



United Energy

HY 2021 Pricing Proposal

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1 Introduction

This document, its appendices and attachments comprise our pricing proposal for the six-month period of January 2021 to June 2021 (**HY 2021**) to the Australian Energy Regulator (**AER**). It covers all of our direct control services in accordance with the National Electricity Rules (**Rules**) and the AER's Final Determination on United Energy's Distribution Revenue for HY 2021 (**Final Determination HY 2021**).

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 685,000 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 km of overhead lines, more than 200,000 poles and covering 1,500 square kilometres.

Figure 1.1 United Energy facts and figures

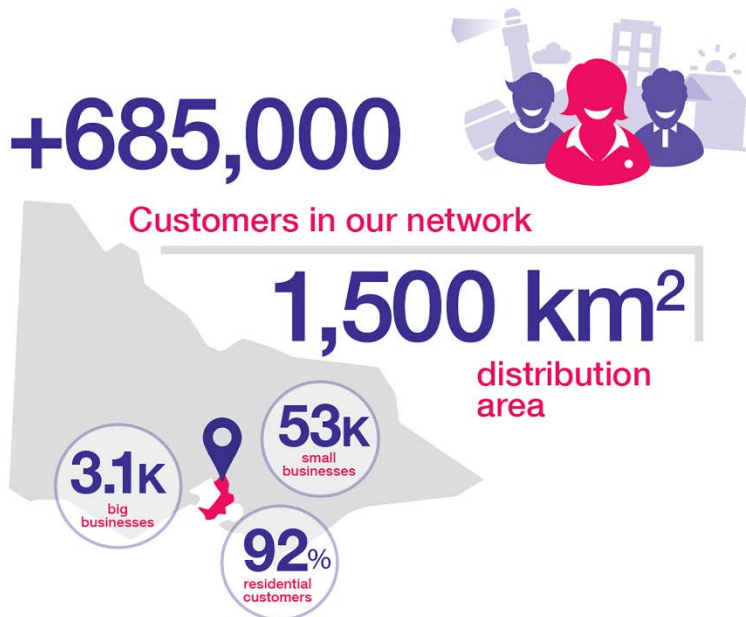


Figure 1.2 United Energy geography



1.2 HY 2021 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.

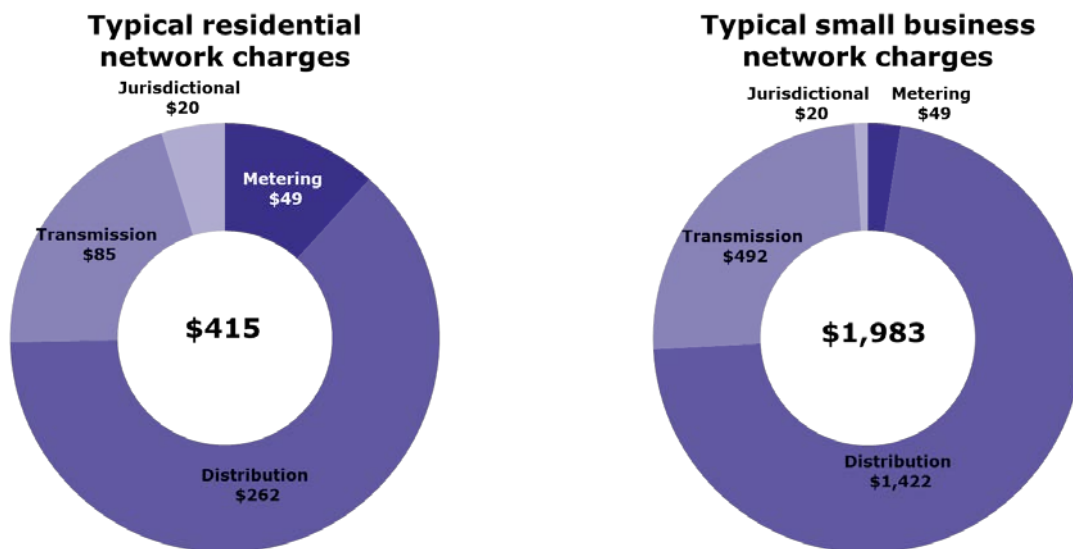
Network charges comprise:

- Distribution use of System (**DUOS**) charges relate to the cost to deliver electricity to your home or business via United Energy's distribution network.
- Transmission use of System (**TUOS**) charges¹ reflect the cost to transport electricity over the high voltage network.
- 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 and metering charges on to electricity retailers, who in turn pass them on to customers via electricity bills.

Figure 1.3 United Energy typical network charges (GST exclusive)²



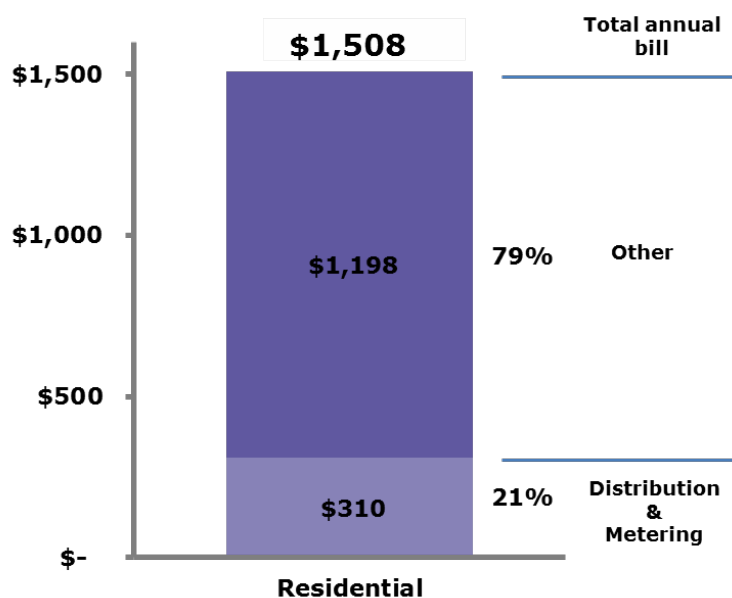
These charges form the network charge component of a customer's bill. Other charges which include wholesale, environmental, retail costs and retail margin make up the other, more significant component of a customer's bill.

For example, as seen below, an average residential customer's bill is comprised of 21% distribution and metering charges.

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

² Network charges are based on a typical residential customer on a HY 2021 single rate tariff consuming 4,000 kWh pa, and a typical small business customer on a HY 2021 single rate tariff consuming 20,000 kWh pa. Metering charges calculated for the full year for comparison purposes.

Figure 1.4 United Energy residential charges (GST exclusive)³



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.

1.4 Summary of changes

There are no proposed changes to the structure of the 2020 network tariffs in HY 2021.

Our HY 2021 network tariffs are set out in Appendix A.

³ Based on the Victorian default offer for 2020 with network and metering charges updated to HY 2021 proposed charges.

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.

We do not propose to make any variations or adjustments to the 2020 structure of network tariffs during the course of HY 2021.

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 for the period of 2016-2020.

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 HY 2021 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 were subject to a revenue cap form of control and this mechanism continues into the HY 2021 period. The AER's Final Determination HY 2021 sets out the annual revenue requirements (ARR). When calculating the ARR, 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 Volume forecast methodology

The following methodology was used to forecast volumes for the HY 2021 pricing proposal:

- Extracted the last 12 consecutive months of actual volumes by tariff and tariff component;
- Adjusted the energy volumes to reflect a POE 50 (weather normal) year;
- Escalated volumes proportionately with forecast customer growth by tariff from actual to HY 2021; and
- Reduced residential and business energy volumes to allow for the impact of forecast new solar PV installations.

