United Energy

2019 Pricing Proposal

Contents

1 Introduction

This document, its appendices and attachments comprise our 2019 Pricing Proposal (pricing proposal) to the Australian Energy Regulator (**AER**). It covers all of our direct control services for 2019 in accordance with the National Electricity Rules (**Rules**) and the AER's Final Decision on United Energy's Distribution Determination for the 2016 to 2020 regulatory control period.

Direct control services are divided into two subclasses:

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

1.1 Our business

We are one of the most efficient and reliable electricity distribution networks in Australia. As one of Victoria's five electricity distributors, we own and manage assets that deliver electricity to more than 670,000 homes and businesses across south-east Melbourne and the Mornington Peninsula.

In servicing Victoria, our primary responsibility is planning, building, operating and maintaining the 'poles and wires' — a strategic community asset and core component of Victoria'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 activities include:

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

Our electricity distribution network is vast and complex, which includes over 10,000 overhead lines, more than 215,000 poles and covering 1,500 square kilometres.

Figure 1.1 United Energy facts and figures

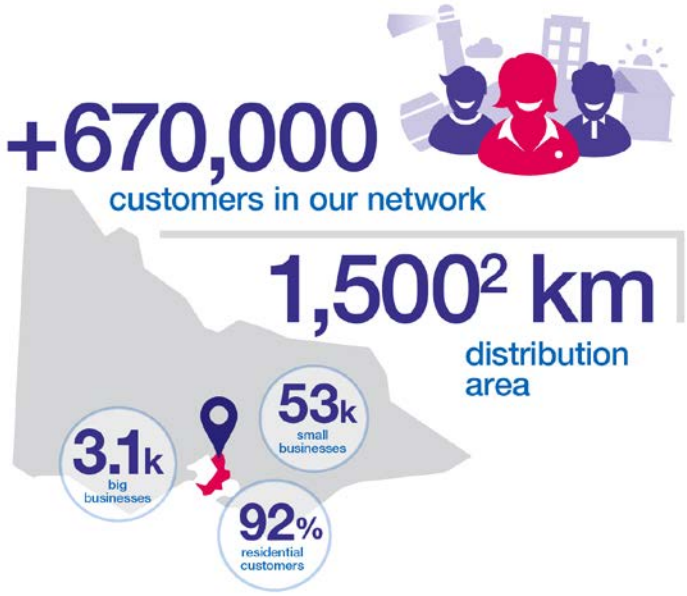


Figure 1.2 United Energy geography

1.2 2019 Network and metering charges

Network tariffs cover the cost of transporting electricity from the generator through the transmission and distribution networks to our customers' homes or businesses.[1]

Jurisdictional charges recover jurisdictional scheme costs (**JUOS**), which are currently limited to the Premium Feed-in Tariff (**PFIT**).

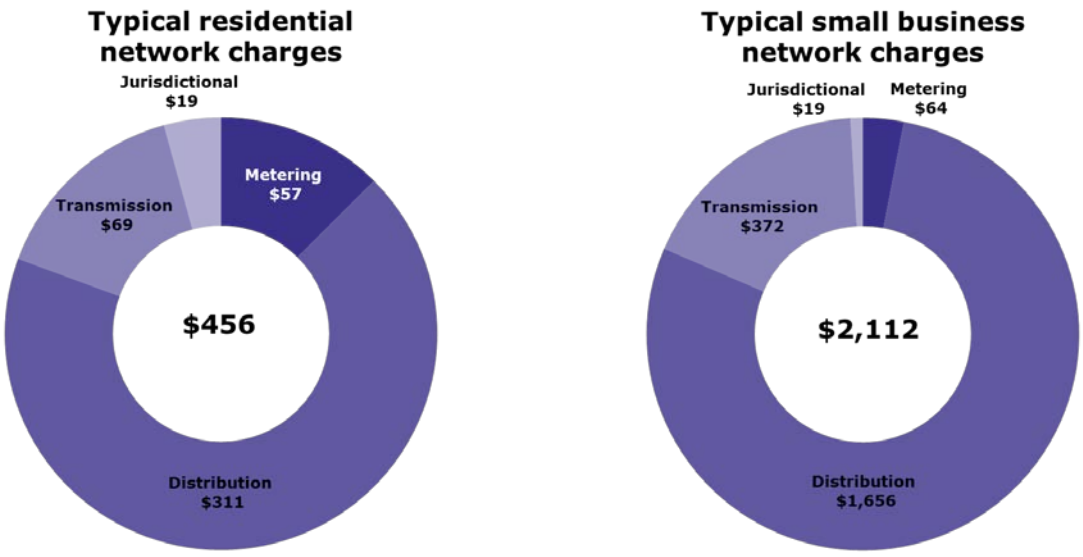
Metering tariffs cover the cost of the meter installation, maintenance and meter data services.

We pass network, jurisdictional and metering charges on to electricity retailers, who in turn pass them on to customers via electricity bills.

Transmission use of System (**TUOS**) charges reflect the cost to transport electricity over the high voltage network.

Distribution use of System (**DUOS**) charges relate to the cost to deliver electricity to your home or business via United Energy's distribution network.[2]

Figure 1.3 United Energy charges



These charges form the network charge component of a customer's bill. Other charges which include wholesale, environmental, retail costs and retail margin make up the other, more significant component of a customer's bill.

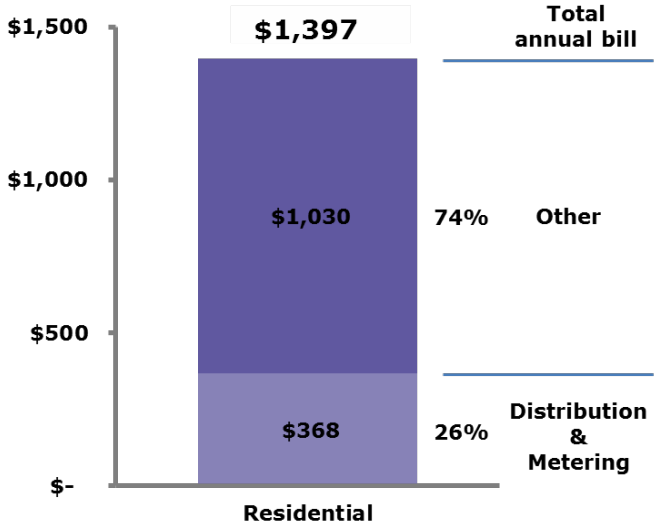
For example, as seen below, an average residential customer's bill is comprised of 26% distribution and metering charges.[3]

[1] Transmission charges are referred to as designated pricing proposal charges (DPPC) under the Rules.

[2] Network charges are based on a typical customer on a 2019 single rate tariff - residential 4,200 kWh pa and small business 20, 000 kWh pa.

[3] Network charges are based on a typical residential customer on a 2019 single rate tariff consuming 4,200 kWh pa. Retail charges are an average of AGL, Energy Australia and Origin Energy's 2018 retail offers (ref: St Vincent de Paul Society, Victorian Tariff-Tracking Project July 2018).

Figure 1.4 United Energy residential charges



1.3 Network pricing objectives and principles

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

Our tariffs must comply with the following pricing principles:

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

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

On 12 September 2017 changes to the Victorian AMI Tariffs Order were gazetted which allow medium customers to opt out of a cost reflective flexible AMI retail tariff. This has applied since 1 January 2018.

1.4 Summary of changes

There are no proposed changes to the structure of the 2019 network tariffs. Below, we discuss price movements from 2018 to 2019.

1.4.1 Price movements from 2018

Tariff structures over 2017-2020 were proposed in our amended *Revised Tariff Structure Statement* and approved by the AER. Our aim in developing these tariffs was to reduce long-term average charges for using our network by promoting efficient network investment and utilisation.

As reflected in the below table, between 2018 and 2019, some residential tariffs slightly increase, some decrease or remain unchanged while business and transmission related tariffs generally increase.

Table 1.1 Network price movement from 2018 to 2019

Network tariff	Fixed charge	Summer peak	Non summer peak	Summer shoulder	Non summer shoulder	Off peak	Rolling demand	Summer demand incentive	Summer demand	Non summer demand
Residential flat (LVS1R)	→	↓	↑							
Residential ToU (TOD)	→	↑	↑	↑	↑	↑				
Residential ToU (TOD9)	→	↓	↓	↓	↓	↓				
Residential flexible (TODFLEX)	→	→	→	→	→	→				
Residential demand (RESKW1R)		→	→	→	→	→			→	→
Controlled load						→				
Small business flat (LVM1R)	→	↓	↑							
Small business flexible (TOU)		↑	↑			↑		↑		
Medium business demand (LVMKW1R)		↓	↓	↓	↓	↓			↑	↑
LVL business (kVA)		↑	↑			↑	↑	↑		
HVL business (kVA)		↑	↑			↑	↑	↑		

Legend	
↑	Increase relative to prior year.
↓	Decrease relative to prior year.
→	No change relative to prior year.
	A blank cell indicates that the corresponding charging parameter is not applicable for a particular tariff.

Our 2019 network tariffs are set out in Appendix A.

2 Tariff classes and details

This section details our tariff classes and customer groups.

2.1 Tariff classes

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

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

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

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

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;
- low voltage large;
- high voltage large; and
- sub-transmission.

The principles of assignment or reassignment of retail customers between tariff classes is outlined in Attachment 14, section D of the AER's final decision.

Figure 2.1 Tariff classes

	Tariff class	Typical customer	Supply voltage	Annual consumption
	Low voltage residential	Residential	230 V	< 20 MWh
	Low voltage business	Small commercial	< 1,000 V	20 – 400 MWh
		Medium business	< 1,000 V	20 – 400 MWh
	Low voltage large	Large commercial	< 1,000 V	> 400 MWh > 150 kVA max demand
	High voltage large	Industrial	1 kV – 22 kV	N/A
	Sub-transmission	Large industrial	≥ 22 kV	N/A

Note that the kVA tariff policy, which involves the calculation of 12-month rolling maximum demand, applies to low voltage large, high voltage large and sub-transmission large tariff classes. Further details of how this is calculated is detailed in Appendix A.

