Source: AER

where:

TAR_t is the total annual revenue in year t

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

- q_t^{ij} is the forecast quantity of component “j” of tariff “i” in year t
- AAR_t is the adjusted annual smoothed revenue requirement for 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 attachment 18 - 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 allowed revenue in the 2017 pricing proposal
- 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 |
|---|
| $L_{t-1}(1 + WACC_{t-1})(1 + WACC_{t-2})^{1/2}$ |

Source: AER

where:

- L_{t-1} are the licence fees paid by CitiPower 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
- any under or over recovery of actual revenue collected through DUoS charges in regulatory year t-2 as calculated using the method set out in section in appendix A of attachment 14 of the AER preliminary determination,
 - the AER approved pass through amounts (positive or negative) with respect to regulatory year t
- AR_t is the annual smoothed revenue in the post tax revenue model (**PTRM**) for year t (where t is the first year of the 2016-20 regulatory period)
- S_t is the s-factor determined in accordance with the service target performance incentive scheme (STPIS) for regulatory year t
- ΔCPI_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 Preliminary Determination - rate of return - calculated for the relevant year.

Since we will be subjected to a revenue cap form of control mechanism for the first time, there will be no adjustments for under or over recovery of revenue until regulatory year t is 2018.

The derivation of the TAR constraint is presented in the AER’s annual tariff model template provided for this purpose.

3.3 Under and over account

The following section will demonstrate our compliance with the DUoS under and over account for the most recently completed regulatory year (t-2) and the next regulatory year (t).

We must achieve an expected zero balance on our DUoS unders and overs in our pricing proposal. The following section will demonstrate our compliance with the 2016 DUoS.

Since we will be subjected to a revenue cap form of control mechanism for the first time, there will be no adjustments for under or over recovery of revenue until regulatory year t is 2018.

The proposed prices for each year t are based on the TAR for year t.

Table 3.3 DUoS under and overs account (\$'000, nominal)

| | Year t-2 (actual) | Year t (forecast) |
|---|----------------------|----------------------|
| (A) Revenue from DUoS charges | | 279,323 |
| (B) Less TAR for regulatory year = | 0 | 279,323 |
| + Adjustment annual smoothed revenues (AAR_t) | | 279,292 |
| + F-factor scheme amount (t) | | -15 |
| + DMIS carryover amount (Tt) | | 0 |
| + Sum of annual adjustments (Bt) = | 0 | 46 |
| +DUoS revenue under/over recovery approved | | - |
| + License fee recovery | | 41 |
| + Approved pass through amounts | | 5 |
| (A minus B) Under/over recovery of revenue for regulatory year | 0 | 0 |
| DUoS under and overs account | | |
| Nominal WACC t-2 (per cent) | 9.05% | |
| Nominal WACC t-1 (per cent) | 9.20% | |
| Opening balance | 0 | |
| Under/over recovery of revenue for regulatory year | 0 | |
| Interest on under/over recovery for 2 regulatory years | 0 | |
| Closing balance | 0 | 0 |

Source: CitiPower

3.4 Weighted average revenue

The following table sets out the expected weighted average revenue for standard control services for each tariff class in accordance with clause 6.18.2(b)(5) of the Rules.

Table 3.4 Weighted average revenue

| Tariff class | 2015 | 2016 |
|-------------------|------------------------|--------------------|
| | $p_{t-1}q_t$ \$'000 | p_tq_t \$'000 |
| Residential | 74,938 | 80,950 |
| Small commercial | 109,857 | 98,900 |
| Large low voltage | 85,732 | 85,761 |
| High voltage | 13,848 | 12,710 |
| Sub-transmission | 1,033 | 1,002 |

Source: CitiPower

3.5 Tariff class side constraints

The side constraint formula the AER has determined for us to apply to our standard control services for the next regulatory control period does not apply to 2016. Nevertheless, the side constraint formula which will apply in subsequent years of the regulatory control period is set out below.

Table 3.5 AER side constraint formula

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

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 year t

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

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

ΔCPI_t is the annual percentage change in the ABS CPI All Groups, Weighted Average of the 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 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 year t. This amount will be calculated as per the method set out in attachment 19—f-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 allowed revenue 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 |
|---|
| $L_{t-1}(1 + WACC_{t-1})(1 + WACC_{t-2})^{1/2}$ |

Source: AER

where

L_{t-1} are the licence fees paid by CitiPower 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 for the relevant regulatory year

- 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 preliminary determination
- the AER approved pass through amounts (positive or negative) with respect to the 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).

3.6 Compliance with pricing principles

This section demonstrates our compliance with the pricing principles set out in clause 6.18.5 of the Rules, which require 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.

3.6.1 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.

3.6.2 Compliance with Rules clause 6.18.5(a)

The revenue expected to be recovered from each of our tariff classes in 2016 is compared with the stand-alone and avoidable costs calculated in section 3.6.1, in the following table.

Table 3.7 Stand-alone and avoidable distribution network costs (\$'000)

| Tariff class | Avoidable cost \$000, (nominal) | Tariff revenue \$000, (nominal) | Stand-alone cost \$000, (nominal) |
|-------------------|------------------------------------|------------------------------------|--------------------------------------|
| Residential | 33,043 | 80,950 | 174,538 |
| Small commercial | 36,749 | 98,900 | 161,358 |
| Large low voltage | 13,664 | 85,761 | 99,310 |
| High voltage | 1,564 | 12,710 | 68,843 |
| Sub-transmission | 110 | 1,002 | 50,796 |

Source: CitiPower

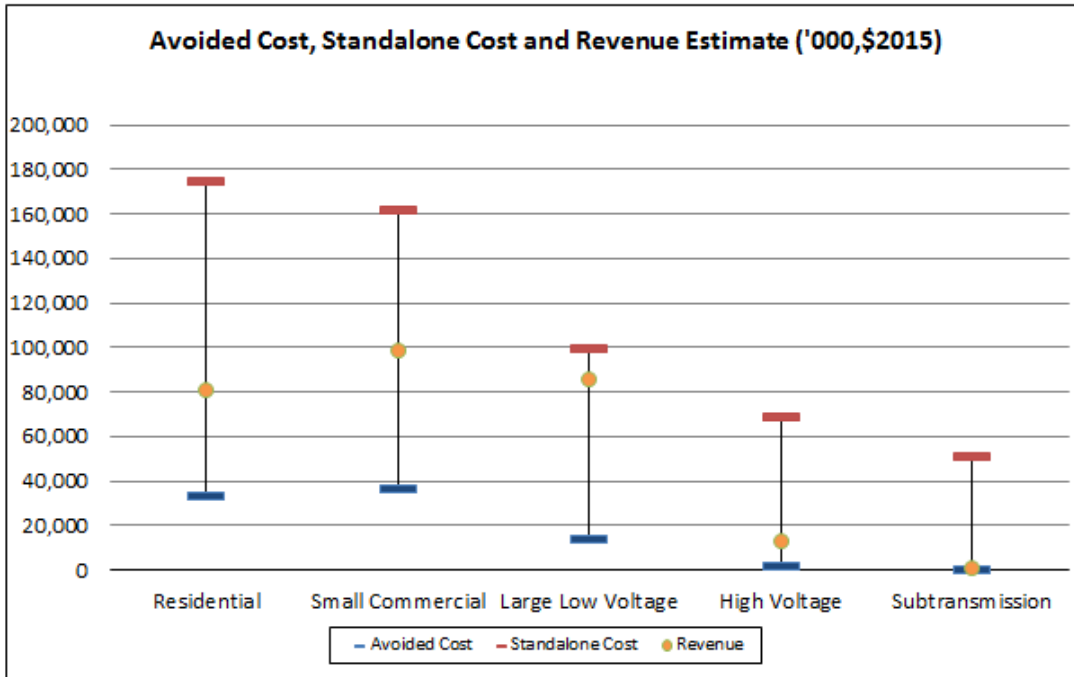
3.7 Long run marginal costs

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 its 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 2016 tariff rates for our tariff classes is shown in the following figure:

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



Source: CitiPower

It can be noted that:

- the 2016 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 2016 prices in the case of the major business and high voltage business tariff classes.

3.8 Application of the LRMC to price formulation

As required by clauses 6.18.5(b)(1) and 6.18.5(c) of the Rules, we have taken into account the calculated values of LRMC, in establishing the charging parameters for each of our 2016 network tariffs.

Charging parameters of tariffs that are related to volume may be expected to influence customers' consumption decisions. Those parameters are:

- monthly demand;
- peak period energy; and
- to a much less significant extent, anytime energy.

We note that the LRMC is less than the expected revenue for each tariff class. This indicates that tariffs are set in such a way that there is no concern to be raised regarding cross subsidies across tariff classes.

Our 2016 tariffs have therefore been established in compliance with the provisions of clauses 6.18.5(b)(1) and 6.18.5(c) of the Rules.

3.9 Transaction costs

Clause 6.18.5(b)(2)(i) of the Rules requires us to have regard to the transaction costs arising from our network tariffs, by limiting the complexity of tariff structures and the number of charging parameters within each tariff. The charging parameters applicable to each tariff are provided in section 2.2 of this pricing proposal.

From 1 July 2016, the kW maximum demand charge will be replaced with a 12 month rolling kVA demand charge. This has resulted in the removal of the minimum billable demand and introduction of a fixed charge. Tariffs for large low voltage, high voltage and sub-transmission customers will be consolidated from 12 to 4. This change should reduce transaction costs and simplify tariffs for customers.

3.10 Customer response to price signals

In accordance with clause 6.18.5(b)(2)(ii) of the Rules, we are required to have regard to the ability of customers to respond to the price signals provided by our network tariffs. The efficiency gains of marginal cost pricing are realised when a tariff based on the marginal cost of supply induces the customer to make behavioural change.

To the extent possible within the limitations imposed by network tariff structures and metering constraints, we signal the LRMC of supply through those tariff charging parameters with the greatest price elasticity of demand, namely the variable consumption charges that are based on the customers energy use and maximum demand.

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Designated pricing proposal charges **4**



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4 Designated pricing proposal charges

4.1 Unders and overs

The following section will demonstrate our compliance with the designated pricing proposal charges (DPPC) unders and overs account for the most recently completed regulatory year (t-2) and the next regulatory year (t).