3.1.3 HY 2021 prices for standard control services

The Final Determination 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	HY 2021 value (\$,000)
Adjusted annual smoothed revenue requirement for the year before the regulatory year t (AAR_{t-1})	184,627
Annual percentage change in the Australian Bureau of Statistics' Consumer Price Index (ΔCPI_t)	Not applicable
X factor for each year of the 2016-2020 regulatory control period as determined in the PTRM (X_t)	Not applicable
S factor determined in accordance with the service target performance incentive scheme (S_t)	Not applicable
Adjusted annual smoothed revenue requirement for regulatory year t (AAR_t)	Not applicable
Annual adjustment f-factor scheme amount (I_t)	Not applicable
Final carryover amount from prior regulatory period from the Demand Management Incentive Scheme (T_t)	Not applicable
Incorporates the recovery of license fee charges, under or over-recovery of DUoS charge revenue and AER approved pass through for direct control services (B_t)	Not applicable
Total annual revenue (TAR_t)	184,627

3.1.4 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 the Final Determination. The evaluation of the side constraint for HY 2021 is set out in the table below.

Table 3.2 Side constraint criteria summary

Criterion	HY 2021 value
Annual percentage change in the Australian Bureau of Statistics' Consumer Price Index (ΔCPI_t)	-0.35%
X factor for each year of the 2016-2020 regulatory control period as determined in the PTRM (X_t)	Not applicable
S factor determined in accordance with the service target performance incentive scheme (S_t)	Not applicable
Annual percentage change from the f-factor scheme amount (I_t)	Not applicable
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 (B_t)	Not applicable
Maximum allowable tolerance	2.00%
Side constraint	1.64%

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 HY 2020 to HY 2021 for each tariff class.

Table 3.3 Weighted average revenue for distribution and transmission services

Tariff class	HY 2020	HY 2021	Distribution
	$p_{t-1}q_t$	p_tq_t	% change
	\$'000	\$'000	
Residential	111,764	89,304	-20.10%
Small commercial	55,332	42,365	-23.43%
Large low voltage	56,566	43,331	-23.40%
High voltage	12,536	9,533	-23.96%
Sub-transmission	87	71	-18.52%

3.1.5 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.

3.1.6 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.

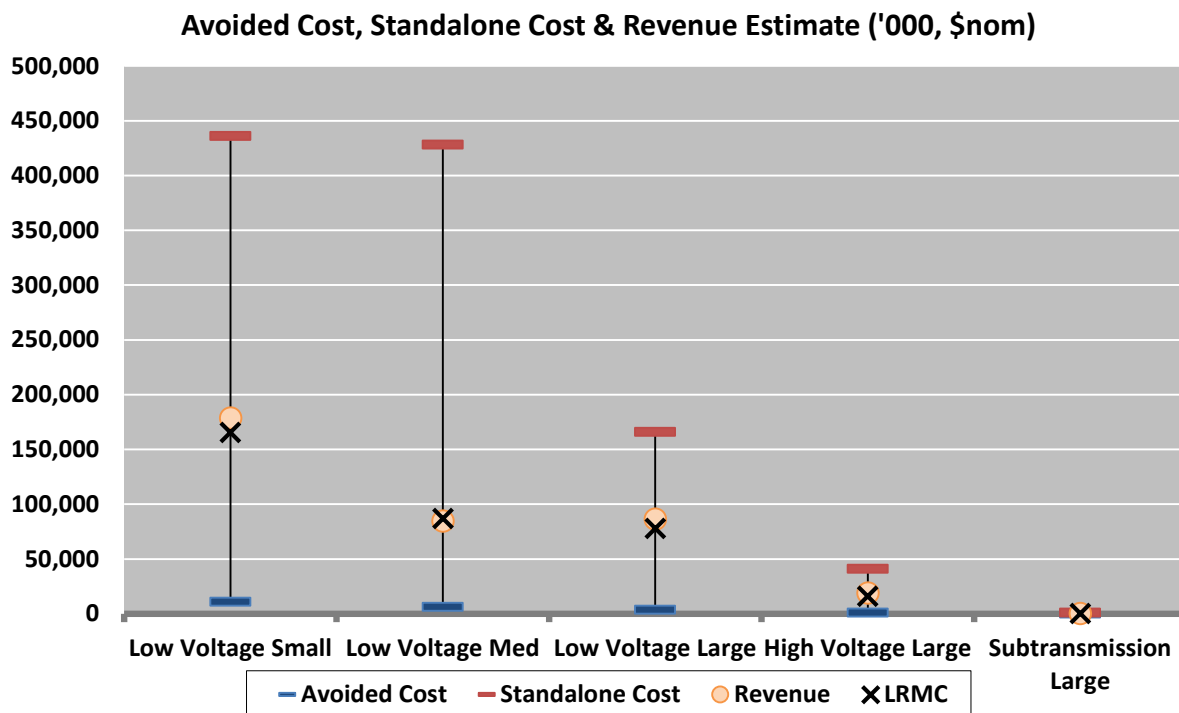
We have estimated our LRMC for each tariff class by annualising the cost of augmenting capacity (measured by the marginal cost of reinforcement) and scale growth in operating and maintenance costs associated with network augmentation, per unit of additional capacity provided.

3.1.7 Revenue lies between stand-alone and avoidable costs

A comparison of the HY 2021 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 HY 2021 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 HY 2021 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.

The table below summarises the calculation of the HY 2021 maximum revenue for DPPC.

Table 3.4 DPPC maximum revenue for HY 2021

Revenue item	HY 2021 value (\$,000)
Transmission, avoided transmission and inter-distributor charges	65,045
Unders and overs amount	Not applicable
Total DPPC revenue	65,045

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 HY 2021 maximum revenue for jurisdictional schemes.

Table 3.5 Jurisdictional schemes maximum revenue for HY 2021

Revenue item	HY 2021 value (\$,000)
Premium feed-in-charge charges	6,903
Unders and overs amount	Not applicable
Total jurisdictional schemes revenue	6,903

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 2022

Indicative pricing levels for 2022 cannot be shown as HY 2021 is an interim period between the 2016-2020 and the 2021-2026 regulatory periods.

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 off-peak meter;
- single phase off-peak 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 HY 2021 regulatory control period is set out in the AER's Final Determination. 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 in HY 2021. 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. The AER set annual revenue requirement for the six-month extension period in their Final Determination.

4.2.1 Ancillary services form of control

The derivations of control formulas for ancillary services set out in the AER's Final Determination are produced below:

Table 4.1 AER Final Determination on X factor for HY 2021 (percent)

Year	HY 2021
X factor	-0.12%

Source: AER

4.2.2 Metering form of control

The derivations of control formulas for metering set out in the AER's Final Determination is produced below.

Table 4.2 Metering revenue criteria summary

Criterion	HY 2021 value (\$,000)
Annual revenue requirement for year preceding t (AR_{t-1})	17,581
Annual percentage change in the Australian Bureau of Statistics' Consumer Price Index (ΔCPI_t)	Not applicable
X factor for each year of the 2016-2020 regulatory control period as determined in the PTRM (X_t)	Not applicable
Annual revenue requirement for year t (AR_t)	Not applicable
Sum of annual adjustment factors in year t as calculated in the unders and overs account (B_t)	Not applicable
Total annual revenue for annual metering charges ($TARM_t$)	17,581

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 the AER's Final Determination is reproduced below.