3 Standard control service charges

This chapter demonstrates how our network tariffs for 2019 comply with the requirements of the Rules and the final determination in respect of the control mechanism and pricing principles.

Our final network charges are bundled charges that encompass the following charges, which are described in detail in the following sections:

- distribution charges;
- designated pricing proposal charges; and
- recovery of jurisdictional scheme amounts.

3.1 Distribution charges

3.1.1 Control mechanism

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

The distributor must propose prices and quantity estimates for a particular year and demonstrate that they do not result in expected revenue which exceeds the total annual revenue allowance for that year. This includes a true-up for any under or over recovery of revenue in prior years.

3.1.2 2019 prices for standard control services

Attachment 14 of the AER's final decision sets out the formula for calculating the total annual revenue allowance (**TAR**). The derivation of the TAR constraint is summarised in the table below.

Table 3.1 Total allowable revenue criteria summary

Criterion	2019 value ($,000)
Adjusted annual smoothed revenue requirement for the year before the regulatory year t ($\boldsymbol{AAR_{t-1}}$)	422,294
Annual percentage change in the Australian Bureau of Statistics' Consumer Price Index ($\Delta\boldsymbol{CPI_t}$)	2.08%
X factor for each year of the 2016-2020 regulatory control period as determined in the PTRM ($\boldsymbol{X_t}$)	-2.61%
S factor determined in accordance with the service target performance incentive scheme ($\boldsymbol{S_t}$)	1.68%
Adjusted annual smoothed revenue requirement for regulatory year t ($\boldsymbol{AAR_t}$)	449,766
Annual adjustment f-factor scheme amount ($\boldsymbol{I_t}$)	224
Final carryover amount from prior regulatory period from the Demand Management Incentive Scheme ($\boldsymbol{T_t}$)	0
Incorporates the recovery of license fee charges, under or over-recovery of DUoS charge revenue and AER approved pass through for direct control services ($\boldsymbol{B_t}$)[4]	-14,574
Total annual revenue **($\boldsymbol{TAR_t}$)**	**435,417**

3.1.3 Tariff class side constraints

The side constraint formula applied to the weighted average revenue raised for each tariff class for this regulatory control period is set out in Attachment 14 of the AER's final decision. The evaluation of the side constraint for 2019 is set out in the table below.

[4] More specifically, $\boldsymbol{B_t}$ 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.
- any under or over-recovery of actual revenue is to be collected through DUoS charges in regulatory year t-2 as calculated using the method in Appendix A, attachment 14 of the AER's final decision
- the AER approved pass through amounts in respect of direct control services (positive or negative) with respect to regulatory year t

Table 3.2 Side constraint criteria summary

Criterion	2019 value
Annual percentage change in the Australian Bureau of Statistics' Consumer Price Index ($\Delta \boldsymbol{CPI_t}$)	2.08%
X factor for each year of the 2016-2020 regulatory control period as determined in the PTRM ($\boldsymbol{X_t}$)	-2.61%
S factor determined in accordance with the service target performance incentive scheme ($\boldsymbol{S_t}$)	1.68%
Annual percentage change from the f–factor scheme amount ($\boldsymbol{I_t}$)	-0.18%
Incorporates the annual percentage change of the recovery of license fee charges, under or over-recovery of DUoS charge revenue and AER approved pass through for direct control services ($\boldsymbol{B_t}$)[5]	-0.58%
Maximum allowable tolerance	2.00%
Side constraint	**7.87%**

Weighted average revenue

To demonstrate compliance with the side constraint formula, the following table sets out the expected weighted average revenue for distribution and transmission services and the per cent change from 2018 to 2019 for each tariff class.

Table 3.3 Weighted average revenue for distribution and transmission services

Tariff class	2018 $p_{t-1}q_t$ $'000	2019 p_tq_t $'000	% change
Residential	240,156	248,261	3.37%
Small commercial	127,372	128,844	1.16%
Large low voltage	122,766	129,095	5.16%
High voltage	29,345	30,804	4.97%
Sub-transmission	456	477	4.52%

[5] More specifically, $\boldsymbol{B_t}$ 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.
- 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 final decision
- AER approved pass through amounts in respect of direct control services (positive or negative) with respect to regulatory year t

3.1.4 Compliance with pricing principles

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

- an upper bound, representing the stand-alone cost of serving 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 used to calculate the revenues for each standard control service tariff class associated with each cost methodology. These costs are compared with the weighted average revenue derived from our proposed tariffs.

These two categories of cost may be defined as follows:

- **the stand-alone cost** comprises of 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 tariff class 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; 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 remain supplied). If a tariff class were to be charged below the avoidable cost, it would be economically efficient 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.

3.1.5 Long run marginal costs

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

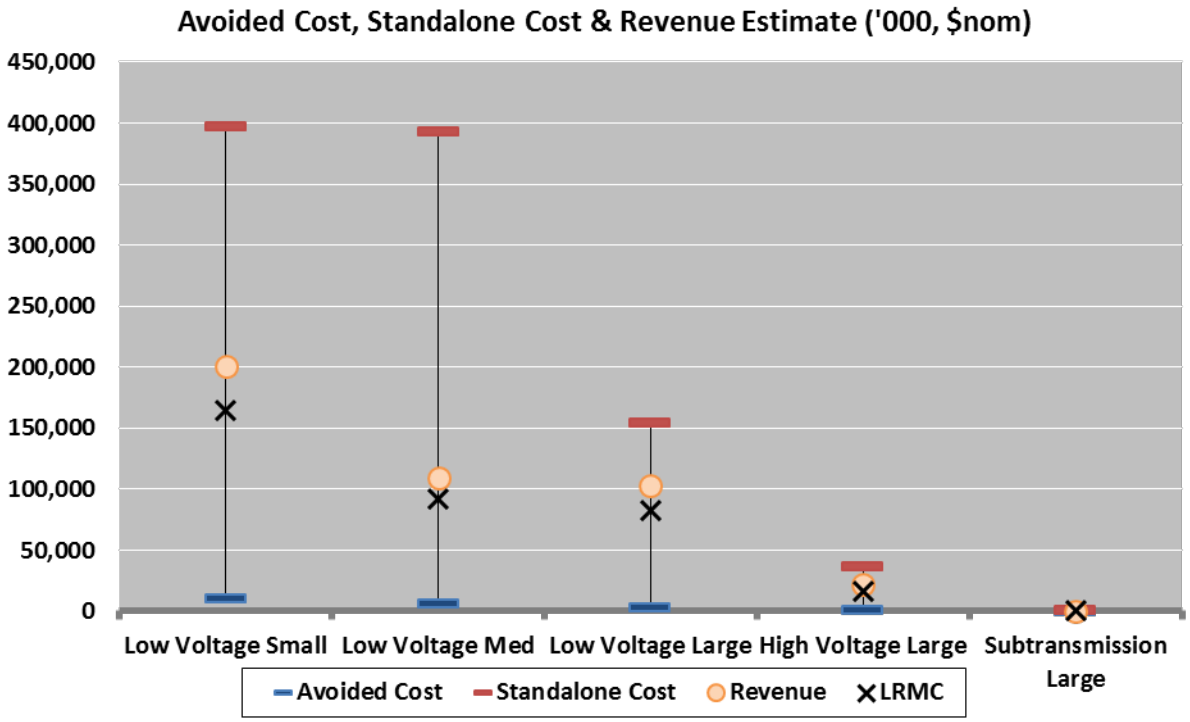
We have estimated our LRMC for each tariff class by annualising the cost of augmenting capacity (measured by the marginal cost of reinforcement) and scale growth in operating and maintenance costs associated with network augmentation, per unit of additional capacity provided.

3.1.6 Revenue lies between stand-alone and avoidable costs

A comparison of the 2019 stand-alone costs, avoidable costs, LRMC and distribution revenue for our tariff classes is shown in the following figure, and demonstrates that our recorded revenue for each tariff class lies within the boundaries described above. Of note:

- The 2019 distribution revenue for each network tariff class fall within the bounds of the stand-alone and avoidable costs and hence are subsidy-free; and
- Demonstrating our cost efficiency, the LRMC of each tariff class yields a cost that does not vary greatly from that expected to be recovered through the 2019 distribution revenue

Figure 3.1 Costs and revenue comparison



3.2 Designated pricing proposal charges

3.2.1 Maximum revenue control

Designated pricing proposal charges (**DPPC**) recover the payments we make for transmission charges, avoided transmission payments and inter-distributor payments as well as under and over recovery of TUoS revenue.[6]

The table below summarises the calculation of the 2019 maximum revenue for DPPC.

Table 3.4 DPPC maximum revenue for 2019

Revenue item	2019 value ($,000)
Transmission, avoided transmission and inter-distributor charges	106,829
Unders and overs amount	-4,761
Total DPPC revenue	**102,068**

[6] Transmission charges, avoided transmission payments and inter-distributor payments are defined as follows:

- Transmission charges are payments for using the HV network.
- Avoided transmission payments (i.e. TUOS) are payments recognising that energy supplied to the DNSP by an Embedded Generator (e.g. large scale solar and wind farms) would have otherwise been supplied from the HV network.
- Inter-distributor payments recognises cross boundary settlements between networks. This applies when customers located near border are supplied by a neighbouring network.

3.3 Jurisdictional scheme charges

3.3.1 Jurisdictional scheme eligibility

The Victorian Premium Feed-in tariff (**PFIT**) is a jurisdictional scheme.

The key principle of our jurisdictional scheme tariff methodology is that 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.

3.3.2 Maximum revenue control

The table below summarises the calculation of the 2019 maximum revenue for jurisdictional schemes.

Table 3.5 Jurisdictional schemes maximum revenue for 2019

Revenue item	2019 value ($,000)
Premium feed-in-charge charges	14,162
Unders and overs amount	-993
Total jurisdictional schemes revenue	**13,169**

3.3.3 Charging parameters

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 as a standing charge as part of standard control services.

