Electricity Distribution

Annual Tariff Proposal 2020

1 January 2020

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1 Introduction

This document, its appendices and attachments comprise of AusNet Services' 2020 Pricing Proposal. It covers our direct control (standard control and alternative control) services for 2020 in accordance with clause 6.18.2 of the National Electricity Rules and the Australian Energy Regulator (**AER**) Final Distribution Determination for the 2016 to 2020 regulatory control period.

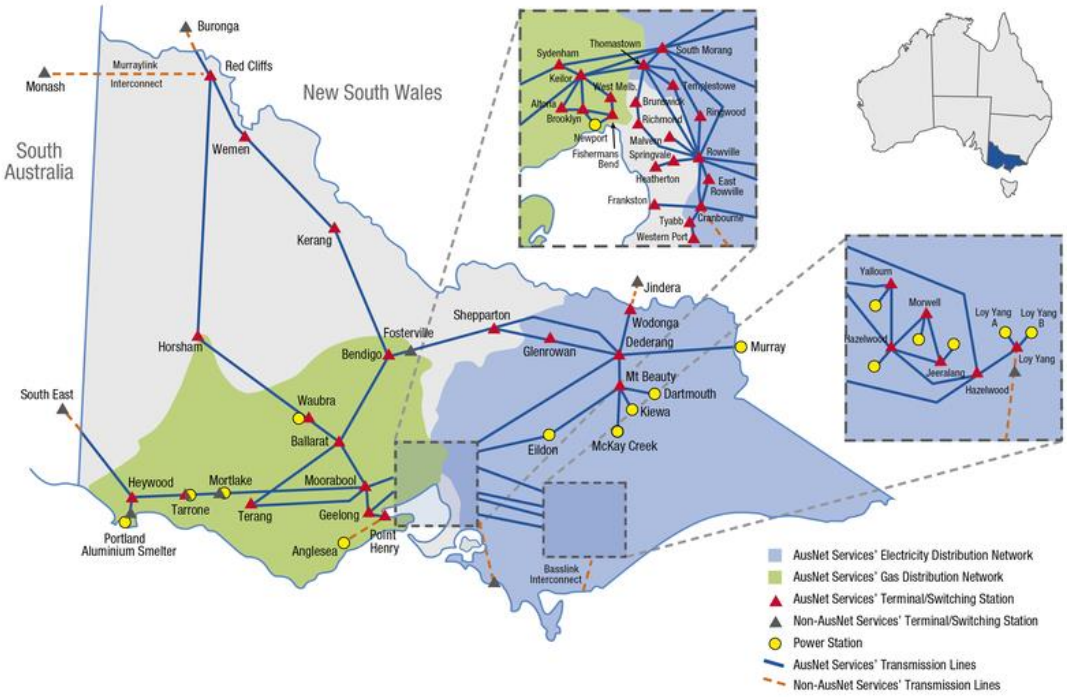
Clause 6.18 of the Rules sets out the requirements for distribution pricing. These requirements include the pricing principles which guide this Pricing Proposal, and the matters the Pricing Proposal must address includes:

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

1.1 About AusNet Services

AusNet Services owns and operates one of the five distribution networks in Victoria. We serve and deliver electricity to 735,000 customers, including fast growing suburbs in Melbourne's north and east, regional communities and remote customers in the alpine areas of Victoria. Our network covers 80,000 square kilometres (km), consists of 52,000 km of powerlines and 400,000 power poles. AusNet Services' electricity distribution area is shown in Figure 1.1 below.

Figure 1.1: AusNet Services' Electricity and Gas regions



AusNet Services manages and maintains the electricity network in line with good industry practice to deliver electricity to customers safely and reliably. Our direct control services include:

- maintaining and operating the network;

- investing in network extensions and upgrades for future customer needs;
- connecting new customers to our network;
- providing and maintaining public lighting in our network area; and
- providing meter data to retailers.

The revenue obtained from tariffs and charges in this Pricing Proposal funds the above services.

1.2 Network charges and other charges

Network tariffs (for standard control services) cover the cost of transporting electricity from the generator through the transmission and distribution networks to our customers' homes or businesses. Network tariffs also recovers the costs from jurisdictional schemes, which currently comprise of the Victorian Premium Feed-in Tariff (**PFiT**) scheme.

Charges for a variety of other services (referred to in the rules as Alternative Control Services) are also addressed in this Pricing Proposal. This includes:

- Metering fees which cover the costs of the meter and meter data services;
- Public lighting charges which relate to the provision and maintenance of public lighting services; and
- Other distribution services that are provided in response to the request or specific needs of our customers. Examples of these services include field officer visits, truck visits and connection services for new customers.

1.3 Structure of this document

The structure of this document is outlined in the table below and has been structured to address the requirements of Clause 6.18.2 of the Rules.

- Chapter 1 – Introduction
- Chapter 2 – Regulatory environment
- Chapter 3 – Network tariff classes
- Chapter 4 – Proposed network tariffs
- Chapter 5 – Variation to tariffs
- Chapter 6 – Ancillary network services
- Chapter 7 – Prescribed metering charges
- Chapter 8 – Public lighting
- Chapter 9 – Glossary
- Chapter 10 - Attachments

1.4 Compliance checklist

Table 1.1 sets out the relevant Rule requirements and where AusNet Services has demonstrated compliance within this document.

Table 1.1 – Rule compliance

Rule	Requirement	Relevant section
6.18.2	Pricing proposal	

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;	Chapter 3
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;	Section 10.1 & 10.5
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 2 & Attachment 1
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 5
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;	Section 2.5 & Attachment 1
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;	Section 2.6 & Attachment 1
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 document
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; and	Attachment 1
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.	Attachment 1
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.	Section 4.9
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.	Section 4.9

6.18.5	Pricing principles	
6.18.5(e)	For each tariff class, the revenue expected to be recovered must lie on or between: (1) an upper bound representing the stand alone cost of serving the retail customers who belong to that class; and (2) a lower bound representing the avoidable cost of not serving those retail customers.	Section 2.4
6.18.5(f)	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: (1) The costs and benefits associated with calculating, implementing and applying that method as proposed; (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 (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.	Section 2.3
6.18.5(g)	The revenue expected to be recovered from each tariff must: (1) reflect the Distribution Network Service Provider's total efficient costs of serving the retail customers that are assigned to that tariff (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 (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 2
6.18.5(h)	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 paragraphs (e) to (g) to the extent the Distribution Network Service Provider considers reasonably necessary having regard to: (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); (2) the extent to which retail customers can choose the tariff to which they are assigned; and (3) the extent to which retail customers are able to mitigate the impact of changes in tariffs through their usage decisions.	Chapter 4 & 5

2 Regulatory environment

The AER regulates AusNet Services' electricity distribution revenues and tariffs in accordance with the National Electricity Rules. The primary instruments of its regulation are:

- the relevant Electricity Distribution Revenue Determination for AusNet Services;
- the relevant Tariff Structure Statement; and
- the annual Pricing Proposal decision.

In developing this Pricing Proposal, AusNet Services has therefore had regard for and ensured consistency with:

- the AER's Final Distribution Revenue Determination for the period 2016 to 2020 made on 26 May 2016;
- our Tariff Structure Statement (**TSS**) for the period 2017-2020 which was approved by the AER on 24 August 2016; and
- an addendum to the TSS approved by the AER on 20 September 2017.

2.1 The Tariff Structure Statement

If any conflict exists between this document and the approved TSS (and its September 2017 addendum), the TSS will prevail unless the contrary is explicitly stated.

AusNet Services notes that since 2002, AusNet Services has classified Small Industrial & Commercial (I&C) customers as those using up to 160 MWh per annum and Medium sized customers as those using 160 MWh to 400 MWh per annum, consistent with National Market definitions. However, AusNet Services' TSS identified Small I&C customers as those using up to 70 MWh per annum and Medium I&C customers as those using between 70 MWh and 400 MWh per annum. To clarify, the TSS was incorrect in stating this and this Pricing Proposal continues to use the existing classification.

For AusNet Services to comply with these settings, further tariffs not proposed in the TSS and not included in the current proposal would be required to accommodate customers using between 70 MWh and 160 MWh that would also need to be assigned to a cost reflective tariff similar in structure to the proposed NASN19 and NASN21 tariffs but classified as Medium I&C. This would also result in a non-compliance with the approved TSS. Therefore AusNet Services preferred solution is to vary the approved TSS by updating the relevant tables. This has no impact on customers in those tariff classes and Table 2.1 sets out the correct tariff classifications:

Table 2.1 – AusNet Services' proposed tariff classes

Tariff class	Typical customer	Definition
Residential	Residential customers	Low voltage (230 V & 415 V) Annual consumption is < 160 MWh per annum
Small Industrial & Commercial	Small LV Industrial & Commercial customers	Low voltage (230 V & 415 V) Annual consumption is < 160 MWh per annum
Medium Industrial & Commercial	Medium LV Industrial & Commercial customers	Low voltage (230 V & 415 V) Annual consumption is > 160 MWh and < 400 MWh per annum
Large Industrial & Commercial	Large LV Industrial & Commercial customers	Low voltage (230 V & 415 V) Annual consumption is > 400 MWh per annum

High Voltage	Large HV Industrial & Commercial customers	High voltage (6.6 kV, 11 kV & 22kV)
Sub Transmission	Large Extra HV Industrial & Commercial customers	Sub transmission (66 kV)

The TSS provides for the introduction of opt-in cost-reflective demand tariffs for residential and small commercial customers (<40 MWh consumption per annum) commencing in 2018. These tariffs are accordingly included in tariff schedules in this Tariff Proposal. We note that energy based seasonal time of use tariffs continue to be available as an alternative cost reflective tariff structure.

An amendment to the 2016 TSS was necessary to comply with Victorian government policy amendment which is given effect via orders in council gazetted on 14 September 2017. The policy requires that medium business customers, i.e. customers consuming between 40 MWh and 160 MWh per annum, have the option to opt-out of the network tariff with a demand charge to which they have been assigned. The opt-out arrangement applied from 1 January 2018.

2.2 Electricity distribution price review requirements

AusNet Services' revenue and pricing must comply with its 2016-2020 electricity distribution price determination. Total revenues recovered through distribution prices and the relevant price formulae are explained below.

2.2.1 Revenue cap formulae

For 2016 to 2020 regulatory control period, AusNet Services' distribution prices are set in accordance with the formulae set out in Attachment 14 of the AER final decision which is as follows:

Table 2.2 – Revenue cap formulae

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

where:

TAR_t is the total annual revenue in year t.

p_t^{ij} is the price of component 'j' of tariff 'I' in year t.

q_t^{ij} is the forecast quantity of component 'j' of tariff 'i' in year t.

AAR_t is the adjusted annual smoothed revenue requirement for year t.

I_t is the annual adjustment f–factor scheme amount in year t. This amount will be calculated as per the method set out in the relevant f–factor scheme.

T_t is the sum of the final carryover amount from the application of the DMIS from the 2011–15 regulatory control period. This amount will be calculated using the method set out in the DMIS and will be deducted from/added to allowed revenue in the 2017 pricing proposal.

B_t is the sum of

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

$$L_{t-1} \times (1 + WACC_t) \times (1 + WACC_{t-1})^{1/2}$$

where:

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

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

$$Nominal\ vanilla\ WACC_t = ((1 + real\ Vanilla\ WACC_t) \times (1 + \Delta CPI_t)) - 1$$

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

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

AR_t is the annual smoothed revenue requirement as stated in the Post Tax Revenue Model (PTRM) for year t (when year t is the first year of the 2016–20 regulatory control period).

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

ΔCPI_t is the annual percentage change in the ABS CPI All Groups, Weighted Average of Eight Capital Cities from the June quarter in year t–2 to the June quarter in year t–1, calculated using the following method:

The ABS CPI All Groups, Weighted Average of Eight Capital Cities for the June quarter in regulatory year t–1 divided by the ABS CPI All Groups, Weighted Average of Eight Capital Cities for the June quarter in regulatory year t–2 minus one

X_t is the X factor for each year of the 2016–20 regulatory control period as determined in the PTRM, and annually revised for the return on debt update in accordance with the formula specified in attachment 3 of the AER final decision—rate of return—calculated for the relevant year

2.2.2 Total annual revenue

AusNet Services total annual revenue for 2020 is determined by the AER taking account of the Annual Smoothed Revenue determined in the 2016-2020 Electricity Distribution Price Review and adjusted for:

- Consumer Price Index (**CPI**);

- service target performance incentive scheme results[1];
- f–factor scheme;
- approved revenue[2] to continue to deliver a legislated bushfire safety program (known as REFCLs);
- the recovery of Victorian Government license fee charges;
- the under or over recovery of revenue collected through DUoS charges in previous years;
- any AER approved pass through amounts; and
- the X-factor revised for the return on debt.

AusNet Services total annual revenue for 2020 is $669.3M. The following table shows how the above components make up the total annual revenue for 2020.

Table 2.3 – Total annual revenue

Annual revenue components	2020 ($'000)
Adjusted annual smoothed revenue for year t-1	653,486
CPI for period t	1.59%
X factor for period t	-2.28%
S factor for period t	-0.70%
Adjusted annual smoothed revenue for year t	674,260
I factor for year t (f factor scheme)	316
T factor for year t (DMIS carry over amount)	0
B factor for year t	-5,292
Total annual revenue	669,285

[1] The 50% deferment of the s factor from 2019, has been applied in 2020.