Table 4.3 Metering side constraint summary

Criterion	HY 2021 value
Annual percentage change in the Australian Bureau of Statistics' Consumer Price Index (ΔCPI_t)	-0.35%
X factor for each year of the 2016-2020 regulatory control period as determined in the PTRM (X_t)	Not applicable
Annual percentage change for the unders and overs recoveries relating to AMI actual revenues and actual costs incurred in 2014 and 2015 (T_t)	Not applicable
Annual percentage change from the sum of annual adjustment factors in year t as calculated in the unders and overs account (B'_t)	Not applicable
Maximum allowable tolerance	2.00%
Side constraint	1.64%

Weighted average revenue

To demonstrate compliance with the side constraint formula, the following table sets out the expected weighted average revenue for metering and the per cent change from 2020 to HY 2021 for each tariff class.

Table 4.4 Weighted average revenue for metering

Tariff	HY 2020	HY 2021	Tariff
	$p_{t-1}q_t$	p_tq_t	% change
	\$'000	\$'000	
Single phase single element meter	14,790	13,316	-9.97%
Single phase single element meter with contactor	1,493	1,344	-9.97%
Three phase direct connected meter	3,141	2,828	-9.97%
Three phase Current transformer connected meter	103	93	-9.97%

4.4 Public lighting operation, maintenance and replacement

Our public lighting operation, maintenance and replacement HY 2021 prices are shown in Appendix B.

A Standard control service charges

A.1 Standard control services tariff schedules

Table A.1 Network (NUoS) Tariffs HY 2021

Network Tariff and Jurisdictional Charge HY 2021	Code	PFIT	Available to new customers	Fixed	Juris. (PFIT recovery)	Demand Charges				Usage			Summer Time of Use Tariffs			Non-Summer Time of Use Tariffs					
						c/day	c/day	Rolling peak	Summer incentive	Summer	Non- Summer	Anytime	Peak	Off-peak	Pk	Sh	Opk	Pk - Block1	Pk - Block2	Sh	Opk
								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	10.950	5.450	-	-	-	-	-	-	-	7.670	-	-	7.670	-	-	-		
Low voltage small 2 rate	LVS2R		No	15.920	5.450	-	-	-	-	-	-	1.800	12.650	-	-	12.650	-	-	-		
Time of Day	TOD	FTOD	Yes	10.950	5.450	-	-	-	-	-	-	2.790	14.720	6.930	-	14.720	-	6.930	-		
Time of Day 9pm off-peak	TOD9	FTOD9	Yes	10.950	5.450	-	-	-	-	-	-	3.420	16.010	8.880	-	16.010	-	8.880	-		
Time of Day Flexible	TODFLEX	FTODFLEX	Yes	10.950	5.450	-	-	-	-	-	-	3.430	15.330	6.150	-	15.330	-	6.150	-		
Low voltage KW 1 rate	RESKW1R	FRESKW1R	Yes	-	5.450	-	-	29.010	12.360	-	-	-	3.110	-	-	3.110	-	-	-		
Winter Energy Tariff	WET2Step		No	10.950	5.450	-	-	-	-	-	-	-	7.690	-	-	7.690	1.860	-	-		
Dedicated circuit *	LVDed *		Yes	-	-	-	-	-	-	-	-	1.730	-	-	-	-	-	-	-		
Low voltage medium 1 rate	LVM1R	FLVM1R	Yes	16.430	5.450	-	-	-	-	-	-	-	9.270	-	-	9.270	-	-	-		
Low voltage medium 2 rate 5 day	LVM2R5D		No	25.330	5.450	-	-	-	-	-	-	1.740	11.740	-	-	11.740	-	-	-		
Low voltage medium 2 rate 7 day	LVM2R7D		No	26.950	5.450	-	-	-	-	-	-	1.410	10.020	-	-	10.020	-	-	-		
Low voltage KW time of use	LVkWTOU		No	-	5.450	-	45.540	-	-	-	-	1.690	9.290	-	-	9.290	-	-	-		
Low voltage KW time of use - HOT	LVkWTOUH	FLVkWTOU-HOT	No	-	5.450	-	64.260	-	-	-	-	1.340	7.230	-	-	7.230	-	-	-		
Time of Use	TOU	FTOU	Yes	-	5.450	-	37.120	-	-	-	-	2.030	8.710	-	-	8.710	-	-	-		
Low voltage large 1 rate	LVL1R		No	16.430	5.450	-	-	-	-	-	-	-	7.860	-	-	7.860	-	-	-		
Low voltage large 2 rate	LVL2R		No	22.340	5.450	-	-	-	-	-	-	1.680	11.590	-	-	11.590	-	-	-		
Low Voltage Medium kW Time of Use (Opt-in)	LVMKWTOU		Yes	-	5.450	-	-	43.930	29.270	-	-	-	3.880	-	-	3.880	-	-	-		
Low Voltage Medium kW 1 rate (Mandatory)	LVMKW1R	FLVMKW1R	Yes	-	5.450	-	-	43.520	29.000	-	-	-	3.850	-	-	3.850	-	-	-		
Unmetered supplies	UnMet		Yes	-	-	-	-	-	-	-	-	1.380	9.770	-	-	9.770	-	-	-		
Low voltage large KVA time of use	LVkVATOU		Yes	-	5.450	17.460	25.440	-	-	-	-	1.040	2.290	-	-	2.290	-	-	-		
High voltage KVA time of use	HVkvATOU		Yes	-	5.450	13.170	16.250	-	-	-	-	0.640	1.380	-	-	1.380	-	-	-		
Subtransmission KVA time of use	SubTkVATOU		No	-	5.450	5.360	6.690	-	-	-	-	0.290	0.820	-	-	0.820	-	-	-		

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

Summer rates (energy and demand) apply for period 1st November to 31st March (except for RESKW1R, LVMKWTOU, LVMKW1R which apply summer rates from 1st December to 31st March; and TODFLEX which follows daylight savings periods).

Non-summer rates (energy and demand) apply for period 1st April to 31st October (except for RESKW1R, LVMKWTOU, LVMKW1R which apply non-summer rates from 1st April to 30th November; and TODFLEX which follows daylight savings periods).