3.4 Indicative prices for 2020

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

3.5 Comparison of 2019 Proposed and Indicative Network Tariffs

It is necessary to demonstrate that our Indicative pricing schedules approved in the previous year align with our currently proposed network tariffs. Where the variance exceeds a materiality threshold an explanation is necessary to support the change. We have nominated a materiality threshold of 15 per cent for this purpose.

Table 3.6 Comparison of 2019 Proposed & Indicative Tariffs

Tariff class	Tariff	Variance explanation
Low Voltage Business	Low Voltage Medium kW Time of Use	Low Voltage Medium kW Time of Use: In 2017 UE was approved to introduce this tariff as a fully cost-reflective energy and demand tariff with 50% revenue from energy charges and 50% from demand charges. After reviewing the distribution of revenue from energy and demand charges over 2017 and 2018, UE decided to realign the tariffs to reflect the previously approved 50/50 proportion. Proposed changes in the 2019 tariffs reflect this re-alignment.
Low Voltage Business	Low Voltage Medium kW 1 Rate	Low Voltage Medium kW 1 Rate: In 2017 UE was approved to introduce this tariff as a partially cost-reflective energy and demand tariff with 75% revenue from energy charges and 25% from demand charges. As part of UE's TSS the AER also approved adjusting this tariff from partially cost-reflective to fully-cost reflective (with 50% revenue from energy charges and 50% from demand charges) by 2019. Proposed changes in the 2019 tariffs reflect this adjustment.

4 Alternative control services

Alternative control services can be broadly divided into:

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

4.1 Tariff classes

Metering tariff classes are:

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

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

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

4.2 Compliance with the AER determination

The control mechanism equation applicable to our alternative control services tariff class for the current regulatory control period is set out in Attachment 16 of the AER's final decision. Appendix B of this pricing proposal sets out the alternative control services charges.

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 its final decision. Adjustments outside of those determined in the final decision are not expected during the regulatory period.

4.2.1 Ancillary services form of control

The derivations of control formulas for ancillary services set out in Attachment 16 of the AER's final decision are produced below:

Table 4.1 AER final decision on X factors for each year of the 2016-2020 regulatory control period (percent)

Year	2017	2018	2019	2020
X factor	-0.37	-0.79	-0.96	-1.02

Source: AER

4.2.2 Metering form of control

The derivations of control formulas for metering set out in Attachment 16 of the AER's final decision is produced below.

Table 4.2 Metering revenue criteria summary

Criterion	2019 value ($,000)
Annual revenue requirement for year preceding t ($\boldsymbol{AR_{t-1}}$)	42,149
Annual percentage change in the Australian Bureau of Statistics' Consumer Price Index ($\Delta\boldsymbol{CPI_t}$)	2.08%
X factor for each year of the 2016-2020 regulatory control period as determined in the PTRM ($\boldsymbol{X_t}$)	5.95%
Annual revenue requirement for year t ($\boldsymbol{AR_t}$)	40,463
Sum of annual adjustment factors in year t as calculated in the unders and overs account ($\boldsymbol{B_t}$)	159
Total annual revenue for annual metering charges ($\boldsymbol{TARM_t}$)	**40,622**

Metering prices are shown in Appendix B.

4.3 Metering tariff class side constraints

The derivations of side constraint formula the AER has determined for us to apply to our metering services set out in Attachment 16 of the AER's final decision is reproduced below.

Table 4.3 Metering side constraint summary

Criterion	2019 value
Annual percentage change in the Australian Bureau of Statistics' Consumer Price Index ($\Delta\boldsymbol{CPI_t}$)	2.08%
X factor for each year of the 2016-2020 regulatory control period as determined in the PTRM ($\boldsymbol{X_t}$)	0.00%
Annual percentage change for the unders and overs recoveries relating to AMI actual revenues and actual costs incurred in 2014 and 2015 ($\boldsymbol{T_t}$)	9.37%
Annual percentage change from the sum of annual adjustment factors in year t as calculated in the unders and overs account ($\boldsymbol{B'_t}$)	-5.43%
Maximum allowable tolerance	2.00%
Side constraint	**8.06%**

4.4 Public lighting operation, maintenance and replacement

Our public lighting operation, maintenance and replacement 2019 prices are shown in Appendix B.

A Standard control service charges

A.1 Standard control services tariff schedules

Table A. 1 Network (NUoS = DUoS + TUoS) Tariff 2019

Network Tariff 2019	Code	PFIT	Available to new customers	Fixed	Demand Charges				Usage			Summer Time of Use Tariffs			Non-Summer Time of Use Tariffs			
					Rolling peak	Summer incentive	Summer	Non-Summer	Anytime	Peak	Off-peak	Pk	Sh	Opk	Pk - Block1	Pk - Block2	Sh	Opk
				c/day	c/kVA/day	c/kW/day or c/kVA/day	c/kW/day	c/kW/day	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh
Low voltage small 1 rate	LVS1R	FLVS1R	Yes	7.090	-	-	-	-			-	9.360	-		7.830	-	-	
Low voltage small 2 rate	LVS2R		No	14.480	-	-	-	-			1.980	14.580	-		11.200	-	-	
Time of Day	TOD	FTOD	Yes	6.740	-	-	-	-			3.370	20.490	7.480		12.850	-	5.890	
Time of Day 9pm off-peak	TOD9	FTOD9	Yes	6.990	-	-	-	-			3.900	20.600	8.940		14.070	-	7.740	
Time of Day Flexible	TODFLEX	FTODFLEX	Yes	7.530	-	-	-	-			4.140	21.340	6.560		13.450	-	6.360	
Low voltage KW 1 rate	RESKW1R		Yes	-	-	-	31.600	13.650			3.420	3.420	3.420		3.420	3.420	3.420	
Winter Energy Tariff	WET2Step		No	9.130	-	-	-	-			-	9.330	-		7.020	3.550	-	
Dedicated circuit *	LVDed *		Yes	-	-	-	-	-			1.990	-	-		-	-	-	
Reverse cycle airconditioning time of use	RCACkWTOU		No	-	-	-	-	-			-	-	-		-	-	-	
Low voltage medium 1 rate	LVM1R	FLVM1R	Yes	12.030	-	-	-	-			-	11.320	-		9.050	-	-	
Low voltage medium 2 rate 5 day	LVM2R5D		No	23.030	-	-	-	-			2.320	14.400	-		10.890	-	-	
Low voltage medium 2 rate 7 day	LVM2R7D		No	24.510	-	-	-	-			1.870	12.230	-		9.520	-	-	
Low voltage KW time of use	LVkWTOU		No	-	-	57.040	-	-			2.400	11.950	-		7.360	-	-	
Low voltage KW time of use - HOT	LVkWTOUH	FLVkWTOU-HOT	No	-	-	73.860	-	-			1.660	8.380	-		6.470	-	-	
Time of Use	TOU	FTOU	Yes	-	-	49.780	-	-			2.970	12.340	-		7.170	-	-	
Low voltage large 1 rate	LVL1R		No	14.080	-	-	-	-			-	8.930	-		7.060	-	-	
Low voltage large 2 rate	LVL2R		No	20.320	-	-	-	-			2.150	13.110	-		10.440	-	-	
Low Voltage Medium kW Time of Use (Opt-in)	LVMKWTOU		No	-	-	-	48.200	32.130			-	4.260	-		4.260	-	-	
Low Voltage Medium kW 1 rate (Mandatory)	LVMKW1R	FLVMkW1R	Yes	-	-	-	48.200	32.130			-	4.260	-		4.260	-	-	
Unmetered supplies	UnMet		Yes	-	-	-	-	-			1.570	11.600	-		8.690	-	-	
Low voltage large KVA time of use	LVkVATOU		Yes	-	18.780	27.590	-	-			1.240	2.420	-		2.020	-	-	
Low voltage large KVA time of use - HOT	LVkVATOUH		No	-	-	-	-	-			-	-	-		-	-	-	
High voltage KVA time of use	HVkVATOU		Yes	-	13.430	17.030	-	-			0.770	1.550	-		1.310	-	-	
High voltage KVA time of use - HOT	HVkVATOUH		No	-	-	-	-	-			-	-	-		-	-	-	
Subtransmission KVA time of use	SubTkVATOU		No	-	4.040	5.120	-	-			0.340	0.950	-		0.750	-	-	

* Tariff only available in conjunction with the LVS1R tariff for new connections.
Summer peak energy rates apply for period 1st November to 31st March (except TODFLEX which follows daylight savings periods) & RESKWTOU which applies from 1st December to 31st March.
Non-summer peak energy rates apply for period 1st April to 31st October (except TODFLEX which follows non-daylight savings periods) & RESKWTOU which applies from 1st April to 30th November.
PFIT (Premium Feed-In Tariff) is defined by an "F" added to the front of an existing distribution tariff ie. FTOD. PFIT tariffs are closed to new connections.