In addition, the following section will demonstrate our compliance with the 2016 DPPC where we must achieve an expected zero balance on our DPPC unders and overs in our pricing proposal.

There will be no adjustments for under or over recovery of revenue until regulatory year t is 2018.

Table 4.1 Designated pricing proposal charges unders and overs account (\$'000, nominal)

| | Year t-2 (actual) | Year t (forecast) |
|---|----------------------|----------------------|
| (A) Revenue from designated pricing proposal charges (DPPC) | | 81,696 |
| (B) Less DPPC related payments for regulatory year = | 0 | 81,696 |
| + DPPC charges to be paid to TNSP | | 90,549 |
| + Avoided TUoS payments | | 63 |
| + DPPC revenue under/over recovery approved | | -8,916 |
| (A minus B) Under/over recovery of revenue for regulatory year | 0 | 0 |
| DPPC unders and overs account | | |
| Nominal WACC t-2 (per cent) | 9.05% | |
| Nominal WACC t-1 (per cent) | 9.20% | |
| Opening balance | 0 | 0 |
| Under/over recovery of revenue for regulatory year | 0 | 0 |
| Interest on under/over recovery for 2 regulatory years | 0 | n/a |
| Closing balance | 0 | 0 |

Source: CitiPower

4.2 Maximum transmission revenue control

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.

This same control mechanism will be used for the recovery of designated pricing proposal charges rather than just transmission use of system services.

The total designated pricing proposal service charges allocated to network tariffs aligns with the total estimated designated pricing proposal charges to be paid by us, adjusted for any prior period corrections and adjusted for the time value of money.

4.3 Designated pricing proposal charges tariffs for 2016

Our DPPC tariffs are included in the bundled network use of system (**NUoS**) rates. The charging parameters associated with DPPC tariffs are shown in section A.1 of this pricing proposal.

DPPC charges are billed at the same frequency as the relevant tariff for standard control services.

Jurisdictional scheme charges **5**



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5 Jurisdictional scheme charges

5.1 Unders and overs

In accordance with clause 6.18.7 of the Rules, we submit an approach to jurisdictional scheme which settles under and over recovery from previous years. (Refer to attachment B of this pricing proposal for the detailed calculations).

The following section demonstrates our compliance with the jurisdictional scheme unders and overs account for the most recently completed regulatory year (t-2) and the next regulatory year (t) set out in Attachment 14, section C of the AER's preliminary determination.

In addition, the following section demonstrates our compliance with the 2016 jurisdictional scheme where we must achieve an expected zero balance on our jurisdictional scheme unders and overs in our pricing proposal.

There will be no adjustments for under or over recovery of revenue until regulatory year t is 2018.

Table 5.1 Jurisdictional scheme amounts unders and overs account (\$'000, nominal)

| | Year t-2 (actual) | Year t (forecast) |
|---|----------------------|----------------------|
| (A) Revenue from jurisdictional schemes | | 2,678 |
| (B) Less jurisdictional scheme payments for regulatory year = | 0 | 2,678 |
| + Jurisdictional scheme 1 payments | | -216 |
| + Jurisdictional scheme 2 payments | | 0 |
| + Jurisdictional scheme amounts revenue under/over recovery approved | 0 | 2,894 |
| (A minus B) Under/over recovery of revenue for regulatory year | 0 | 0 |
| Jurisdictional scheme amount unders and overs account | | |
| Nominal WACC t-2 (per cent) | 9.05% | |
| Nominal WACC t-1 (per cent) | 9.20% | |
| Opening balance | 0 | 0 |
| Under/over recovery of revenue for regulatory year | 0 | 0 |
| Interest on under/over recovery for 2 regulatory years | 0 | n/a |
| Closing balance | 0 | 0 |

Source: CitiPower

5.2 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.

5.3 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.1 of this pricing proposal.

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

Alternative control services **6**



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6 Alternative control services

We have constituted a single separate tariff class named alternative control services. This single tariff class has been defined to encompass all fee based and quoted services (excluding metering customers).

Clause 6.18.5 of the Rules sets out the pricing principles that must be complied with in respect of each tariff class, including a tariff class within the classification of alternative control services.

All customers for direct control services are members of the alternative control services tariff class. There has, therefore, been no classification of customers as all charges apply to all customers. Thus the requirements of clause 6.18.3 of the Rules have been satisfied.

The tariff classes that are to apply for the 2016 regulatory year, the proposed tariffs for each tariff class and, for each proposed tariff, the charging parameters and the elements of service to which each charging parameter relates is set out in appendix B of this pricing proposal. This satisfies the requirements of clause 6.18.2(b)(1), (2), and (3) of the Rules.

6.1 Tariff classes

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.

6.2 Stand alone and avoidable costs of alternative control services

Clause 6.18.5(a) 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(a) of the Rules.

6.3 Long run marginal costs and revenue recovery

Clause 6.18.5(b) 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 preliminary 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 6.18.5(b)(1) and (2) 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 6.18.5(c) of the Rules is not applicable.

6.4 Compliance with the AER determination

In accordance with the preliminary determination 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 preliminary determination. 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 Submission, tariffs are adjusted by an X factor and CPI which was approved by the AER in the preliminary and substitute determinations. Adjustments outside of those determined in the preliminary and substitute determinations are not expected during the regulatory period.

6.4.1 Ancillary services form of control formulas

The form of control formulas for ancillary services set out in the preliminary determination is reproduced below:

Table 6.1 Ancillary services form of control formulas

| Ancillary services | Form control formula |
|--------------------|---|
| Fee based | $\bar{p}_t^i \geq p_t^i$ i=1,...,n 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

CPI_t is the annual percentage change in the ABS CPI All Groups, Weighted Average of Eight Capital Cities for June quarter in regulatory year t-1

divided by

the annual percentage change in the ABS CPI All Groups, Weighted Average of Eight Capital Cities for 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 6.2.

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

Table 6.2 AER preliminary determination on X factors for each year of the 2016-20 period (percent)

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

Source: AER

6.4.2 Metering form of control formulas

The form of control formulas for metering set out in the preliminary determination is reproduced below:

Table 6.3 Metering form of control formula

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

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 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

ΔCPI_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.

6.5 Metering tariff class side constraints

The side constraint formula the AER has determined for us to apply to our metering services for the next regulatory control period, does not apply to 2016. Nevertheless, the side constraint formula which will apply in subsequent years of the regulatory control period is reproduced below.

Table 6.4 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

ΔCPI_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 in appendix B

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

6.6 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 preliminary determination.

6.7 Publication of Tariff information

We have put in place mechanisms to ensure compliance with clause 6.18.9 of the Rules. Appendix A which contains the tariff classes that are to apply for the 2016 regulatory year, the proposed tariffs for each tariff class and, for each proposed tariff, the charging parameters and the elements of service to which each charging parameter relates will be available on our website, www.citipower.com.au.

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Standard control services tariffs **A**