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 HY 2021

Distribution Tariff HY 2021	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
Low voltage small 1 rate	LVS1R	FLVS1R	Yes	10.950	-	-	-	-	-	-	-	-	5.540	-	-	5.540	-	-
Low voltage small 2 rate	LVS2R		No	15.920	-	-	-	-	-	-	-	1.800	8.850	-	-	8.850	-	-
Time of Day	TOD	FTOD	Yes	10.950	-	-	-	-	-	-	-	2.790	10.620	3.370	-	10.620	-	3.370
Time of Day 9pm off-peak	TOD9	FTOD9	Yes	10.950	-	-	-	-	-	-	-	3.420	10.690	3.860	-	10.690	-	3.860
Time of Day Flexible	TODFLEX	FTODFLEX	Yes	10.950	-	-	-	-	-	-	-	3.430	10.990	4.050	-	10.990	-	4.050
Low voltage KW 1 rate	RESKW1R	FRESKW1R	Yes	-	-	-	25.420	10.030	-	-	-	-	2.630	-	-	2.630	-	-
Winter Energy Tariff	WET2Step		No	10.950	-	-	-	-	-	-	-	-	5.570	-	-	5.570	1.860	-
Dedicated circuit *	LVDed *		Yes	-	-	-	-	-	-	-	-	1.730	-	-	-	-	-	-
Low voltage medium 1 rate	LVM1R	FLVM1R	Yes	16.430	-	-	-	-	-	-	-	-	6.810	-	-	6.810	-	-
Low voltage medium 2 rate 5 day	LVM2R5D		No	25.330	-	-	-	-	-	-	-	1.740	9.340	-	-	9.340	-	-
Low voltage medium 2 rate 7 day	LVM2R7D		No	26.950	-	-	-	-	-	-	-	1.410	7.720	-	-	7.720	-	-
Low voltage KW time of use	LVkWTOU		No	-	-	34.790	-	-	-	-	-	1.690	7.260	-	-	7.260	-	-
Low voltage KW time of use - HOT	LVkWTOUH	FLVkWTOU-HOT	No	-	-	52.100	-	-	-	-	-	1.340	5.910	-	-	5.910	-	-
Time of Use	TOU	FTOU	Yes	-	-	30.080	-	-	-	-	-	2.030	6.920	-	-	6.920	-	-
Low voltage large 1 rate	LVL1R		No	16.430	-	-	-	-	-	-	-	-	5.400	-	-	5.400	-	-
Low voltage large 2 rate	LVL2R		No	22.340	-	-	-	-	-	-	-	1.680	8.910	-	-	8.910	-	-
Low Voltage Medium kW Time of Use (Opt-in)	LVMKWTOU		No	-	-	-	32.620	21.740	-	-	-	-	2.880	-	-	2.880	-	-
Low Voltage Medium kW 1 rate (Mandatory)	LVMKW1R	FLVMKW1R	Yes	-	-	-	32.620	21.740	-	-	-	-	2.880	-	-	2.880	-	-
Unmetered supplies	UnMet		Yes	-	-	-	-	-	-	-	-	1.380	6.390	-	-	6.390	-	-
Low voltage large KVA time of use	LVkVATOU		Yes	-	12.470	18.640	-	-	-	-	-	1.040	1.240	-	-	1.240	-	-
High voltage KVA time of use	HVkVATOU		Yes	-	7.490	10.290	-	-	-	-	-	0.640	0.740	-	-	0.740	-	-
Subtransmission KVA time of use	SubTkVATOU		No	-	0.760	1.100	-	-	-	-	-	0.290	0.430	-	-	0.430	-	-

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

Summer rates (energy and demand) apply for period 1st November to 31st March (except for RESKW1R, LVMKWTOU, LVMKW1R which apply summer rates from 1st December to 31st March; and TODFLEX which follows daylight savings periods).

Non-summer rates (energy and demand) apply for period 1st April to 31st October (except for RESKW1R, LVMKWTOU, LVMKW1R which apply non-summer rates from 1st April to 30th November; and TODFLEX which follows daylight savings periods).

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 HY 2021

Transmission Tariff HY 2021	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
Low voltage small 1 rate	LVS1R	FLVS1R	Yes	-	-	-	-	-	-	-	-	2.130	-	-	2.130	-	-	-
Low voltage small 2 rate	LVS2R		No	-	-	-	-	-	-	-	-	3.800	-	-	3.800	-	-	-
Time of Day	TOD	FTOD	Yes	-	-	-	-	-	-	-	-	4.100	3.560	-	4.100	-	3.560	-
Time of Day 9pm off-peak	TOD9	FTOD9	Yes	-	-	-	-	-	-	-	-	5.320	5.020	-	5.320	-	5.020	-
Time of Day Flexible	TODFLEX	FTODFLEX	Yes	-	-	-	-	-	-	-	-	4.340	2.100	-	4.340	-	2.100	-
Low voltage KW 1 rate	RESKW1R	FRESKW1R	Yes	-	-	-	3.590	2.330	-	-	-	0.480	-	-	0.480	-	-	-
Winter Energy Tariff	WET2Step		No	-	-	-	-	-	-	-	-	2.120	-	-	2.120	-	-	-
Dedicated circuit *	LVDed *		Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Low voltage medium 1 rate	LVM1R	FLVM1R	Yes	-	-	-	-	-	-	-	-	2.460	-	-	2.460	-	-	-
Low voltage medium 2 rate 5 day	LVM2R5D		No	-	-	-	-	-	-	-	-	2.400	-	-	2.400	-	-	-
Low voltage medium 2 rate 7 day	LVM2R7D		No	-	-	-	-	-	-	-	-	2.300	-	-	2.300	-	-	-
Low voltage KW time of use	LVkWTOU		No	-	-	10.750	-	-	-	-	-	2.030	-	-	2.030	-	-	-
Low voltage KW time of use - HOT	LVkWTOUH	FLVkWTOU-HOT	No	-	-	12.160	-	-	-	-	-	1.320	-	-	1.320	-	-	-
Time of Use	TOU	FTOU	Yes	-	-	7.040	-	-	-	-	-	1.790	-	-	1.790	-	-	-
Low voltage large 1 rate	LVL1R		No	-	-	-	-	-	-	-	-	2.460	-	-	2.460	-	-	-
Low voltage large 2 rate	LVL2R		No	-	-	-	-	-	-	-	-	2.680	-	-	2.680	-	-	-
Low Voltage Medium kW Time of Use (Opt-in)	LVMKWTOU		Yes	-	-	-	11.310	7.530	-	-	-	1.000	-	-	1.000	-	-	-
Low Voltage Medium kW 1 rate (Mandatory)	LVMKW1R	FLVMKW1R	Yes	-	-	-	10.900	7.260	-	-	-	0.970	-	-	0.970	-	-	-
Unmetered supplies	UnMet		Yes	-	-	-	-	-	-	-	-	3.380	-	-	3.380	-	-	-
Low voltage large KVA time of use	LVkVATOU		Yes	-	4.990	6.800	-	-	-	-	-	1.050	-	-	1.050	-	-	-
High voltage KVA time of use	HVkVATOU		Yes	-	5.680	5.960	-	-	-	-	-	0.640	-	-	0.640	-	-	-
Subtransmission KVA time of use	SubTkVATOU		No	-	4.600	5.590	-	-	-	-	-	0.390	-	-	0.390	-	-	-

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

Summer rates (energy and demand) apply for period 1st November to 31st March (except for RESKW1R, LVMKWTOU, LVMKW1R which apply summer rates from 1st December to 31st March; and TODFLEX which follows daylight savings periods).

Non-summer rates (energy and demand) apply for period 1st April to 31st October (except for RESKW1R, LVMKWTOU, LVMKW1R which apply non-summer rates from 1st April to 30th November; and TODFLEX which follows daylight savings periods).

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 HY 2021

Jurisdictional Tariff (PFIT Recovery) HY 2021	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/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	c/kWh
Low voltage small 1 rate	LVS1R	FLVS1R	Yes	5.450	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Low voltage small 2 rate	LVS2R		No	5.450	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Time of Day	TOD	FTOD	Yes	5.450	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Time of Day 9pm off-peak	TOD9	FTOD9	Yes	5.450	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Time of Day Flexible	TODFLEX	FTODFLEX	Yes	5.450	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Low voltage KW 1 rate	RESKW1R	FRESKW1R	Yes	5.450	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Winter Energy Tariff	WET2Step		No	5.450	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Dedicated circuit *	LVDed *		Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Low voltage medium 1 rate	LVM1R	FLVM1R	Yes	5.450	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Low voltage medium 2 rate 5 day	LVM2R5D		No	5.450	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Low voltage medium 2 rate 7 day	LVM2R7D		No	5.450	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Low voltage KW time of use	LVkWTOU		No	5.450	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Low voltage KW time of use - HOT	LVkWTOUH	FLVkWTOU-HOT	No	5.450	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Time of Use	TOU	FTOU	Yes	5.450	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Low voltage large 1 rate	LVL1R		No	5.450	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Low voltage large 2 rate	LVL2R		No	5.450	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Low Voltage Medium kW Time of Use (Opt-in)	LVMKWTOU		Yes	5.450	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Low Voltage Medium kW 1 rate (Mandatory)	LVMKW1R	FLVMKW1R	Yes	5.450	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Unmetered supplies	UnMet		Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Low voltage large KVA time of use	LVkVATOU		Yes	5.450	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
High voltage KVA time of use	HVkVATOU		Yes	5.450	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Subtransmission KVA time of use	SubTkVATOU		No	5.450	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

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

Summer rates (energy and demand) apply for period 1st November to 31st March (except for RESKW1R, LVMKWTOU, LVMKW1R which apply summer rates from 1st December to 31st March; and TODFLEX which follows daylight savings periods).