[2] See AusNet Services - Contingent project - installation of Rapid Earth Fault Current Limiters - tranche 3; *Australian Energy Regulator* (https://www.aer.gov.au/networks-pipelines/determinations-access-arrangements/contingent-projects/ausnet-services-contingent-project-installation-of-rapid-earth-fault-current-limiters-tranche-3)

2.2.3 Side constraint formula

For each year within a regulatory control period, the prices are also subject to a side constraint formula that limits the amount by which a tariff class can be increased. The formula is set out below.

Table 2.4 – Side constraint formula

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

where:

d_t^{ij} is the proposed price for component 'j' of tariff 'i' for year t

d_{t-1}^{ij} is the price charged for component 'j' of tariff 'I' in year t–1

q_t^{ij} is the forecast quantity of component 'j' of the tariff class in year t

ΔCPI_t is the annual percentage change in the ABS CPI All Groups, Weighted Average of Eight Capital Cities from the June quarter in year t–2 to the June quarter in year t–1, calculated using the following method:

The ABS CPI All Groups, Weighted Average of Eight Capital Cities for the June quarter in regulatory year t–1 divided by the ABS CPI All Groups, Weighted Average of Eight Capital Cities for the June quarter in regulatory year t–2 minus one

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

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

$I_t^{'}$ is the annual percentage change from the f–factor scheme amount in year t. This amount will be calculated as per the method set out in the relevant f–factor scheme

$T_t^{'}$ is the annual percentage change from the final carryover amount from the application of the DMIS from the 2011–15 regulatory control period. This amount will be calculated using the method set out in the DMIS and will be deducted from/added to allowed revenue in the 2017 pricing proposal

$B_t^{'}$ is annual percentage change from the sum of:

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

$$L_{t-1}\times(1+WACC_t)\times(1+WACC_{t-1})^{1/2}$$

where:

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

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

$$Nominal\ vanilla\ WACC_t = \left(\left(1 + real\ Vanilla\ WACC_t\right) \times \left(1 + \Delta CPI_t\right)\right) - 1$$

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

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

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

2.2.4 Compliance with side constraint formula

AusNet Services' side constraint for 2020 is shown in the table below.

Table 2.5 – Side constraint summary

Side constraint components	2020 (%)
CPI for period t	1.59%
X factor for period t	-2.28%
S factor for period t	-0.70%
I factor for year t (f factor scheme)	-0.18%
T factor for year t (DMIS carry over amount)	0.00%
B factor for year t	0.35%
Maximum allowable tolerance	2.00%
Side constraint	5.41%

To demonstrate compliance with the side constraint formula, table 2.6 sets out the weighted average revenue movement by tariff class from 2019 to 2020.

Table 2.6 – Average tariff class movement

Tariff class	2019 weighted average revenue ($'000)	2020 weighted average revenue ($'000)	% change
Residential	349,396	361,780	3.54%
Small Industrial & commercial	133,499	138,231	3.54%
Medium Industrial & Commercial	53,471	55,366	3.54%
Large 1 Industrial & Commercial	30,675	31,762	3.54%
Large 2 Industrial & Commercial	36,610	37,907	3.54%
Large 3 Industrial & Commercial	13,642	14,126	3.54%
Large 4 Industrial & Commercial	9,080	9,402	3.54%
High Voltage 1 Industrial & Commercial	12,208	12,641	3.54%
High Voltage 2 Industrial & Commercial*	NA	NA	NA
High Voltage 3 Industrial & Commercial	579	599	3.54%
Extra High Voltage 1 Industrial & Commercial*	NA	NA	NA
Extra High Voltage 2 Industrial & Commercial*	NA	NA	NA
Extra High Voltage 3 Industrial & Commercial*	NA	NA	NA
Extra High Voltage 4 Industrial & Commercial*	NA	NA	NA

** Revenue not shown as these tariff classes apply to an individual or a small number of customers. Complete list of average class movement can be found in attachment 1.*

2.3 Long run marginal cost

A detailed explanation of AusNet Services' compliance with the requirement that tariffs be based on the long run marginal cost is set out in section B.2 of its approved TSS. AusNet Services has used the Average Incremental Cost (AIC) approach in calculating the LRMC and the following table shows the results of this calculation.

Table 2.7 - Results of AusNet Services' LRMC analysis

Voltage level	LRMC ($/kVA)
Low voltage	$88.70
High voltage	$24.58
Sub transmission	$16.08

2.4 Stand alone and avoidable costs

Section B.3 of the AusNet Services approved TSS sets out how AusNet Services tariffs comply with the requirement that tariffs be set between the stand alone cost and the avoidable costs of supply to a tariff class. The following table shows how the 2020 tariffs meet this objective.

Table 2.8 - Stand alone & avoidable costs

Tariff class	Stand alone cost ($/kWh)	Average all-in retail bill avoided ($/kWh)	Avoided distribution costs ($/kWh)	Average DUoS bill ($/kWh)
Residential	$0.84	$0.27	$0.0210	$0.1281
Small Industrial & Commercial	$0.60	$0.25	$0.0510	$0.1217
Large Industrial & Commercial	$1.13	NA	$0.0150	$0.0773
High voltage	$0.39	NA	$0.0030	$0.0315
Sub transmission	$0.02	NA	$0.0004	$0.0065

2.5 Designated pricing proposal charges

A distribution business's annual pricing proposal is required to show how designated pricing proposal charges (**DPPC**) are applied to customers and what adjustments relate to previous years. Clause 6.18.2 (b) (6) specifically requires that "A *pricing proposal* must: 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*".

This section describes what DPPC are and how AusNet Services proposes to recover them in 2020. An explanation is provided of the mechanism that accounts for any year on year over or under recovery of these charges which has a final impact on 2020 prices.

Transmission service costs are recovered from distribution customers through the DPPC. AusNet Services makes payments for transmission services to the following industry participants for the services noted:

Table 2.9 – DPPC participants

Participants	Transmission/Network Service
Australian Energy Market Operator (**AEMO**)	Transmission use of system services
AusNet Services Transmission	Transmission connection services
Embedded generators	Avoided transmission use of system services
Other distributors	Transmission use of system and distribution services

AusNet Services recovers the costs of the above services through an energy charge to customers. The energy charges are allocated to peak, shoulder and off peak periods for each network tariff. In 2020, AusNet Services has total DPPC payments is set out in the below table:

Table 2.10 – DPPC payments

Designated pricing proposal components	2020 ($'000)
AEMO	97,961
AusNet Services Transmission	9,392
Embedded generators	1,045
Inter-Network	5,443
Total (AEMO + Embedded generators – Inter-Network)	102,956
Unders and overs recovery	10,183
Total DPPC payments for year 2020	113,139

2.6 Jurisdictional pricing proposal charges

Under Victorian legislation, AusNet Services is required to make payments to certain customers with small generation systems, mainly solar panel installations, for the energy that they feed into the network. The PFiT scheme is the only scheme that is in place and will continue to operate until 2024.

A distribution business's annual pricing proposal is required to show how Jurisdictional pricing proposal charges are applied to customers and what adjustments relate to previous years. Clause 6.18.2 (b) (6A) specifically requires that "A *pricing proposal* must: 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;"

Amounts paid out for jurisdictional schemes are recovered from distribution customers through the Jurisdictional pricing proposal charges. AusNet Services makes payments to retailers with qualifying customers on tariffs that have a PFiT component through network invoices on a monthly basis.

Jurisdictional charges for 2020 are made up of the residual unders and overs recovery from 2018 and 2019, and the forecast PFiT payments for 2020. The following table sets out the amounts to be recovered in 2020.

Table 2.11 - JSA recovery arrangements

Jurisdictional recovery amounts	2020 ($'000)
Premium feed-in charges	24,705
Unders and overs recovery	-211
Total recovered by tariffs	24,493

3 Network tariff classes

This section sets out AusNet Services tariffs within each network tariff class. AusNet Services tariff classes have been based on grouping customers that have a common connection and energy use profile.

For 2020, AusNet Services tariff classes and the tariffs within each class are shown in the table below.

Table 3.1 – Network tariff classes

Tariff class	Tariffs	Definition
Residential	NEE11, NASN11, NASN11P, NASN11S, NEN11, NGT11, NEE13, NEN13, NGT13, NEE14, NEN14, NGT14, NEE15, NEN15, NGT15, NEE20, NEN20, NSP20, NEE23, NEE26, SUN23, NSP23, SSP23, NEE24, NGT26, NGT23, NGT24, NGT25, NEE30, NSP30, NEE31, NSP31, NEE32, NSP32	Available to residential customers Annual consumption is < 160 MWh per annum
Small Industrial & Commercial	NEE12, NASN12, NASN12P, NASN12S, NASN19, NEN12, NSP12, NEE16, NEN16, NEE17, NEN17, NEE18, NEN18, NEE21, NEN21, NSP21, NASN21, NASN2P, NASN2S, SUN21, SSP21, SSP27, NEE27, NEE28, NSP27, NEE25	Available to small LV industrial & commercial customers. Annual consumption < 160 MWh per annum
Medium Industrial & Commercial	NEE40, NEE41, NEE43, NEE51, NEE52, NEE55, NSP55, NSP56, NEN56, NEE60	Available to medium LV industrial & commercial customers Annual consumption is > 160 MWh to 400 MWh per annum
Large 1 Industrial & Commercial	NEE74, NSP75	Available to large LV industrial & commercial customers Annual consumption is > 400 MWh to 750 MWh per annum
Large 2 Industrial & Commercial	NSP76	Available to large LV industrial & commercial customers Annual consumption is > 750 MWh to 2 GWh per annum and demand is > 280 kVA
Large 3 Industrial & Commercial	NSP77	Available to large LV industrial & commercial customers Annual consumption is > 2 GWh to 4 GWh per annum and demand is > 550kVA
Large 4 Industrial & Commercial	NSP78	Available to large LV industrial & commercial customers Annual consumption is > 4 GWh per annum and demand is > 850 kVA
High Voltage 1 Industrial & Commercial	NSP81	Available to large HV industrial & commercial customers (6.6 kV, 11 kV and 22 kV)

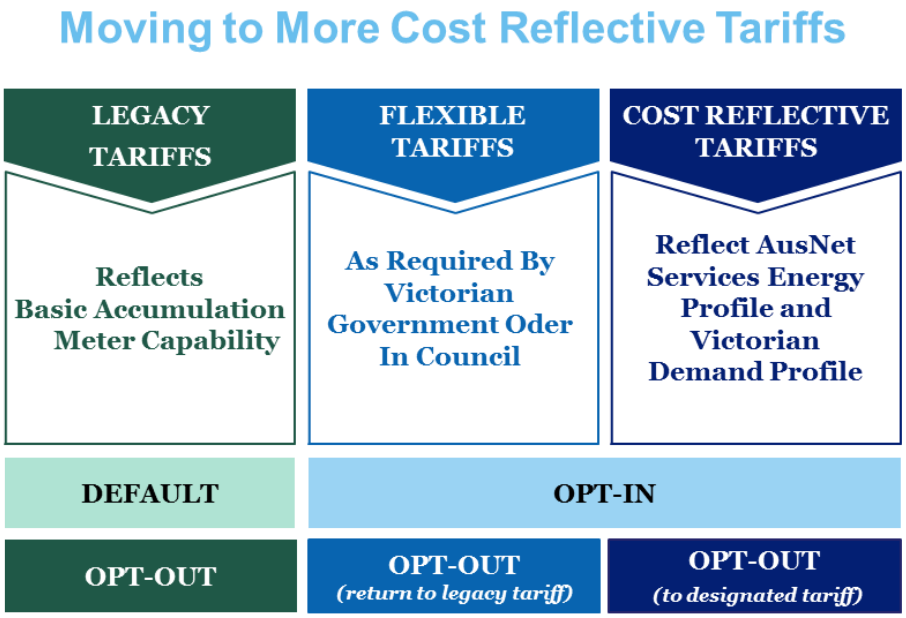
High Voltage 2 Industrial & Commercial	NSP82	Available to large HV industrial & commercial customers (6.6 kV, 11 kV and 22 kV)
High Voltage 3 Industrial & Commercial	NSP83	Available to large HV industrial & commercial customers (6.6 kV, 11 kV and 22 kV)
Extra High Voltage 1 Industrial & Commercial	NSP91	Available to large extra HV industrial & commercial customers (66 kV)
Extra High Voltage 2 Industrial & Commercial	NEE93	Available to large extra HV industrial & commercial customers (LV Gen)
Extra High Voltage 3 Industrial & Commercial	NSP94	Available to large extra HV industrial & commercial customers (66 kV)
Extra High Voltage 4 Industrial & Commercial	NSP95	Available to large extra HV industrial & commercial customers (66 kV)

4 Proposed network tariffs

4.1 Background to tariff access

AusNet Services' customers are initially assigned to a legacy tariff structure. From these tariffs customers may opt to change their tariff structure to either a flexible tariff or a cost reflective tariff. Customers that elect to be assigned to a flexible tariff may return to the legacy tariff they were previously assigned to or may exercise their option to be assigned to a cost reflective tariff. Once a customer has been assigned to a cost reflective tariff they must remain on a cost reflective tariff. As customers move away from legacy tariffs and flexible tariffs these tariffs will be closed and removed from the tariff options.