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A.1 Tariff Schedules

Table A.1 Network (NUOs) Tariff 2016

| NUOs Tariff 2016 | Code | Available to new customers? | | Minimum Demand kW | Standing charges \$/cust pa | Demand Charges \$/kW pa | Demand Charges \$/kVA pa | Peak Charges c/kWh | Off Peak Charges c/kWh | Summer Time of Use Charges | | | Non-Summer Time of Use Charges | | |
|--|---------|-----------------------------|------------------|-------------------|--------------------------------|----------------------------|-----------------------------|-----------------------|---------------------------|----------------------------|----------|----------|--------------------------------|----------|----------|
| | | 1 Jan - 30 Jun | 1 Jul - 31 Dec | | | | | | | Peak | Shoulder | Off Peak | Peak | Shoulder | Off Peak |
| | | | | | | | | | | c/kWh | c/kWh | c/kWh | c/kWh | c/kWh | c/kWh |
| Residential Single Rate | C1R | Yes | Yes | | 75.0000 | - | - | 6.8195 | - | - | - | - | - | - | - |
| Residential Single Rate - Bulk | C1RB | Yes | Yes | | 65.0000 | - | - | 4.7322 | - | - | - | - | - | - | - |
| Residential - flexible pricing | C13R | Yes | Yes | | 75.0000 | - | - | - | - | 13.2500 | 8.5179 | 2.8393 | 13.2500 | 8.5179 | 2.8393 |
| Residential - flexible pricing bulk | C13RB | Yes | Yes | | 65.0000 | - | - | - | - | 10.6000 | 6.8143 | 2.2714 | 10.6000 | 6.8143 | 2.2714 |
| Residential Two Rate 5d | C2R | No | No | | 75.0000 | - | - | 11.3572 | 2.4607 | - | - | - | - | - | - |
| Residential Two Rate 5d - Bulk | C2RB | No | No | | 65.0000 | - | - | 8.9911 | 2.0821 | - | - | - | - | - | - |
| Residential Interval | C3R | No | No | | 75.0000 | - | - | 11.3572 | 2.4607 | - | - | - | - | - | - |
| Residential Interval - Bulk | C3RB | No | No | | 65.0000 | - | - | 8.9911 | 2.0821 | - | - | - | - | - | - |
| Residential Two Rate 5d - Controlled Load | C2ROP | No | Yes ¹ | | - | - | - | - | 2.0821 | - | - | - | - | - | - |
| Residential Two Rate 5d - Bulk - Controlled Load | C2RBOP | No | Yes ¹ | | - | - | - | - | 1.5143 | - | - | - | - | - | - |
| Dedicated Circuit | CDS | No | Yes | | - | - | - | - | 2.0821 | - | - | - | - | - | - |
| Dedicated Circuit - Bulk | CDSB | No | Yes | | - | - | - | - | 1.5143 | - | - | - | - | - | - |
| Non-Residential Single Rate | C1G | Yes | Yes | | 140.0000 | - | - | 6.8880 | - | - | - | - | - | - | - |
| Non-Residential Single Rate - Bulk | C1GB | Yes | Yes | | 120.0000 | - | - | 5.2920 | - | - | - | - | - | - | - |
| Non-Residential Two Rate 5d | C2G5 | No | No | | 140.0000 | - | - | 9.2400 | 2.4672 | - | - | - | - | - | - |
| Non-Residential Two Rate 5d - Bulk | C2G5B | No | No | | 120.0000 | - | - | 6.7200 | 1.8504 | - | - | - | - | - | - |
| Non-Residential Interval | C3G | No | No | | 140.0000 | - | - | 9.2400 | 2.4672 | - | - | - | - | - | - |
| Non-Residential Interval - Bulk | C3GB | No | No | | 120.0000 | - | - | 6.7200 | 1.8504 | - | - | - | - | - | - |
| Non-Residential Flexible Pricing | C14G | No | No | | 140.0000 | - | - | - | - | 12.6000 | 8.4000 | 2.6880 | 12.6000 | 8.4000 | 2.6880 |
| Non-Residential - Flexible Pricing Bulk | C14GB | No | No | | 120.0000 | - | - | - | - | 10.7100 | 7.1400 | 2.2848 | 10.7100 | 7.1400 | 2.2848 |
| Non-Residential Two Rate 7d | C2G7 | No | No | | 140.0000 | - | - | 7.2776 | 2.4672 | - | - | - | - | - | - |
| Non-Residential Two Rate 7d - Bulk | C2G7B | No | No | | 120.0000 | - | - | 6.2732 | 1.8504 | - | - | - | - | - | - |
| Large Two Rate 7d | C2L7 | No | No | | 140.0000 | - | - | 9.2400 | 2.4672 | - | - | - | - | - | - |
| Unmetered Supplies / Public Lighting | C2U | Yes | Yes | | - | - | - | 8.8200 | 2.4672 | - | - | - | - | - | - |
| Large Low Voltage Demand | C2DL | Yes | No | 120 | - | 101.4690 | - | 3.6913 | 2.3194 | - | - | - | - | - | - |
| Large Low Voltage Demand - Bulk | C2DLB | Yes | No | 120 | - | 93.8765 | - | 3.0523 | 2.1917 | - | - | - | - | - | - |
| Large Low Voltage Demand R | C2DLR | Yes | No | 120 | - | 93.5470 | - | 3.2114 | 2.1295 | - | - | - | - | - | - |
| Large Low Voltage Demand G | C2DLEG | Yes | No | 120 | - | 108.2378 | - | 3.8764 | 2.5075 | - | - | - | - | - | - |
| Large Low Voltage Demand - Bulk R | C2DLBER | Yes | No | 120 | - | 86.4299 | - | 2.6101 | 1.9964 | - | - | - | - | - | - |
| Large Low Voltage Demand - Bulk G | C2DLBEG | Yes | No | 120 | - | 100.0987 | - | 3.1996 | 2.3551 | - | - | - | - | - | - |
| Large low Voltage | CLLV | No | Yes | | 5,525 | - | 93.5000 | 3.0600 | 1.8700 | - | - | - | - | - | - |
| Large low Voltage Bulk | CLLVB | No | Yes | | 5,100 | - | 84.1500 | 2.7200 | 1.7000 | - | - | - | - | - | - |
| High Voltage Demand | C2DH | Yes | No | 1000 | - | 67.8479 | - | 2.6167 | 1.3493 | - | - | - | - | - | - |
| High Voltage Demand D1 | C2DHD1 | No | No | 40000 | - | 42.6994 | - | 1.6762 | 0.8940 | - | - | - | - | - | - |
| High Voltage Demand R | C2DHER | Yes | No | 1000 | - | 62.3392 | - | 2.1936 | 1.2163 | - | - | - | - | - | - |
| High Voltage Demand G | C2DHEG | Yes | No | 1000 | - | 72.3042 | - | 2.7332 | 1.4508 | - | - | - | - | - | - |
| High Voltage | CHV | No | Yes | | 28,600 | - | 62.4800 | 2.2000 | 1.1440 | - | - | - | - | - | - |
| Subtransmission Demand | C2DT | Yes | No | 10000 | - | 18.0134 | - | 2.5685 | 0.9347 | - | - | - | - | - | - |
| Subtransmission | CST | No | Yes | | 132,000 | - | 15.4000 | 1.8920 | 0.7920 | - | - | - | - | - | - |

Source: CitiPower

¹ customers must already be on the equivalent primary tariff

Table A.2 Distribution (DUoS) Tariff 2016

| DUOS Tariff 2016 | Code | Available to new customers? | | Minimum Demand kW | Standing charges \$/cust pa | Demand Charges \$/kW pa | Demand Charges \$/kVA pa | Peak | Off Peak | Summer Time of Use Charges | | | Non-Summer Time of Use Charges | | |
|--|---------|-----------------------------|------------------|-------------------|-----------------------------|-------------------------|--------------------------|---------------|---------------|----------------------------|----------------|----------------|--------------------------------|----------------|----------------|
| | | 1 Jan - 30 Jun | 1 Jul - 31 Dec | | | | | Charges c/kWh | Charges c/kWh | Peak c/kWh | Shoulder c/kWh | Off Peak c/kWh | Peak c/kWh | Shoulder c/kWh | Off Peak c/kWh |
| | | | | | | | | | | | | | | | |
| Residential Single Rate | C1R | Yes | Yes | | 75.0000 | - | - | 5.4746 | - | - | - | - | - | - | - |
| Residential Single Rate - Bulk | C1RB | Yes | Yes | | 65.0000 | - | - | 3.7856 | - | - | - | - | - | - | - |
| Residential - flexible pricing | C13R | Yes | Yes | | 75.0000 | - | - | - | - | 10.6779 | 6.8489 | 2.2540 | 10.6779 | 6.8489 | 2.2540 |
| Residential - flexible pricing bulk | C13RB | Yes | Yes | | 65.0000 | - | - | - | - | 8.5337 | 5.4704 | 1.7945 | 8.5337 | 5.4704 | 1.7945 |
| Residential Two Rate 5d | C2R | No | No | | 75.0000 | - | - | 9.1463 | 1.9477 | - | - | - | - | - | - |
| Residential Two Rate 5d - Bulk | C2RB | No | No | | 65.0000 | - | - | 7.2318 | 1.6413 | - | - | - | - | - | - |
| Residential Interval | C3R | No | No | | 75.0000 | - | - | 9.1463 | 1.9477 | - | - | - | - | - | - |
| Residential Interval - Bulk | C3RB | No | No | | 65.0000 | - | - | 7.2318 | 1.6413 | - | - | - | - | - | - |
| Residential Two Rate 5d - Controlled Load | C2ROP | No | Yes ¹ | | - | - | - | - | 1.6413 | - | - | - | - | - | - |
| Residential Two Rate 5d - Bulk - Controlled Load | C2RBOP | No | Yes ¹ | | - | - | - | - | 1.1818 | - | - | - | - | - | - |
| Dedicated Circuit | CDS | No | Yes | | - | - | - | - | 1.6413 | - | - | - | - | - | - |
| Dedicated Circuit - Bulk | CDSB | No | Yes | | - | - | - | - | 1.1818 | - | - | - | - | - | - |
| Non-Residential Single Rate | C1G | Yes | Yes | | 140.0000 | - | - | 5.8061 | - | - | - | - | - | - | - |
| Non-Residential Single Rate - Bulk | C1GB | Yes | Yes | | 120.0000 | - | - | 4.4505 | - | - | - | - | - | - | - |
| Non-Residential Two Rate 5d | C2G5 | No | No | | 140.0000 | - | - | 7.8037 | 2.0514 | - | - | - | - | - | - |
| Non-Residential Two Rate 5d - Bulk | C2G5B | No | No | | 120.0000 | - | - | 5.6634 | 1.5275 | - | - | - | - | - | - |
| Non-Residential Interval | C3G | No | No | | 140.0000 | - | - | 7.8037 | 2.0514 | - | - | - | - | - | - |
| Non-Residential Interval - Bulk | C3GB | No | No | | 120.0000 | - | - | 5.6634 | 1.5275 | - | - | - | - | - | - |
| Non-Residential Flexible Pricing | C14G | No | No | | 140.0000 | - | - | - | - | 10.6575 | 7.0903 | 2.2389 | 10.6575 | 7.0903 | 2.2389 |
| Non-Residential - Flexible Pricing Bulk | C14GB | No | No | | 120.0000 | - | - | - | - | 9.0523 | 6.0201 | 1.8964 | 9.0523 | 6.0201 | 1.8964 |
| Non-Residential Two Rate 7d | C2G7 | No | No | | 140.0000 | - | - | 6.1370 | 2.0514 | - | - | - | - | - | - |
| Non-Residential Two Rate 7d - Bulk | C2G7B | No | No | | 120.0000 | - | - | 5.2839 | 1.5275 | - | - | - | - | - | - |
| Large Two Rate 7d | C2L7 | No | No | | 140.0000 | - | - | 7.8037 | 2.0514 | - | - | - | - | - | - |
| Unmetered Supplies / Public Lighting | C2U | Yes | Yes | | - | - | - | 7.4470 | 2.0514 | - | - | - | - | - | - |
| Large Low Voltage Demand | C2DL | Yes | No | 120 | - | 69.5063 | - | 2.4929 | 1.5531 | - | - | - | - | - | - |
| Large Low Voltage Demand - Bulk | C2DLB | Yes | No | 120 | - | 64.3054 | - | 2.0551 | 1.4656 | - | - | - | - | - | - |
| Large Low Voltage Demand R | C2DLER | Yes | No | 120 | - | 64.0797 | - | 2.1641 | 1.4230 | - | - | - | - | - | - |
| Large Low Voltage Demand G | C2DLEG | Yes | No | 120 | - | 74.1429 | - | 2.6196 | 1.6820 | - | - | - | - | - | - |
| Large Low Voltage Demand - Bulk R | C2DLBER | Yes | No | 120 | - | 59.2045 | - | 1.7522 | 1.3319 | - | - | - | - | - | - |
| Large Low Voltage Demand - Bulk G | C2DLBEG | Yes | No | 120 | - | 68.5676 | - | 2.1560 | 1.5775 | - | - | - | - | - | - |
| Large low Voltage | CLLV | No | Yes | | 5,525 | - | 64.0475 | 2.0604 | 1.2453 | - | - | - | - | - | - |
| Large low Voltage Bulk | CLLVB | No | Yes | | 5,100 | - | 57.6428 | 1.8275 | 1.1288 | - | - | - | - | - | - |
| High Voltage Demand | C2DH | Yes | No | 1000 | - | 33.9239 | - | 1.3083 | 0.6746 | - | - | - | - | - | - |
| High Voltage Demand D1 | C2DHD1 | No | No | 40000 | - | 21.3497 | - | 0.8381 | 0.4470 | - | - | - | - | - | - |
| High Voltage Demand R | C2DHER | Yes | No | 1000 | - | 31.1696 | - | 1.0968 | 0.6081 | - | - | - | - | - | - |
| High Voltage Demand G | C2DHEG | Yes | No | 1000 | - | 36.1521 | - | 1.3666 | 0.7254 | - | - | - | - | - | - |
| High Voltage | CHV | No | Yes | | 28,600 | - | 31.2400 | 1.1000 | 0.5720 | - | - | - | - | - | - |
| Subtransmission Demand | C2DT | Yes | No | 10000 | - | 3.6027 | - | 0.5137 | 0.1869 | - | - | - | - | - | - |
| Subtransmission | CST | No | Yes | | 132,000 | - | 3.0800 | 0.3784 | 0.1584 | - | - | - | - | - | - |

