



## ***POWER NETWORKS***

# ***2018-19 Electricity Network Tariffs and Charges***

June 2018

Power and Water Corporation

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## 1 Introduction

On 1 July 2015, the Australian Energy Regulatory (AER) became the Regulator of Power and Water Corporation's (Power and Water) electricity network under Part 3 of The Electricity Networks (Third Party Access) Code (the Code) 2015.

Under the Code, the AER became responsible for the approval of prices for services classified as Standard Control Services. The AER approves the maximum Standard Control Network Tariffs that Power and Water is permitted to charge. However, Power and Water applies tariffs in accordance with the Ministerial Direction issued by the Treasurer, which set a lower alternate revenue path. This document aims to assist with the approval of these prices by setting out how Power and Water's proposed 2018-19 tariffs for Standard Control Services meet the requirements of the 2014 Network Price Determination and subsequent Ministerial Direction.

The tariffs support Power and Water's short term tariff strategy set out in previous tariff proposals, specifically the removal of declining block tariffs for residential customers and a reduction in the differential between the steps in the declining block demand and energy tariffs for commercial customers consuming greater than 750MWh per annum.

On 31 January 2018, Power and Water submitted, to the AER, its Initial Regulatory Proposal for the 2019-24 regulatory control period, which incorporated a detailed Tariff Structure Statement (TSS). The proposed tariff classes, tariff structures and indicative tariffs set out in the TSS will not come into effect until 1 July 2019 and are subject to AER approval. The 2018-19 Network Tariffs set out below will provide the starting point for substantial tariff reform in the next period.

## 2 Business Characteristics

Power Networks is a ring-fenced electricity network business within Power and Water that has responsibility for planning, building and maintaining reliable electricity networks to transport electricity between electricity generators and electricity consumers in the Northern Territory. Its mission is to achieve this in a safe, reliable, efficient and environmentally sustainable manner.

Power Networks operates under a Network Licence<sup>1</sup> issued by the Utilities Commission that authorises it to:

- own and operate an electricity network within the geographic area specified in Schedule 2 of that Network Licence; and
- connect the electricity network to another electricity network, in accordance with the terms and conditions of the Network Licence.

Power Networks provides services to network users, including electricity retailers or end-use customers. Power Networks is a unique business that is not readily comparable with other Distribution Network Service Providers (DNSPs) in the National Electricity Market (NEM) for the following reasons:

- *Weather / environmental factors* – we operate in demanding climatic conditions that pose serious threats to our assets and can result in those assets degrading quicker and failing more often than those of most other DNSPs in the NEM;

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<sup>1</sup> Utilities Commission, *Network Licence*, last varied 3 April 2015.

- *Network factors* – we are the smallest DNSP in the NEM by customer number and staff, with three separate networks. This requires standalone operations for each service area, which is costlier than operating a single integrated network; and
- *Geographic factors* – our remoteness from other Australian population centres, and competition from the resource sector, limits options for the competitive procurement of goods and services and increases our labour and contractor costs compared to most other DNSPs in the NEM.

### **3 2014 Network Price Determination**

Under the Code, the Regulator, in consultation with interested parties, reviews the network price regulation methodology used to set Power Networks' Standard Control Network Tariffs for the regulated network.

This process occurs every five years and the review and consideration of the price regulation methodology to apply from 1 July 2014 to 30 June 2019 was referred to as the '2014 Network Price Determination'. The purpose of the Network Price Determination process is to establish the funding required by Power Networks to continue to provide a safe, secure and reliable supply of electricity.

Retail electricity prices currently paid by customers comprise a number of cost components, which are combined into their bundled electricity prices:

- Electricity generation costs;
- Electricity network costs (Standard Control Services);
- System operation and control costs; and
- Customer retail services.

The 2014 Network Price Determination concerns only the network component of electricity prices.

Residential and small to medium sized business customers are not currently impacted by Standard Control Network Tariff pricing decisions, as they are subject to an Electricity Pricing Order issued by the Northern Territory Government.

While the Network Price Determination establishes the Network Service Classification, it does not set the pricing methodology or charges for Alternative Control Services or Excluded Network Services that are subject to effective competition. Charges for these services are developed in accordance with the Code, on a fair and reasonable basis.

## **4 Classification of Services**

The Utilities Commission determined a Network Service Classification to apply from 1 July 2014 to 30 June 2019<sup>2</sup> under its then role as the Regulator under the Code. Power Networks must provide services, and charge for those services, in accordance with this approved Network Service Classification, which can be found at Appendix A.

The Network Service Classification defines the following services:

- Direct Control Services – Standard Control Services (also termed 'regulated network access services').
- Direct Control Services – Alternative Control Services (also termed 'excluded network access services not subject to effective competition').
- Excluded network access services subject to effective competition.

### **4.1 Standard Control Services**

Standard Control Services are provided by Power Networks and include services such as planning, designing, and constructing the electricity network, connecting customers to the network and metering the consumption and demand of customers connected to the network to the standards set out in the Network Technical Code and Network Planning Criteria.

Power Networks recovers the capital, operating and maintenance expenditure associated with providing a safe, secure and reliable supply of electricity through Power Networks' Standard Control Network Tariffs. These tariffs are charged to electricity retailers.