Table A. 2 Distribution (DUoS) Tariff 2019

Distribution Tariff 2019	Code	PFIT	Available to new customers	Fixed	Demand Charges				Usage			Summer Time of Use Tariffs			Non-Summer Time of Use Tariffs			
					Rolling peak	Summer incentive	Summer	Non-Summer	Anytime	Peak	Off-peak	Pk	Sh	Opk	Pk - Block1	Pk - Block2	Sh	Opk
				c/day	c/kVA/day	c/kW/day or c/kVA/day	c/kW/day	c/kW/day	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh
Low voltage small 1 rate	LVS1R	FLVS1R	Yes	7.090	-	-	-	-			-	7.720	-		6.190	-	-	
Low voltage small 2 rate	LVS2R		No	14.480	-	-	-	-			1.980	11.430	-		8.670	-	-	
Time of Day	TOD	FTOD	Yes	6.740	-	-	-	-			3.370	17.480	4.930		10.300	-	3.630	
Time of Day 9pm off-peak	TOD9	FTOD9	Yes	6.990	-	-	-	-			3.900	16.480	5.110		10.240	-	4.100	
Time of Day Flexible	TODFLEX	FTODFLEX	Yes	7.530	-	-	-	-			4.140	17.980	4.880		10.320	-	4.880	
Low voltage KW 1 rate	RESKW1R		Yes	-	-	-	26.980	10.650			2.800	2.800	2.800		2.800	2.800	2.800	
Winter Energy Tariff	WET2Step		No	9.130	-	-	-	-			-	7.490	-		5.550	2.080	-	
Dedicated circuit *	LVDed *		Yes	-	-	-	-	-			1.990	-	-		-	-	-	
Reverse cycle airconditioning time of use	RCACkWTOU		No	-	-	-	-	-			-	-	-		-	-	-	
Low voltage medium 1 rate	LVM1R	FLVM1R	Yes	12.030	-	-	-	-			-	9.460	-		7.190	-	-	
Low voltage medium 2 rate 5 day	LVM2R5D		No	23.030	-	-	-	-			2.320	12.420	-		9.310	-	-	
Low voltage medium 2 rate 7 day	LVM2R7D		No	24.510	-	-	-	-			1.870	10.240	-		7.930	-	-	
Low voltage KW time of use	LVkWTOU		No	-	-	49.330	-	-			2.400	10.300	-		6.040	-	-	
Low voltage KW time of use - HOT	LVkWTOUH	FLVkWTOU-HOT	No	-	-	64.580	-	-			1.660	7.340	-		5.640	-	-	
Time of Use	TOU	FTOU	Yes	-	-	44.020	-	-			2.970	10.140	-		6.160	-	-	
Low voltage large 1 rate	LVL1R		No	14.080	-	-	-	-			-	7.020	-		5.540	-	-	
Low voltage large 2 rate	LVL2R		No	20.320	-	-	-	-			2.150	11.300	-		8.990	-	-	
Low Voltage Medium kW Time of Use (Opt-in)	LVMKWTOU		No	-	-	-	39.620	26.410			-	3.500	-		3.500	-	-	
Low Voltage Medium kW 1 rate (Mandatory)	LVMKW1R	FLVMkW1R	Yes	-	-	-	39.620	26.410			-	3.500	-		3.500	-	-	
Unmetered supplies	UnMet		Yes	-	-	-	-	-			1.570	8.730	-		6.390	-	-	
Low voltage large KVA time of use	LVkVATOU		Yes	-	14.950	22.360	-	-			1.240	1.480	-		1.260	-	-	
Low voltage large KVA time of use - HOT	LVkVATOUH		No	-	-	-	-	-			-	-	-		-	-	-	
High voltage KVA time of use	HVkVATOU		Yes	-	9.050	12.430	-	-			0.770	0.890	-		0.780	-	-	
High voltage KVA time of use - HOT	HVkVATOUH		No	-	-	-	-	-			-	-	-		-	-	-	
Subtransmission KVA time of use	SubTkVATOU		No	-	0.890	1.300	-	-			0.340	0.510	-		0.390	-	-	

* Tariff only available in conjunction with the LVS1R tariff for new connections.

Summer peak energy rates apply for period 1st November to 31st March (except TODFLEX which follows daylight savings periods) & RESKWTOU which applies from 1st December to 31st March.

Non-summer peak energy rates apply for period 1st April to 31st October (except TODFLEX which follows non-daylight savings periods) & RESKWTOU which applies from 1st April to 30th November.

PFIT (Premium Feed-In Tariff) is defined by an "F" added to the front of an existing distribution tariff ie. FTOD. PFIT tariffs are closed to new connections.

Table A. 3 Transmission (TUoS) Tariff 2019

Transmission Tariff 2019	Code	PFIT	Available to new customers	Fixed	Demand Charges				Usage			Summer Time of Use Tariffs			Non-Summer Time of Use Tariffs			
					Rolling peak	Summer incentive	Summer	Non-Summer	Anytime	Peak	Off-peak	Pk	Sh	Opk	Pk - Block1	Pk - Block2	Sh	Opk
				c/day	c/kVA/day	c/kW/day or c/kVA/day	c/kW/day	c/kW/day	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh
Low voltage small 1 rate	LVS1R	FLVS1R	Yes	-	-	-	-	-			-	1.640	-		1.640	-	-	
Low voltage small 2 rate	LVS2R		No	-	-	-	-	-			-	3.150	-		2.530	-	-	
Time of Day	TOD	FTOD	Yes	-	-	-	-	-			-	3.010	2.550		2.550	-	2.260	
Time of Day 9pm off-peak	TOD9	FTOD9	Yes	-	-	-	-	-			-	4.120	3.830		3.830	-	3.640	
Time of Day Flexible	TODFLEX	FTODFLEX	Yes	-	-	-	-	-			-	3.360	1.680		3.130	-	1.480	
Low voltage KW 1 rate	RESKW1R		Yes	-	-	-	4.620	3.000			0.620	0.620	0.620		0.620	0.620	0.620	
Winter Energy Tariff	WET2Step		No	-	-	-	-	-			-	1.840	-		1.470	1.470	-	
Dedicated circuit *	LVDed *		Yes	-	-	-	-	-			-	-	-		-	-	-	
Reverse cycle airconditioning time of use	RCACkWTOU		No	-	-	-	-	-			-	-	-		-	-	-	
Low voltage medium 1 rate	LVM1R	FLVM1R	Yes	-	-	-	-	-			-	1.860	-		1.860	-	-	
Low voltage medium 2 rate 5 day	LVM2R5D		No	-	-	-	-	-			-	1.980	-		1.580	-	-	
Low voltage medium 2 rate 7 day	LVM2R7D		No	-	-	-	-	-			-	1.990	-		1.590	-	-	
Low voltage KW time of use	LVkWTOU		No	-	-	7.710	-	-			-	1.650	-		1.320	-	-	
Low voltage KW time of use - HOT	LVkWTOUH	FLVkWTOU-HOT	No	-	-	9.280	-	-			-	1.040	-		0.830	-	-	
Time of Use	TOU	FTOU	Yes	-	-	5.760	-	-			-	2.200	-		1.010	-	-	
Low voltage large 1 rate	LVL1R		No	-	-	-	-	-			-	1.910	-		1.520	-	-	
Low voltage large 2 rate	LVL2R		No	-	-	-	-	-			-	1.810	-		1.450	-	-	
Low Voltage Medium kW Time of Use (Opt-in)	LVMKWTOU		No	-	-	-	8.580	5.720			-	0.760	-		0.760	-	-	
Low Voltage Medium kW 1 rate (Mandatory)	LVMKW1R	FLVMkW1R	Yes	-	-	-	8.580	5.720			-	0.760	-		0.760	-	-	
Unmetered supplies	UnMet		Yes	-	-	-	-	-			-	2.870	-		2.300	-	-	
Low voltage large KVA time of use	LVkVATOU		Yes	-	3.830	5.230	-	-			-	0.940	-		0.760	-	-	
Low voltage large KVA time of use - HOT	LVkVATOUH		No	-	-	-	-	-			-	-	-		-	-	-	
High voltage KVA time of use	HVkVATOU		Yes	-	4.380	4.600	-	-			-	0.660	-		0.530	-	-	
High voltage KVA time of use - HOT	HVkVATOUH		No	-	-	-	-	-			-	-	-		-	-	-	
Subtransmission KVA time of use	SubTkVATOU		No	-	3.150	3.820	-	-			-	0.440	-		0.360	-	-	

* Tariff only available in conjunction with the LVS1R tariff for new connections.
Summer peak energy rates apply for period 1st November to 31st March (except TODFLEX which follows daylight savings periods) & RESKWTOU which applies from 1st December to 31st March.
Non-summer peak energy rates apply for period 1st April to 31st October (except TODFLEX which follows non-daylight savings periods) & RESKWTOU which applies from 1st April to 30th November.
PFIT (Premium Feed-In Tariff) is defined by an "F" added to the front of an existing distribution tariff ie. FTOD. PFIT tariffs are closed to new connections.

Table A. 4 Jurisdictional Scheme (JUoS) Tariff 2019

Jurisdictional Tariff 2019	Code	PFIT	Available to new customers	Fixed	Demand Charges				Usage			Summer Time of Use Tariffs			Non-Summer Time of Use Tariffs			
					Rolling peak	Summer incentive	Summer	Non-Summer	Anytime	Peak	Off-peak	Pk	Sh	Opk	Pk - Block1	Pk - Block2	Sh	Opk
				c/day	c/kVA/day	c/kW/day or c/kVA/day	c/kW/day	c/kW/day	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh
Low voltage small 1 rate	LVS1R	FLVS1R	Yes	5.320	-	-	-	-			-	-	-		-	-	-	
Low voltage small 2 rate	LVS2R		No	5.320	-	-	-	-			-	-	-		-	-	-	
Time of Day	TOD	FTOD	Yes	5.320	-	-	-	-			-	-	-		-	-	-	
Time of Day 9pm off-peak	TOD9	FTOD9	Yes	5.320	-	-	-	-			-	-	-		-	-	-	
Time of Day Flexible	TODFLEX	FTODFLEX	Yes	5.320	-	-	-	-			-	-	-		-	-	-	
Low voltage KW 1 rate	RESKW1R		Yes	5.320	-	-	-	-			-	-	-		-	-	-	
Winter Energy Tariff	WET2Step		No	5.320	-	-	-	-			-	-	-		-	-	-	
Dedicated circuit *	LVDed *		Yes	-	-	-	-	-			-	-	-		-	-	-	
Reverse cycle airconditioning time of use	RCACkWTOU		No	5.320	-	-	-	-			-	-	-		-	-	-	
Low voltage medium 1 rate	LVM1R	FLVM1R	Yes	5.320	-	-	-	-			-	-	-		-	-	-	
Low voltage medium 2 rate 5 day	LVM2R5D		No	5.320	-	-	-	-			-	-	-		-	-	-	
Low voltage medium 2 rate 7 day	LVM2R7D		No	5.320	-	-	-	-			-	-	-		-	-	-	
Low voltage KW time of use	LVkWTOU		No	5.320	-	-	-	-			-	-	-		-	-	-	
Low voltage KW time of use - HOT	LVkWTOUH	FLVkWTOU-HOT	No	5.320	-	-	-	-			-	-	-		-	-	-	
Time of Use	TOU	FTOU	Yes	5.320	-	-	-	-			-	-	-		-	-	-	
Low voltage large 1 rate	LVL1R		No	5.320	-	-	-	-			-	-	-		-	-	-	
Low voltage large 2 rate	LVL2R		No	5.320	-	-	-	-			-	-	-		-	-	-	
Low Voltage Medium kW Time of Use (Opt-in)	LVMKWTOU		No	5.320	-	-	-	-			-	-	-		-	-	-	
Low Voltage Medium kW 1 rate (Mandatory)	LVMKW1R	FLVMkW1R	Yes	5.320	-	-	-	-			-	-	-		-	-	-	
Unmetered supplies	UnMet		Yes	-	-	-	-	-			-	-	-		-	-	-	
Low voltage large KVA time of use	LVkVATOU		Yes	5.320	-	-	-	-			-	-	-		-	-	-	
Low voltage large KVA time of use - HOT	LVkVATOUH		No	5.320	-	-	-	-			-	-	-		-	-	-	
High voltage KVA time of use	HVkVATOU		Yes	5.320	-	-	-	-			-	-	-		-	-	-	
High voltage KVA time of use - HOT	HVkVATOUH		No	5.320	-	-	-	-			-	-	-		-	-	-	
Subtransmission KVA time of use	SubTkVATOU		No	5.320	-	-	-	-			-	-	-		-	-	-	