Figure 4.1 – Moving to cost reflective tariffs



4.1.1 Legacy tariffs

The energy charges on these tariffs are either all time at a single rate or where two rate tariffs are applied, they are limited to either a two rate five day or two rate seven day structure. Legacy tariffs are the tariff structures that are established based on metering installations. These tariff structures are the only structures that can be delivered from an accumulation meter (Type 6) and are set in accordance with the meter installation. For other tariff structures to be applied, the customers meter must be either reconfigured on site or the meter must be changed. These tariffs are not cost reflective because they do not make provision for charging rates to align to network usage profiles. AusNet Services' legacy tariffs are:

Table 4.1 – Legacy tariffs

Tariff type	Residential tariffs	Industrial & commercial tariffs
Single rate	NEE11, NEN11	NEE12, NEN12, NEE40
Single rate plus dedicated circuit	NEE13, NEN13, NEE14, NEN14, NEE15, NEN15	NEE16, NEN16, NEE17, NEN17, NEE18, NEN18, NEE41, NEE42, NEE43

Two rate five day	NEE20, NEN20, NEE24	NEE21, NEN21, NEE25, NEE51, NEE52, NEE74
Two rate five day solar	NEE23, SUN23, NEE26	NEE27, NEE28, SUN21
Two rate seven day		NEE60
Dedicated circuit	NEE30, NEE31, NEE32	NEE30, NEE31, NEE32

4.1.2 Flexible tariffs

Flexible tariffs provide customers with an option for a multi rate tariff, and the time periods are adjusted for daylight savings during summer months. Flexible tariffs give customers with an AMI (smart) meter the opportunity to take a more cost reflective tariff than a legacy tariff. These flexible tariffs have a common structure across all Victorian distribution businesses with only the rates being different. Customers must elect to take a flexible tariff and the Order requires the distribution businesses to allow customers to revert to their legacy tariff at any time. AusNet Services' flexible tariffs are:

Table 4.2 – Flexible tariffs

Tariff type	Residential tariffs
Single rate	NGT11
Single rate plus dedicated circuit	NGT13, NGT14, NGT15
Multi rate	NGT26
Multi rate plus dedicated circuit	NGT23, NGT24, NGT25

4.1.3 Cost reflective tariffs

Energy based cost reflective tariffs were introduced in 2010. These tariffs were multi rate tariffs that included high rates at the times demand on the network traditionally peaks, i.e. between 3:00PM and 7:00PM during the summer months. In 2014, the Australian Energy Market Commission included the requirement that a Distributor's tariffs "…must be based on the long run marginal cost of providing the service to which it relates…" thereby placing an obligation on Distributors' tariffs to be cost reflective.

In August 2016, the AER approved AusNet Services' Tariff Structures Statement which outlined cost reflective tariffs with a common structure to those being introduced by other Victorian Distributors. For customers using between 40 MWh and 160 MWh a year these tariffs commenced on 1 January 2017, being NASN19 and NASN21 as well as two variants for solar customers. NASN2P for those with a Premium Feed-In agreement and NASN2S for those with a Standard Feed-In agreement.

In 2018, cost reflective tariffs with a full demand component for small residential and small commercial customers were introduced and are included in the tariff schedule. These tariffs are NASN11 and NASN12 with variants for solar customer NASN11P and NASN12P for those with a Premium Feed-In agreement.

NASN11 and NASN12 differ from the NASN19 and NASN21 tariffs in that customers must opt-in to these tariffs, and do not have a phased introduction of the demand component. The full demand component applies for these tariffs from 2018.

The maximum demand charge is significantly weighted to the summer months (December to March) when the network is most heavily loaded and likely to reach the limits of its capacity. This is not the case for the Victorian Alpine region however, where a winter peak load occurs and the new tariffs are therefore not available to Alpine village customers. AusNet Services' cost reflective tariffs are:

Table 4.3 – Cost reflective tariffs

Tariff type	Residential tariffs	Industrial & commercial tariffs
Single rate	NASN11, NASN11P, NASN11S	NASN12, NASN12P, NASN12S, NASN19
Multi rate	NSP20	NSP21, NASN21, NSP27, NEE55, NSP55, NSP56, NEN56, NSP75, NSP76, NSP77, NSP78, NSP81, NSP82, NSP83, NSP91, NSP94, NSP95
Multi rate solar	NSP23, SSP23	NASN2P, NASN2S, SSP21, SSP27
Dedicated circuit	NSP30, NSP31, NSP32	NSP30, NSP31, NSP32

4.1.4 Tariff mergers

No tariffs mergers are proposed for 2020.

4.2 Tariff reassignments for 40 MWh - 160 MWh customers

As set out in our TSS, existing customers that use between 40 MWh and 160 MWh per annum will be reassigned to a cost reflective tariff at the start of each year.

In accordance with the TSS, AusNet Services set a zero demand component in 2017, and the transition plan provides for increments of 20% of the full demand component to be introduced annually from 2018. From 1 January 2020, 60% of the full demand component will be assigned to NASN19 and NASN21 and its solar derivatives.

The Advanced Metering Instructure (AMI Tariffs) Amendment Order 2017 requires distribution businesses to make at least one cost reflective demand tariff with a zero demand usage charge or demand charging parameter available to customers. The order also established that such tariff is to be assigned to the customer on an opt-out basis, at the request of the customer from 1 January 2018.

Where the customer has requested to opt out, the tariff that AusNet Services will use for reversion is an existing tariff, NSP27. Whilst this tariff structure retains cost-reflective characteristics, it is made up of energy components and fixed charge only, and accordingly satisfies the requirements of this order.

The tariff assignment criteria for 40 MWh to 160 MWh customers are:

- Existing customers using between 40 MWh and 160 MWh per annum will be reassigned to NASN19, NASN21 and its solar derivatives.
- New customers using between 40 MWh and 160 MWh per annum will be assigned to NASN19, and its solar derivative.
- To opt out, the request must be initiated by the customer.
- Where a small business customer has requested to opt-out of the default demand based tariff, the default tariff for reversion is NSP27. Small business solar customers will be able to revert to SSP21 whilst solar customers receiving the premium feed-in will revert to SSP27.
- Where a customer has consumption less than 40 MWh in the preceding 12 months, they can opt-out to any open tariff relevant to their customer type.
- If a customer chooses to opt-in or opt-out, they are required to remain on the tariff for a minimum period of 12 months after which they can elect to be reassign to another cost reflective tariff.

Table 4.4 – 40 MWh to 160 MWh tariff reassignment

Customers with	Existing tariffs	Reassigned tariff
Single rate tariffs	NEE11, NEE12, NEE40	NASN19
Dedicated circuits, two rate tariffs and multi rate tariffs	NEE13, NEE14, NEE15, NEE16, NEE17, NEE18, NEE20, NEE21, NEE51, NEE60, NGT26, NSP27	NASN21
Small generator (solar) tariffs	NEE26, NEE27, NEE28, NEE23	NASN2S
	SUN21, SUN23	NASN2P

4.3 Opting in to cost reflective tariffs

In 2018, cost reflective tariffs with a full demand component for small residential and small commercial customers (<40 MWh consumption per annum) were introduced.

These tariffs do not have a phased introduction of the demand component and the component applies in full from 2018.

The tariff assignment criteria for customers to opt in are:

- Customers using less than 40 MWh per annum can opt-in.
- For residential customers, the opt-in tariff is NASN11, and the solar variant is NASN11S for solar customers and NASN11P for solar customers with PFiT.
- For small commercial customers, the opt-in tariff is NASN12, and the solar variant is NASN12S for solar customers and NASN12P with PFiT.
- Customers who opt-in are required to remain on the tariff for a minimum period of 12 months.

Table 4.5 – Opt-in cost reflective tariffs

Customer type	Cost reflective tariff	Cost reflective tariff (solar)
Residential	NASN11	NASN11S, NASN11P
Small business	NASN12	NASN12S, NASN12P

4.4 Solar tariff assignment

Customers with solar panels installed must have a bi-directional meter and will be assigned to tariffs that AusNet Services has allocated for these installations. For residential customers, the default tariff assigned will be NEE26 for customers with a standard feed-in agreement. Customers may request assignment to NSP23 or NASN11S.

For small commercial customers, NEE28 is the default tariff for customers with a standard feed-in agreement. Customers may also request assignment to NASN12S.

For commercial customers using more than 40 MWh per annum, the default tariff assigned will be NASN2S.

4.5 Backdating tariffs

AusNet Services will not backdate the network tariff effective date as a result of a customer seeking a tariff reassignment.

For a small customer, the reassignment will be made effective from the commencement date of the current billing period at the time of the retailer's notification of a tariff reassignment request. For medium and large customers, the reassignment will be made effective from the next billing period after the retailer's notification.

AusNet Services may make exceptions to the above requirement at its discretion.

4.6 Closed to new entrants tariffs

AusNet Services will not assign new connections to tariffs marked as "Closed to new entrants. Only tariffs that are open will be considered for assignment. For existing sites, the assignment to a closed tariff may be allowed where the existing tariff has the same meter requirements and tariff structure as the tariff they are moving to.

4.7 Critical peak demand tariffs

AusNet Services have critical peak demand (CPD) tariffs for medium and large commercial customers. Customers that seek a reassignment to these tariffs during the 2020 year will be subjected to the tariff assignment criteria listed in the table below for the first time.

Table 4.6 - Critical peak demand tariff assignment criteria

Tariff	Description	Applies to
NSP56	Medium critical peak demand 160 MWh to 400 MWh	> 50 kVA & > 160 MWh pa
NSP75	Large critical peak demand 400 MWh to 750 MWh	> 150 kVA & < 750 MWh pa
NSP76	Large critical peak demand 750 MWh to 2000 MWh	> 280 kVA & < 2 GWh pa
NSP77	Large critical peak demand 2000 MWh to 4000 MWh	> 550 kVA & < 4 GWh pa
NSP78	Large critical peak demand over 4000 MWh	> 850 kVA & > 4 GWh pa
NSP81	High voltage critical peak demand	6.6 kV, 11 kV & 22 kV supplies
NSP83	High voltage critical peak demand low energy use	6.6 kV, 11 kV & 22 kV supplies
NSP91	Sub transmission critical peak demand < 25 MVA & < 20 km from TS	66 kV supplies, < 25 MVA & < 20 km from TS
NSP94	Sub transmission critical peak demand > 25 MVA & < 20 km from TS	66 kV supplies, > 25 MVA & < 20 km from TS
NSP95	Sub transmission critical peak demand < 25 MVA & > 20 km from TS	66 kV supplies, < 25 MVA & > 20 km from TS

Details on the structure and operation of AusNet Services' CPD tariffs are set out below.

Table 4.7 – CPD structure and operation

Tariff component	Description
Capacity charge	1. Low voltage capacity charges is based on the nameplate rating of the transformer supplying the customer's installation. For sites where the transformer is not dedicated to

	the customer installation, the charge will be established as the portion of the transformer that is allocated to the customer's requirements. 2. High voltage and sub transmission capacity is based on the rating of the cabling and switchgear that makes the customer's connection point.
Critical peak demand charge	The demand charge is based on the average of the customer's maximum kVA recorded on the 5 nominated peak demand weekdays during the defined critical peak demand period.
Defined critical peak demand period	Days must be during the period of December to March, and the days will be nominated and communicated to customers with a minimum of one business day notice. The period during which the demand is to be measured is between 2 pm to 6 pm AEST (or 3 pm to 7 pm AEDT) on the nominated day. The 5 maximums are average and used as the basis for the demand charge for the 12 month period from April to March.
Energy charge	Peak, off peak or peak, shoulder and off peak, similar to existing charges.
Standing charge	Fixed annual charges, similar to existing charges.

The network benefits of a critical peak demand charge are that it:

- better targets the demand that is driving system capacity constraints, as it focuses only on demand during peak times of the peak day;
- overcomes the inequities whereby a customer is charged a 'demand' tariff on their peak 'demand', even though that demand is not contributing to the overall system peak, and therefore, is not contributing to AusNet Services' future augmentation costs;
- is easier for customers to respond to, as they only have to alter their consumption for between 1 to 5 days, and for 4 hours within those days to get a benefit, whereas the traditional demand tariff requires a permanent step down in electricity consumption, which provides more scope for customers to change their consumption in response to the price signal; and
- is clearly tied to 'past' peak demand, therefore there are less costs associated with administering this tariff as demand adjustments for existing customers are not required.

AusNet Services will advise the nominated days to customers and their respective retailers concurrently, at least 1 business day in advance. In addition, AusNet Services will use a longer range weather forecast to flag with customers the possible nomination of a day up to a week in advance. This will not represent a firm commitment; rather, it would provide customers with advance notice of the possible nomination of a certain day, which in turn will allow them to make some preparations in advance. The final nomination would still occur at least 1 business day prior to the nominated day. AusNet Services notes that this 'advance notification' stems from a suggestion that was made by a retailer at one of the one-on-one retailer forums that AusNet Services held with all key retailers to discuss the introduction of these tariffs.

AusNet Services will communicate this nominated day via any electronic form of notification such as SMS, email and by posting to the AusNet Services website.

For supply points not previously supplied under a CPD tariff, for the initial period from connection until a Critical Peak demand is able to be established for that customer the critical peak demand shall be 60% of the Capacity.

Conditions for the review of the Capacity Value:

(a) Increase to capacity - Where a customer requires increased capacity, an application may be made to AusNet Services for the network to be augmented to cater for the new requirements. Any variation will be made in accordance with AusNet Services' supply extension policy.

(b) Reduction to capacity - Capacity values are not reviewable except in circumstances where a customer's requirement has changed significantly and the current level of capacity will no longer be required. In these circumstances the following conditions for a review will apply.