### **4.2 Alternative Control Services**

Alternative Control Services are services that Power Networks undertakes for a network user, that are not part of the standard service that Power Networks provides to all users (termed Standard Control Services). The provision of Alternative Control Services is not currently subject to effective competition.

The expenditure associated with providing Alternative Control Services is not recovered through Power Networks' Standard Control Network Tariffs, which are charged to all electricity customers. Alternative Control Services are instead only charged to the network user that requests the service.

Alternative Control Services are distinguished between:

- Fee-based Services that are provided based on a set schedule of charges.
- Quoted Services that are provided on a quoted basis using a consistent methodology. These are services for which their nature and scope cannot be known in advance, irrespective of whether they are customer requested or triggered by an external event.

In accordance with clause 72(4) of the Code, Power Networks provides Alternative Control Services on fair and reasonable terms.

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<sup>2</sup> Utilities Commission, 2014 Network Price Determination Final Determination Part A – Statement of Reasons, April 2014, Appendix A, p. 160.

### **4.3 Excluded Network Services (Competition)**

Excluded Network Services (Competition) are services that Power Networks undertakes for a network user, that are not part of the standard service that Power Networks provides to all users (termed Standard Control Services). The provision of these services is subject to effective competition in the Northern Territory (i.e. there are other service providers).

The expenditure associated with providing these services is not recovered through Power Networks' Standard Control Network Tariffs, which are charged to all electricity customers. They are instead only charged to the network user that requests the service.

In accordance with clause 72(4) of the Code, Power Networks provides Excluded Network Services subject to effective competition on fair and reasonable terms.

## **5 Standard Control Network Tariffs**

Power Networks' Standard Control Network Tariffs are regulated by the AER in accordance with the Code.

The 2018-19 Standard Control Network Tariffs, developed in accordance with the 2014 Network Price Determination and subsequent Ministerial Direction, can be found at Appendix B.

### **5.1 Network Tariff Objectives**

The major objectives of network pricing are as follows:

- **Pricing efficiency** – an efficient network price is one that signals to the customer their contribution to the cost of providing network services, although moves towards efficient pricing need to be tempered to limit their impact on some customers;
- **Customer equity** – customers should pay a reasonable allocated share of costs;
- **Pricing simplicity** – price structures should be understandable, simple and transparent; and
- **Revenue sufficiency** – prices are formulated to recover the regulated revenue allowance.

### **5.2 Network Tariff Classes**

The tariff class groupings for the 2014-19 regulatory control period are shown in the table below.

**Table 1 – Standard Control Network Tariffs: Tariff Classes**

<b>Tariff Class</b>	<b>Tariff</b>
Commercial HV	>750 MWh pa Commercial HV: Commercial customers consuming >750 MWh pa connected to the HV network
Commercial	>750 MWh pa Commercial LV: Commercial customers consuming >750 MWh pa connected to the LV network
	<750 MWh pa Commercial: Commercial customers consuming <750 MWh pa
Domestic	Unmetered: <ul style="list-style-type: none"> <li>• Street lighting and similar consumption profiled unmetered supplies;</li> <li>• Traffic lights and similar unmetered 24 hour supplies.</li> </ul>
	Domestic

The number of tariff classes has been kept to a minimum, to avoid unnecessary transaction costs. In addition, customers have been grouped together on an economically efficient basis, recognising the material differences between network users arising from:

- the pattern and level of network usage (as between domestic and commercial customers, which have different consumption patterns and average consumption); and
- the nature of the plant or equipment required to provide the network access service (in the case of the Commercial HV tariff class, as these customers do not make use of the low voltage network or distribution substations).

### **5.2.1 Domestic Tariff Class**

The Domestic tariff class is composed of one tariff, the Domestic tariff, which applies to network users supplied at a connection point where:

- total electricity consumption, per financial year, is less than 750 MWh; and
- the tariff is applicable for premises intended to be used for residential purposes, excluding serviced apartments, but including:
  - electricity used on vacant land zoned for residential purposes; and
  - living premises of retirement villages (must be separately metered).

### **5.2.2 Commercial Tariff Class**

The Commercial tariff class is applied to three categories of customers

- Commercial customers consuming more than 750 MWh per annum connected to the LV network;
- Commercial customers consuming less than 750 MWh per annum; and
- Unmetered customers.

The >750 MWh pa Commercial LV tariff applies to network users supplied at a connection point where:

- Total electricity consumption, per financial year, is greater than 750 MWh; and

- Electricity is supplied at a voltage level defined as low voltage – nominally 230/400 V.

The <750 MWh pa Commercial tariff applies to network users supplied at a connection point where:

- Total electricity consumption, per financial year, is less than 750 MWh; and
- The tariff is applicable for premises intended to be used for non-residential purposes, including:
  - Electricity used on vacant land zoned for commercial purposes;
  - Temporary supply (ie. for building purposes);
  - Motels, hotels, serviced apartments and any form of temporary accommodation;
  - Shops, offices, warehouses and industrial/manufacturing plants;
  - Mining enterprises; and
  - Farms.