Non-summer rates (energy and demand) apply for period 1st April to 31st October (except for RESKW1R, LVMKWTOU, LVMKW1R which apply non-summer rates from 1st April to 30th November; and TODFLEX which follows daylight savings periods).

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 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.2.1 Low voltage residential tariffs

Table A. 5 Low voltage residential 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/kWh	c/kVA/day	c/kW/day or c/kVA/day	c/kW/day or c/kVA/day	c/kW/day
Single rate	LVS1R	✓				✓			✓							
	WET2Step	✓				✓			✓							
Time of use	LVS2R	✓			✓	✓			✓							
Flexible pricing	TOD	✓			✓	✓	✓		✓	✓						
	TOD9	✓			✓	✓	✓		✓	✓						
	TODFLEX	✓			✓	✓	✓		✓	✓						
Controlled load	LVDed				✓											
Cost-reflective	RESKW1R					✓			✓					✓	✓	

A.2.2 Low voltage business tariffs

Table A. 6 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/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.2.3 Large business tariffs

Table A. 7 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.3 Tariff charging windows

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

Weekends: Saturday, Sunday

Work days: Week days excluding public holidays

A.3.1 Low voltage residential tariffs

Figure A.1 Low voltage residential charging windows

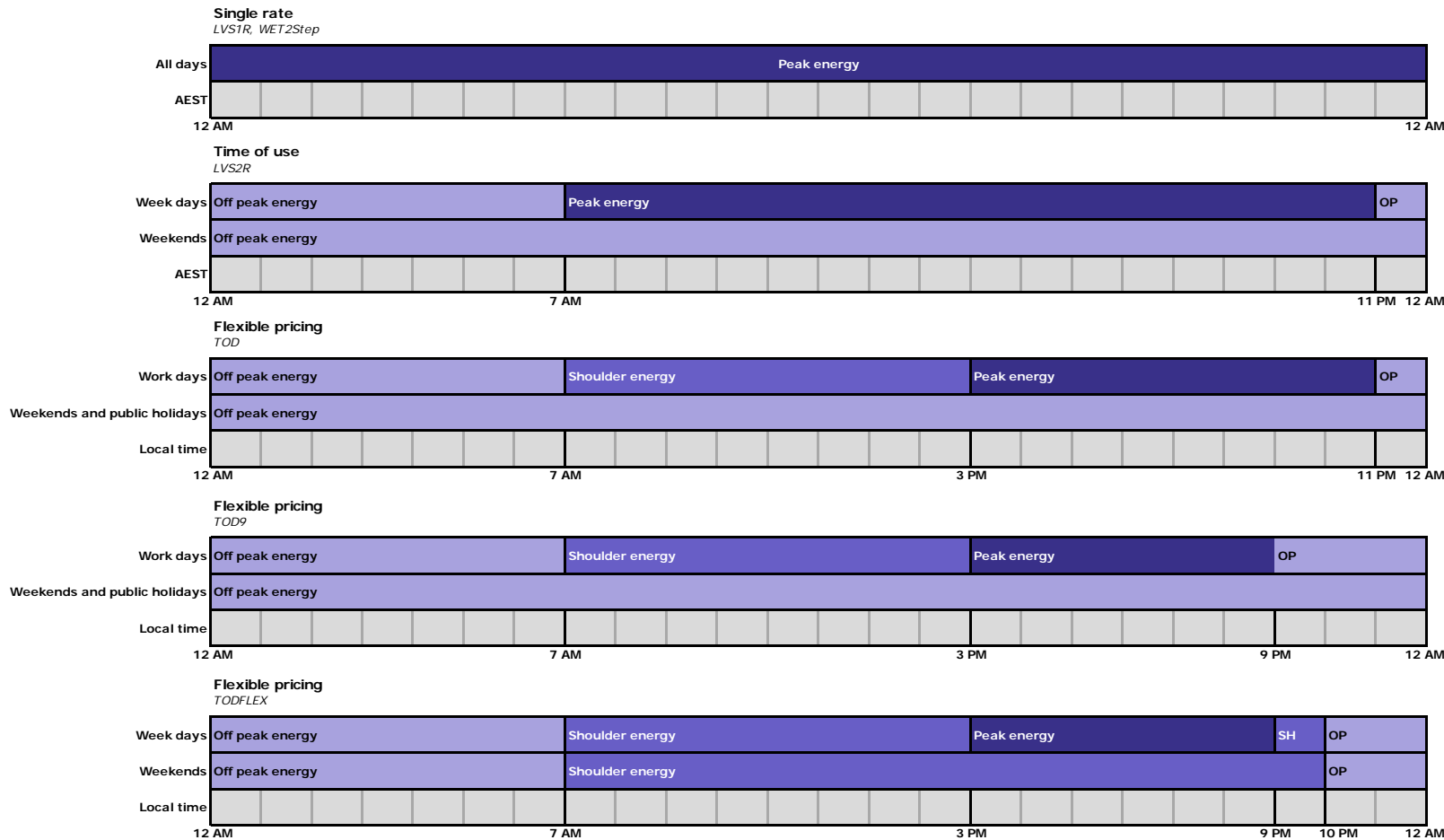
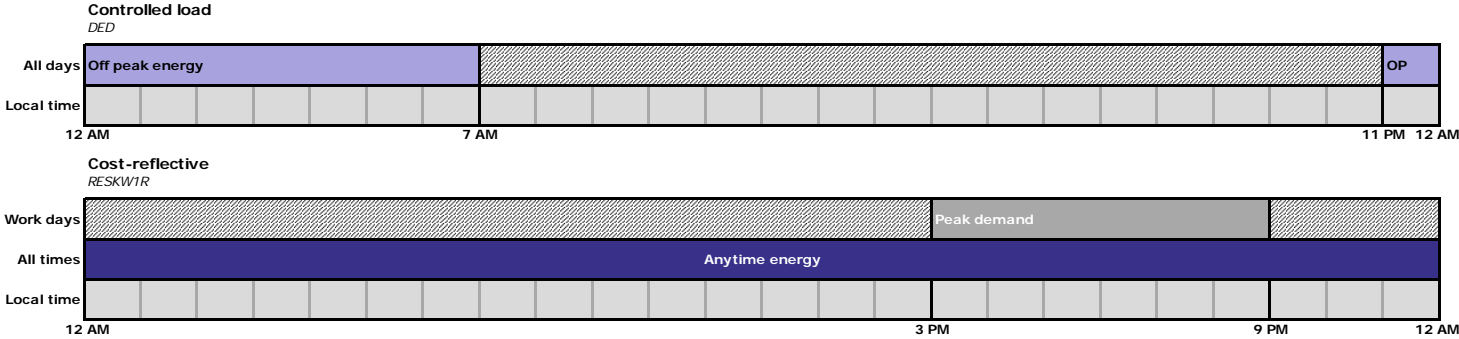