Low Voltage

1. All obligations under any previous supply extension contract have been met.
2. Agree to install load limiting devices on the customer's main switch board in accordance with ***Victorian Service & Installation Rules*** to limit the load on the substation.
3. Allow AusNet Services to exchange the transformer with a smaller unit.
4. Allow AusNet Services to replace the transformer with a smaller unit if the existing unit is still in place at the end of its physical life.
5. If the transformer is on the customer's premise, allow AusNet Services to take "street" circuits from the substation to supply other customers.
6. Acknowledge that if they ever require a supply upgrade to the site a customer contribution may be required (even if the transformer has not been changed).

High Voltage

1. All obligations under previous supply extension contract have been met.
2. The customer installs a Capacity control device in accordance with ***Victorian Service & Installation Rules*** Supply Protection & Supply Capacity Limitation – Guidelines Section 1.1 as follows:
    a. The customers 22 kV main switch protection relay providing the following settings to trip the main switch circuit breaker:
        i. MVA setting 102% of the Demand Capacity (if amps are used for the setting then the max setting in amps needs to accommodate the voltage conditions at the connection point);
        ii. Time delay 10 seconds.
    b. The relay settings are to be locked by the provision of a sealing facility to secure the adjustable settings by the use of distributor seals or equivalent means;
3. If the Demand Capacity is exceeded and the relay setting results in any loss of supply to the installation AusNet Services accepts no liability.
4. Any site attendance by AusNet Services will incur an appropriate approved charge.
5. Restoration to the site following an operation will depend upon the security provided at 2b above and can be undertaken by the customer or by the attendance of AusNet Services personnel.

A copy of the Victorian Service & Installation Rules can be downloaded from the following site http://www.victoriansir.org.au/.

4.8 Power factor correction

When a customer takes action in order to correct their power factor the benefits will occur in a lower CPD the following summer. This will result in lower CPD charges in following years with no need for AusNet Services to reduce demand charges in the current year.

In some circumstances where the customer is able to release the capacity for AusNet Services to supply other customers, AusNet Services may be able to give consideration to a reduction in the capacity to what is expected with the new power factor correction. This allows AusNet Services to more efficiently use the network. In these circumstances, a capacity control device might be required to be installed.

4.9 Indicative tariffs

The table below compares indicative price levels for year 2020 as set out in the addendum to the Tariff Structure Statement with indicative prices for the remaining regulatory years of the regulatory control period to reflect this 2020 annual pricing proposal.

Table 4.8 – Indicative tariffs

Tariff	Charging parameter	Amended TSS 2020	2020
NEE11	Fixed ($)	121.00	118.00
	Energy block 1 ($/kWh)	0.1051	0.1136
	Energy block 2 ($/kWh)	0.1368	0.1308
NEN11	Fixed ($)	121.00	118.00
	Energy block 1 ($/kWh)	0.0706	0.0798
	Energy block 2 ($/kWh)	0.0753	0.0851
NASN11	Fixed ($)	121.00	118.00
	Energy - all time ($/kWh)	0.0786	0.0814
	Demand peak season ($/kW/mth)	9.9300	9.6600
	Demand off-peak season ($/kW/mth)	2.4800	2.4100
NEE12	Fixed ($)	121.00	118.00
	Energy block 1 ($/kWh)	0.1469	0.1519
	Energy block 2 ($/kWh)	0.1877	0.1852
NASN12	Fixed ($)	121.00	118.00
	Energy - all time ($/kWh)	0.1404	0.1397
	Demand peak season ($/kW/mth)	9.9300	9.6600
	Demand off-peak season ($/kW/mth)	2.4800	2.4100
NASN19	Fixed ($)	121.00	118.00
	Energy - all time ($/kWh)	0.1670	0.1663
	Demand peak season ($/kW/mth)	5.9600	5.8000
	Demand off-peak season ($/kW/mth)	1.4900	1.4500
NEE20	Fixed ($)	121.00	118.00
	Energy - peak ($/kWh)	0.1929	0.1958
	Energy - off-peak ($/kWh)	0.0406	0.0416
NEN20	Fixed ($)	121.00	118.00
	Energy - peak ($/kWh)	0.1144	0.1268
	Energy - off-peak ($/kWh)	0.0386	0.0433
NSP20	Fixed ($)	121.00	118.00
	Energy - summer peak ($/kWh)	0.4218	0.4151
	Energy - summer shoulder ($/kWh)	0.3716	0.3665
	Energy - winter peak ($/kWh)	0.3277	0.3240
	Energy - off peak ($/kWh)	0.0431	0.0436

NEE21	Fixed ($)	121.00	118.00
	Energy - peak ($/kWh)	0.1872	0.1886
	Energy - off-peak ($/kWh)	0.0435	0.0440
NEN21	Fixed ($)	121.00	118.00
	Energy - peak ($/kWh)	0.1360	0.1389
	Energy - off-peak ($/kWh)	0.0617	0.0618
NASN21	Fixed ($)	121.00	118.00
	Energy - peak ($/kWh)	0.1710	0.1701
	Energy - off peak ($/kWh)	0.0415	0.0415
	Demand peak season ($/kW/mth)	5.9600	5.8000
	Demand off-peak season ($/kW/mth)	1.4900	1.4500
NEE23	Fixed ($)	134.00	130.00
	Energy - peak ($/kWh)	0.1929	0.1958
	Energy - off-peak ($/kWh)	0.0406	0.0416
	Energy - summer export ($/kWh)	-	0.0060
NEE24	Fixed ($)	121.00	118.00
	Energy - peak ($/kWh)	0.0881	0.0993
	Energy - off-peak ($/kWh)	0.0382	0.0412
NGT26	Fixed ($)	121.00	118.00
	Energy - summer peak ($/kWh)	0.1457	0.1483
	Energy - winter peak ($/kWh)	0.1457	0.1483
	Energy - shoulder ($/kWh)	0.1123	0.1157
	Energy - off-peak ($/kWh)	0.0407	0.0436
NSP27	Fixed ($)	121.00	118.00
	Energy - summer peak ($/kWh)	0.2482	0.2459
	Energy - summer shoulder ($/kWh)	0.2200	0.2188
	Energy - winter peak ($/kWh)	0.1954	0.1951
	Energy - off peak ($/kWh)	0.0715	0.0707
NEE30	Fixed ($)	-	-
	Energy - off-peak ($/kWh)	0.0388	0.0415
NEE31	Fixed ($)	-	-
	Energy - off-peak ($/kWh)	0.0387	0.0415
NEE32	Fixed ($)	-	-
	Energy - off-peak ($/kWh)	0.0382	0.0415
NEE55	Fixed ($)	355.00	342.00
	Energy - peak ($/kWh)	0.1647	0.1670
	Energy - off-peak ($/kWh)	0.0461	0.0467
NEE52	Fixed ($)	-	-
	Energy - peak ($/kWh)	0.1937	0.1950
	Energy - off-peak ($/kWh)	0.0969	0.0960

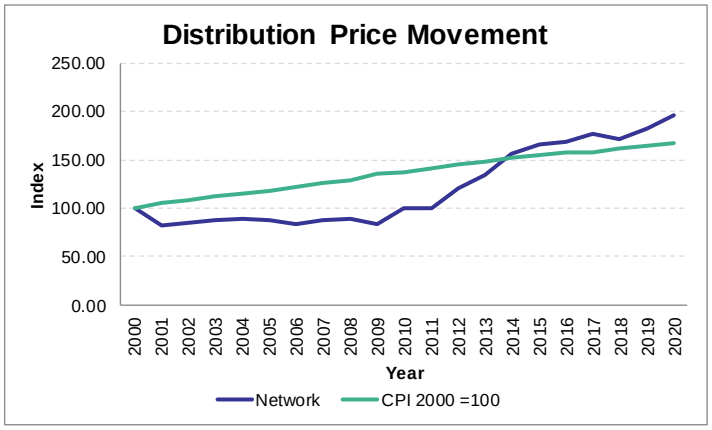
NSP56	Fixed ($)	2,893.00	2,811.00
	Energy - peak ($/kWh)	0.1288	0.1320
	Energy - shoulder ($/kWh)	0.0977	0.1017
	Energy - off-peak ($/kWh)	0.0431	0.0438
	Demand capacity ($/kVa/year)	19.9200	19.3900
	Demand critical peak ($/kVa/year)	33.2100	32.3200
NSP75	Fixed ($)	6,130.00	5,962.00
	Energy - peak ($/kWh)	0.0469	0.0529
	Energy - shoulder ($/kWh)	0.0364	0.0425
	Energy - off-peak ($/kWh)	0.0166	0.0182
	Demand capacity ($/kVa/year)	48.4100	47.1100
	Demand critical peak ($/kVa/year)	81.1900	79.0100
NSP76	Fixed ($)	6,130.00	5,962.00
	Energy - peak ($/kWh)	0.0443	0.0505
	Energy - shoulder ($/kWh)	0.0339	0.0401
	Energy - off-peak ($/kWh)	0.0151	0.0169
	Demand capacity ($/kVa/year)	50.4700	49.1200
	Demand critical peak ($/kVa/year)	85.3600	83.0700
NSP77	Fixed ($)	6,130.00	5,962.00
	Energy - peak ($/kWh)	0.0438	0.0499
	Energy - shoulder ($/kWh)	0.0337	0.0399
	Energy - off-peak ($/kWh)	0.0145	0.0162
	Demand capacity ($/kVa/year)	55.3400	53.8500
	Demand critical peak ($/kVa/year)	91.8500	89.3900
NSP78	Fixed ($)	6,130.00	5,962.00
	Energy - peak ($/kWh)	0.0406	0.0467
	Energy - shoulder ($/kWh)	0.0316	0.0378
	Energy - off-peak ($/kWh)	0.0131	0.0148
	Demand capacity ($/kVa/year)	60.8700	59.2400
	Demand critical peak ($/kVa/year)	100.7100	98.0100
NSP81	Fixed ($)	6,130.00	5,962.00
	Energy - peak ($/kWh)	0.0198	0.0262
	Energy - off-peak ($/kWh)	0.0062	0.0080
	Demand capacity ($/kVa/year)	39.8400	38.7700
	Demand critical peak ($/kVa/year)	65.3000	63.5400
NSP82	Fixed ($)	6,130.00	5,962.00
	Energy - peak ($/kWh)	0.0192	0.0256
	Energy - shoulder ($/kWh)	0.0192	0.0256
	Energy - off-peak ($/kWh)	0.0082	0.0101
	Demand capacity ($/kVa/year)	36.5200	35.5400
	Demand critical peak ($/kVa/year)	59.7600	58.1600

NSP83	Fixed ($)	6,130.00	5,962.00
	Energy - peak ($/kWh)	0.1122	0.1170
	Energy - shoulder ($/kWh)	0.0485	0.0543
	Energy - off-peak ($/kWh)	0.0147	0.0162
	Demand capacity ($/kVa/year)	4.2600	4.1400
	Demand critical peak ($/kVa/year)	7.0300	6.8400
NSP91	Fixed ($)	21,085.00	20,580.00
	Energy - peak ($/kWh)	0.0195	0.0257
	Energy - off-peak ($/kWh)	0.0045	0.0062
	Demand capacity ($/kVa/year)	2.6600	2.5900
	Demand critical peak ($/kVa/year)	4.3900	4.2700
NEE93	Fixed ($)	-	-
	Energy - peak ($/kWh)	0.0195	0.0234
	Energy - off-peak ($/kWh)	0.0195	0.0234
NSP94	Fixed ($)	21,085.00	20,580.00
	Energy - peak ($/kWh)	0.0192	0.0253
	Energy - off-peak ($/kWh)	0.0043	0.0060
	Demand capacity ($/kVa/year)	1.9900	1.9300
	Demand critical peak ($/kVa/year)	3.2900	3.2100
NSP95	Fixed ($)	21,085.00	20,580.00
	Energy - peak ($/kWh)	0.0199	0.0261
	Energy - off-peak ($/kWh)	0.0047	0.0064
	Demand capacity ($/kVa/year)	4.1200	4.0100
	Demand critical peak ($/kVa/year)	6.8400	6.6600

5 Variations to tariffs

It is proposed that distribution tariffs will increase at an overall rate of 3.54% from 2019 levels. Historic change is shown in the chart below.

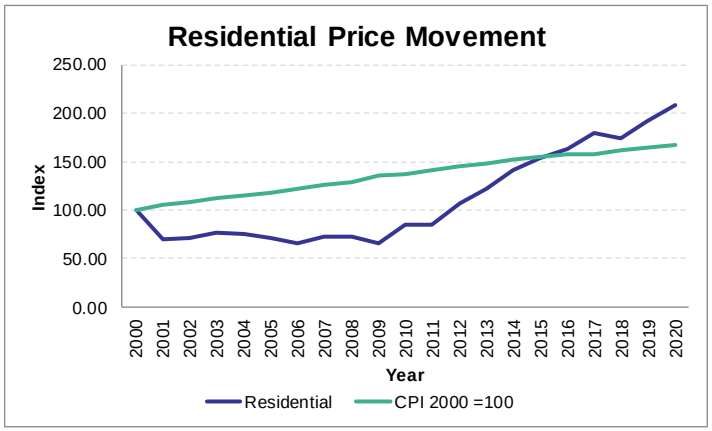
Chart 5.1 – Overall distribution price movement



5.1 Small residential

AusNet Services' residential tariffs apply to customers using less than 160 MWh per annum for predominantly private domestic purposes. These customers are connected to the low voltage network (240/415 volts) and with a maximum load less than 50 kVA. The following chart shows how Distribution Use of System (**DUoS**) charges have varied for this group of customers since 2000 compared to the CPI over the same period. The overall increase in distribution tariffs for this customer group between 2019 to 2020 is 3.54%.