* Tariff only available in conjunction with the LVS1R tariff for new connections.
Summer peak energy rates apply for period 1st November to 31st March (except TODFLEX which follows daylight savings periods) & RESKWTOU which applies from 1st December to 31st March.
Non-summer peak energy rates apply for period 1st April to 31st October (except TODFLEX which follows non-daylight savings periods) & RESKWTOU which applies from 1st April to 30th November.
PFIT (Premium Feed-In Tariff) is defined by an "F" added to the front of an existing distribution tariff ie. FTOD. PFIT tariffs are closed to new connections.

A.2 Indicative pricing schedule for 2020 network tariffs (NUoS)

Table A. 5 2020 Network (NUOS = DUoS + TUoS) Tariff

Indicative Network Tariff 2020	Code	PFIT	Available to new customers	Fixed	Demand Charges				Usage			Summer Time of Use Tariffs			Non-Summer Time of Use Tariffs			
					Rolling peak	Summer incentive	Summer	Non-Summer	Anytime	Peak	Off-peak	Pk	Sh	Opk	Pk - Block1	Pk - Block2	Sh	Opk
				c/day	c/kVA/day	c/kW/day or c/kVA/day	c/kW/day	c/kW/day	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh
Low voltage small 1 rate	LVS1R	FLVS1R	Yes	7.290	-	-	-	-			-	9.640	-		8.060	-	-	
Low voltage small 2 rate	LVS2R		No	14.900	-	-	-	-			2.040	15.010	-		11.520	-	-	
Time of Day	TOD	FTOD	Yes	6.940	-	-	-	-			3.470	21.080	7.700		13.230	-	6.050	
Time of Day 9pm off-peak	TOD9	FTOD9	Yes	7.200	-	-	-	-			4.020	21.200	9.200		14.480	-	7.970	
Time of Day Flexible	TODFLEX	FTODFLEX	Yes	7.750	-	-	-	-			4.260	21.960	6.750		13.840	-	6.550	
Low voltage KW 1 rate	RESKW1R		Yes	-	-	-	32.520	14.050			3.520	3.520	3.520		3.520	3.520	3.520	
Winter Energy Tariff	WET2Step		No	9.390	-	-	-	-			-	9.600	-		7.220	3.650	-	
Dedicated circuit *	LVDed *		Yes	-	-	-	-	-			2.050	-	-		-	-	-	
Reverse cycle airconditioning time of use	RCACkWTOU		No	-	-	-	-	-			-	-	-		-	-	-	
Low voltage medium 1 rate	LVM1R	FLVM1R	Yes	12.380	-	-	-	-			-	11.650	-		9.310	-	-	
Low voltage medium 2 rate 5 day	LVM2R5D		No	23.700	-	-	-	-			2.390	14.820	-		11.210	-	-	
Low voltage medium 2 rate 7 day	LVM2R7D		No	25.230	-	-	-	-			1.920	12.590	-		9.800	-	-	
Low voltage KW time of use	LVkWTOU		No	-	-	58.700	-	-			2.470	12.300	-		7.570	-	-	
Low voltage KW time of use - HOT	LVkWTOUH	FLVkWTOU-HOT	No	-	-	76.010	-	-			1.710	8.620	-		6.660	-	-	
Time of Use	TOU	FTOU	Yes	-	-	51.220	-	-			3.060	12.690	-		7.380	-	-	
Low voltage large 1 rate	LVL1R		No	14.490	-	-	-	-			-	9.190	-		7.270	-	-	
Low voltage large 2 rate	LVL2R		No	20.910	-	-	-	-			2.210	13.490	-		10.740	-	-	
Low Voltage Medium kW Time of Use (Opt-in)	LVMKWTOU		No	-	-	-	49.600	33.070			-	4.390	-		4.390	-	-	
Low Voltage Medium kW 1 rate (Mandatory)	LVMKW1R	FLVMkW1R	Yes	-	-	-	49.600	33.070			-	4.390	-		4.390	-	-	
Unmetered supplies	UnMet		Yes	-	-	-	-	-			1.620	11.950	-		8.940	-	-	
Low voltage large KVA time of use	LVkVATOU		Yes	-	19.330	28.340	-	-			1.280	2.490	-		2.070	-	-	
Low voltage large KVA time of use - HOT	LVkVATOUH		No	-	-	-	-	-			-	-	-		-	-	-	
High voltage KVA time of use	HVkVATOU		Yes	-	13.820	17.520	-	-			0.790	1.590	-		1.350	-	-	
High voltage KVA time of use - HOT	HVkVATOUH		No	-	-	-	-	-			-	-	-		-	-	-	
Subtransmission KVA time of use	SubTkVATOU		No	-	4.160	5.270	-	-			0.350	0.980	-		0.770	-	-	

* Tariff only available in conjunction with the LVS1R tariff for new connections.
Summer peak energy rates apply for period 1st November to 31st March (except TODFLEX which follows daylight savings periods) & RESKWTOU which applies from 1st December to 31st March.
Non-summer peak energy rates apply for period 1st April to 31st October (except TODFLEX which follows non-daylight savings periods) & RESKWTOU which applies from 1st April to 30th November.
PFIT (Premium Feed-In Tariff) is defined by an "F" added to the front of an existing distribution tariff ie. FTOD. PFIT tariffs are closed to new connections.

A.3 Charging Parameters

This section is organised by tariff class and provides a description how each tariffs is structured differently according to the following charging parameters –fixed charge, energy, and demand.

A.3.1 Low voltage residential tariffs

Table A. 6 Low voltage residential tariff charging parameters

Charging parameter		Fixed	Energy								Demand			
		Standing charge c/day	Anytime energy c/kWh	Peak energy c/kWh	Off-peak energy c/kWh	Summer peak energy c/kWh	Summer shoulder energy c/kWh	Summer off-peak energy c/kWh	Non-summer peak energy c/kWh	Non-summer shoulder energy c/kWh	Non-summer off-peak energy c/kWh	Rolling peak demand c/kVA/day	Summer demand incentive c/kW/day or c/kVA/day	Summer demand c/kW/day or c/kVA/day	Non-summer demand c/kW/day
Single rate	LVS1R	✓				✓			✓						
	WET2Step					✓			✓						
Time of use	LVS2R	✓			✓	✓			✓						
Flexible pricing	TOD	✓			✓	✓	✓		✓	✓					
	TOD9	✓			✓	✓	✓		✓	✓					
	TODFLEX	✓			✓	✓	✓		✓	✓					
Controlled load	LVDed				✓										
Cost-reflective	RESkW1R		✓											✓	✓

A.3.2 Low voltage business tariffs

Table A. 7 Low voltage small business tariff charging parameters including unmetered supplies

Charging parameter		Fixed	Energy								Demand			
		Standing charge	Anytime energy	Peak energy	Off-peak energy	Summer peak energy	Summer shoulder energy	Summer off-peak energy	Non-summer peak energy	Non-summer shoulder energy	Non-summer off-peak energy	Rolling peak demand	Summer demand incentive	Summer demand	Non-summer demand
		c/day	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kVA/day	c/kW/day or c/kVA/day	c/kW/day or c/kVA/day	c/kW/day
Single rate	LVM1R	✓				✓			✓						
	LVL1R	✓				✓			✓						
Time of use	LVM2R5D	✓			✓	✓			✓						
	LVM2R7D	✓			✓	✓			✓						
	LVL2R	✓			✓	✓			✓						
Flexible pricing	TOU				✓	✓			✓				✓		
	LVkWTOU				✓	✓			✓				✓		
	LVkWTOUH				✓	✓			✓				✓		
Cost reflective	LVMKWTOU		✓											✓	✓
	LVMKW1R		✓											✓	✓
Unmetered	UnMet				✓	✓			✓						

From 1 January 2018 the retailer of a business customer consuming more than 40 MWh per annum and less than 160 MWh per annum who has given notice to their retailer that they wish to cease being charged a retail demand charge, can request for the customer to be opted out from a network tariff with a demand charge.