The Unmetered tariff applies to connection points that, with the agreement of Power Networks, are unmetered. In these circumstances, the consumption at the connection point is estimated.

### **5.2.3 Commercial HV Tariff Class**

The Commercial HV tariff class is comprised of one tariff, the >750 MWh pa Commercial HV tariff, which applies to network users supplied at a connection point where:

- Total electricity consumption, per financial year, is greater than 750 MWh; and
- Electricity is supplied at a voltage level of 11 kilovolts (kV) or higher.

### **5.2.4 Generator Users**

Standard Control Network Tariffs do not apply to generator users, with the exception of when the customer requests network capacity to be reserved for purposes such as standby supply.

In this case, the allocation to a tariff class will be made on the same basis as other customers; this being the extent and nature of consumption, and the nature of the connection to the network. The same Standard Control Network Tariffs will apply as for other customers. The energy charge will be based on actual energy consumed over the period. However, the demand charge may apply to a demand schedule (as agreed to with the customer) in recognition that requested capacity will need to be made available to the customer even if no supply is taken.

## **5.3 Network Tariff Changes**

Power Networks' Standard Control Network Tariff changes are principally driven by the requirement to improve the cost reflectivity of network pricing. The revised tariffs provide more equitable outcomes for customers, whilst contributing to managing network demand.

Power Networks has made alterations to the structure of Standard Control Network Tariffs in 2018-19 within all regulatory compliance requirements, and with due regard for the impact upon Power Networks' customers.



### **5.3.1 Network Tariffs for 2018-19**

Power Networks made the following amendments to Standard Control Network Tariffs in 2018-19:

- For customers with consumption below 750 MWh per annum, the Domestic and Small Commercial<sup>3</sup> tariffs each have historically had three blocks but with different threshold levels. The domestic pricing block tariffs were altered in 2017-18 to remove the declining blocks which has been replaced with a single flat tariff. In 2018-19 commercial tariffs also achieved a “flat” tariff;
- System Access Charges for Small Commercial and Domestic customers have increased to more cost reflective levels;
- For low voltage and high voltage connected Commercial customers with consumption of more than 750 MWh per annum, restructuring of tariffs has continued towards a “flat” structure and a greater emphasis on demand charges; and
- The rates of existing tariff charging parameters were increased to permit recovery of the annual revenue requirement, in accordance with the revised annual revenue requirement set by the Shareholding Ministers’ Ministerial Direction of 19 June 2014.

## **6 Alternative Control Service Charges**

Alternative Control Services are classified as excluded network access services not subject to effective competition, in the approved Network Service Classification. Therefore, in accordance with the Code, the AER does not have a role in determining price controls or approving charges for Alternative Control Services.

The Code requires Power Networks to provide any excluded network access services to network users on fair and reasonable terms, and states that the AER is to determine what may constitute fair and reasonable terms if the network provider and affected network users are unable to reach agreement on such terms.

### **6.1 Alternative Control Services – Fee Based**

Fee Based Alternative Control Services are provided based on a set schedule of charges.

The 2018-19 Alternative Control Services Fee Based Charges, found at Appendix C, have been developed based on the following formula such that the price is equal to:

- the materials employed for the project multiplied by the incremental (above standard) cost of those materials; plus
- the labour involved for the project (in hours) multiplied by the hourly rate for that project.

The 2018-19 Alternative Control Services set out in Appendix C relate to the Service Classification set out in the 2014 Network Price Determination.

In 2018-19 Power and Water has amended the two service description in its Alternative Control Charges. The table below shows the original and revised service description for these services.

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<sup>3</sup> Those commercial customers that consume less than 750 MWh per annum.

**Table 2 – Revised Alternative Control Charge Description**

<b>Classification / Service</b>	<b>Existing Service Description</b>	<b>Revised Service Description</b>
Reconnection CT	Disconnection and Reconnection after failure to pay (CT Meter) - Business Hours only	Reconnection after a customer has been disconnected due to failure to pay (CT meter) – Business hours only
Reconnection 3 phase & single phase	Disconnection and Reconnection after failure to pay (no CT Meter) - Business Hours only	Reconnection after a customer has been disconnected due to failure to pay (no CT meter) – Business hours only

Power and Water has proposed a revised set of fee based services as part of its Initial Regulatory Proposal for the 2019-24 regulatory period. These will not come into effect until 1 July 2019 if approved by the AER.

## **6.2 Alternative Control Services – Quoted**

Quoted Alternative Control Services are services for which their nature and scope cannot be known in advance irrespective of whether they are customer requested or triggered by an external event.

Quoted Services are therefore provided by Power Networks on a quoted basis using a consistent methodology, which ensures recovery of the material and labour costs of providing the service. Network users are only charged the incremental cost of the work above the cost of the mandated Standard Control Service. A list of the types of Quoted Alternative Control Services that Power Networks provide can be found at the Network Service Classification (Appendix A).

Power and Water has proposed a revised set of quoted services as part of its Initial Regulatory Proposal for the 2019-24 regulatory period. These will not come into effect until 1 July 2019 if approved by the AER.

## **7 Excluded Network Services (Competition) Charges**

In accordance with the Code, the AER does not have a role in determining price controls or approving charges for Excluded Network Services that are subject to effective competition.