Figure A.1 Low voltage residential charging windows (continued)



A.3.2 Low voltage small business tariffs

Figure A.2 Low voltage small business charging windows

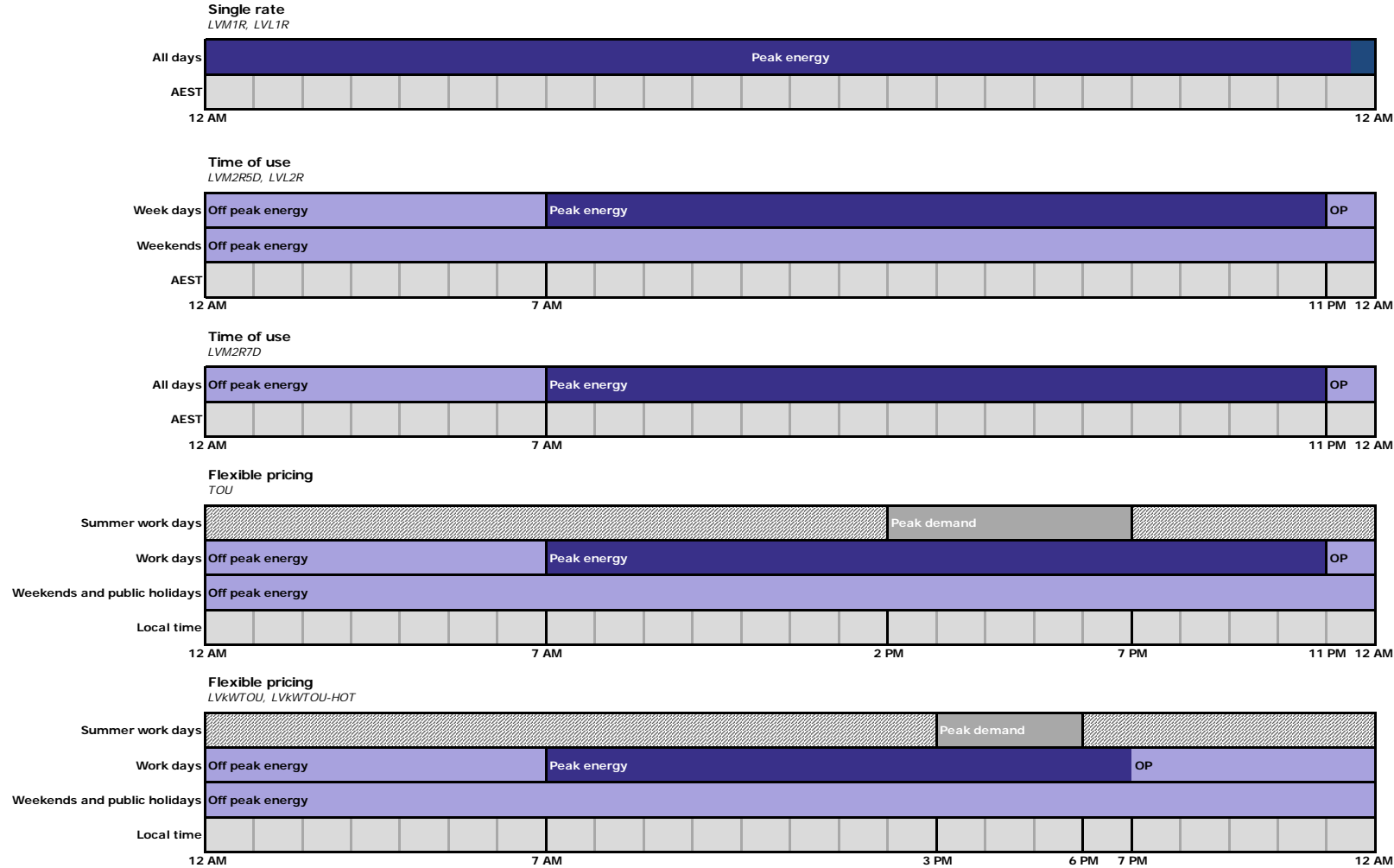
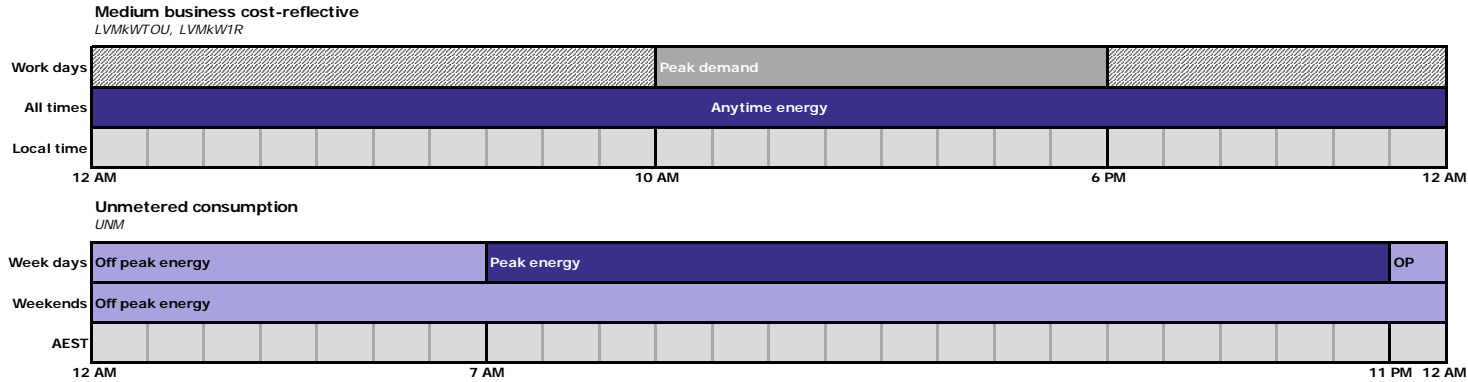
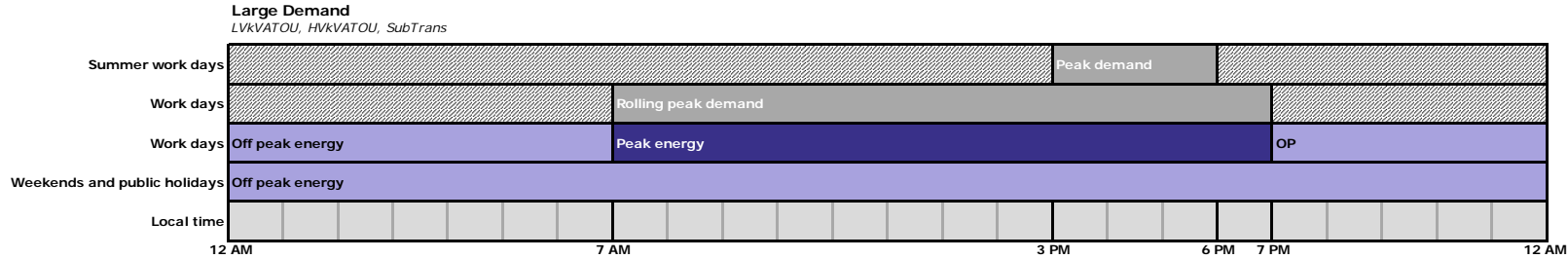


Figure A.2 Low voltage small business charging windows (continued)