Source: CitiPower

¹ customers must already be on the equivalent primary tariff

Table A.3 Transmission (TUoS) Tariff 2016

| TUOS Tariff 2016 | Code | Available to new customers? | | Minimum Demand kW | Standing charges \$/cust pa | Demand Charges \$/kW pa | Demand Charges \$/kVA pa | Peak Charges c/kWh | Off Peak Charges c/kWh | Summer Time of Use Charges | | | Non-Summer Time of Use Charges | | |
|--|---------|-----------------------------|------------------|-------------------|-----------------------------|-------------------------|--------------------------|--------------------|------------------------|----------------------------|----------------|----------------|--------------------------------|----------------|----------------|
| | | 1 Jan - 30 Jun | 1 Jul - 31 Dec | | | | | | | Peak c/kWh | Shoulder c/kWh | Off Peak c/kWh | Peak c/kWh | Shoulder c/kWh | Off Peak c/kWh |
| | | | | | | | | | | | | | | | |
| Residential Single Rate | C1R | Yes | Yes | | | - | - | 1.2912 | - | - | - | - | - | - | - |
| Residential Single Rate - Bulk | C1RB | Yes | Yes | | | - | - | 0.8928 | - | - | - | - | - | - | - |
| Residential - flexible pricing | C13R | Yes | Yes | | | - | - | - | - | 2.5184 | 1.6153 | 0.5316 | 2.5184 | 1.6153 | 0.5316 |
| Residential - flexible pricing bulk | C13RB | Yes | Yes | | | - | - | - | - | 2.0127 | 1.2902 | 0.4232 | 2.0127 | 1.2902 | 0.4232 |
| Residential Two Rate 5d | C2R | No | No | | | - | - | 2.1572 | 0.4594 | - | - | - | - | - | - |
| Residential Two Rate 5d - Bulk | C2RB | No | No | | | - | - | 1.7056 | 0.3871 | - | - | - | - | - | - |
| Residential Interval | C3R | No | No | | | - | - | 2.1572 | 0.4594 | - | - | - | - | - | - |
| Residential Interval - Bulk | C3RB | No | No | | | - | - | 1.7056 | 0.3871 | - | - | - | - | - | - |
| Residential Two Rate 5d - Controlled Load | C2ROP | No | Yes ¹ | | | - | - | - | 0.3871 | - | - | - | - | - | - |
| Residential Two Rate 5d - Bulk - Controlled Load | C2RBOP | No | Yes ¹ | | | - | - | - | 0.2787 | - | - | - | - | - | - |
| Dedicated Circuit | CDS | No | Yes | | | - | - | - | 0.3871 | - | - | - | - | - | - |
| Dedicated Circuit - Bulk | CDSB | No | Yes | | | - | - | - | 0.2787 | - | - | - | - | - | - |
| Non-Residential Single Rate | C1G | Yes | Yes | | | - | - | 1.0299 | - | - | - | - | - | - | - |
| Non-Residential Single Rate - Bulk | C1GB | Yes | Yes | | | - | - | 0.7895 | - | - | - | - | - | - | - |
| Non-Residential Two Rate 5d | C2G5 | No | No | | | - | - | 1.3843 | 0.3639 | - | - | - | - | - | - |
| Non-Residential Two Rate 5d - Bulk | C2G5B | No | No | | | - | - | 1.0046 | 0.2710 | - | - | - | - | - | - |
| Non-Residential Interval | C3G | No | No | | | - | - | 1.3843 | 0.3639 | - | - | - | - | - | - |
| Non-Residential Interval - Bulk | C3GB | No | No | | | - | - | 1.0046 | 0.2710 | - | - | - | - | - | - |
| Non-Residential Flexible Pricing | C14G | No | No | | | - | - | - | - | 1.8905 | 1.2577 | 0.3971 | 1.8905 | 1.2577 | 0.3971 |
| Non-Residential - Flexible Pricing Bulk | C14GB | No | No | | | - | - | - | - | 1.6057 | 1.0679 | 0.3364 | 1.6057 | 1.0679 | 0.3364 |
| Non-Residential Two Rate 7d | C2G7 | No | No | | | - | - | 1.0886 | 0.3639 | - | - | - | - | - | - |
| Non-Residential Two Rate 7d - Bulk | C2G7B | No | No | | | - | - | 0.9373 | 0.2710 | - | - | - | - | - | - |
| Large Two Rate 7d | C2L7 | No | No | | | - | - | 1.3843 | 0.3639 | - | - | - | - | - | - |
| Unmetered Supplies / Public Lighting | C2U | Yes | Yes | | | - | - | 1.3210 | 0.3639 | - | - | - | - | - | - |
| Large Low Voltage Demand | C2DL | Yes | No | 120 | | 31.9627 | - | 1.1464 | 0.7142 | - | - | - | - | - | - |
| Large Low Voltage Demand - Bulk | C2DLB | Yes | No | 120 | | 29.5711 | - | 0.9450 | 0.6740 | - | - | - | - | - | - |
| Large Low Voltage Demand R | C2DLER | Yes | No | 120 | | 29.4673 | - | 0.9952 | 0.6544 | - | - | - | - | - | - |
| Large Low Voltage Demand G | C2DLEG | Yes | No | 120 | | 34.0949 | - | 1.2046 | 0.7735 | - | - | - | - | - | - |
| Large Low Voltage Demand - Bulk R | C2DLBER | Yes | No | 120 | | 27.2254 | - | 0.8058 | 0.6125 | - | - | - | - | - | - |
| Large Low Voltage Demand - Bulk G | C2DLBEG | Yes | No | 120 | | 31.5311 | - | 0.9915 | 0.7254 | - | - | - | - | - | - |
| Large low Voltage | CLLV | No | Yes | | | - | 29.4525 | 0.9475 | 0.5726 | - | - | - | - | - | - |
| Large low Voltage Bulk | CLLVB | No | Yes | | | - | 26.5073 | 0.8404 | 0.5191 | - | - | - | - | - | - |
| High Voltage Demand | C2DH | Yes | No | 1000 | | 33.9239 | - | 1.3083 | 0.6746 | - | - | - | - | - | - |
| High Voltage Demand D1 | C2DHD1 | No | No | 40000 | | 21.3497 | - | 0.8381 | 0.4470 | - | - | - | - | - | - |
| High Voltage Demand R | C2DHER | Yes | No | 1000 | | 31.1696 | - | 1.0968 | 0.6081 | - | - | - | - | - | - |
| High Voltage Demand G | C2DHEG | Yes | No | 1000 | | 36.1521 | - | 1.3666 | 0.7254 | - | - | - | - | - | - |
| High Voltage | CHV | No | Yes | | | - | 31.2400 | 1.1000 | 0.5720 | - | - | - | - | - | - |
| Subtransmission Demand | C2DT | Yes | No | 10000 | | 14.4107 | - | 2.0548 | 0.7478 | - | - | - | - | - | - |
| Subtransmission | CST | No | Yes | | | - | 12.3200 | 1.5136 | 0.6336 | - | - | - | - | - | - |