The Code requires Power Networks to provide any excluded network access services to network users on fair and reasonable terms and states that the AER is to determine what may constitute fair and reasonable terms if the network provider and affected network users are unable to reach agreement on such terms.

These services are provided by Power Networks on a quoted basis. The provision of these services is also subject to effective competition in the Northern Territory and therefore customers are able to select from a number of alternative service providers.

A list of the types of Excluded Network Services, which are subject to effective competition, that Power Networks provide can be found at the Network Service Classification (Appendix A).

## Appendix A – Network Service Classification

**Table 1 - Regulated network access services (Direct Control Services – Standard Control Services)**

Service group	Activities description
Network service (mandated standard)	<p>Network services include:</p> <ul style="list-style-type: none"> <li>• planning, designing and constructing the electricity network;</li> <li>• maintaining and operating the electricity network; and</li> <li>• emergency response and administrative support;</li> </ul> <p>to the standards provided for in the Network Technical Code, and in accordance with good electricity industry practice.</p> <p>Network Services are services provided using the shared electricity network, to all users connected to the electricity network. They do not include Connection Services which make use of assets dedicated to the supply of a single network user.</p>
Unmetered supply (energy delivery) service	<p>Network services (energy delivery) provided to unmetered supplies such as street lights, traffic lights, advertising signs, CCTV cameras and similar applications where energy consumption may reasonably be estimated and it is not economic or practical to install, maintain and read a meter.</p>
Connection services (mandated standard)	<p>Connection services include:</p> <ul style="list-style-type: none"> <li>• commissioning of connection assets;</li> <li>• service connection;</li> <li>• installation inspection; and</li> <li>• operating and maintaining connection assets,</li> </ul> <p>to the standard provided for in the Network Technical Code, and in accordance with good electricity industry practice.</p> <p>Connection Services are provided at the request of a network user and are dedicated to the individual network user. Connection assets include all of the dedicated electrical equipment that is used to transfer electricity to (entry) or from (exit) the shared electricity network at the connection point.</p>
Metering services (mandated standard)	<p>Metering services, including meter data services, provide the means by which the electricity that is transferred to or from a network user is measured at a connection point.</p> <p>Metering services include, but are not necessarily limited to:</p> <ul style="list-style-type: none"> <li>• provision, installation and commissioning of metering assets; and</li> <li>• periodic accuracy testing, maintenance and replacement of metering assets,</li> </ul> <p>to meet legislated accuracy requirements and conform to good electricity industry practice.</p> <p>Meter data services include by are not necessarily limited to:</p> <ul style="list-style-type: none"> <li>• meter reading, either locally or remotely;</li> <li>• collection, storage and management of metering data; and</li> <li>• routine transfer of data to participant billing systems,</li> </ul> <p>to meet legislated accuracy requirements and conform to good electricity industry practice.</p> <p>Where supply is unmetered, consumption is estimated at the connection point.</p>

**Table 2 - Excluded network access services not subject to effective competition (Direct Control Services – Alternative Control Services)**

Service group	Activities description
Quoted services	
Quoted network services	<p>Network services provided at the request of a network user with higher (or lower, where permissible) quality or reliability standards than are required under applicable legislation, codes or other regulatory instruments</p> <p>Quoted Network Services include above standard or non-standard services associated with:</p> <ul style="list-style-type: none"> <li>• planning, designing and constructing the electricity network;</li> <li>• maintaining and operating the electricity network;</li> <li>• emergency response and administrative support; and</li> <li>• other associated services,</li> </ul> <p>to the performance standard agreed with the network user.</p> <p>Under Quoted Network Services, network users are only charged the incremental cost of the work above the cost of the mandated standard Network Service.</p> <p>Quoted Network Services exclude above standard or non-standard Connection Services which make use of dedicated assets.</p>
Quoted connection services	<p>Connection services provided at the request of a network user with higher (or lower, where permissible) quality or reliability standards than are required under applicable legislation, codes or other regulatory instruments</p> <p>Quoted connection services include above standard or non-standard services associated with:</p> <ul style="list-style-type: none"> <li>• commissioning of connection assets;</li> <li>• service connection;</li> <li>• installation inspection; and</li> <li>• operating and maintaining connection assets</li> </ul> <p>to the performance standard agreed with the network user.</p> <p>Quoted Connection Services also include:</p> <ul style="list-style-type: none"> <li>• supply abolishment; and</li> <li>• ancillary Connection Services.</li> </ul> <p>Associated services for which PWC Networks may seek payment from the user include, but are not necessarily limited to:</p> <ul style="list-style-type: none"> <li>• responding to enquiries in relation to the provision of the abovestandard or non-standard connection services;</li> <li>• provision of technical specifications in relation to the connection;</li> <li>• provision of duplicate or underground supply where requested by a network user; and</li> <li>• preliminary communications with potential or existing network user where more than 6 hours work is or is likely to be required.</li> </ul> <p>Under Quoted Connection Services, network users are only charged the incremental cost of the work above the cost of the mandated standard Connection Service.</p> <p>Connection Services are provided at the request of a network user and are dedicated to the individual network user. Connection assets include all of the dedicated electrical equipment that is used to transfer electricity to (entry) or from (exit) the shared electricity network at the connection point.</p>
Quoted metering services	<p>Metering services, including meter data services, provided at the request of a network user of a type that exceeds the normal requirements for the type of network user.</p> <p>Quoted metering services include, but are not necessarily limited to:</p> <ul style="list-style-type: none"> <li>• provision, installation and commissioning of additional or abovestandard or non-standard metering assets;</li> </ul>