A.3.3 Large business tariffs

Table A. 8 Large low voltage kVA demand tariff charging parameters

Charging parameter		Fixed	Energy								Demand			
		Standing charge	Anytime energy	Peak energy	Off-peak energy	Summer peak energy	Summer shoulder energy	Summer off-peak energy	Non-summer peak energy	Non-summer shoulder energy	Non-summer off-peak energy	Rolling peak demand	Summer demand incentive	Summer demand	Non-summer demand
		c/day	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kVA/day	c/kW/day or c/kVA/day	c/kW/day or c/kVA/day	c/kW/day
Large low voltage	LVkVATOU				✓	✓			✓			✓	✓		
High voltage	HVkVATOU				✓	✓			✓			✓	✓		
Sub-transmission	SubTkVATOU				✓	✓			✓			✓	✓		

A.4 Tariff charging windows

Week days: Monday, Tuesday, Wednesday, Thursday, Friday

Weekends: Saturday, Sunday

Work days: Week days excluding public holidays

A.4.1 Low voltage residential tariffs

Figure A.1 Low voltage residential charging windows

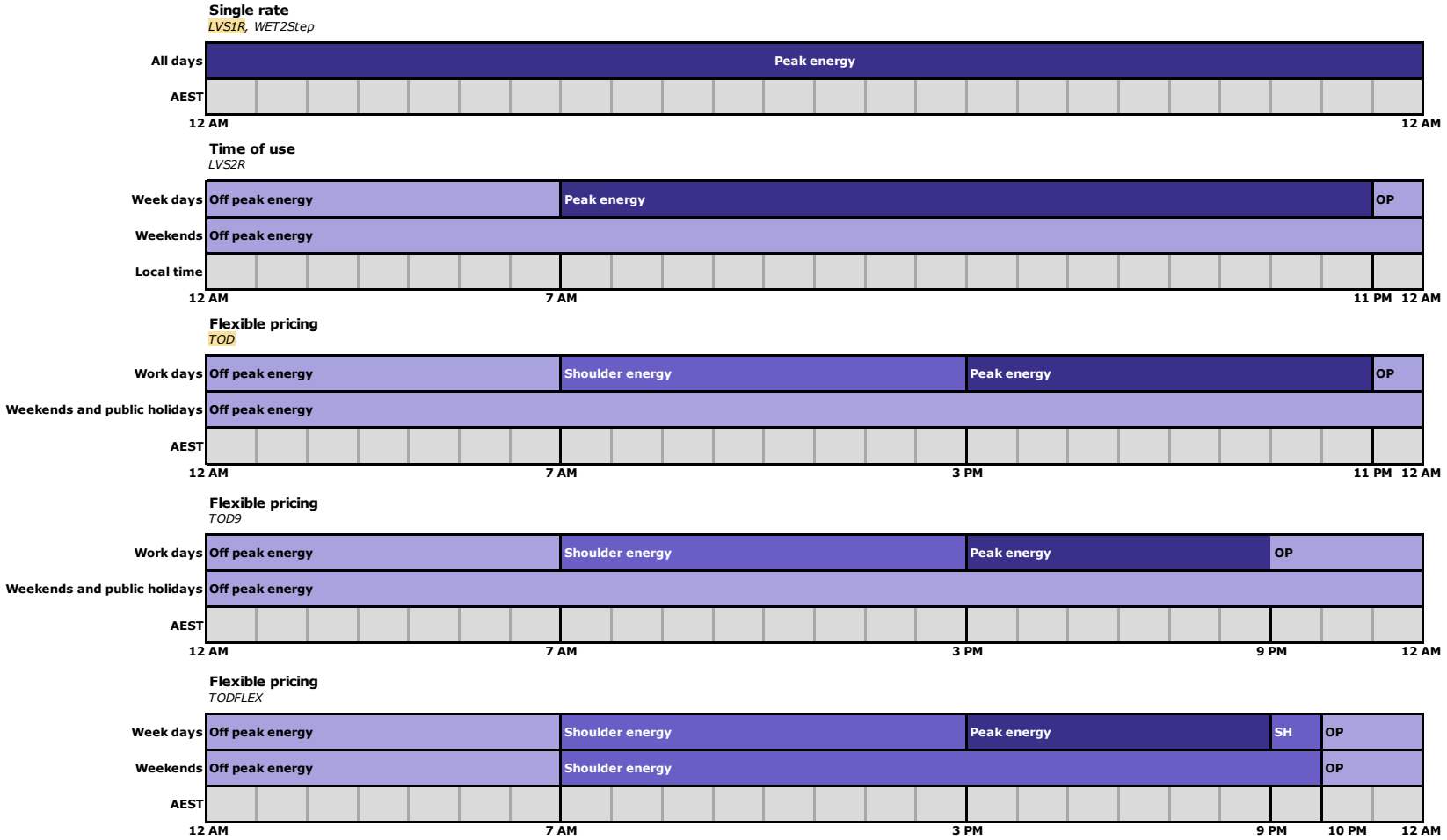
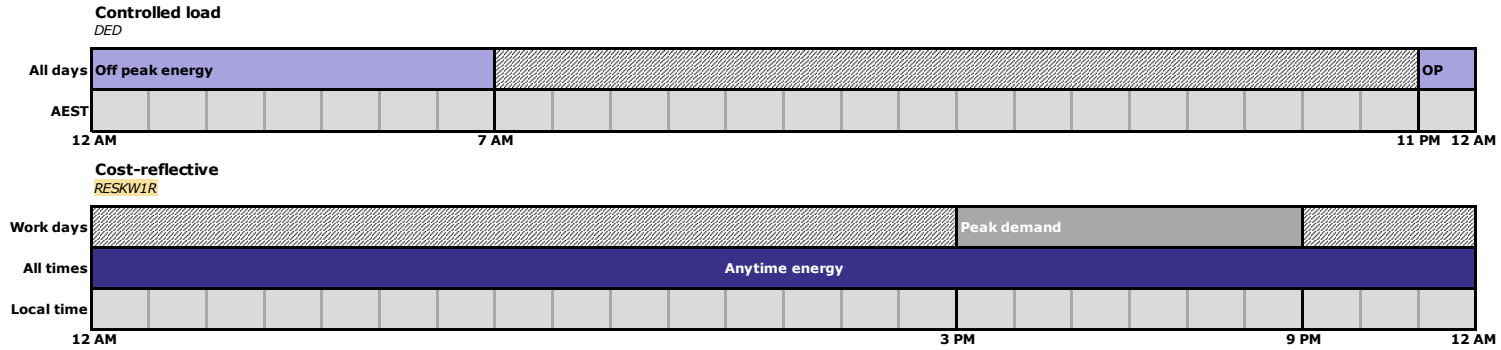


Figure A.1 Low voltage residential charging windows (continued)



A.4.2 Low voltage small business tariffs

Figure A.2 Low voltage small business charging windows

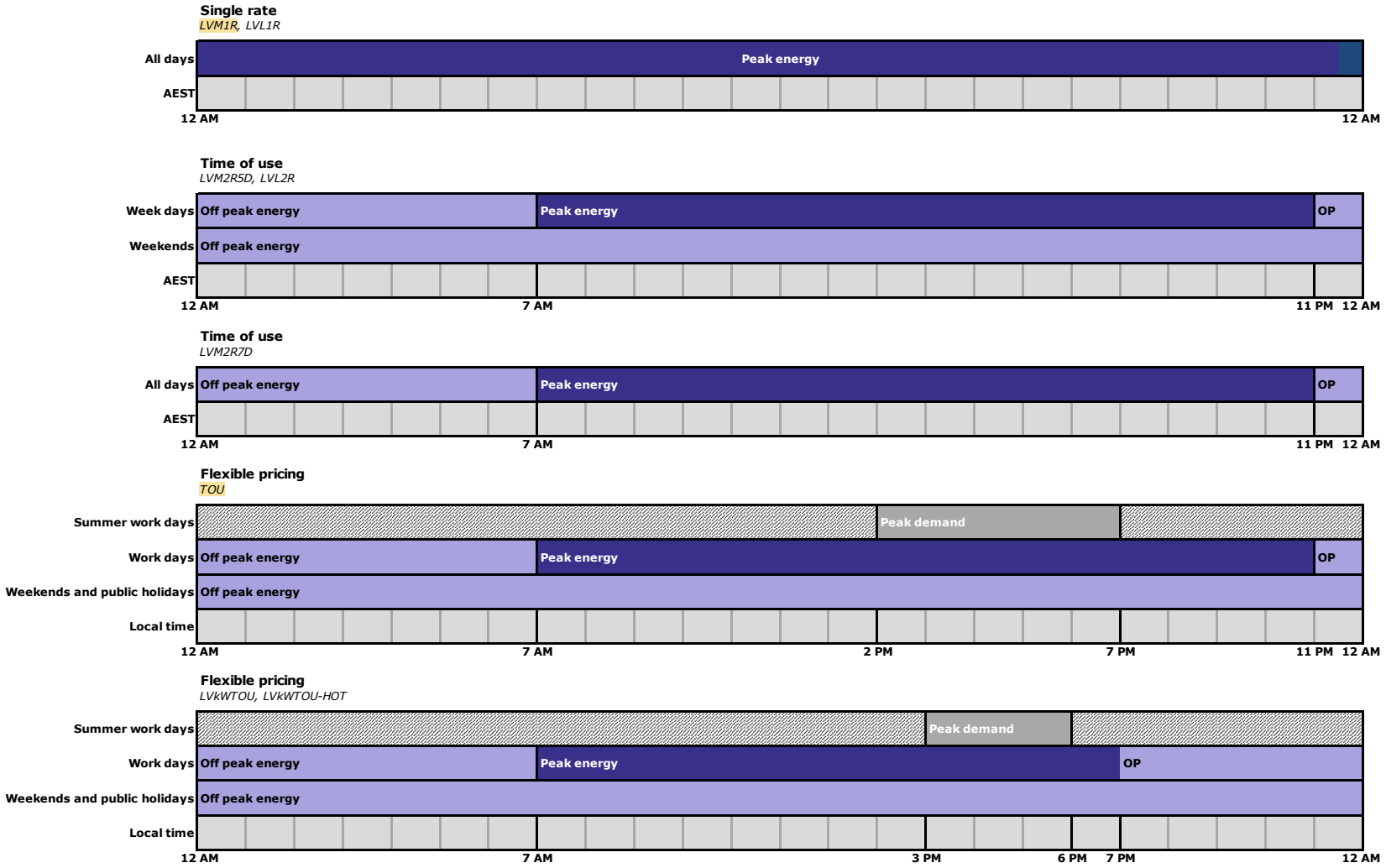
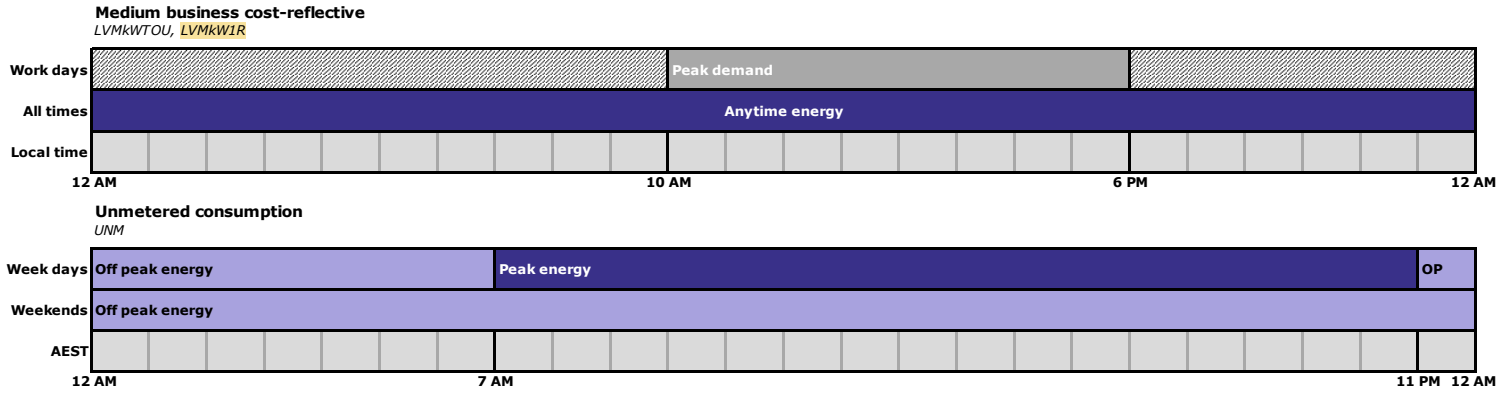
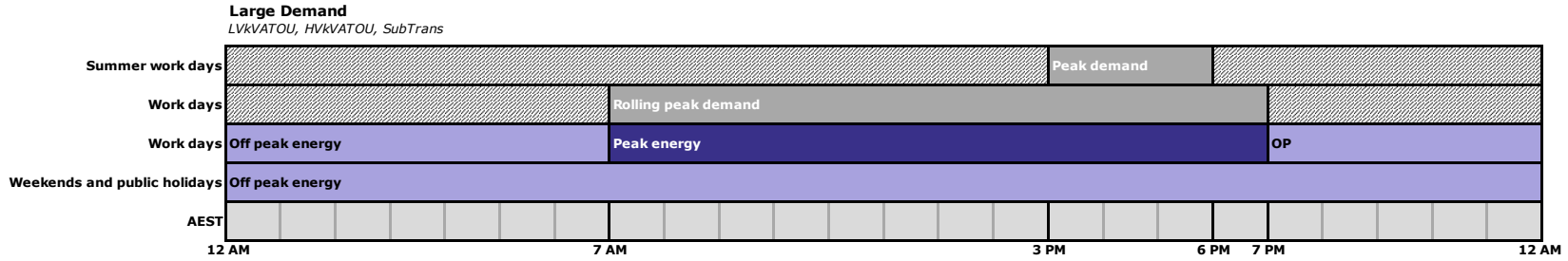