Chart 5.2 – Residential price movement



The following tables show the 2020 tariff changes for the most common residential tariff types.

Table 5.1 – Residential price change

NEE11

	Base Case	Very Low	Low	Average	High	Very High
Energy	4.16 MWh	1.25 MWh	2.91 MWh	4.16 MWh	5.41 MWh	7.07 MWh
Existing	$ 494.75	$ 228.92	$ 380.82	$ 494.75	$ 608.67	$ 760.57
Proposed	$ 507.98	$ 234.99	$ 390.99	$ 507.98	$ 624.98	$ 780.97
Change	2.67%	2.65%	2.67%	2.67%	2.68%	2.68%

NEE20

	Base Case	Very Low	Low	Average	High	Very High
Energy	6.40 MWh	1.92 MWh	4.48 MWh	6.40 MWh	8.32 MWh	10.88 MWh
Existing	$ 672.01	$ 282.10	$ 504.90	$ 672.01	$ 839.11	$ 1,061.91
Proposed	$ 695.93	$ 291.38	$ 522.55	$ 695.93	$ 869.30	$ 1,100.47
Change	3.56%	3.29%	3.49%	3.56%	3.60%	3.63%

NGT26

	Base Case	Very Low	Low	Average	High	Very High
Energy	4.90 MWh	1.47 MWh	3.43 MWh	4.90 MWh	6.37 MWh	8.33 MWh
Existing	$ 474.04	$ 222.71	$ 366.33	$ 474.04	$ 581.75	$ 725.37
Proposed	$ 490.37	$ 229.71	$ 378.66	$ 490.37	$ 602.09	$ 751.04
Change	3.45%	3.14%	3.37%	3.45%	3.49%	3.54%

NEE23

	Base Case	Very Low	Low	Average	High	Very High
Energy	1.97 MWh	0.59 MWh	1.38 MWh	1.97 MWh	2.56 MWh	3.35 MWh
Existing	$ 470.51	$ 230.05	$ 367.46	$ 470.51	$ 573.57	$ 710.97
Proposed	$ 500.07	$ 241.02	$ 389.05	$ 500.07	$ 611.08	$ 759.11
Change	6.28%	4.77%	5.87%	6.28%	6.54%	6.77%

NEE30

	Base Case	Very Low	Low	Average	High	Very High
Energy	1.18 MWh	0.35 MWh	0.82 MWh	1.18 MWh	1.53 MWh	2.00 MWh
Existing	$ 33.35	$ 10.01	$ 23.35	$ 33.35	$ 43.36	$ 56.70
Proposed	$ 36.62	$ 10.99	$ 25.64	$ 36.62	$ 47.61	$ 62.26
Change	9.81%	9.81%	9.81%	9.81%	9.81%	9.81%

NEE31

	Base Case	Very Low	Low	Average	High	Very High
Energy	2.93 MWh	0.88 MWh	2.05 MWh	2.93 MWh	3.81 MWh	4.98 MWh
Existing	$ 82.90	$ 24.87	$ 58.03	$ 82.90	$ 107.76	$ 140.92
Proposed	$ 91.25	$ 27.38	$ 63.88	$ 91.25	$ 118.63	$ 155.13
Change	10.08%	10.08%	10.08%	10.08%	10.08%	10.08%

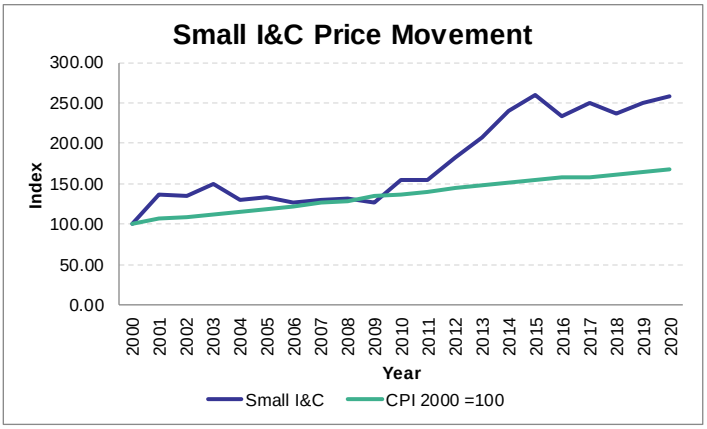
NEE32

	Base Case	Very Low	Low	Average	High	Very High
Energy	1.25 MWh	0.38 MWh	0.88 MWh	1.25 MWh	1.63 MWh	2.13 MWh
Existing	$ 34.79	$ 10.44	$ 24.35	$ 34.79	$ 45.23	$ 59.14
Proposed	$ 39.00	$ 11.70	$ 27.30	$ 39.00	$ 50.70	$ 66.29
Change	12.09%	12.09%	12.09%	12.09%	12.09%	12.09%

5.2 Small Industrial & Commercial

The following chart shows how DUoS charges have varied for this group of customers since 2000 compared to the CPI over the same period. The overall increase in distribution tariffs for this customer group between 2019 and 2020 is 3.54%.

Chart 5.3 – Small I&C price movement



The following tables show the 2020 tariff changes for the most common small industrial & commercial tariff types.

Table 5.2 – Small I&C price change

NEE12

	Base Case	Very Low	Low	Average	High	Very High
Energy	5.55 MWh	1.67 MWh	3.89 MWh	5.55 MWh	7.22 MWh	9.44 MWh
Existing	$ 928.14	$ 358.94	$ 684.19	$ 928.14	$ 1,172.08	$ 1,497.33
Proposed	$ 942.55	$ 365.37	$ 695.19	$ 942.55	$ 1,189.92	$ 1,519.74
Change	1.55%	1.79%	1.61%	1.55%	1.52%	1.50%

NEE21

	Base Case	Very Low	Low	Average	High	Very High
Energy	12.49 MWh	3.75 MWh	8.74 MWh	12.49 MWh	16.24 MWh	21.23 MWh
Existing	$ 1,432.22	$ 510.17	$ 1,037.05	$ 1,432.22	$ 1,827.38	$ 2,354.27
Proposed	$ 1,470.41	$ 523.72	$ 1,064.69	$ 1,470.41	$ 1,876.14	$ 2,417.10
Change	2.67%	2.66%	2.66%	2.67%	2.67%	2.67%

NASN19

	Base Case	Very Low	Low	Average	High	Very High
Energy	50.03 MWh	15.01 MWh	35.02 MWh	50.03 MWh	65.03 MWh	85.04 MWh
Existing	$ 7,505.84	$ 2,332.25	$ 5,288.59	$ 7,505.84	$ 9,723.09	$ 12,679.43
Proposed	$ 7,794.13	$ 2,420.84	$ 5,491.29	$ 7,794.13	$ 10,096.97	$ 13,167.42
Change	3.84%	3.80%	3.83%	3.84%	3.85%	3.85%

NASN21

	Base Case	Very Low	Low	Average	High	Very High
Energy	65.80 MWh	19.74 MWh	46.06 MWh	65.80 MWh	85.54 MWh	111.86 MWh
Existing	$ 6,728.91	$ 2,099.17	$ 4,744.74	$ 6,728.91	$ 8,713.08	$ 11,358.65
Proposed	$ 7,078.21	$ 2,206.06	$ 4,990.15	$ 7,078.21	$ 9,166.27	$ 11,950.36
Change	5.19%	5.09%	5.17%	5.19%	5.20%	5.21%

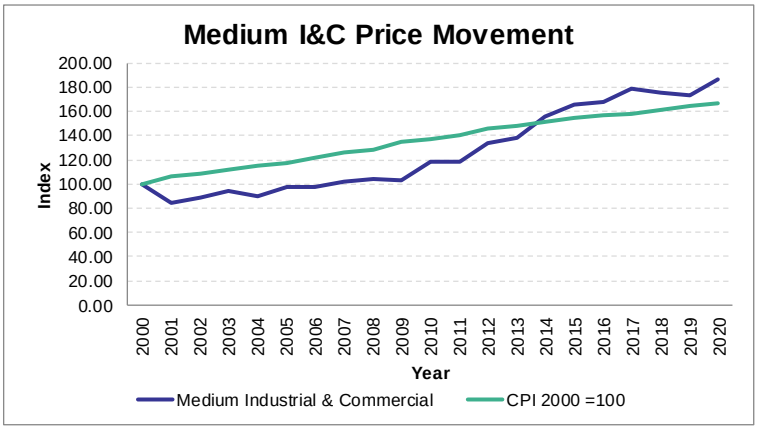
NSP27

	Base Case	Very Low	Low	Average	High	Very High
Energy	71.01 MWh	21.30 MWh	49.70 MWh	71.01 MWh	92.31 MWh	120.71 MWh
Existing	$ 4,469.44	$ 1,421.33	$ 3,163.11	$ 4,469.44	$ 5,775.77	$ 7,517.55
Proposed	$ 4,548.87	$ 1,447.26	$ 3,219.61	$ 4,548.87	$ 5,878.14	$ 7,650.48
Change	1.78%	1.82%	1.79%	1.78%	1.77%	1.77%

5.3 Medium Industrial & Commercial

Medium customers are customers that consume between 160 MWh and 400 MWh per annum. The following chart shows how DUoS charges have varied for this group of customers since 2000 compared to the CPI over the same period. The overall increase in distribution tariffs for this customer group between 2019 and 2020 is 3.54%.

Chart 5.4 – Medium I&C price movement



The following tables show the 2020 tariff changes for the most common medium industrial & commercial tariff types.

Table 5.3 – Medium I&C price change

NEE40

	Base Case	Very Low	Low	Average	High	Very High
Energy	30.25 MWh	9.07 MWh	21.17 MWh	30.25 MWh	39.32 MWh	51.42 MWh
Existing	$ 6,636.27	$ 2,071.38	$ 4,679.89	$ 6,636.27	$ 8,592.65	$ 11,201.16
Proposed	$ 6,995.47	$ 2,181.24	$ 4,932.23	$ 6,995.47	$ 9,058.72	$ 11,809.70
Change	5.41%	5.30%	5.39%	5.41%	5.42%	5.43%

NEE51

	Base Case	Very Low	Low	Average	High	Very High
Energy	218.91 MWh	65.67 MWh	153.24 MWh	218.91 MWh	284.59 MWh	372.15 MWh
Existing	$ 27,130.37	$ 8,219.61	$ 19,025.76	$ 27,130.37	$ 35,234.98	$ 46,041.12
Proposed	$ 28,573.55	$ 8,654.67	$ 20,036.89	$ 28,573.55	$ 37,110.22	$ 48,492.44
Change	5.32%	5.29%	5.31%	5.32%	5.32%	5.32%

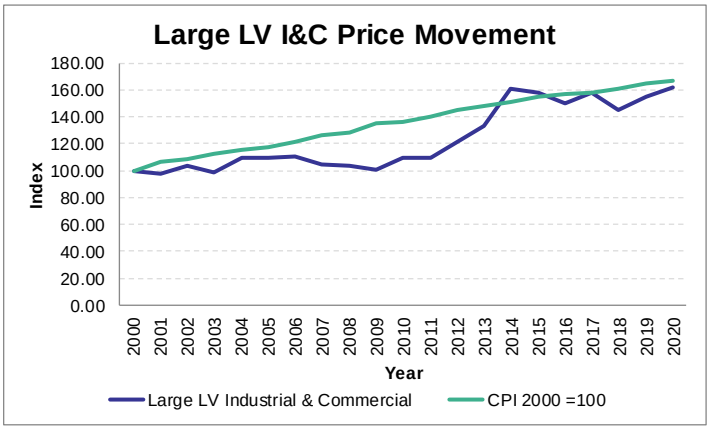
NSP56

	Base Case	Very Low	Low	Average	High	Very High
Energy	222.39 MWh	66.72 MWh	155.68 MWh	222.39 MWh	289.11 MWh	378.07 MWh
Existing	$ 23,167.54	$ 8,687.66	$ 16,961.88	$ 23,167.54	$ 29,373.20	$ 37,647.42
Proposed	$ 23,806.66	$ 8,927.00	$ 17,429.66	$ 23,806.66	$ 30,183.66	$ 38,686.33
Change	2.76%	2.75%	2.76%	2.76%	2.76%	2.76%

5.4 Large LV Industrial & Commercial

Large customers are those customers who consume more than 400 MWh per annum. The following chart shows how DUoS charges have varied for this group of customers since 2000 compared to the CPI over the same period. The overall increase in distribution tariffs for this customer group between 2019 and 2020 is 3.54%.

Chart 5.5 – Large LV I&C price movement



The following tables show the 2020 tariff changes for large industrial & commercial tariff types.