Service group	Activities description
	<ul style="list-style-type: none"> <li>periodic accuracy testing of additional of additional or above standard or non-standard metering assets; and</li> <li>maintenance and replacement of additional or above standard or non-standard metering assets.</li> </ul> <p>Quoted meter data services include:</p> <ul style="list-style-type: none"> <li>reading, either locally or remotely, of additional or above standard or non-standard meters provided at the request of the network user;</li> <li>installing and maintaining communications for additional or above standard or non-standard remotely read meters; and</li> <li>transfer of meter data to the meter data system and management of the stored meter data, for additional or above standard or non-standard meters.</li> </ul> <p>Quoted ancillary Metering Services include:</p> <ul style="list-style-type: none"> <li>non-standard read of a standard meter, either locally or remotely; and</li> <li>non-routine transfer of meter data to participant billing systems or network users.</li> </ul> <p>Under Quoted Metering Services, network users are only charged the incremental cost of the work above the cost of the mandated standard Metering Service.</p> <p>Several of the more commonly provided excluded metering services are subject to standard fees (Fee based services).</p>
Asset relocation, temporary disconnection and reconnection	Removal, relocation or other permanent or temporary change to PWC Network assets at the request of a network user.
Emergency recoverable works	Repairs to shared electricity network or network connections caused by a third party (for example, due to vehicle accident).
Services associated with temporary supply	<p>Services associated with temporary supply include:</p> <ul style="list-style-type: none"> <li>provision electric plant or stand-by generator for temporary supply at the request of a network user; and</li> <li>provision of temporary supplies at both low and high voltage at the request of a network user.</li> </ul>
Illegal connections and damage to network equipment	<p>Costs incurred by PWC Networks as a result of a network user not complying with relevant contractual obligations.</p> <p>Repair of equipment damaged by a network user or third party.</p>
Provision of non-standard street light assets	Provision, construction and maintenance of street light assets based on non-standard designs or new technology such as LED.
Wasted attendance	Additional costs incurred by PWC Networks where service provision could not be undertaken and/or completed as planned due to action or inaction of a network user or their agent.
Asset location and identification services	PWC Networks' identification of its assets, including location of buried cables, at the request of a network user.
High load transport escorts	Provision of high load transport escort, including administration costs.
Covering of low voltage mains	Insulation coverage of low voltage mains at the request of a network user or other person.
Fee-based services	
Fee-based metering services	<p>Fee-Based Metering service provided at the request of a network user include, but are not necessarily limited to:</p> <ul style="list-style-type: none"> <li>out of sequence (unscheduled) meter reading services;</li> <li>meter program changes;</li> <li>testing or inspection of metering assets;</li> <li>removal or relocation of metering assets;</li> <li>the exchange or replacement of metering assets;</li> </ul>

<b>Service group</b>	<b>Activities description</b>
	<ul style="list-style-type: none"> <li>• installation of prepayment meters; and</li> <li>• provision of a permanent three-phase service.</li> </ul> <p>The provision of less routine services is subject to quotation (Quoted Services).</p>
Street light services	Provision, construction and maintenance of street lighting assets.
Non-standard data services	Provision of non-standard data services of a routine nature.
Disconnection and reconnection	Providing temporary disconnection and reconnection of supply at a connection point at the request of a network user or market participant and in accordance with the terms of the Network Technical Code.
Fault response – not PWC Networks' equipment	Attendance in response to advice of a fault by a network user where the fault is not associated with PWC Networks' assets or metering equipment.
Installation of minor equipment to the network	<p>This includes but is not necessarily limited to:</p> <ul style="list-style-type: none"> <li>• installation of tiger tails on PWC Networks assets;</li> <li>• polylogger test equipment at the user's premises; and</li> <li>• the rental cost of minor equipment.</li> </ul>
Travel costs	Where PWC Networks' personnel are required to attend rural locations more than 100kms from the relevant PWC Networks depot.

**Table 3 - Excluded network access services subject to effective competition**

<b>Service group</b>	<b>Activities description</b>
Equipment rental for non-network purposes	<p>Equipment rental charges may be but are not necessarily limited to the following:</p> <ul style="list-style-type: none"> <li>• for the attachment of communications services such as coaxial or fibre optic cables;</li> <li>• for pole attachments, ducts or conduits; and</li> <li>• the use of tunnels or ducts by communications or other services.</li> </ul>
Investigation and testing services	Investigation and testing services requested by a network user.
Contestable networks engineering consulting services	Consulting services provided by PWC Networks to network users and third parties.

## Appendix B – 2018-19 Standard Control Network Tariffs

Tariffs are in accordance with the Ministerial Direction and inclusive of GST.