Figure A.2 Low voltage small business charging windows (continued)



A.4.3 Large commercial tariffs

Figure A.3 Large commercial customers charging windows



A.4.4 Seasonal windows

Figure A.4 Seasonal windows

Single rate - Residential and Commercial
LVS1R, WET2Step, LVM1R, LVL1R

Season	Non-summer				Summer					Non-summer		
Month	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun

Time of use - Residential and Commercial
LVS2R, LVM2R5D, LVM2R7D, LVL2R, DED, UNMET

Season	Non-summer				Summer					Non-summer		
Month	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun

Flexible - Residential and Commercial
TOD, TOD9, TOU, LVkWTOU, LVkWTOU-HOT, LVkVATOU, HVkVATOU, SubTrans

Season	Non-summer				Summer					Non-summer		
Month	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun

Flexible - Residential
TODFLEX
Seasons aligned to daylight saving

Season	Non-summer				Summer					Non-summer		
Month	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun

Cost-reflective tariffs - Residential and Commercial
RESKW1R, LVMKWTOU, LVMKW1R

Season	Non-summer					Summer				Non-summer		
Month	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun

A.5 Tariff eligibility for new & existing customers

Table A. 9 Tariffs available to new and existing residential customers in 2019

Tariff Code	Tariff description	Supply voltage (V)[1]	Energy threshold (MWh/a)	Eligible customers
LVS1R	Low voltage small 1 rate	230	<20	• This tariff is available to new connections. • Tariff only available for residential customers
RESKW1R	Seasonal Demand Anytime Energy Residential			• Fully cost reflective demand based tariff available on an opt-in basis for residential customers only • Available to customers with a single AMI or MRIM interval meter • Demand is measured at maximum kW value. • Minimum monthly chargeable demand of 1.5kW.
TOD	Time of Day			• Requires an interval meter.
TOD9	Time of Day off peak starts at 9pm			• Requires an interval meter.
TODFLEX	Time of Day Flexible			• Customers must be Residential. • Requires an AMI meter. • Summer is defined as the commencement of daylight savings (early October) to the finish of daylight savings (early April).

Table A. 10 Tariffs available to new and existing small and medium commercial customers in 2019

Tariff Code	Tariff description	Supply voltage (V)[1]	Energy threshold (MWh/a)	Eligible customers
LVM1R	Low voltage medium 1 rate	<1,000	>20, <400	• This tariff is available to new connections. • Customers with one AMI or MRIM type meters must consume between 20 and 40 MWh/pa. • Customers without AMI or MRIM type meters (i.e. basic meters) as well as those with more than one AMI or MRIM type meters, must consume between 20 and 400 MWh/pa.
TOU	Time of Use		>20, <160	• Requires an interval meter (i.e. AMI enabled, MRIM or Comms style) • Not available to customers with more than one AMI or MRIM type meters.
LVMKWTOU	Small business demand ToU		>20, <400	• Requires an interval meter (i.e. AMI enabled, MRIM or Comms style). • Not available to customers with more than one AMI or MRIM type meters. • Demand is measured at maximum kW value. • Minimum monthly chargeable demand of 1.5kW.
LVMKW1R	Small business demand 1 rate			• Requires an interval meter (i.e. AMI enabled, MRIM or Comms style). • Not available to customers with more than one AMI or MRIM type meters. • Demand is measured at maximum kW value. • Minimum monthly chargeable demand of 1.5kW.
LVDED	Dedicated circuit		N/A	• This tariff is only available in conjunction with the LVS1R and LVM1R tariffs for new connections. • Tariff not available for re-assignments • Customer must have a dedicated circuit connected to a controlled electric hot water service and/or storage space heating. • Requires a separately metered dedicated circuit controlled by UE by means of time switch or other means. • All controlled load is controlled by the meter. • If there are any controlled load boosts during peak periods, these will be charged the peak tariff rate. • This tariff is not available to new customers with embedded generation or existing customers that install embedded generation.
UNMET	Unmetered supplies		N/A	• Only available to unmetered supplies.

Table A. 11 Tariffs available to new and existing large commercial customers in 2019

Tariff Code	Tariff description	Supply voltage (V)[1]	Energy threshold (MWh/a)	Eligible customers
LVkVATOU	Low voltage large kVA time of use	< 11 kVA	>400	• Only available to customers with Type 1-4 meters on low voltage connection • Customers must be in "large" category (>400MWh and/or >150kVA). • Must have an Interval meter measuring kW and kVar. • The minimum rolling demand applicable is 150 kVA.
HVkVATOU	High voltage kVA time of use	≥ 11 kVA and < 22 kVA		• Only available to customers with Type 1-4 meters on high voltage connection • Customers must be in "large" category (>400MWh and/or >1,150kVA). • Must have an Interval meter measuring kW and kVar. • The minimum rolling demand applicable is 1,150 kVA.

A.6 Tariffs limited to previously assigned customers

Table A. 12 Tariffs limited to previously assigned customers

Tariff Code	Tariff description	Supply voltage (V)[1]	Energy threshold (MWh/a)	Eligible customers
LVS2R	Low voltage small 2 rate	230	<20	• Customers must be residential. • Two rate non-demand tariff.
WET2Step	Winter Energy Tariff		<70	• Customers must consume < 70 MWh or < 20 KVA per annum. • Non-summer peak energy is charged within the following blocks: Step 1 <= 1,020kWh/Quarter Step 2 > 1,020kWh/Quarter
LVM2R5D	Low voltage medium 2 rate 5 day	<1,000	20 - 400	• Two rate non-demand tariff.
LVM2R7D	Low voltage medium 2 rate 7 day			• Two rate non-demand tariff.
LVkWTOU	Low voltage KW time of use			• Customers must consume < 400 MWh or < 150 KVA per annum. • Demand is measured at maximum kW value.
LVkWTOUH	Low voltage KW time of use – HOT			• Same as tariff LVkWTOU except SDIC only applies to days when Melbourne's maximum temperature is forecast to be equal to or more than 30 deg C (Melbourne maximum daily temperature forecast in "The Age" on the day in question).
LVL1R	Low voltage large 1 rate	< 11 kVA	>400	• One rate whether one or two registers or one or two meters.
LVL2R	Low voltage large 2 rate			• Two rate non-demand tariff.
SubTkVATOU	Subtransmission KVA time of use	22kV	>400	• Customers must consume > 400 MWh or > 150 KVA per annum. • Demand Tariff - Minimum chargeable rolling demand 11,100 KVA.

A.7 Further information on kVA demand

The following section outlines the kVA tariff policy which involves the calculation of 12-month rolling maximum demand, which applies to large low voltage, high voltage and sub-transmission customers.