Source: CitiPower

¹ customers must already be on the equivalent primary tariff

Table A.4 Jurisdictional Scheme (JUoS) Tariff 2016

| JUoS Tariff 2016 | Code | Available to new customers? | | Minimum Demand kW | Standing charges \$/cust pa | Demand Charges \$/kW pa | Demand Charges \$/kVA pa | Peak Charges c/kWh | Off Peak Charges c/kWh | Summer Time of Use Charges | | | Non-Summer Time of Use Charges | | |
|--|---------|-----------------------------|------------------|-------------------|-----------------------------|-------------------------|--------------------------|--------------------|------------------------|----------------------------|----------------|----------------|--------------------------------|----------------|----------------|
| | | 1 Jan - 30 Jun | 1 Jul - 31 Dec | | | | | | | Peak c/kWh | Shoulder c/kWh | Off Peak c/kWh | Peak c/kWh | Shoulder c/kWh | Off Peak c/kWh |
| | | | | | | | | | | | | | | | |
| Residential Single Rate | C1R | Yes | Yes | | - | - | - | 0.0537 | - | - | - | - | - | - | - |
| Residential Single Rate - Bulk | C1RB | Yes | Yes | | - | - | - | 0.0537 | - | - | - | - | - | - | - |
| Residential - flexible pricing | C13R | Yes | Yes | | - | - | - | - | - | 0.0537 | 0.0537 | 0.0537 | 0.0537 | 0.0537 | 0.0537 |
| Residential - flexible pricing bulk | C13RB | Yes | Yes | | - | - | - | - | - | 0.0537 | 0.0537 | 0.0537 | 0.0537 | 0.0537 | 0.0537 |
| Residential Two Rate 5d | C2R | No | No | | - | - | - | 0.0537 | 0.0537 | - | - | - | - | - | - |
| Residential Two Rate 5d - Bulk | C2RB | No | No | | - | - | - | 0.0537 | 0.0537 | - | - | - | - | - | - |
| Residential Interval | C3R | No | No | | - | - | - | 0.0537 | 0.0537 | - | - | - | - | - | - |
| Residential Interval - Bulk | C3RB | No | No | | - | - | - | 0.0537 | 0.0537 | - | - | - | - | - | - |
| Residential Two Rate 5d - Controlled Load | C2ROP | No | Yes ¹ | | - | - | - | - | 0.0537 | - | - | - | - | - | - |
| Residential Two Rate 5d - Bulk - Controlled Load | C2RBOP | No | Yes ¹ | | - | - | - | - | 0.0537 | - | - | - | - | - | - |
| Dedicated Circuit | CDS | No | Yes | | - | - | - | - | 0.0537 | - | - | - | - | - | - |
| Dedicated Circuit - Bulk | CDSB | No | Yes | | - | - | - | - | 0.0537 | - | - | - | - | - | - |
| Non-Residential Single Rate | C1G | Yes | Yes | | - | - | - | 0.0520 | - | - | - | - | - | - | - |
| Non-Residential Single Rate - Bulk | C1GB | Yes | Yes | | - | - | - | 0.0520 | - | - | - | - | - | - | - |
| Non-Residential Two Rate 5d | C2G5 | No | No | | - | - | - | 0.0520 | 0.0520 | - | - | - | - | - | - |
| Non-Residential Two Rate 5d - Bulk | C2G5B | No | No | | - | - | - | 0.0520 | 0.0520 | - | - | - | - | - | - |
| Non-Residential Interval | C3G | No | No | | - | - | - | 0.0520 | 0.0520 | - | - | - | - | - | - |
| Non-Residential Interval - Bulk | C3GB | No | No | | - | - | - | 0.0520 | 0.0520 | - | - | - | - | - | - |
| Non-Residential Flexible Pricing | C14G | No | No | | - | - | - | - | - | 0.0520 | 0.0520 | 0.0520 | 0.0520 | 0.0520 | 0.0520 |
| Non-Residential - Flexible Pricing Bulk | C14GB | No | No | | - | - | - | - | - | 0.0520 | 0.0520 | 0.0520 | 0.0520 | 0.0520 | 0.0520 |
| Non-Residential Two Rate 7d | C2G7 | No | No | | - | - | - | 0.0520 | 0.0520 | - | - | - | - | - | - |
| Non-Residential Two Rate 7d - Bulk | C2G7B | No | No | | - | - | - | 0.0520 | 0.0520 | - | - | - | - | - | - |
| Large Two Rate 7d | C2L7 | No | No | | - | - | - | 0.0520 | 0.0520 | - | - | - | - | - | - |
| Unmetered Supplies / Public Lighting | C2U | Yes | Yes | | - | - | - | 0.0520 | 0.0520 | - | - | - | - | - | - |
| Large Low Voltage Demand | C2DL | Yes | No | 120 | - | - | - | 0.0521 | 0.0521 | - | - | - | - | - | - |
| Large Low Voltage Demand - Bulk | C2DLB | Yes | No | 120 | - | - | - | 0.0521 | 0.0521 | - | - | - | - | - | - |
| Large Low Voltage Demand R | C2DLER | Yes | No | 120 | - | - | - | 0.0521 | 0.0521 | - | - | - | - | - | - |
| Large Low Voltage Demand G | C2DLEG | Yes | No | 120 | - | - | - | 0.0521 | 0.0521 | - | - | - | - | - | - |
| Large Low Voltage Demand - Bulk R | C2DLBER | Yes | No | 120 | - | - | - | 0.0521 | 0.0521 | - | - | - | - | - | - |
| Large Low Voltage Demand - Bulk G | C2DLBEG | Yes | No | 120 | - | - | - | 0.0521 | 0.0521 | - | - | - | - | - | - |
| Large low Voltage | CLLV | No | Yes | | - | - | - | 0.0521 | 0.0521 | - | - | - | - | - | - |
| Large low Voltage Bulk | CLLVB | No | Yes | | - | - | - | 0.0521 | 0.0521 | - | - | - | - | - | - |
| High Voltage Demand | C2DH | Yes | No | 1000 | - | - | - | - | - | - | - | - | - | - | - |
| High Voltage Demand D1 | C2DHD1 | No | No | 40000 | - | - | - | - | - | - | - | - | - | - | - |
| High Voltage Demand R | C2DHER | Yes | No | 1000 | - | - | - | - | - | - | - | - | - | - | - |
| High Voltage Demand G | C2DHEG | Yes | No | 1000 | - | - | - | - | - | - | - | - | - | - | - |
| High Voltage | CHV | No | Yes | | - | - | - | - | - | - | - | - | - | - | - |
| Subtransmission Demand | C2DT | Yes | No | 10000 | - | - | - | - | - | - | - | - | - | - | - |
| Subtransmission | CST | No | Yes | | - | - | - | - | - | - | - | - | - | - | - |

Source: CitiPower

¹ customers must already be on the equivalent primary tariff

Table A.5 2015 to 2016 Network (NUoS) Tariff rate change

| Network Tariff Rate Change (%) 2015-2016 | Code | Available to new customers? | | Minimum Demand kW | Standing charges \$/cust pa | Demand Charges \$/kW pa | Demand Charges \$/kVA pa | Peak | Off Peak | Summer Time of Use Charges | | | Non-Summer Time of Use Charges | | |
|--|---------|-----------------------------|------------------|-------------------|--------------------------------|----------------------------|-----------------------------|---------|----------|----------------------------|----------|----------|--------------------------------|----------|----------|
| | | 1 Jan - 30 Jun | 1 Jul - 31 Dec | | | | | Charges | Charges | Peak | Shoulder | Off Peak | Peak | Shoulder | Off Peak |
| | | | | | | | | c/kWh | c/kWh | c/kWh | c/kWh | c/kWh | c/kWh | c/kWh | c/kWh |
| Residential Single Rate | C1R | Yes | Yes | | 40% | - | - | -3% | - | - | - | - | - | - | - |
| Residential Single Rate - Bulk | C1RB | Yes | Yes | | 37% | - | - | 13% | - | - | - | - | - | - | - |
| Residential - flexible pricing | C13R | Yes | Yes | | 1% | - | - | - | - | 6% | 16% | 47% | 6% | 16% | 47% |
| Residential - flexible pricing bulk | C13RB | Yes | Yes | | 5% | - | - | - | - | -13% | -4% | 26% | -13% | -4% | 26% |
| Residential Two Rate 5d | C2R | No | No | | -39% | - | - | -9% | 14% | - | - | - | - | - | - |
| Residential Two Rate 5d - Bulk | C2RB | No | No | | -46% | - | - | -7% | 45% | - | - | - | - | - | - |
| Residential Interval | C3R | No | No | | -39% | - | - | -9% | 14% | - | - | - | - | - | - |
| Residential Interval - Bulk | C3RB | No | No | | -46% | - | - | -7% | 45% | - | - | - | - | - | - |
| Residential Two Rate 5d - Controlled Load | C2ROP | No | Yes ¹ | | - | - | - | - | -4% | - | - | - | - | - | - |
| Residential Two Rate 5d - Bulk - Controlled Load | C2RBOP | No | Yes ¹ | | - | - | - | - | 6% | - | - | - | - | - | - |
| Dedicated Circuit | CDS | No | Yes | | - | - | - | - | -12% | - | - | - | - | - | - |
| Dedicated Circuit - Bulk | CDSB | No | Yes | | - | - | - | - | -5% | - | - | - | - | - | - |
| Non-Residential Single Rate | C1G | Yes | Yes | | 15% | - | - | -19% | - | - | - | - | - | - | - |
| Non-Residential Single Rate - Bulk | C1GB | Yes | Yes | | 16% | - | - | -23% | - | - | - | - | - | - | - |
| Non-Residential Two Rate 5d | C2G5 | No | No | | -54% | - | - | -4% | -7% | - | - | - | - | - | - |
| Non-Residential Two Rate 5d - Bulk | C2G5B | No | No | | -58% | - | - | -9% | 14% | - | - | - | - | - | - |
| Non-Residential Interval | C3G | No | No | | -54% | - | - | -4% | -7% | - | - | - | - | - | - |
| Non-Residential Interval - Bulk | C3GB | No | No | | -58% | - | - | -9% | 14% | - | - | - | - | - | - |
| Non-Residential Flexible Pricing | C14G | No | No | | -2% | - | - | - | - | -6% | -19% | -9% | -6% | -19% | -9% |
| Non-Residential - Flexible Pricing Bulk | C14GB | No | No | | 1% | - | - | - | - | -1% | -16% | -8% | -1% | -16% | -8% |
| Non-Residential Two Rate 7d | C2G7 | No | No | | -47% | - | - | -15% | -1% | - | - | - | - | - | - |
| Non-Residential Two Rate 7d - Bulk | C2G7B | No | No | | -50% | - | - | -8% | -7% | - | - | - | - | - | - |
| Large Two Rate 7d | C2L7 | No | No | | -15% | - | - | -9% | -13% | - | - | - | - | - | - |
| Unmetered Supplies / Public Lighting | C2U | Yes | Yes | | - | - | - | -8% | -17% | - | - | - | - | - | - |
| Large Low Voltage Demand | C2DL | Yes | No | 120 | - | -5% | - | -5% | -5% | - | - | - | - | - | - |
| Large Low Voltage Demand - Bulk | C2DLB | Yes | No | 120 | - | -5% | - | -5% | -5% | - | - | - | - | - | - |
| Large Low Voltage Demand R | C2DLER | Yes | No | 120 | - | -5% | - | -5% | -5% | - | - | - | - | - | - |
| Large Low Voltage Demand G | C2DLEG | Yes | No | 120 | - | -5% | - | -5% | -5% | - | - | - | - | - | - |
| Large Low Voltage Demand - Bulk R | C2DLBER | Yes | No | 120 | - | -5% | - | -5% | -5% | - | - | - | - | - | - |
| Large Low Voltage Demand - Bulk G | C2DLBEG | Yes | No | 120 | - | -5% | - | -5% | -5% | - | - | - | - | - | - |
| Large low Voltage | CLLV | No | Yes | | - | - | - | - | - | - | - | - | - | - | - |
| Large low Voltage Bulk | CLLVB | No | Yes | | - | - | - | - | - | - | - | - | - | - | - |
| High Voltage Demand | C2DH | Yes | No | 1000 | - | -5% | - | -5% | -5% | - | - | - | - | - | - |
| High Voltage Demand D1 | C2DHD1 | No | No | 40000 | - | -5% | - | -5% | -5% | - | - | - | - | - | - |
| High Voltage Demand R | C2DHER | Yes | No | 1000 | - | -5% | - | -5% | -5% | - | - | - | - | - | - |
| High Voltage Demand G | C2DHEG | Yes | No | 1000 | - | -5% | - | -5% | -5% | - | - | - | - | - | - |
| High Voltage | CHV | No | Yes | | - | - | - | - | - | - | - | - | - | - | - |
| Subtransmission Demand | C2DT | Yes | No | 10000 | - | -5% | - | -5% | -5% | - | - | - | - | - | - |
| Subtransmission | CST | No | Yes | | - | - | - | - | - | - | - | - | - | - | - |

Source: CitiPower

A.2 Tariff eligibility

A.2.1 Tariffs Available to New and Existing Customers in 2016

All times are in Eastern Standard Times unless otherwise specified.