<b>Schedule A - All Regions 2018/19</b>				<b>Including GST</b>	
<b>A - For High Voltage Connected Customers with consumption above 750 MWh per year</b>					
Reference Service <sup>1</sup> Provided: Normal transmission and distribution of electricity consumed through customers' metering for customers supplied and metered at high voltage.					
	<b>System Availability Charge</b>	<b>\$/kVA peak<sup>2</sup></b>	<b>\$/kVA off peak<sup>2</sup></b>	<b>¢/kWh peak<sup>2</sup></b>	<b>¢/kWh off peak<sup>2</sup></b>
<b>System Availability Charge</b>					
Dollars per month per meter		\$921.60			
<b>Plus charges related to monthly demand</b>					
First 50 kVA per month		\$9.310	\$2.250		
Next 100 kVA per month		\$9.310	\$2.250		
Next 300 kVA per month		\$8.377	\$1.912		
Next 500 kVA per month		\$7.161	\$1.912		
Any further kVA per month		\$6.346	\$1.904		
<b>Plus charges related to energy metered</b>					
First 10,000 kWh per month				5.569	4.990
Next 20,000 kWh per month				4.467	3.862
Next 50,000 kWh per month				3.812	3.330
Next 100,000 kWh per month				3.629	3.330
Any further kWh per month				2.680	1.918
<sup>[1]</sup> Charges for increased or reduced service such as for higher reliability or for back-up supply to on-site generation are subject to negotiation.					
<sup>[2]</sup> Peak and off-peak periods for demand and energy related charging rates will be as determined from time to time. The peak period rates currently apply to usage between 6.00 am and 6.00 pm on any day. Off-peak period rates apply at other times.					

## Schedule B - All Regions 2018/19 Including GST

### B - For Low Voltage Connected Customers with consumption

Reference Service<sup>1</sup> Provided: Normal transmission and distribution of electricity consumed through customers' metering for customers supplied and metered at low voltage.

	System Availability Charge	\$/kVA peak <sup>2</sup>	\$/kVA off peak <sup>2</sup>	¢/kWh peak <sup>2</sup>	¢/kWh off peak <sup>2</sup>
<b>System Availability Charge</b>					
Dollars per month per meter	\$829.81				
<b>Plus charges related to monthly demand</b>					
First 50 kVA per month		\$9.310	\$2.250		
Next 100 kVA per month		\$9.310	\$2.250		
Next 300 kVA per month		\$8.347	\$1.932		
Next 500 kVA per month		\$7.136	\$1.932		
Any further kVA per month		\$6.430	\$1.932		
<b>Plus charges related to energy metered</b>					
First 10,000 kWh per month				6.058	5.426
Next 20,000 kWh per month				5.106	4.393
Next 50,000 kWh per month				4.226	3.622
Next 100,000 kWh per month				3.870	3.501
Any further kWh per month				2.654	2.043
<p><sup>[1]</sup> Charges for increased or reduced service such as for higher reliability or for back-up supply to on-site generation are subject to negotiation.</p> <p><sup>[2]</sup> Peak and off-peak periods for demand and energy related charging rates will be as determined from time to time.</p> <p>The peak period rates currently apply to usage between 6.00 am and 6.00 pm on any day. Off-peak period rates apply at other times.</p>					

## Schedule C - All Regions 2018/19 Including GST

### C - For Customers with consumption below 750 MWh per year

Reference Service<sup>1</sup> Provided: Normal transmission and distribution of electricity consumed through customers' connection.

<b>System Availability Charge</b>		
Cents per day per meter - Domestic		48.069
Cents per day per meter - Commercial		81.706
<b>Plus charges related to energy metered</b>		<b>¢/kWh anytime</b>
<b>Domestic</b>		
Energy usage		12.086
<b>Commercial</b>		
Energy usage		11.498
<b>Unmetered</b>		
Street lighting and similar consumption profiled unmetered supplies		6.162
Traffic lights and similar unmetered 24 hour supplies		8.289
<p><sup>[1]</sup> Charges for increased or reduced service such as for higher reliability or for back-up supply to on-site generation are subject to negotiation.</p>		



Tariffs are in accordance with the Ministerial Direction and exclusive of GST.

**Schedule A - All Regions 2018/19 EXCLUDING GST**  
**A - For High Voltage Connected Customers with consumption above 750 MWh per year**

Reference Service<sup>1</sup> Provided: Normal transmission and distribution of electricity consumed through customers' metering for customers supplied and metered at high voltage.

	<b>System Availability Charge</b>	<b>\$/kVA peak<sup>2</sup></b>	<b>\$/kVA off peak<sup>2</sup></b>	<b>¢/kWh peak<sup>2</sup></b>	<b>¢/kWh off peak<sup>2</sup></b>
<b>System Availability Charge</b> Dollars per month per meter	\$837.82				
<b>Plus charges related to monthly demand</b>					
First 50 kVA per month		\$8.464	\$2.045		
Next 100 kVA per month		\$8.464	\$2.045		
Next 300 kVA per month		\$7.615	\$1.738		
Next 500 kVA per month		\$6.510	\$1.738		
Any further kVA per month		\$5.769	\$1.731		
<b>Plus charges related to energy metered</b>					
First 10,000 kWh per month				5.063	4.536
Next 20,000 kWh per month				4.061	3.511
Next 50,000 kWh per month				3.465	3.027
Next 100,000 kWh per month				3.299	3.027
Any further kWh per month				2.436	1.744

<sup>[1]</sup> Charges for increased or reduced service such as for higher reliability or for back-up supply to on-site generation are subject to negotiation.