A.3.3 Large commercial tariffs

Figure A.3 Large commercial customers charging windows



A.3.4 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.4 Tariff eligibility for new & existing customers

Table A. 8 Tariffs available to new and existing residential customers in HY 2021

Tariff Code	Tariff description	Supply voltage (V) ⁽¹⁾	Energy threshold (MWh/a)	Eligible customers
LVS1R	Low voltage small 1 rate	230	<20	<ul style="list-style-type: none"> This tariff is available to new connections. Tariff only available for residential customers
RESKW1R	Seasonal Demand Anytime Energy Residential			<ul style="list-style-type: none"> 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			<ul style="list-style-type: none"> Requires an interval meter.
TOD9	Time of Day off peak starts at 9pm			<ul style="list-style-type: none"> Requires an interval meter.
TODFLEX	Time of Day Flexible			<ul style="list-style-type: none"> 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.9 Tariffs available to new and existing small and medium commercial customers in HY 2021

Tariff Code	Tariff description	Supply voltage (V) ⁽¹⁾	Energy threshold (MWh/a)	Eligible customers
LVM1R	Low voltage medium 1 rate	<1,000	>20, <400	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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			<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Only available to unmetered supplies.

Table A. 10 Tariffs available to new and existing large commercial customers in HY 2021

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	<ul style="list-style-type: none"> • 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		<ul style="list-style-type: none"> • 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.5 Tariffs limited to previously assigned customers

Table A. 11 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	<ul style="list-style-type: none"> Customers must be residential. Two rate non-demand tariff.
WET2Step	Winter Energy Tariff		<70	<ul style="list-style-type: none"> 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 - 160	<ul style="list-style-type: none"> Two rate non-demand tariff.
LVM2R7D	Low voltage medium 2 rate 7 day			<ul style="list-style-type: none"> Two rate non-demand tariff.
LVkWTOU	Low voltage KW time of use			<ul style="list-style-type: none"> 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			<ul style="list-style-type: none"> 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 degrees C (Melbourne maximum daily temperature forecast in "The Age" on the day in question).
LVL1R	Low voltage large 1 rate	< 11 kVA	<160	<ul style="list-style-type: none"> One rate whether one or two registers or one or two meters.
LVL2R	Low voltage large 2 rate			<ul style="list-style-type: none"> Two rate non-demand tariff.
SubTKVATOU	Subtransmission KVA time of use	22kV	>400	<ul style="list-style-type: none"> Customers must consume > 400 MWh or > 150 KVA per annum. Demand Tariff - Minimum chargeable rolling demand 11,100 KVA.

A.6 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.6.1 Calculation of the kVA demand tariff for a monthly bill

Table A. 12 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.6.2 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.6.3 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.6.4 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 the AER’s Final Determination for HY 2021. The table below contains the approved fee based alternative control services charges as per the AER Final Decision (May 2016) updated with the HY 2021 Final Determination’s CPI + X.

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

Fee based services	HY 2021 Price (ex GST)	HY 2021 Price (ex GST)
	Business hours	After hours
Field Officer Visits – Existing Premises		
Re-energise (fuse insert) - unit rate	\$49.45	\$87.74
De-energise (fuse removal) - unit rate	\$49.45	N/A
Express move in re-energise (fuse insert) - unit rate	\$74.54	\$137.98
De-energise at point of attachment (pole/pit/premise) - unit rate	\$382.19	N/A
Temporary Supplies (excl inspection) – Coincident Disconnection where UE is the Responsible Person		
Standard single phase - unit rate	\$499.36	\$762.63
Multi phase to 100A - unit rate	\$499.15	\$762.42
Temporary Supplies (excl inspection) – where UE is Not the Responsible Person		
Single Phase Servicing and Energisation only - unit rate	\$463.40	\$762.63
Multi Phase Servicing and Energisation only - unit rate	\$463.40	\$762.63
New Connection where UE is the Responsible Person		
Single phase single element - unit rate	\$499.36	\$762.63
Single phase two element (off peak) - unit rate	\$499.36	\$762.63

Fee based services	HY 2021 Price (ex GST)	HY 2021 Price (ex GST)
	Business hours	After hours
Three phase direct connected - unit rate	\$499.15	\$762.42
Routine new connections – three phase current transformer connected	Quoted	Quoted
<i>New Connections – where UE is Not the Responsible Person</i>		
Single phase single element - unit rate	\$463.40	\$762.63
Single phase two element (off peak) - unit rate	\$463.40	\$762.63
Three phase direct connected - unit rate	\$463.40	\$762.63
Routine new connections – three phase current transformer connected	Quoted	Quoted
<i>Service Vehicle Visits (without inspection)</i>		
Service truck – first 30 minutes - unit rate	\$354.77	N/A
Service truck – first 30 minutes (2 hrs min) - unit rate	N/A	\$785.17
Each additional 15 minutes - unit rate	\$73.36	\$101.74
Wasted service truck visit - unit rate	\$307.72	\$785.17
Truck Visit + 1x additional 15 mins - unit rate	\$428.14	\$886.91
Truck Visit + 2x additional 15 mins - unit rate	\$501.51	\$988.67
Truck Visit + 3x additional 15 mins - unit rate	\$574.86	\$1,090.41
Truck Visit + 4x additional 15 mins - unit rate	\$648.22	\$1,192.14
Truck Visit + 5x additional 15 mins - unit rate	\$721.58	\$1,293.87
Truck Visit + 6x additional 15 mins - unit rate	\$794.92	\$1,395.63

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

Fee based services HY 2021 Price (ex GST)	HY 2021 Price (ex GST)
<i>Meter Equipment Test</i>	
Single phase	\$276.41
Single phase (each additional meter)	\$132.63
Multi phase	\$276.07
Multi phase (each additional meter)	\$132.63
<i>Remote AMI Services</i>	
Remote Meter Configuration	\$65.93
Remote Special Meter Reading	\$0.89
Remote Re-Energise	\$11.13
Remote de-Energise	\$11.13

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

Description	HY 2021 Price (ex GST)	
	Business hours	After hours
Field worker - one person	\$135.49	\$192.42
Field worker - one person plus vehicle	\$158.82	\$215.75
Administration	\$104.68	N/A
Senior engineer	\$199.53	N/A
Project planner	\$199.53	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	HY 2021 Price (ex GST)
Single phase non off peak meter	\$24.41
Single phase off peak meter*	\$24.41
Three phase direct connected meter	\$27.53
Three phase current transformer connected meter	\$29.19

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	HY 2021 Price (ex GST)
Manual meter reading charges	
Special read (basic meter)	\$23.22

Fee based services	HY 2021 Price (ex GST)
Special read (interval meter)	\$23.22

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	HY 2021 Price (ex GST)
Single phase single element meter	\$341.74
Single phase single element meter with contactor	\$351.67
Three phase direct connected meter	\$387.89
Three phase current transformer connected meter	\$505.76

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	HY 2021 Price (ex GST)
Unmetered supplies – Public lighting (per light)	\$1.390

Meter data services for public lighting are charged on a daily basis in UE’s billing engine. Therefore the above annual charge will be converted to daily charge by dividing the annual amount by 365 and then charged daily.

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 proposed public lighting charges as per the AER's Final Determination for HY 2021.