A.7.1 Calculation of the kVA demand tariff for a monthly bill

Table A. 13 Calculation of the kVA demand tariff for monthly bill

kVA tariff components	Calculation
Rolling demand charge	Cents per kVA x 12 month rolling maximum kVA / 100
Summer demand incentive charge	Cents per kVA at maximum kW between 3pm to 6pm local time workdays in summer in month / 100
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

A.7.2 Rolling demand

If there is a full 12 month history of the customer's consumption data, the rolling 12-month maximum kVA demand will take effect immediately looking back 12 months.

Demand for greenfield sites will be measured from energisation date to the end date of the bill, until 12 months of history is available when it will revert to a 12-month rolling demand.

A.7.3 Demand exclusions

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

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

A.7.4 Power factor correction

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

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

B Alternative control service charges

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 coordinator services.

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.

The price path for the regulatory period is CPI + X, where X for each year is defined in table 16.1 of the AER Final Decision (May 2016). The table below contains the approved fee based alternative control services charges as per the AER Final Decision (May 2016) updated with the June 2018 CPI + X.

Table B. 1 Fee based Ancillary Network services (nominal, GST exclusive)

Fee based services	2019 Price (ex GST) Business hours	2019 Price (ex GST) After hours
Field Officer Visits – Existing Premises		
Re-energise (fuse insert) - (unit rate)	$48.29	$85.69
De-energise (fuse removal) - (unit rate)	$48.29	N/A
Express move in re-energise (fuse insert) – (unit rate)	$72.80	$134.76
De-energise at point of attachment (pole/pit/premise) –(unit rate)	$373.26	N/A
Temporary Supplies (excl inspection) – Coincident Disconnection where UE is the Responsible Person		
Standard single phase – BH (unit rate)	$487.69	$744.80
Multi phase to 100A – BH (unit rate)	$487.48	$744.59
Temporary Supplies (excl inspection) – where UE is Not the Responsible Person		
Single Phase Servicing and Energisation only – (unit rate)	$452.57	$744.80
Multi Phase Servicing and Energisation only –(unit rate)	$452.57	$744.80
New Connection where UE is the Responsible Person		
Single phase single element –(unit rate)	$487.69	$744.80
Single phase two element (off peak) –(unit rate)	$487.69	$744.80

Fee based services	2019 Price (ex GST) Business hours	2019 Price (ex GST) After hours
Three phase direct connected –(unit rate)	$487.48	$744.59
Routine new connections – three phase current transformer connected – BH	Quoted	Quoted
Routine new connections – three phase current transformer connected – AH	Quoted	Quoted
New Connections – where UE is Not the Responsible Person		
Single phase single element –(unit rate)	$452.57	$744.80
Single phase two element (off peak) – (unit rate)	$452.57	$744.80
Three phase direct connected –(unit rate)	$452.57	$744.80
Routine new connections – three phase current transformer connected	Quoted	Quoted
Routine new connections – three phase current transformer connected	Quoted	Quoted
Service Vehicle Visits (without inspection)		
Service truck – first 30 minutes –(unit rate)	$346.48	N/A
Service truck – 2 hrs min –(unit rate)	N/A	$766.82
Each additional 15 minutes –(unit rate)	$71.65	$99.36
Wasted service truck visit - (unit rate)	$300.53	$766.82
Truck Visit + 1x additional 15 mins (unit rate)	$418.14	$866.18
Truck Visit + 2x additional 15 mins (unit rate)	$489.78	$965.55
Truck Visit + 3x additional 15 mins (unit rate)	$561.42	$1,064.92
Truck Visit + 4x additional 15 mins (unit rate)	$633.07	$1,164.27
Truck Visit + 5x additional 15 mins (unit rate)	$704.71	$1,263.63
Truck Visit + 6x additional 15 mins (unit rate)	$776.34	$1,363.00

Table B. 2 Fee based Ancillary Network services (nominal, GST exclusive)

Fee based services2019 Price (ex GST)	2019 Price (ex GST)
Meter Equipment Test	
Single phase	$269.95
Single phase (each additional meter)	$129.53
Multi phase	$269.62
Multi phase (each additional meter)	$129.53
Remote AMI Services	
Remote Meter Configuration	$64.39

Fee based services2019 Price (ex GST)	2019 Price (ex GST)
Remote Special Meter Reading	$0.87
Remote Re-Energise	$10.87
Remote de-Energise	$10.87

Table B. 3 Quoted Ancillary Network services (nominal, GST exclusive)

Description	2019 Price (ex GST) Business hours	2019 Price (ex GST) After hours
Field worker - one person - BH	$132.32	$187.92
Field worker - one person plus vehicle - BH	$155.11	$210.71
Administration	$102.23	N/A
Senior engineer	$194.87	N/A
Project planner	$194.87	N/A

B.2 Metering Coordinator services

As at 1 December 2017, the responsible person role is replaced by the metering coordinator role. We are the metering coordinator for types 5, 6 and 7 meters. We are responsible for metering coordinator services associated with types 5, 6 and 7 meters which are installed in residential and small commercial premises consuming up to 160 MWh per annum.

B.2.1 Meter Provision charges for Advanced Metering Infrastructure (AMI) <160MWh customers

Meter provision charges are applied to all meters consuming up to 160 MWh per annum. This charge covers the cost of maintaining, operating and replacing the meter once it has reached the end of its economic life, as well as the collection, processing and delivery of meter data to market participants. The charge varies depending on the meter installed.

Meter provision services are charged to each alternative control services network customer on a $/day basis, so the relevant charging parameter is the number of customer days.

Table B. 4 Charges for AMI metering charges of single and three phase meters. (nominal, GST exclusive)

AMI metering charges per meter per annum	2019 Price (ex GST)
Single phase single element meter	$57.00
Single phase single element meter with contactor	$57.00
Three phase direct connected meter	$64.28
Three phase current transformer connected meter	$68.15

B.2.2 Manual meter reading charge

This charge applies to customers who have elected not to have their manually read meter replaced with a remotely read AMI meter.

Table B. 5 Fee based Ancillary Network services (nominal, GST exclusive)

Fee based services	2019 Price (ex GST)
Manual meter reading charges	
Special read (basic meter)	$22.67
Special read (interval meter)	$22.67

B.2.3 Meter exit fees

An exit fee applies when a customer chooses to replace a regulated meter installed under the derogation with a competitively sourced meter (including to an embedded network).

Meter services exit fee transactions will be charged on an as incurred basis, so the relevant charging parameter is the number of exit fee transactions.

Table B. 6 Metering exit fees (nominal, GST exclusive)

Metering exit fees	2019 Price (ex GST)
Single phase single element meter	$361.45
Single phase single element meter with contactor	$368.64
Three phase direct connected meter	$409.00
Three phase current transformer connected meter	$538.66

B.2.4 Prescribed Metering Service Charge

The metering data services for public lighting are services provided exclusively to public lighting customers, such as retailers, municipal councils and Vic Roads.

Table B. 7 Meter data services for public lighting (nominal, GST exclusive)

Meter data services	2019 Price (ex GST)
Unmetered supplies – Public lighting (per light)	$1.374

B.3 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.

The table below contains the approved public lighting charges as per the AER Final Decision (May 2016) Attachment 16 – Alternative control services updated with the June 2018 CPI and approved real pre-tax WACC.

Table B. 8 Alternative Control Services - Public Lighting Charges (nominal, GST exclusive)

Light Type	2019 Price/light pa (ex GST)
Mercury Vapour 80 watt	60.47
Sodium High Pressure 150 watt	78.51
Sodium High Pressure 250 watt	80.32
Fluorescent 2x20 watt	78.01
Fluorescent 3x20 watt	78.01
Mercury Vapour 50 watt	89.50
Mercury Vapour 125 watt	89.50
Mercury Vapour 250 watt	73.09
Mercury Vapour 400 watt	101.20
Mercury Vapour 700 watt	101.20
Sodium High Pressure 70 watt	132.43
Sodium High Pressure 100 watt	86.36
Sodium High Pressure 400 watt	101.20
Metal Halide 70 watt	105.98
Metal Halide 100 watt	105.98
Metal Halide 150 watt	105.98
Metal Halide 250 watt	108.43
Metal Halide 400 watt	108.43
T5 2X14W	31.77
Twin 24W Fluorescent	31.77
Compact Fluoro 32W	31.77
Compact Fluoro 42W	31.77

C Glossary

Table C.1 Glossary

Term	Definition
AEST	Australian Eastern Standard Time is 10 hours ahead of UTC
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
AMI	Advanced Metering Infrastructure
ARR	Annual revenue requirement
Controlled Load	The DNSP controls the hours in which the supply is made available
DMIS	Demand management incentive scheme
DPPC	Designated pricing proposal charges
DUoS	Distribution use of system
Final decision	The Australian Energy Regulator's final decision determination 2016 to 2020, May 2016
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
Guideline 14	Electricity Industry Guideline 14, Provision of Services by Electricity Distributors, 13 April 2004
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 saving 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
NUoS	Network use of system. The utilisation of the total electricity network in the provision of electricity to consumers (NUoS = DUoS + TUoS)
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 = Real Power (kW) / Total Power (kVA) Total Power $kVA = \sqrt{kW^2 + kVAr^2}$
Preliminary determination	The Australian Energy Regulator's preliminary distribution determination 2016 to 2020, October 2015
PTRM	Post tax revenue model
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)
STPIS	Service target performance incentive scheme
TAR	Total annual revenue
ToU	Tariff whereby charges (energy or demand) vary depending on time
Transmission Network	The assets and service that enable generators to transmit their electrical energy to population centres
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
WDV	Written down value

D Attachments

Table D.1 Attachments

Reference	Topic	Final name	Confidential
Attachment A	Revenue Cap Compliance Model	Attachment A-2019 Tariff Approval Model UE.xlsm	No
Attachment B	Tariff Summary	Attachment B-2019 Tariff Summary UE.xlsm	No
Attachment C	Alternative Control Services	Attachment C-2019 ACS Charges UE.xlsx	No
Attachment D	Public Lighting	Attachment D-2019 Public lighting model UE.xlsm	No
Attachment E	Audit Report	Attachment E-2019 Audit Report UE.pdf	No