<sup>[2]</sup> Peak and off-peak periods for demand and energy related charging rates will be as determined from time to time. The peak period rates currently apply to usage between 6.00 am and 6.00 pm on any day. Off-peak period rates apply at other times.

**Schedule B - All Regions 2018/19 EXCLUDING GST**  
**B - For Low Voltage Connected Customers with consumption above 750 MWh per year**

Reference Service<sup>1</sup> Provided: Normal transmission and distribution of electricity consumed through customers' metering for customers supplied and metered at low voltage.

	<b>System Availability Charge</b>	<b>\$/kVA peak<sup>2</sup></b>	<b>\$/kVA off peak<sup>2</sup></b>	<b>¢/kWh peak<sup>2</sup></b>	<b>¢/kWh off peak<sup>2</sup></b>
<b>System Availability Charge</b>					
Dollars per month per meter	\$754.37				
<b>Plus charges related to monthly demand</b>					
First 50 kVA per month		\$8.464	\$2.045		
Next 100 kVA per month		\$8.464	\$2.045		
Next 300 kVA per month		\$7.588	\$1.756		
Next 500 kVA per month		\$6.487	\$1.756		
Any further kVA per month		\$5.845	\$1.756		
<b>Plus charges related to energy metered</b>					
First 10,000 kWh per month				5.507	4.933
Next 20,000 kWh per month				4.642	3.994
Next 50,000 kWh per month				3.842	3.293
Next 100,000 kWh per month				3.518	3.183
Any further kWh per month				2.413	1.857
<sup>[1]</sup> Charges for increased or reduced service such as for higher reliability or for back-up supply to on-site generation are subject to negotiation.					
<sup>[2]</sup> Peak and off-peak periods for demand and energy related charging rates will be as determined from time to time. The peak period rates currently apply to usage between 6.00 am and 6.00 pm on any day. Off-peak period rates apply at other times.					

**Schedule C - All Regions 2018/19 EXCLUDING GST**  
**C - For Customers with consumption below 750 MWh per year**

Reference Service<sup>1</sup> Provided: Normal transmission and distribution of electricity consumed through customers' connection.

<b>System Availability Charge</b>		
Cents per day per meter - Domestic		43.699
Cents per day per meter - Commercial		74.278
<b>Plus charges related to energy metered</b>		<b>¢/kWh anytime</b>
<b>Domestic</b>		
Energy usage		10.987
<b>Commercial</b>		
Energy usage		10.453
<b>Unmetered</b>		
Street lighting and similar consumption profiled unmetered supplies		5.602
Traffic lights and similar unmetered 24 hour supplies		7.535
<sup>[1]</sup> Charges for increased or reduced service such as for higher reliability or for back-up supply to on-site generation are subject to negotiation.		

## Appendix C – 2018-19 Alternative Control Services Fee Based Charges

Classification /Service	Service Description	2018-19 incl GST
<b>Disconnection and Reconnection</b>		
Reconnection CT	Reconnection after a customer has been disconnected due to failure to pay (CT Meter) - Business Hours only	\$345.00
Reconnection 3 phase & single phase	Reconnection after a customer has been disconnected due to failure to pay (no CT Meter) - Business Hours only	\$97.00
After hours call out	Additional charge for services carried out after hours at the request of the customer (2 person crew, 2 hours minimum)	\$684.00
Remove and reinstate cable - single phase	Temporary removal and reinstatement of service cable at the customer's request (single phase) - Business Hours only	\$517.00
Remove and reinstate cable - 3 phase	Temporary removal and reinstatement of service cable at the customer's request (3 phase) - Business Hours only	\$621.00
<b>Fault Response - Not PWC Networks' Equipment</b>		
Additional Crew per person - per hour (BH)	Where an additional crew member is required at a service call for health, safety or security reasons (per person per hour) - Business Hours	\$172.00
Additional Crew per person - per hour (AH)	Where an additional crew member is required at a service call for health, safety or security reasons (only applies where a crew of three or more is required, per person per hour, minimum 2 hours) - After Hours	\$228.00
Attending Loss of Supply	Where Power Networks attends a location but concludes that it is the customer's installation that is at fault - Business Hours	\$259.00
After hours call out	Additional charge for services carried out after hours at the request of the customer (2 person crew, 2 hours minimum)	\$684.00
<b>Fee-Based Metering Services</b>		
Exchange Or Replace Meter (CT)	Exchange meter for another meter of the same type at the customer's request (per meter) (CT) - Business Hours only	\$552.00
Exchange Or Replace Meter 3 phase & single phase	Exchange meter for another meter of the same type at the customer's request (per meter), 3 phase or single phase (No CT) - Business Hours only	\$276.00
General Meter Inspection	General metering inspection is required to check a reported or suspected fault, undertaken at the customer or retailer's request. This charge only applies if no fault is found with the meter - Business Hours only	\$155.00
Meter Program Change	Meter reprogramming carried out on site at customer's request to support their or their retailers selected tariff arrangements e.g. PV or time of use (per meter) - Business Hours only	\$190.00
Smart Meter Program Change	Smart Meter reprogramming carried out at customer's request to support their selected tariff arrangements e.g. PV or time of use (per meter, no site visit required) - Business Hours only	\$43.00
Photovoltaic (PV) Installation Charge (single phase)	Supply and install single phase PV meter at customer's request (where existing meter is not compatible) - Business Hours only	\$574.00
Photovoltaic (PV) Installation Charge (3 Phase)	Supply and install 3 phase PV meter at customer's request (where existing meter is not compatible) - Business Hours only	\$789.00