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

Light Type	HY 2021 Price/light (ex GST)
Mercury Vapour 80 watt	\$31.35
Sodium High Pressure 150 watt	\$40.61
Sodium High Pressure 250 watt	\$41.53
Fluorescent 2x20 watt	\$40.45
Fluorescent 3x20 watt	\$40.45
Mercury Vapour 50 watt	\$46.40
Mercury Vapour 125 watt	\$46.40
Mercury Vapour 250 watt	\$37.79
Mercury Vapour 400 watt	\$52.33
Mercury Vapour 700 watt	\$52.33
Sodium High Pressure 70 watt	\$68.67
Sodium High Pressure 100 watt	\$44.67
Sodium High Pressure 400 watt	\$52.33
Metal Halide 70 watt	\$54.82
Metal Halide 100 watt	\$54.82
Metal Halide 150 watt	\$54.82
Metal Halide 250 watt	\$56.06
Metal Halide 400 watt	\$56.06
T5 2X14W	\$15.30
Twin 24W Fluorescent	\$15.30
Compact Fluoro 32W	\$15.30
Compact Fluoro 42W	\$15.30

C COMPLIANCE CHECKLIST

This section sets out the relevant Rule requirements and the section in which those requirements have been met within this document.

Rule	Requirement	Relevant section
Part I: Distribution Pricing Rules		
6.18.2	Pricing proposals	
6.18.2(b)	A Pricing Proposal must:	
6.18.2(b)(2)	Set out the proposed tariffs for each tariff class that is specified in the Distribution Network Service Provider's tariff structure statement for the relevant regulatory control period.	Appendix A.1
6.18.2(b)(3)	Set out, for each proposed tariff, the charging parameters and the elements of service to which each charging parameter relates.	Appendix A.3 and A.4
6.18.2(b)(4)	Set out, for each tariff class related to standard control services, the expected weighted average revenue for the relevant regulatory year and also for the current regulatory year	Chapter 3.1 and Attachment A
6.18.2(b)(5)	Set out the nature of any variation or adjustment to the tariff that could occur during the course of the regulatory year and the basis on which it could occur	Chapter 2.1
6.18.2(b)(6)	Set out how designated pricing proposal charges are to be passed on to customers and any adjustments to tariffs resulting from over or under recovery of those charges in the previous regulatory year	Chapter 3.1 and Attachment A
6.18.2(b)(6A)	Set out how jurisdictional scheme amounts for each approved jurisdictional scheme are to be passed on to customers and any adjustments to tariffs resulting from over or under recovery of those amounts	Chapter 3.1 and Attachment A
6.18.2(b)(7)	Demonstrate compliance with the Rules and any applicable distribution determination, including the Distribution Network Service Provider's tariff structure statement for the relevant regulatory control period	This Pricing Proposal
6.18.2(b)(7A)	Demonstrate how each proposed tariff is consistent with the corresponding indicative pricing levels for the relevant regulatory year as set out in the relevant indicative pricing schedule, or explain any material differences between them	Not applicable
6.18.2(b)(8)	Describe the nature and extent of change from the previous regulatory year and demonstrate that the changes comply with the Rules and any applicable distribution determination	Chapter 3
6.18.2(c)	The AER must on receipt of a pricing proposal from a Distribution Network Service Provider publish the proposal.	Noted

6.18.2(d)	At the same time as a Distribution Network Service Provider submits a pricing proposal under paragraph (a), the Distribution Network Service Provider must submit to the AER a revised indicative pricing schedule which sets out, for each tariff and for each of the remaining regulatory years of the regulatory control period, the indicative price levels determined in accordance with the Distribution Network Service Provider's tariff structure statement for that regulatory control period and updated so as to take into account that pricing proposal.	Indicative pricing levels for 2022 are not required given HY 2021 is part of transition period.
6.18.2(e)	Where the Distribution Network Service Provider submits an annual pricing proposal, the revised indicative pricing schedule referred to in paragraph (d) must also set out, for each relevant tariff under clause 6.18.1C, the indicative price levels for that relevant tariff for each of the remaining regulatory years of the regulatory control period, updated so as to take into account that pricing proposal.	As above
6.18.5	<i>Pricing Principles</i>	
6.18.5(e)	<i>For each tariff class, the revenue expected to be recovered must lie on or between:</i>	
6.18.5(e)(1)	An upper bound representing the stand alone cost of serving the retail customers who belong to that class; and	Chapter 3.1.4 - 3.1.6
6.18.5(e)(2)	A lower bound representing the avoidable cost of not serving those retail customers.	Chapter 3.1.4 - 3.1.6
6.18.5(f)	<i>Each tariff must be based on the long run marginal cost of providing the service to which it relates to the retail customers assigned to that tariff with the method of calculating such cost and the manner in which that method is applied to be determined having regard to:</i>	
6.18.5(f)(1)	The costs and benefits associated with calculating, implementing and applying that method as proposed;	Chapter 3.1.4 - 3.1.6
6.18.5(f)(2)	The additional costs likely to be associated with meeting demand from retail customers that are assigned to that tariff at times of greatest utilisation of the relevant part of the distribution network; and	Chapter 3.1.4 - 3.1.6
6.18.5(f)(3)	The location of retail customers that are assigned to that tariff and the extent to which costs vary between different locations in the distribution network.	Chapter 3.1.4 - 3.1.6
6.18.5(g)	<i>The revenue expected to be recovered from each tariff must:</i>	
6.18.5(g)(1)	Reflect the Distribution Network Service Provider's total efficient costs of serving the retail customers that are assigned to that tariff;	Chapter 3.1
6.18.5(g)(2)	When summed with the revenue expected to be received from All other tariffs, permit the Distribution Network Service Provider to recover the expected revenue for the relevant services in accordance with the applicable distribution determination for the Distribution Network Service Provider; and	Chapter 3.1
6.18.5(g)(3)	Comply with sub-paragraphs (1) and (2) in a way that minimises distortions to the price signals for efficient usage that would result from tariffs that comply with the pricing principle set out in paragraph (f).	Chapter 3.1
6.18.5(h)	<i>A Distribution Network Service Provider must consider the impact on retail customers of changes in tariffs from the previous regulatory year and may vary tariffs from those that comply with</i>	

	<i>paragraphs (e) to (g) to the extent the Distribution Network Service Provider considers reasonably necessary having regard to:</i>	
6.18.5(h)(1)	the desirability for tariffs to comply with the pricing principles referred to in paragraphs (f) and (g), albeit after a reasonable period of transition (which may extend over more than one regulatory control period);	Chapter 2 and Appendix A.5
6.18.5(h)(2)	the extent to which retail customers can choose the tariff to which they are assigned; and	Chapter 2 and Appendix A.5
6.18.5(h)(3)	the extent to which retail customers are able to mitigate the impact of changes in tariffs through their usage decisions.	Chapter 2 and Appendix A.5

D Glossary

Table D.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
Final Determination	AER's Final Determination on United Energy's Distribution Revenue for the six-month period of January – June 2021
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
HY 2021	The period between 1 January 2021 and 30 June 2021
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

Term	Definition
PFiT	Premium Feed-in tariff
Power factor (PF)	A measure of the ratio of real power to total power of a load. The relationship between real, reactive and total power is as follows: $PF = \text{Real Power (kW)} / \text{Total Power (kVA)}$ $\text{Total Power kVA} = \sqrt{kW^2 + kVAr^2}$
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

E Attachments

Table E.1 Attachments

Reference	Topic	Final name	Confidential
Attachment A	Revenue Cap Compliance Model	Attachment A – HY 2021 Tariff Approval model UE.xlsm	No
Attachment B	Tariff Summary	Attachment B – HY 2021 Tariff Summary UE.xlsm	No
Attachment C	Avoided and standalone cost model	Attachment C – HY 2021 Standalone Avoidable LRMC UE.xlsm	No