Table A.6 Tariffs Available to New and Existing Customers in 2016

| Tariff Code | Tariff description | Supply voltage (V) ⁴ | Supply capacity (kW) ⁵ | Peak period | Shoulder period | Off peak period | Eligible customers |
|------------------------------|--------------------------------|---------------------------------|-----------------------------------|------------------|-----------------|-----------------|--|
| Embedded generation | | | | | | | |
| GENR13 | Embedded generation | N/A | N/A | 7 days, 24 hrs | N/A | N/A | <ul style="list-style-type: none"> • Must have an interval meter • May be required for Feed-In tariffs (FiT), refer to retailer for details |
| Residential customers | | | | | | | |
| C1R | Residential single rate | <1,000 | <120 | 7 days, 24 hours | N/A | N/A | <ul style="list-style-type: none"> • This is the default tariff for greenfield new connections where the retailer does not specify an alternative open tariff • Residential customers only • No controlled load |
| C1RB | Residential single rate - bulk | <1,000 | <120 | 7 days, 24 hours | N/A | N/A | <ul style="list-style-type: none"> • Where the retailer does not specify an alternative open tariff, this is the default tariff for greenfield new connections supplied directly from on-site substation terminals where there are no CitiPower distribution assets beyond the substation • Residential customers only • No controlled load |

⁴ 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.

⁵ Connection capacity is the determining factor in tariff selection not actual capacity

| Tariff Code | Tariff description | Supply voltage (V) ⁴ | Supply capacity (kW) ⁵ | Peak period | Shoulder period | Off peak period | Eligible customers |
|-------------|---------------------------------------|---------------------------------|-----------------------------------|----------------------|--|----------------------|--|
| C13R | Flexible pricing - residential | <1,000 | <120 | 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"> Residential customers – general power & light supply Require an active market interval read meter Times are in local time |
| C13RB | Flexible pricing - residential - bulk | <1,000 | <120 | 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"> Residential customers who are supplied directly from on-site substation terminals where there are no CitiPower distribution assets beyond the substation – general power & light supply Require an active market interval read meter Times are in local time |
| CDS | Dedicated Circuit | <1,000 | <120 | N/A | N/A | 7 days | <ul style="list-style-type: none"> Residential customers with a dedicated circuit connected to a controlled load Available from 1 July 2016. 1-phase electric hot water service with a total load of <30Amps. <p>Switching Times:</p> <ul style="list-style-type: none"> Typically switching times will occur between 11pm and 7am. These times may vary depending on localised demand management activities. <p>Slab heating</p> <ul style="list-style-type: none"> Typically switching times may vary depending on localised demand management activities. 12am and 7am. An afternoon boost between 1pm and 4pm may occur during winter. |

| Tariff Code | Tariff description | Supply voltage (V) ⁴ | Supply capacity (kW) ⁵ | Peak period | Shoulder period | Off peak period | Eligible customers |
|-------------|--|---------------------------------|-----------------------------------|-------------|-----------------|------------------|---|
| C2ROP | Residential Two Rate 5d – controlled load | <1,000 | <120 | N/A | N/A | 7 Days, 24 hours | <ul style="list-style-type: none"> Where GP&L is connected to C2R (closed tariff) Available from 1 July 2016. Applicable to hot water only Where metering permits 1-phase electric hot water service with a total load of <30Amps. <p>Switching Times:</p> <ul style="list-style-type: none"> Typically switching times will occur between 11pm and 7am. These times may vary depending on localised demand management activities. |
| C2RBOP | Residential Two Rate 5d – Bulk - controlled load | <1,000 | <120 | N/A | N/A | 7 Days, 24 hours | <ul style="list-style-type: none"> Where GP&L is connected to C2RB (closed tariff) Available from 1 July 2016. Applicable to hot water only Where metering permits 1-phase electric hot water service with a total load of <30Amps. <p>Switching Times:</p> <ul style="list-style-type: none"> Typically switching times will occur between 11pm and 7am. These times may vary depending on localised demand management activities. |
| CDSB | Dedicated Circuit - Bulk | <1,000 | <120 | N/A | N/A | 7 days | <ul style="list-style-type: none"> Residential customers with a dedicated circuit connected to a controlled load who are supplied directly from on-site substation terminals where there are no CitiPower distribution assets beyond the substation 1-phase electric hot water service with a total load of <30Amps. Available from 1 July 2016. <p>Switching Times:</p> <ul style="list-style-type: none"> Typically switching times will occur between 11pm and 7am. These times may vary depending on localised demand management activities. <p>Slab heating</p> <ul style="list-style-type: none"> Typically switching times may vary depending on localised demand management activities. 12am and 7am. An afternoon boost between 1pm and 4pm may occur during winter. |

| Tariff Code | Tariff description | Supply voltage (V) ⁴ | Supply capacity (kW) ⁵ | Peak period | Shoulder period | Off peak period | Eligible customers |
|------------------------|------------------------------------|---------------------------------|-----------------------------------|------------------|-----------------|-----------------|--|
| Non-residential | | | | | | | |
| C1GB | Non-residential single rate - bulk | <1,000 | <120 | 7 days, 24 hours | N/A | N/A | <ul style="list-style-type: none"> Where the retailer does not specify an alternative open tariff, this is the default tariff for greenfield new connections supplied directly from on-site substation terminals where there are no CitiPower distribution assets beyond the substation Non-residential customers; or Builder's temporary supplies |
| C1G | Non-residential single rate | <1,000 | <120 | 7 days, 24 hours | N/A | N/A | <ul style="list-style-type: none"> Non-residential customers This is the default tariff for greenfield new connections where the retailer does not specify an alternative open tariff Builder's temporary supply |
| CDS | Dedicated Circuit | <1,000 | <120 | N/A | N/A | 7 days | <ul style="list-style-type: none"> Non-residential customers with a dedicated circuit connected to a controlled load 1-phase electric hot water service with a total load of <30Amps. Available from 1 July 2016. Switching Times: Typically switching times will occur between 11pm and 7am. These times may vary depending on localised demand management activities. Slab heating Typically switching times may vary depending on localised demand management activities. 12am and 7am. An afternoon boost between 1pm and 4pm may occur during winter. |

| Tariff Code | Tariff description | Supply voltage (V) ⁴ | Supply capacity (kW) ⁵ | Peak period | Shoulder period | Off peak period | Eligible customers |
|--------------------------|---|---------------------------------|-----------------------------------|--------------------------|-----------------|--|--|
| CDSB | Dedicated Circuit – Bulk | <1,000 | <120 | N/A | N/A | 7 days | <ul style="list-style-type: none"> • Non-residential customers tariff with a dedicated circuit connected to a controlled load who are supplied directly from on-site substation terminals where there are no CitiPower distribution assets beyond the substation • 1-phase electric hot water service with a total load of <30Amps. • Available from 1 July 2016. • Switching Times: • Typically switching times will occur between 11pm and 7am. These times may vary depending on localised demand management activities. • Slab heating • Typically switching times may vary depending on localised demand management activities. • 12am and 7am. • An afternoon boost between 1pm and 4pm may occur during winter. |
| C2U | Public lighting | <1,000 | N/A | Mon-Fri 0700- 2300 | N/A | Mon-Thurs 2300-0700 Fri 2300 - Mon 0700 | <ul style="list-style-type: none"> • Customers with an approved unmetered load • Public lighting to a public lighting customer • Note: New customer connections are required to install a load-limiting device |
| Large low voltage | | | | | | | |
| C2DL | Large low voltage demand | <1,000 | ≥120 | Mon-Fri 0700- 2300 | N/A | Mon-Thurs 2300-0700 Fri 2300 - Mon 0700 | <ul style="list-style-type: none"> • Closed on 30 June 2016 |
| C2DLER | Large low voltage demand embedded network - residential | <1,000 | ≥120 | Mon-Sun 0700- 2300 | N/A | Mon-Sun 2300-0700 | <ul style="list-style-type: none"> • Embedded network customers • Connection points within the embedded network will be predominantly residential • Closed on 30 June 2016 |

| Tariff Code | Tariff description | Supply voltage (V) ⁴ | Supply capacity (kW) ⁵ | Peak period | Shoulder period | Off peak period | Eligible customers |
|-------------|--|---------------------------------|-----------------------------------|---------------------|-----------------|--|--|
| C2DLEG | Large low voltage demand embedded network 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"> Embedded network customers Connection points within the embedded network will be predominantly non-residential Closed on 30 June 2016 |
| C2DLB | Large low voltage demand - bulk | <1,000 | ≥120 | Mon-Fri 0700-2300 | N/A | Mon-Thurs 2300-0700 Fri 2300 - Mon 0700 | <ul style="list-style-type: none"> Large customers who are supplied directly from on-site substation terminals where there are no CitiPower distribution assets beyond the substation Closed on 30 June 2016 |
| C2DLBER | Large low voltage demand embedded network residential - bulk | <1,000 | ≥120 | Mon-Sun 0700-2300 | N/A | Mon-Sun 2300-0700 | <ul style="list-style-type: none"> Embedded network customers Customers supplied directly from on-site substation terminals where there are no CitiPower distribution assets beyond the substation Connection points within the embedded network will be predominantly residential Closed on 30 June 2016 |
| C2DLBEG | Large low voltage demand embedded network non-residential - bulk | <1,000 | ≥120 | Mon-Fri 0700-2300 | N/A | Mon-Thurs 2300-0700 Fri 2300 - Mon 0700 | <ul style="list-style-type: none"> Embedded network customers Customers supplied directly from on-site substation terminals where there are no CitiPower distribution assets beyond the substation Connection points within the embedded network will be predominantly non-residential Closed on 30 June 2016 |
| CLLV | Large low voltage (kVA demand tariff) | <1,000 | ≥120 | Mon-Fri 0700 - 2300 | N/A | All other times | <ul style="list-style-type: none"> Open from 1 July 2016 Billed demand is the maximum kVA over a 12 month rolling period Interval meter capable of recording E, Q, B, K data stream |
| CLLVB | Large low voltage bulk (kVA demand tariff) | <1,000 | ≥120 | Mon-Fri 0700 - 2300 | N/A | All other times | <ul style="list-style-type: none"> Open from 1 July 2016 Billed demand is the maximum kVA over a 12 month rolling period Large customers who are supplied directly from on-site substation terminals where there are no CitiPower distribution assets beyond the substation Interval meter capable of recording E, Q, B, K data stream |