Table 5.4 – Large LV I&C price change

NSP75

	Base Case	Very Low	Low	Average	High	Very High
Energy	534.17 MWh	160.25 MWh	373.92 MWh	534.17 MWh	694.42 MWh	908.09 MWh
Existing	$ 37,465.76	$ 15,123.33	$ 27,890.43	$ 37,465.76	$ 47,041.08	$ 59,808.19
Proposed	$ 38,741.10	$ 15,613.03	$ 28,829.07	$ 38,741.10	$ 48,653.13	$ 61,869.17
Change	3.40%	3.24%	3.37%	3.40%	3.43%	3.45%

NSP76

	Base Case	Very Low	Low	Average	High	Very High
Energy	1,145.18 MWh	343.55 MWh	801.62 MWh	1,145.18 MWh	1,488.73 MWh	1,946.80 MWh
Existing	$ 70,948.77	$ 25,168.23	$ 51,328.54	$ 70,948.77	$ 90,569.00	$ 116,729.31
Proposed	$ 73,463.45	$ 26,029.74	$ 53,134.72	$ 73,463.45	$ 93,792.19	$ 120,897.17
Change	3.54%	3.42%	3.52%	3.54%	3.56%	3.57%

NSP77

	Base Case	Very Low	Low	Average	High	Very High
Energy	2,392.47 MWh	717.74 MWh	1,674.73 MWh	2,392.47 MWh	3,110.21 MWh	4,067.20 MWh
Existing	$ 131,173.58	$ 43,235.67	$ 93,485.91	$ 131,173.58	$ 168,861.26	$ 219,111.49
Proposed	$ 135,823.28	$ 44,737.68	$ 96,786.60	$ 135,823.28	$ 174,859.96	$ 226,908.88
Change	3.54%	3.47%	3.53%	3.54%	3.55%	3.56%

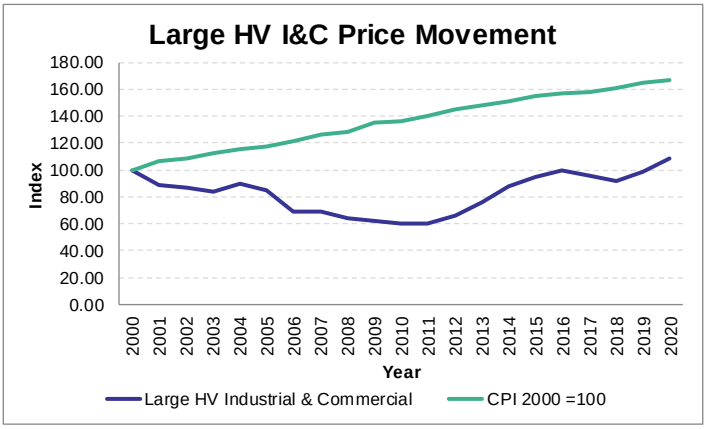
NSP78

	Base Case	Very Low	Low	Average	High	Very High
Energy	4,424.64 MWh	1,327.39 MWh	3,097.25 MWh	4,424.64 MWh	5,752.03 MWh	7,521.89 MWh
Existing	$ 239,110.95	$ 75,616.89	$ 169,042.07	$ 239,110.95	$ 309,179.84	$ 402,605.02
Proposed	$ 247,586.24	$ 78,266.57	$ 175,020.67	$ 247,586.24	$ 320,151.81	$ 416,905.91
Change	3.54%	3.50%	3.54%	3.54%	3.55%	3.55%

5.5 Large HV Industrial & Commercial

Customers connected to the AusNet Services' high voltage 22kV, 11kV or 6.6kV networks are assigned to a high voltage network tariff. The following chart shows how DUoS charges have varied for this group of customers since 2000 compared to the CPI over the same period. The overall change in distribution tariffs for this customer group between 2019 and 2020 is 3.54%.

Chart 5.6 – Large HV I&C price movement



The following tables show the 2020 tariff changes for high voltage industrial & commercial tariff types.

Table 5.5 – LV HV I&C price change

NSP81

	Base Case	Very Low	Low	Average	High	Very High
Energy	9,036.83 MWh	2,711.05 MWh	6,325.78 MWh	9,036.83 MWh	11,747.88 MWh	15,362.61 MWh
Existing	$ 250,184.43	$ 78,938.93	$ 176,793.50	$ 250,184.43	$ 323,575.35	$ 421,429.92
Proposed	$ 259,051.23	$ 81,706.07	$ 183,046.16	$ 259,051.23	$ 335,056.29	$ 436,396.38
Change	3.54%	3.51%	3.54%	3.54%	3.55%	3.55%

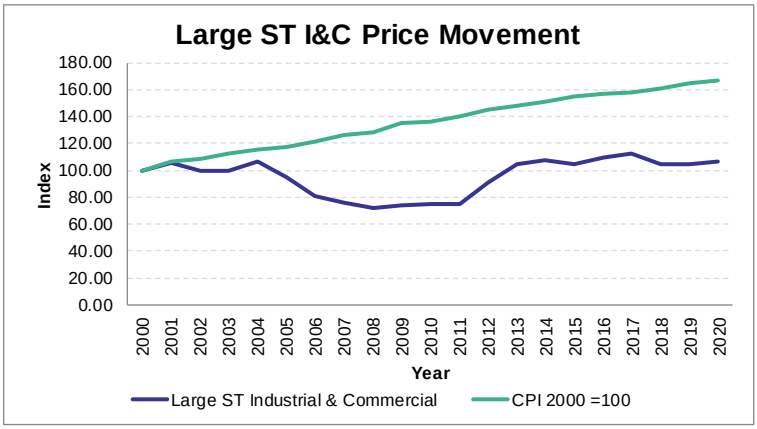
NSP83

	Base Case	Very Low	Low	Average	High	Very High
Energy	416.90 MWh	125.07 MWh	291.83 MWh	416.90 MWh	541.97 MWh	708.73 MWh
Existing	$ 27,558.95	$ 12,151.29	$ 20,955.67	$ 27,558.95	$ 34,162.24	$ 42,966.62
Proposed	$ 28,535.04	$ 12,551.21	$ 21,684.82	$ 28,535.04	$ 35,385.25	$ 44,518.86
Change	3.54%	3.29%	3.48%	3.54%	3.58%	3.61%

5.6 Large ST Industrial & Commercial

AusNet Services has only a small number of customers taking supply directly from the sub-transmission system. These customers are very diverse in terms of their location, the size of their load and their annual energy use. The following chart shows how DUoS charges have varied for this group of customers since 2000 compared to the CPI over the same period. The overall change in distribution tariffs for this customer group between 2019 and 2020 is 3.54%.

Chart 5.7 – Large ST I&C price movement



The following tables show the 2020 tariff changes for Sub transmission industrial & commercial tariff types.

Table 5.6 – Large ST I&C price change

All 90s (Excludes NEE93)

	Base Case	Very Low	Low	Average	High	Very High
Energy	54,408.55 MWh	16,322.57 MWh	38,085.99 MWh	54,408.55 MWh	70,731.12 MWh	92,494.54 MWh
Existing	$ 239,767.86	$ 85,728.06	$ 173,750.80	$ 239,767.86	$ 305,784.91	$ 393,807.66
Proposed	$ 248,257.84	$ 88,700.65	$ 179,876.19	$ 248,257.84	$ 316,639.50	$ 407,815.04
Change	3.54%	3.47%	3.53%	3.54%	3.55%	3.56%

6 Ancillary network services

Ancillary network services are network services provided to individual customers using the same resources as those used to provide other regulated network services. The costs of providing these services are recovered from the individual customer requesting the service and not from all other customers. The types of service include customer connections, energisation and de-energisation of customer installations, field officer visits, and service truck visits. Where the services are routine in nature and provided on a regular basis to a number of customers, AusNet Services sets a fixed fee for the service. In those instances where the number of jobs is infrequent or the nature of the work varies significantly, charges are made on the basis of recovering the actual cost incurred at approved charge out rates.

6.1 Ancillary network services price changes

Ancillary network service charges have been varied in accordance with the AER determination for the 2016-2020 control period. The application of the price cap formula for 2020 where the CPI change was 1.59% and the X factor - 1.02%, results in a price increase of 2.63%. The price cap formula is set out below.

Table 6.1 – Fee based ancillary network services formula

Fee based ancillary network services formula	
$\overline{p}_t^i \geq p_t^i$ $\overline{p}_t^i = \overline{p}_{t-1}^i(1+CPI_t)(1-X_t^i)$	i=1,...,n and t=2,3,4,5

where:

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

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

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

T is the regulatory year

CPI_t is the annual percentage change in the ABS CPI All Groups, Weighted Average of Eight Capital Cities from the June quarter in year t–2 to the June quarter in year t–1, calculated using the following method:

The ABS CPI All Groups, Weighted Average of Eight Capital Cities for the June quarter in regulatory year t–1 divided by the ABS CPI All Groups, Weighted Average of Eight Capital Cities for the June quarter in regulatory year t–2 minus one

X_t^i is the X factor for service i in year t

7 Prescribed metering charges

7.1 Electricity distribution price review annual metering charges requirements

Under the 2016-20 electricity distribution price review, AusNet Services' metering charges are subjected to a revenue cap form of regulation. For 2020, prescribed metering charges are varied in accordance with the formula set out in Attachment 16 of the AER final decision which is as follows:

Table 7.1 – Annual metering charges revenue cap formula

Annual metering charges revenue cap formula		
1	$TARM_t \geq \sum_{i=1}^{n} \sum_{j=1}^{m} p_t^{ij} q_t^{ij}$	i=1,...,n and j=1,...,m and t=1,…,5
2	$TARM_t = AR_t + T_t + B_t$	t = 1,2,…,5
3	$AR_t = AR_{t-1}(1+\Delta CPI_t)(1-X_t)$	t = 1,2,…,5

where:

$TARM_t$ is the total annual revenue for annual metering charges in year t

p_t^{ij} is the price of component 'j' of metering service 'i' in year t

q_t^{ij} is the forecast quantity of component 'j' of metering service 'i' in year t.

AR_t is the annual revenue requirement for year t. When year t is the first year of the 2016–20 regulatory control period

AR_t is the annual revenue requirement in the annual metering charges Post Tax Revenue Model (PTRM) for year t

T_t is equal to zero for all years except 2017 and is a once off adjustment to 2017 charges for the unders and overs recoveries relating to Advanced Metering Infrastructure actual revenues and actual costs incurred in 2014 and 2015

B_t is the sum of annual adjustment factors in year t as calculated in the unders and overs account

AR_{t-1} is the annual revenue requirement for year t–1

ΔCPI_t is the annual percentage change in the ABS CPI All Groups, Weighted Average of Eight Capital Cities from the June quarter in year t–2 to the June quarter in year t–1, calculated using the following method:

The ABS CPI All Groups, Weighted Average of Eight Capital Cities for the June quarter in regulatory year t–1 divided by the ABS CPI All Groups, Weighted Average of Eight Capital Cities for the June quarter in regulatory year t–2 minus one

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

From 2017 to 2020, side constraints will apply, and the permissible percentage increase will be the greater of CPI-X plus 2 per cent or CPI plus 2 per cent. The side constraint formula is:

Table 7.2 – Metering side constraint formula

Metering side constraint formula
$p_t^i \leq p_{t-1}^i(1+\Delta CPI_t)(1-X_t^i)(1+2\%)+T_t^{'}+B_t^{'}$

where:

p_t^i is the price of annual metering charges service 'I' in year t.

p_{t-1}^i is the price of annual metering charges service 'I' in year t-1.

ΔCPI_t is the annual percentage change in the ABS CPI All Groups, Weighted Average of Eight Capital Cities from the June quarter in year t–2 to the June quarter in year t–1, calculated using the following method:

The ABS CPI All Groups, Weighted Average of Eight Capital Cities for the June quarter in regulatory year t–1 divided by the ABS CPI All Groups, Weighted Average of Eight Capital Cities for the June quarter in regulatory year t–2 minus one

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

$T_t^{'}$ is the annual percentage change from the unders and overs recoveries relating to Advanced Metering Infrastructure actual revenues and actual costs incurred in 2014 and 2015. It is a once off adjustment to 2018 to 2020 charges.[3]

$B_t^{'}$ is the annual percentage change from the sum of annual adjustment factors in year t as calculated in the unders and overs account.

7.2 Metering revenue

Prescribed metering revenue in 2020 are forecast to be 10.90% less than 2019 rates and to recover $45.3M. The below table sets out components that make up the metering revenue for 2020.

Table 7.3 – Metering revenue components

Metering revenue components	2020 ($'000)
Adjusted annual smoothed revenue for year t-1	66,000
CPI for period t	1.59%
X factor for period t	16.93%
Adjusted annual smoothed revenue for year t	55,699

[3] AER, AMI Transition Charges Application Final Decision, p.5

T factor for year t	-10,478
B factor for year t	121
Total annual revenue for metering charges	45,343

7.3 Metering unders and overs

In accordance with the 2016-20 Electricity Distribution Price Review, AusNet Services is expected to achieve a closing balance as close to zero as practicable in its annual metering charges unders and overs account when proposing variations to the amount and structure of annual metering charges. The carry forward amount for 2020 is -$22 as shown below in Table 7.4.

Table 7.4 – Metering unders and overs

Metering unders and overs components	2020 ($'000)
Opening balance	-118
Interest on opening balance	-6
Unders and overs recovery	121
Interest on unders and overs recovery	3
Closing balance	0

8 Public lighting

AusNet Services provides public lighting services to 30 local government councils, Vic Roads, the Alpine Resorts Commission and Gippsland Ports. The services provided include the installation, maintenance and repair of public lighting installations, the operation of a fault and emergency call centre, a GIS system to locate and identify light installations. Energy supplied to Public Lights is a contestable service. To facilitate market settlement AusNet Services derives the unmetered 30 minute energy data for the public lights. The data is then placed into the market and used for the retail billing of energy consumed by public lights.

Typically lighting installations includes poles, brackets, lanterns, wiring and control gear. Currently, AusNet Services manages and maintains around 154,000 streetlights in our electricity distribution area. Energy efficient lights account for 88,000 of the total number of lights installed.