<b>Classification /Service</b>	<b>Service Description</b>	<b>2018-19 incl GST</b>
Pillar Box, Pit or Pole Top	De-energisation by a physical disconnection of the service mains at the connection to the network - Business Hours only	\$310.00
Prepayment Meter Installation	Installation of Prepayment Meter at customer or retailer's request - Business Hours only	\$484.00
Provision of a Permanent 3 Phase Service	Provision of a permanent service at the customer's request (if single phase only is determined as necessary based on predicted load), up to 30m cabling, overhead only, No CT - Business Hours only	\$1,702.00
Relocation of Meter	Relocation of meter after customer has relocated meter panel (undertaken at the customer or retailer's request) - Business Hours only	\$276.00
Temporary Removal of Supply	De-energisation and Re-energisation at the fuse, meter or switchboard (undertaken at the customer or retailer's request) - Business Hours only	\$379.00
Remove Meter	Permanent removal of connection point (meter) from meter panel - Business Hours only	\$379.00
Replacement of meter due to tampering or damage by a customer (prepayment)	Replacement of prepayment meter due to tampering or damage by a customer - Business Hours only	\$628.00
Replacement of meter due to tampering or damage by a customer (3 phase)	Replacement of 3 phase meter due to tampering or damage by a customer - Business Hours only	\$588.00
Replacement of meter due to tampering or damage by a customer (single phase)	Replacement of single phase meter due to tampering or damage by a customer - Business Hours only	\$420.00
After hours call out	Additional charge for services carried out after hours at the request of the customer (2 person crew, 2 hours minimum)	\$684.00
Special Meter Read	Reading of meter at customer's request - Business Hours only	\$69.00
Special Meter Test	Testing of meter at customer's request - Business Hours only	\$362.00
Temporary Disconnection - Low Voltage - No Dismantling (Overhead)	Temporary disconnection and reconnection of supply, with no dismantling of service required - Business Hours	\$414.00
SMART meter installation - single phase	Installation of a single phase SMART Meter at the customer's request - Business Hours only	\$484.00
SMART meter installation - 3 phase	Installation of a 3 phase SMART Meter at the customer's request (No CT) - Business Hours only	\$652.00
<b>Installation of minor equipment to the network</b>		
Installation of Minor Apparatus	Installation and removal of polyloggers - Business Hours only	\$552.00
<b>Non-Standard Data Services</b>		
Meter Data Processing Services - Higher Standard (Previous Year)	Collection, processing and transfer of higher standard energy data (from the previous year) for customers than would otherwise be provided - retailer or customer requested - Business Hours only. Fee applies per dataset, per format of data.	\$259.00
Provision of Standard Data	Provision of Current Year billing data (standard) or load profiles (where available) to customers or retailers per dataset, per format of data.	\$172.00

<b>Classification /Service</b>	<b>Service Description</b>	<b>2018-19 incl GST</b>
Non-Standard Reporting Services (minimum charge)	Development and routine provision of meter data reporting services to external agencies (up to 4 hours per instance /request).	\$690.00
Complex Non-Standard Reporting Services (hourly rate)	Development and routine provision of complex or value-added meter data reporting services to external agencies, including data interpretation and analysis (per hour).	\$172.00
Prepayment vending charge	Fee Payable per prepayment meter credit update (per transaction).	\$0.33
Prepayment meter support charge	Retailer initiated prepayment query that does not relate to a system or meter fault - Labour charge per 15 minutes or part thereof during Business Hours only.	\$47.00
<b>Travel Costs</b>		
Travel Costs - Rural	Labour cost for travel to areas more than 100km from depot - Business Hours (per person, per km, only applies where total distance travelled exceeds 200km round trip)	\$1.72
Travel Costs - Rural AH	Labour cost for travel to areas more than 100km from depot - After Hours (per person, per km, only applies where total distance travelled exceeds 200km round trip)	\$2.28

**Notes:**

1. All charges are GST inclusive.
2. Business Hours: Monday to Friday – 6am to 3pm; After Hours: Monday to Friday – 3pm to 6am and Saturdays. After hours services are only available where Power Networks has the resources available to complete the work. Work carried out on Sundays or Public Holidays may attract additional fees.
3. After hours charges are in addition to the relevant Business hour charge.
4. Charges may still be applied if work is not completed due to the action or inaction of the customer, customer's representative, or retailer.