| Tariff Code | Tariff description | Supply voltage (V) ⁴ | Supply capacity (kW) ⁵ | Peak period | Shoulder period | Off peak period | Eligible customers |
|-------------------------|--|---------------------------------|-----------------------------------|---------------------------|-----------------|--|---|
| High voltage | | | | | | | |
| C2DH | High voltage demand | ≥1,000 and <22,000 | ≥1,000 | Mon-Fri 0700-2300 | N/A | Mon-Thurs 2300-0700 Fri 2300 - Mon 0700 | <ul style="list-style-type: none"> Closed from 30 June 2016 |
| C2DHER | High voltage demand embedded network residential | ≥1,000 and <22,000 | ≥1,000 | Mon-Sun 0700-2300 | N/A | Mon-Sun 2300-0700 | <ul style="list-style-type: none"> High voltage customers either registered by the ESC or AER as an embedded network or who have an exemption from holding a distribution licence Connection points within the Embedded Network will be predominantly residential Closed from 30 June 2016 |
| C2DHEG | High voltage demand embedded network non-residential | ≥1,000 and <22,000 | ≥1,000 | Mon-Fri 0700-2300 | N/A | Mon-Thurs 2300-0700 Fri 2300 - Mon 0700 | <ul style="list-style-type: none"> High voltage customers either registered by the ESC or AER as an embedded network or who have an exemption from holding a distribution licence Connection points within the embedded network will be predominantly non-residential Closed from 30 June 2016 |
| CHV | High voltage (kVA demand tariff) | ≥1,000 and <22,000 | NA | Mon-Fri 0700 - 2300 | N/A | All other times | <ul style="list-style-type: none"> Open from 1 July 2016 Billed demand is the maximum kVA over a 12 month rolling period Interval meter capable of recording E, Q, B, K data stream |
| Sub-transmission | | | | | | | |
| C2DT | Sub-transmission demand | ≥22,000 or ≤66,000 | ≥10,000 | Mon-Fri 0700-2300 | N/A | Mon-Thurs 2300-0700 Fri 2300 - Mon 0700 | <ul style="list-style-type: none"> Closed from 30 June 2016 |

| Tariff Code | Tariff description | Supply voltage (V) ⁴ | Supply capacity (kW) ⁵ | Peak period | Shoulder period | Off peak period | Eligible customers |
|-------------|--------------------------------------|---------------------------------|-----------------------------------|---------------------|-----------------|-----------------|--|
| CST | Sub-transmission (kVA demand tariff) | ≥22,000 or ≤66,000 | NA | Mon-Fri 0700 - 2300 | N/A | All other times | <ul style="list-style-type: none"> • Open from 1 July 2016 • Billed demand is the maximum kVA over a 12 month rolling period • Interval meter capable of recording E, Q, B, K data stream |

Source: CitiPower

A.2.2 Tariffs only available to existing customers already assigned this tariff at 1 January 2016 (closed to new customers)

Table A.7 Tariffs only available to existing customers already assigned this tariff at 1 January 2016

| Tariff Code | Tariff description | Supply voltage (V) ⁶ | Min. bill demand (kW) ⁷ | Peak period | Shoulder period | Off peak period | Eligible customers | Allowed control loads |
|-------------|----------------------------|---------------------------------|------------------------------------|----------------|-----------------|-----------------|---|--|
| | Embedded Generation | | | | | | | |
| PFIT | Premium Feed-in tariff | N/A | N/A | 7 days, 24 hrs | N/A | N/A | <ul style="list-style-type: none"> • Must have a single element interval meter • Produces electricity from a qualifying photo voltaic generation unit • Has a name-plate generation capacity <= 5kW • Is not a part of an embedded network • Customers taking up this tariff will have their GP&L load remain in 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 • Must meet other legislative eligibility criteria⁸ | <p>New or changed: None</p> <p>Existing: Controlled load tariffs CDS and CDSB must be forfeited.</p> |
| TFIT | Solar Feed-in tariff | N/A | N/A | 7 days, 24 hrs | N/A | N/A | <ul style="list-style-type: none"> • Must have a compliant meter • Produces electricity from a qualifying photo voltaic generation unit • Has a name-plate generation capacity <= 5kW • Is not a part of an embedded network • Must forfeit controlled load • Must meet other legislative eligibility criteria⁹ | |

⁶ 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.

⁷ Connection capacity is the determining factor in tariff selection not actual capacity

⁸ Eligibility criteria as specified in the "Electricity Industry Amendment (Premium Solar Feed-in Tariff) Act 2009"

⁹ Eligibility criteria as specified in the "National Electricity (Victoria) Act 2005"

| Tariff Code | Tariff description | Supply voltage (V) ⁶ | Min. bill demand (kW) ⁷ | Peak period | Shoulder period | Off peak period | Eligible customers | Allowed control loads |
|------------------------------|--------------------------------|---------------------------------|------------------------------------|-------------------|-----------------|-----------------|---|--|
| GENR | Feed-in tariff | N/A | N/A | 7 days, 24 hrs | N/A | N/A | <ul style="list-style-type: none"> Must have a compliant meter May be required for Feed-In tariffs, refer to retailer for details | |
| Residential customers | | | | | | | | |
| C2R | Residential Two Rate 5d | <1,000 | <120 | Mon-Fri 0700-2300 | N/A | All other times | <ul style="list-style-type: none"> Existing customers only | <p>1-phase electric hot water service with a total load of <30Amps.</p> <p>Switching Times: Typically switching times will occur between 11pm and 7am. These times may vary depending on localised demand management activities.</p> |
| C2RB | Residential Two Rate 5d - Bulk | <1,000 | <120 | Mon-Fri 0700-2300 | N/A | All other times | <ul style="list-style-type: none"> Customers who are supplied directly from on-site substation terminals where there are no CitiPower distribution assets beyond the substation Existing customers only | <p>1-phase electric hot water service with a total load of <30Amps.</p> <p>Switching Times: Typically switching times will occur between 11pm and 7am. These times may vary depending on localised demand management activities</p> |

| Tariff Code | Tariff description | Supply voltage (V) ⁶ | Min. bill demand (kW) ⁷ | Peak period | Shoulder period | Off peak period | Eligible customers | Allowed control loads |
|----------------------------------|-------------------------------------|---------------------------------|------------------------------------|-----------------------|----------------------|----------------------|---|-----------------------|
| C3R | Residential | <1,000 | <120 | Mon-Fri 0700 -2300 | N/A | All other times | <ul style="list-style-type: none"> Existing residential customers only | None |
| C3RB | Residential - Bulk | <1,000 | <120 | Mon-Fri 0700 -2300 | N/A | All other times | <ul style="list-style-type: none"> Existing residential customers who are supplied directly from on-site substation terminals where there are no CitiPower distribution assets beyond the substation. | None |
| Non Residential Customers | | | | | | | | |
| C2G5 | Non- Residential Two Rate 5d | <1,000 | <120 | Mon-Fri 0700-2300 | N/A | All other times | <ul style="list-style-type: none"> Non-residential customers without a controlled load who requested a 2 rate tariff | None |
| C14G | Non residential | <1,000 | <120 | Mon-Fri 0700-1900 | Sat-Sun 0700-1900 | Mon-Sun 1900-0700 | <ul style="list-style-type: none"> Non-residential customers Requires an AMI meter Times are in local time. | |
| C14GB | Non-residential – bulk | <1,000 | <120 | Mon-Fri 0700-1900 | Sat-Sun 0700-1900 | Mon-Sun 1900-0700 | <ul style="list-style-type: none"> Non-residential customers who are supplied directly from on-site substation terminals where there are no CitiPower distribution assets beyond the substation. Requires an AMI meter Times are in local time | |
| C2G5B | Non- Residential Two Rate 5d – Bulk | <1,000 | <120 | Mon-Fri 0700-2300 | N/A | All other times | <ul style="list-style-type: none"> Non-residential customers who requested a 2 rate tariff Who are supplied directly from on-site substation terminals where there are no CitiPower distribution assets beyond the substation | None |
| C2G7 | Non-Residential Two Rate 7d | <1,000 | <120 | Mon-Sun 0700-2300 | N/A | All other times | <ul style="list-style-type: none"> Non-residential customers who requested a 7-day, 2 rate tariff | None |
| C2G7B | Non-Residential Two Rate 7d - Bulk | <1,000 | <120 | Mon-Sun 0700-2300 | N/A | All other times | <ul style="list-style-type: none"> Non-residential customers who requested a 7-day, 2 rate tariff who are supplied directly from on-site substation terminals where there are no CitiPower distribution assets beyond the substation | None |
| C3G | Non-Residential Interval | <1,000 | <120 | Mon-Fri 0700 -2300 | N/A | All other times | <ul style="list-style-type: none"> Existing non-residential customers only Builder's temporary supplies | None |

| Tariff Code | Tariff description | Supply voltage (V) ⁶ | Min. bill demand (kW) ⁷ | Peak period | Shoulder period | Off peak period | Eligible customers | Allowed control loads |
|---------------------|---------------------------------|---------------------------------|------------------------------------|-----------------------|-----------------|----------------------|---|-----------------------|
| C3GB | Non-Residential Interval - Bulk | <1,000 | <120 | Mon-Fri 0700 -2300 | N/A | All other times | <ul style="list-style-type: none"> Customers who are supplied directly from on-site substation terminals where there are no CitiPower distribution assets beyond the substation and Existing non-residential customers; or Existing builder's temporary supplies | None |
| C2L7 | Large Two Rate 7d | <1,000 | <120 | Mon-Sun 0700-2300 | N/A | Mon-Sun 2300-0700 | <ul style="list-style-type: none"> Large non-demand customers who requested a 7-day, 2 rate tariff Customers on this tariff prior to their AMI meter exchange will remain on this tariff | None |
| High voltage | | | | | | | | |
| C2DHD1 | High Voltage Demand D1 | ≥1,000 and <22,000 | ≥40,000 | Mon-Fri 0700-2300 | N/A | All other times | <ul style="list-style-type: none"> High voltage customers connected at 11/6.6kV via 2 or more dedicated closed ring feeders without directional powerflow control and without auto/transfer capability Closed from 30 June 2016 | None |

Source: CitiPower

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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 form 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) ¹⁰ |
| After hours | All other times and only where resources are available ¹¹ |

Source: CitiPower

The following sections list and describe the various charges classified as fee based and quoted alternative control services which apply throughout the 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.