AusNet Services provides two categories of lighting, standard and non-standard. Standard lights are lights erected on a distribution pole, a dedicated pole and light head supplied by AusNet Services. Non-standard lights are lights on decorative poles and those with a decorative lantern. AusNet Services provides the labour and services associated with the maintenance of non-standard public lights, the public lighting customer must provide the replacement decorative pole or decorative lantern.

Local government councils and VicRoads are responsible for decisions regarding the location and types of lights installed.

8.1 Public lighting tariffs

Public lighting prices are varied in accordance with the public lighting pricing model updated for the changes in the CPI. The following table sets out the price changes for 2020 for each light type.

Table 8.1 – Public lighting price changes

Light type	Central 2019 ($)	Central 2020 ($)	% Δ	North & East 2019 ($)	North & East 2020 ($)	% Δ
LED 18W	16.75	16.27	-2.8%	17.20	16.74	-2.7%
Non Standard, Standard Output LED	16.75	16.27	-2.8%	17.20	16.74	-2.7%
High output LED	16.75	16.27	-2.8%	17.20	16.74	-2.7%
T5 2X14W	35.57	35.60	0.1%	40.48	40.60	0.3%
T5 2X24W	41.99	42.08	0.2%	47.72	47.91	0.4%
Compact fluorescent 32W	31.57	31.59	0.1%	36.03	36.13	0.3%
Compact fluorescent 42W	31.57	31.59	0.1%	36.03	36.13	0.3%
Mercury vapour 50W	65.76	67.27	2.3%	72.26	73.93	2.3%
Mercury vapour 80W	42.98	43.97	2.3%	48.82	49.95	2.3%
Mercury vapour 125W	63.19	64.63	2.3%	72.26	73.93	2.3%
HP sodium 50W	45.25	46.14	2.0%	52.80	53.84	2.0%

Metal halide 70W	187.63	191.93	2.3%	185.75	190.05	2.3%
LED L1	24.27	23.59	-2.8%	24.75	24.09	-2.7%
LED L2	25.01	24.30	-2.8%	25.57	24.89	-2.7%
LED L3	26.58	25.83	-2.8%	27.09	26.37	-2.7%
Mercury vapour 250W	108.23	110.37	2.0%	119.45	121.81	2.0%
Mercury vapour 400W	112.35	114.58	2.0%	122.89	125.32	2.0%
HP sodium 100W	109.20	111.36	2.0%	124.24	126.69	2.0%
HP sodium 150W	102.06	104.07	2.0%	116.12	118.40	2.0%
HP sodium 250W	103.07	105.12	2.0%	114.85	117.12	2.0%
HP sodium 400W	146.37	149.26	2.0%	163.09	166.31	2.0%
Metal halide 100W	243.68	248.49	2.0%	245.94	250.78	2.0%
Metal halide 150W	276.84	282.31	2.0%	279.41	284.91	2.0%

9 Glossary

Term	Definition
ABS	Australian Bureau of Statistics
AER	Australian Energy Regulator
AEDT	Australian Eastern Daylight Time (Daylight Saving Time). Is 11 hours ahead of Coordinated Universal Time (UTC) and applies from the first Sunday in October until the first Sunday in April
AEST	Australian Eastern Standard Time. Is 10 hours ahead of Coordinated Universal Time (UTC)
AIC	Average incremental cost. A method of calculating the LRMC.
AMI	Advance metering infrastructure
ARR	Annual revenue requirement
Augmentation	New network assets constructed to meet increase demand.
Capacity	The amount of energy that a part of the network is able to carry.
CES	Certificate of electrical safety
Controlled load	A customer's electricity circuit that the DNSP controls the hours in which the supply is made available.
CPI	Consumer price index
Demand	Energy consumption at a point in time
Demand management	The modification of behaviour so as to constrain demand at critical times.
Distribution network	The poles and wires that transport energy between the transmission network and customers
Distributor (DNSP)	Distribution network service provider. The owner/operator of a distribution network
DMIS	Demand management incentive scheme
DPPC	Designated pricing proposal charges
DUoS	Distribution use of system
Eastern standard time (EST)	EAST is 10 hours ahead of Coordinated Universal Time (UTC)
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 Government's policy on ToU pricing
High voltage (HV)	Equipment or supplies at voltages of 6.6 kV, 11 kV or 22 kV
Inclining block	A network tariff energy rate that increases as usage increase above defined thresholds
JUoS	Jurisdictional scheme of 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 and demand quantities
kVAr, MVAr	Kilovolt amperes (reactive) and megavolt amperes (reactive), units of instantaneous total electrical power demand. Usually the peak demand is referenced. See also PF for the relationship between power and 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 and demand quantities
kWh, MWh	Kilowatt hour and megawatt hour, units of electrical energy consumption
Local time	Daylight savings time in accordance with the Victorian Government's requirements
Logically converted AMI meter	A meter that records energy use of 30 minute intervals and communicates the data to the energy supplier and its operating in the national electricity market as an interval meter.
Low voltage (LV)	Equipment or supplies at a voltage of 230 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 includes future investment where short run marginal cost considers only the costs involved without extra investment.
NMI	National meter identifier. A unique code that identifies a connection in point in the national electricity market
NUoS	Network use of system. The utilisation of the total electricity network in the provision of electricity to consumers. NUoS = DUoS + TUoS + JUoS
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 = Real power (kW) / Total power (kVA) Total power (kVA) = Sqrt (kW^2 + $kVAr^2$)

Price cap	A form of regulatory control that limits the amount by which a price can be increased
Price structure	The components that make up a price available to customers
Pricing proposal	AusNet Services' 2020 Pricing Proposal. Submitted in accordance with the Rules (this document)
PTRM	Post tax revenue model
Retailer	A financially responsible market participant (FRMP) supply electricity to customers
Revenue cap	A form of regulatory control which limits the total revenue in a given period
Rules	Australian Energy Market Commission, National Electricity Rules (NER)
STPIS	Service target performance incentive scheme
Sub-transmission (ST)	Equipment or supplies at voltage levels of 66 kV
Tariff	A grouping of network price components that are applied to customers network usage in accordance with the conditions of supply
Tariff class	A group of customers with similar connection and usage characteristics who are subject to a particular tariff or particular tariff and a common price control
TAR	Total annual revenue
TFiT	Transitional feed-in tariff
ToU	Time of use, a system of pricing where energy or demand charges are set at different rates dependent on the time the energy use is recorded.
Transmission network	The assets and service that transport energy from generators to major load centres where it is transferred to the distribution network
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 calculated consumption. Concessions to public lights, phone boxes, minor traffic lights and the like may be supplied without a physical metering installation
WACC	Weighted average cost of capital

10 Attachments

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10.1 Network tariff schedule

Tariff Code	Tariff Structure	Description	Closed to New Entrants	Standing Charge $/Year	Block 1 c/kWh	Block 2 c/kWh	Peak c/kWh	Shoulder All Year c/kWh	Summer Peak c/kWh	Summer Shoulder c/kWh	Winter Peak c/kWh	Off Peak c/kWh	Dedicated Circuit c/kWh	Summer Export c/kWh	Feed In Rates c/kWh	Capacity $/kVA/Year	Critical Peak Demand $/kVA/Year	Monthly Peak kW Demand $/kW/Mth	Monthly Off Peak kW Demand $/kW/Mth
Residential																			
NEE11	1	Small Single Rate	No	118.00	11.3645	13.0839													
NASN11	15	Small Residential Single Rate	No	118.00	8.1356	8.1356												9.66	2.41
NASN11P	15	Small Residential Single Rate Premium Feed In	Yes	118.00	8.1356	8.1356								-0.5975	-60.0000			9.66	2.41
NASN11S	15	Small Residential Single Rate Standard Feed In	No	118.00	8.1356	8.1356								-0.5975				9.66	2.41
NEN11	1	Small Single Rate within Embedded Network	No	118.00	7.9752	8.5070													
NGT11	6	Small Flexible Single Rate	No	118.00	14.2897														
NEE13	1 & 9	Small Single Rate & Dedicated Circuit	Yes	118.00	11.3645	13.0839							4.1520						
NEN13	1 & 9	Small Single Rate & Dedicated Circuit within Embedded Network	Yes	118.00	7.9752	8.5070							4.1520						
NGT13	6 & 9	Small Flexible Single Rate & Dedicated Circuit	Yes	118.00	14.2897								4.1520						
NEE14	1 & 10	Small Single Rate & Dedicated Circuit with Afternoon Boost	Yes	118.00	11.3645	13.0839							4.1520						
NEN14	1 & 10	Small Single Rate & Dedicated Circuit with Afternoon Boost within Embedded Network	Yes	118.00	7.9752	8.5070							4.1520						
NGT14	6 & 10	Small Flexible Single Rate & Dedicated Circuit with Afternoon Boost	Yes	118.00	14.2897								4.1520						
NEE15	1 & 11	Small Single Rate & Dedicated Circuit 8:00 to 8:00	Yes	118.00	11.3645	13.0839							4.1520						
NEN15	1 & 11	Small Single Rate & Dedicated Circuit 8:00 to 8:00 within Embedded Network	Yes	118.00	7.9752	8.5070							4.1520						
NGT15	6 & 11	Small Flexible Single Rate & Dedicated Circuit 8:00 to 8:00	Yes	118.00	14.2897								4.1520						
NEE20	3	Small Two Rate	No	118.00			19.5846					4.1607							
NEN20	3	Small Two Rate within Embedded Network	No	118.00			12.6758					4.3299							
NSP20	7	Small Interval Meter Time of Use	No	118.00					41.5072	36.6459	32.3973	4.3559							
NEE23	3	Small Two Rate Solar Installation Standard Feed In Pre December 2012	Yes	130.00			19.5846					4.1607		-0.5975					
NEE26	3	Small Two Rate Solar Installation Standard Feed In Post January 2013	No	130.00			19.5846					4.1607		-0.5975					
SUN23	3	Small Two Rate Solar Installation Premium Feed In	Yes	130.00			19.5846					4.1607		-0.5975	-60.0000				
NSP23	7	Small Interval Meter Time of Use Solar Installation Standard Feed In	No	130.00					41.5072	36.6459	32.3973	4.3559		-0.5975					
SSP23	7	Small Interval Meter Time of Use Solar Installation Premium Feed In	Yes	130.00					41.5072	36.6459	32.3973	4.3559		-0.5975	-60.0000				
NEE24	4	Small Two Rate 8:00 to 8:00	No	118.00			9.9348					4.1248							
NGT26	8	Small Flexible	No	118.00	14.8340	14.8340		11.5662				4.3576							
NGT23	8 & 9	Small Flexible & Dedicated Circuit	Yes	118.00	14.8340	14.8340		11.5662				4.3576	4.1520						
NGT24	8 & 10	Small Flexible & Dedicated Circuit with Afternoon Boost	Yes	118.00	14.8340	14.8340		11.5662				4.3576	4.1520						
NGT25	8 & 11	Small Flexible & Dedicated Circuit 8:00 to 8:00	Yes	118.00	14.8340	14.8340		11.5662				4.3576	4.1520						
NEE30	9	Small Dedicated Circuit	Yes										4.1520						
NSP30	9	Small Interval Dedicated Circuit	Yes										4.1520						
NEE31	10	Small Dedicated Circuit with Afternoon Boost	Yes										4.1520						
NSP31	10	Small Interval Meter Dedicated Circuit with Afternoon Boost	Yes										4.1520						
NEE32	11	Small Dedicated Circuit 8:00 to 8:00	Yes										4.1520						
NSP32	11	Small Interval Meter Dedicated Circuit 8:00 to 8:00	Yes										4.1520						

Notes

1. To be read in conjunction with section 10.5 Tariff structure and charging parameters, and section 10.6 Minimum metering requirements.
2. New entrants cannot be assigned to a Closed to New Entrants tariff. An existing site may be allowed to be assigned to a closed tariff where the existing tariff has the same meter requirements and tariff structure as the tariff they are moving to.
3. Prices in Ex GST.