Routine connections – customers below 100 amps

These charges apply when a customer with a supply point with fuse less than 100 amps moves into a new premise requesting supply or requests a temporary supply. Different charges apply depending on whether we are responsible for the meter or not, whether the meter is single or multi-phase and whether the service is provided during or after business hours. Additional charges may apply where augmentation is required to meet the customer’s supply requirements.

¹⁰ Times for De-energisation of existing connections and Re-energisation differ from these times

¹¹ Times for De-energisation of existing connections and Re-energisation differ from these times

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 lighting¹² (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.

Supply capacity control is required when the determined maximum demand of any separately metered portion of an electrical installation is between 80-100 amperes. If the maximum demand of any separately metered portion of the electrical installation exceeds 100 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.

Temporary disconnect/reconnect services

This charge applies when a request is received to temporarily either disconnect or reconnect a supply point.

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.

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.

¹² Watchman lighting is a contestable service.

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.

Fault response – not distributor fault

This charge applies when we make a service truck visit at the request of a customer or contractor where the fault is found to be caused by the customer, rather than us. For examples, the customer would be at fault:

- where they are not receiving supply and they have not checked that the cause is the main switch or safety switch in not in the 'on' position; and
- where there are quality of supply issues that have been caused downstream of our distribution system.

Different charges apply depending on whether the service is provided during or after 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.

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 alternations; 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 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 CitiPower 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 alternations; 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 CitiPower installed meter with a competitive sourced meter.

B.4 Alternative control service rates for 2016

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

| Section reference | Metering charges | \$/NMI/p.a. |
|-------------------|------------------------------------|-------------|
| B.3 | Single phase meter | 94.64 |
| B.3 | Three phase direct connected meter | 123.71 |
| B.3 | Three phase CT connected meter | 156.25 |

Source: CitiPower

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

| Section reference | Manual meter reading charges | \$/read |
|-------------------|------------------------------|---------|
| B.1.1 | Manual meter reading | 28.36 |

Source: CitiPower

Table B.4 Manual data services - unmetered supplies (nominal, GST exclusive)

| Manual meter reading charges | \$/light/pa |
|--|-------------|
| Manual data service - unmetered supplies | 1.327 |

Source: CitiPower

Table B.5 Metering exit fees (nominal, GST exclusive)

| Section reference | Metering exit fees | \$ |
|-------------------|--------------------|----|
|-------------------|--------------------|----|

| Section reference | Metering exit fees | \$ |
|-------------------|--------------------|-----|
| B.3 | AMI 1P | n/a |
| B.3 | AMI 3P | n/a |
| B.3 | AMI 3P CT | n/a |
| B.3 | Basic or MRIM all | n/a |

Source: CitiPower

Table B.6 Ancillary Network Services (nominal, GST exclusive)

| Section reference | Alternative control service | Business hours \$ | After hours \$ |
|--|---|----------------------|-------------------|
| B.1.1 | Meter investigation | 343.86 | 392.80 |
| B.1.1 | Meter accuracy test - single phase | 383.80 | 439.69 |
| B.1.1 | Meter accuracy test - single phase additional meter | 177.81 | N/A |
| B.1.1 | Meter accuracy test - multi phase | 430.12 | 494.10 |
| B.1.1 | Meter accuracy test - multi phase additional meter | 330.15 | N/A |
| B.1.1 | Meter accuracy test - CT | 557.93 | 644.18 |
| B.1.1 | Reconnections (incl. customer transfer) | 34.48 | 160.78 |
| B.1.1 | Reconnections (same day) | 44.28 | N/A |
| B.1.1 | Disconnection | 35.00 | N/A |
| B.1.1 | Disconnection for non payment | 35.00 | N/A |
| B.1.1 | Special reading | 28.36 | N/A |
| B.1.1 | Access to meter data | 45.17 | N/A |
| B.1.1 | Service truck visit | 524.90 | 633.00 |
| B.1.1 | Wasted truck visit | 329.00 | 380.08 |
| B.1.1 | Reserve feeder - high voltage - \$ per kVA | 5.62 | N/A |
| B.1.1 | Reserve feeder - low voltage - \$ per kVA | 13.17 | N/A |
| B.1.1 | Remote meter reconfiguration | 52.70 | N/A |
| B.1.1 | Remote re-energisation | 9.94 | N/A |
| B.1.1 | Remote de-energisation | 9.94 | N/A |
| New Connection Responsible For Metering | | | |
| B.1.1 | Single phase | 485.57 | 537.75 |
| B.1.1 | Multi phase DC | 580.36 | 632.54 |

| Section reference Alternative control service | | Business hours \$ | After hours \$ |
|--|----------------|----------------------|-------------------|
| B.1.1 | Multi phase CT | 2,427.07 | 2,987.74 |
| New Connection Not Responsible For Metering | | | |
| B.1.1 | Single phase | 467.03 | 515.97 |
| B.1.1 | Multi phase DC | 561.81 | 610.76 |
| B.1.1 | Multi phase CT | 2,071.97 | 2,352.85 |

Source: CitiPower

Table B.7 Public lighting services fee based (nominal, GST exclusive)

| Section reference | Public lighting charges | Annual charge \$ |
|-------------------|---------------------------------------|------------------|
| B.2 | Replacement luminaire - WDV recovery | 131.51 |
| B.2 | Replacement luminaire - avoided costs | -27.35 |
| B.2 | Mercury vapour 80 watt | 61.69 |
| B.2 | Sodium high pressure 150 watt | 102.61 |
| B.2 | Sodium high pressure 250 watt | 104.04 |
| B.2 | Fluorescent 20 watt | 122.76 |
| B.2 | Fluorescent 40 watt | 123.37 |
| B.2 | Mercury vapour 50 watt | 87.60 |
| B.2 | Mercury vapour 125 watt | 97.47 |
| B.2 | Mercury vapour 250 watt | 87.39 |
| B.2 | Mercury vapour 400 watt | 88.43 |
| B.2 | Mercury vapour 700 watt | 130.04 |
| B.2 | Sodium high pressure 70 watt | 130.78 |
| B.2 | Sodium high pressure 100 watt | 104.66 |
| B.2 | Sodium high pressure 220 watt | 104.24 |
| B.2 | Sodium high pressure 360 watt | 106.12 |
| B.2 | Sodium high pressure 400 watt | 114.44 |
| B.2 | Sodium high pressure 1000 watt | 205.99 |
| B.2 | Metal halide 70 watt | 130.78 |
| B.2 | Metal halide 100 watt | 161.10 |
| B.2 | Metal halide 150 watt | 162.13 |

| Section reference | Public lighting charges | Annual charge \$ |
|-------------------|-------------------------|------------------|
| B.2 | Metal halide 250 watt | 124.84 |
| B.2 | Metal halide 400 watt | 124.84 |
| B.2 | Metal halide 1000 watt | 186.22 |
| B.2 | T5 2X14W | 40.64 |
| B.2 | T5 2X24W | 40.07 |
| B.2 | Compact Fluoro 32W | 39.37 |
| B.2 | Compact Fluoro 42W | 39.37 |
| B.2 | Category P LED 18 Watt | 26.80 |
| B.2 | Category P LED 47 Watt | 26.80 |

Source: CitiPower

Table B.8 Quoted services labour rates

| Section reference | Alternative control charges | Business hours \$ | After hours \$ |
|-------------------|---|-------------------|----------------|
| B.1.2 | Skilled electrical worker ¹³ | 122.18 | 143.49 |
| B.1.2 | Support staff ¹⁴ | 69.10 | N/A |

Source: CitiPower

¹³ Quoted service labour categories include labour costs directly incurred in the provision of the service. An additional 30.74% will be applied to the direct labour rates for labour on-costs, fleet on-cost and overheads.

¹⁴ Quoted service labour categories include labour costs directly incurred in the provision of the service. An additional 30.74% will be applied to the direct labour rates for labour on-costs, fleet on-cost and overheads.

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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 (DNSP) |
| DMIS | Demand management incentive scheme |
| DNP | Disconnection for non-payment |
| DPPC | Designated pricing proposal charges |
| DUoS | Distribution use of system |
| Eastern Standard Time (EST) | EST is 10 hours ahead of Coordinated Universal Time (UTC) |
| FiT | Feed in Tariff |
| 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 |

| Term | Definition |
|----------------------------|--|
| 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: $PF = \text{Real Power (kW)} / \text{Total Power (kVA)}$ $\text{Total Power (kVA)} = (\text{kW}^2 + \text{kVA}^2)^{0.5}$ |
| 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 | CitiPower's 2016 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: CitiPower

Attachments **D**



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D Attachments

Table D.1 Attachments

| Reference | Topic | Final name | Confidential |
|--------------|--|--|--------------|
| Attachment A | Standalone, Avoidable and Long Run Marginal Cost | Attachment A 2016 Standalone Avoidable LRMCM CP.xlsx | No |
| Attachment B | Revenue Cap Compliance Model | Attachment B AER Tariff Approval Model 2016 CP.xlsm | No |
| Attachment C | Alternative Control Services | Attachment C ACS Charges 2016 CP.xls | No |
| Attachment D | Public lighting | Attachment B Public lighting model 2016 CP.xlsm | No |

Source: CitiPower