Tariff Code	Tariff Structure	Description	Closed to New Entrants	Standing Charge $/Year	Block 1 c/kWh	Block 2 c/kWh	Peak c/kWh	Shoulder All Year c/kWh	Summer Peak c/kWh	Summer Shoulder c/kWh	Winter Peak c/kWh	Off Peak c/kWh	Dedicated Circuit c/kWh	Summer Export c/kWh	Feed In Rates c/kWh	Capacity $/kVA/Year	Critical Peak Demand $/kVA/Year	Monthly Peak kW Demand $/kW/Mth	Monthly Off Peak kW Demand $/kW/Mth
Business																			
NEE12	1	Small Single Rate	No	118.00	15.1919	18.5159													
NASN12	15	Small Business Single Rate	No	118.00	13.9741	13.9741												9.66	2.41
NASN12P	15	Small Business Single Rate Premium Feed In	Yes	118.00	13.9741	13.9741								-0.5975	-60.0000			9.66	2.41
NASN12S	15	Small Business Single Rate Standard Feed In	No	118.00	13.9741	13.9741								-0.5975				9.66	2.41
NASN19	15	Business >40MWh Single Rate	No	118.00	16.6269	16.6269												5.80	1.45
NEN12	1	Small Single Rate within Embedded Network	No	118.00	20.9113	23.9152													
NEE16	1 & 9	Small Single Rate & Dedicated Circuit	Yes	118.00	15.1919	18.5159							4.1520						
NEN16	1 & 9	Small Single Rate & Dedicated Circuit within Embedded Network	Yes	118.00	20.9113	23.9152							4.1520						
NEE17	1 & 10	Small Single Rate & Dedicated Circuit with Afternoon Boost	Yes	118.00	15.1919	18.5159							4.1520						
NEN17	1 & 10	Small Single Rate & Dedicated Circuit with Afternoon Boost within Embedded Network	Yes	118.00	20.9113	23.9152							4.1520						
NEE18	1 & 11	Small Single Rate & Dedicated Circuit 8:00 to 8:00	Yes	118.00	15.1919	18.5159							4.1520						
NEN18	1 & 11	Small Single Rate & Dedicated Circuit 8:00 to 8:00 within Embedded Network	Yes	118.00	20.9113	23.9152							4.1520						
NEE21	3	Small Two Rate	No	118.00			18.8563					4.4043							
NEN21	3	Small Two Rate within Embedded Network	No	118.00			13.8902					6.1795							
NSP21	7	Small Interval Meter Time of Use	No	118.00					41.5072	36.6459	32.3973	4.3559							
NASN21	2	Business >40MWh Two Rate	No	118.00			17.0093					4.1517						5.80	1.45
NASN2P	2	Business >40MWh Two Rate Premium Feed In	Yes	118.00			17.0093					4.1517		-0.5975	-60.0000			5.80	1.45
NASN2S	2	Business >40MWh Two Rate Standard Feed In	No	118.00			17.0093					4.1517		-0.5975				5.80	1.45
SUN21	3	Small Two Rate Solar Installation Premium Feed In	Yes	118.00			18.8563					4.4043		-0.5975	-60.0000				
SSP21	7	Small Interval Meter Time of Use Solar Installation Premium Feed In	Yes	118.00					24.5878	21.8752	19.5059	7.0728		-0.5975	-60.0000				
SSP27	7	Small Interval Meter Time of Use Solar Installation Standard Feed In	No	118.00					24.5878	21.8752	19.5059	7.0728		-0.5975					
NEE27	3	Small Two Rate Solar Installation Standard Feed In Pre December 2012	Yes	118.00			18.8563					4.4043		-0.5975					
NEE28	3	Small Two Rate Solar Installation Standard Feed In Post January 2013	No	118.00			18.8563					4.4043		-0.5975					
NSP27	7	Small Interval Meter Low Peak Time of Use	No	118.00					24.5878	21.8752	19.5059	7.0728							
NEE25	4	Small Two Rate 8:00 to 8:00	No	118.00			17.9882					4.2448							
NEE40	6	Medium Single Rate	Yes	118.00	25.3436														
NEE41	6 & 9	Medium Single Rate & Dedicated Circuit	Yes	118.00	25.3436								4.1520						
NEE42	6 & 10	Medium Single Rate & Dedicated Circuit with Afternoon Boost	Yes	118.00	25.3436								4.1520						
NEE43	6 & 11	Medium Single Rate & Dedicated Circuit 8:00 to 8:00	Yes	118.00	25.3436								4.1520						
NEE51	3	Medium Two Rate	Yes	118.00			22.2525					5.1991							
NEE52	3	Medium Unmetered	No				19.5010					9.6039							
NEE55	12	Medium Snowfields	No	342.00			16.6964					4.6678							
NSP55	7	Medium Interval Meter Time of Use Snowfields	No	342.00					41.1420	36.2568	31.9874	2.9404							
NSP56	13	Medium Critical Peak Demand 160MWh to 400MWh	No	2,811.00			13.1978	10.1666				4.3812				19.39	32.32		
NEN56	13	Medium Critical Peak Demand 160MWh to 400MWh within Embedded Network	No	2,811.00			11.0282	8.3072				4.4638				19.39	32.32		
NEE60	5	Medium Seven Day Two Rate	Yes	342.00			12.2217					4.5274							
NEE74	3	Large Two Rate	Yes	403.00			27.2288					7.7251							
NSP75	13	Large Critical Peak Demand 400MWh to 750MWh	No	5,962.00			5.2916	4.2463				1.8246				47.11	79.01		
NSP76	13	Large Critical Peak Demand 750MWh to 2000MWh	No	5,962.00			5.0465	4.0136				1.6853				49.12	83.07		
NSP77	13	Large Critical Peak Demand 2000MWh to 4000MWh	No	5,962.00			4.9873	3.9874				1.6208				53.85	89.39		
NSP78	13	Large Critical Peak Demand over 4000MWh	No	5,962.00			4.6749	3.7823				1.4778				59.24	98.01		
NSP81	14	High Voltage Critical Peak Demand	No	5,962.00			2.6215					0.8030				38.77	63.54		
NSP82	13	High Voltage Critical Peak Demand Traction	No	5,962.00			2.5636	2.5636				1.0096				35.54	58.16		
NSP83	13	High Voltage Critical Peak Demand low energy use	No	5,962.00			11.7009	5.4267				1.6233				4.14	6.84		
NSP91	14	Sub transmission Critical Peak Demand <25MVA & <20KM from TS	No	20,580.00			2.5685					0.6204				2.59	4.27		
NSP94	14	Sub transmission Critical Peak Demand >25MVA & <20KM from TS	No	20,580.00			2.5322					0.6026				1.93	3.21		
NSP95	14	Sub transmission Critical Peak Demand <25MVA & >20KM from TS	No	20,580.00			2.6096					0.6421				4.01	6.66		

10.2 Distribution tariff schedule

Tariff Code	Tariff Structure	Description	Closed to New Entrants	Standing Charge $/Year	Block 1 c/kWh	Block 2 c/kWh	Peak c/kWh	Shoulder All Year c/kWh	Summer Peak c/kWh	Summer Shoulder c/kWh	Winter Peak c/kWh	Off Peak c/kWh	Dedicated Circuit c/kWh	Summer Export c/kWh	Feed In Rates c/kWh	Capacity $/kVA/Year	Critical Peak Demand $/kVA/Year	Monthly Peak kW Demand $/kW/Mth	Monthly Off Peak kW Demand $/kW/Mth
Residential																			
NEE11	1	Small Single Rate	No	118.00	8.7595	10.4789													
NASN11	15	Small Residential Single Rate	No	118.00	5.5306	5.5306												9.66	2.41
NASN11P	15	Small Residential Single Rate Premium Feed In	Yes	118.00	5.5306	5.5306								-0.5975	-60.0000			9.66	2.41
NASN11S	15	Small Residential Single Rate Standard Feed In	No	118.00	5.5306	5.5306								-0.5975				9.66	2.41
NEN11	1	Small Single Rate within Embedded Network	No	118.00	5.3702	5.9020													
NGT11	6	Small Flexible Single Rate	No	118.00	11.6847														
NEE13	1 & 9	Small Single Rate & Dedicated Circuit	Yes	118.00	8.7595	10.4789							3.1141						
NEN13	1 & 9	Small Single Rate & Dedicated Circuit within Embedded Network	Yes	118.00	5.3702	5.9020							3.1141						
NGT13	6 & 9	Small Flexible Single Rate & Dedicated Circuit	Yes	118.00	11.6847								3.1141						
NEE14	1 & 10	Small Single Rate & Dedicated Circuit with Afternoon Boost	Yes	118.00	8.7595	10.4789							3.1141						
NEN14	1 & 10	Small Single Rate & Dedicated Circuit with Afternoon Boost within Embedded Network	Yes	118.00	5.3702	5.9020							3.1141						
NGT14	6 & 10	Small Flexible Single Rate & Dedicated Circuit with Afternoon Boost	Yes	118.00	11.6847								3.1141						
NEE15	1 & 11	Small Single Rate & Dedicated Circuit 8:00 to 8:00	Yes	118.00	8.7595	10.4789							3.1141						
NEN15	1 & 11	Small Single Rate & Dedicated Circuit 8:00 to 8:00 within Embedded Network	Yes	118.00	5.3702	5.9020							3.1141						
NGT15	6 & 11	Small Flexible Single Rate & Dedicated Circuit 8:00 to 8:00	Yes	118.00	11.6847								3.1141						
NEE20	3	Small Two Rate	No	118.00			16.9796					3.1228							
NEN20	3	Small Two Rate within Embedded Network	No	118.00			10.0708					3.2920							
NSP20	7	Small Interval Meter Time of Use	No	118.00					38.9022	34.0409	29.7923	3.3180							
NEE23	3	Small Two Rate Solar Installation Standard Feed In Pre December 2012	Yes	130.00			16.9796					3.1228		-0.5975					
NEE26	3	Small Two Rate Solar Installation Standard Feed In Post January 2013	No	130.00			16.9796					3.1228		-0.5975					
SUN23	3	Small Two Rate Solar Installation Premium Feed In	Yes	130.00			16.9796					3.1228		-0.5975	-60.0000				
NSP23	7	Small Interval Meter Time of Use Solar Installation Standard Feed In	No	130.00					38.9022	34.0409	29.7923	3.3180		-0.5975					
SSP23	7	Small Interval Meter Time of Use Solar Installation Premium Feed In	Yes	130.00					38.9022	34.0409	29.7923	3.3180		-0.5975	-60.0000				
NEE24	4	Small Two Rate 8:00 to 8:00	No	118.00			7.3298					3.0869							
NGT26	8	Small Flexible	No	118.00	12.2290	12.2290		8.9612				3.3197							
NGT23	8 & 9	Small Flexible & Dedicated Circuit	Yes	118.00	12.2290	12.2290		8.9612				3.3197	3.1141						
NGT24	8 & 10	Small Flexible & Dedicated Circuit with Afternoon Boost	Yes	118.00	12.2290	12.2290		8.9612				3.3197	3.1141						
NGT25	8 & 11	Small Flexible & Dedicated Circuit 8:00 to 8:00	Yes	118.00	12.2290	12.2290		8.9612				3.3197	3.1141						
NEE30	9	Small Dedicated Circuit	Yes										3.1141						
NSP30	9	Small Interval Dedicated Circuit	Yes										3.1141						
NEE31	10	Small Dedicated Circuit with Afternoon Boost	Yes										3.1141						
NSP31	10	Small Interval Meter Dedicated Circuit with Afternoon Boost	Yes										3.1141						
NEE32	11	Small Dedicated Circuit 8:00 to 8:00	Yes										3.1141						
NSP32	11	Small Interval Meter Dedicated Circuit 8:00 to 8:00	Yes										3.1141						

Notes

1. To be read in conjunction with section 10.5 Tariff structure and charging parameters, and section 10.6 Minimum metering requirements.
2. New entrants cannot be assigned to a Closed to New Entrants tariff. An existing site may be allowed to be assigned to a closed tariff where the existing tariff has the same meter requirements and tariff structure as the tariff they are moving to.
3. Prices in Ex GST.

Tariff Code	Tariff Structure	Description	Closed to New Entrants	Standing Charge $/Year	Block 1 c/kWh	Block 2 c/kWh	Peak c/kWh	Shoulder All Year c/kWh	Summer Peak c/kWh	Summer Shoulder c/kWh	Winter Peak c/kWh	Off Peak c/kWh	Dedicated Circuit c/kWh	Summer Export c/kWh	Feed In Rates c/kWh	Capacity $/kVA/Year	Critical Peak Demand $/kVA/Year	Monthly Peak kW Demand $/kW/Mth	Monthly Off Peak kW Demand $/kW/Mth
Business																			
NEE12	1	Small Single Rate	No	118.00	12.5869	15.9109													
NASN12	15	Small Business Single Rate	No	118.00	11.3691	11.3691												9.66	2.41
NASN12P	15	Small Business Single Rate Premium Feed In	Yes	118.00	11.3691	11.3691								-0.5975	-60.0000			9.66	2.41
NASN12S	15	Small Business Single Rate Standard Feed In	No	118.00	11.3691	11.3691								-0.5975				9.66	2.41
NASN19	15	Business >40MWh Single Rate	No	118.00	14.0219	14.0219												5.80	1.45
NEN12	1	Small Single Rate within Embedded Network	No	118.00	18.3063	21.3102													
NEE16	1 & 9	Small Single Rate & Dedicated Circuit	Yes	118.00	12.5869	15.9109							3.1141						
NEN16	1 & 9	Small Single Rate & Dedicated Circuit within Embedded Network	Yes	118.00	18.3063	21.3102							3.1141						
NEE17	1 & 10	Small Single Rate & Dedicated Circuit with Afternoon Boost	Yes	118.00	12.5869	15.9109							3.1141						
NEN17	1 & 10	Small Single Rate & Dedicated Circuit with Afternoon Boost within Embedded Network	Yes	118.00	18.3063	21.3102							3.1141						
NEE18	1 & 11	Small Single Rate & Dedicated Circuit 8:00 to 8:00	Yes	118.00	12.5869	15.9109							3.1141						
NEN18	1 & 11	Small Single Rate & Dedicated Circuit 8:00 to 8:00 within Embedded Network	Yes	118.00	18.3063	21.3102							3.1141						
NEE21	3	Small Two Rate	No	118.00			16.2513					3.3664							
NEN21	3	Small Two Rate within Embedded Network	No	118.00			11.2852					5.1416							
NSP21	7	Small Interval Meter Time of Use	No	118.00					38.9022	34.0409	29.7923	3.3180							
NASN21	2	Business >40MWh Two Rate	No	118.00			14.4043					3.1138						5.80	1.45
NASN2P	2	Business >40MWh Two Rate Premium Feed In	Yes	118.00			14.4043					3.1138		-0.5975	-60.0000			5.80	1.45
NASN2S	2	Business >40MWh Two Rate Standard Feed In	No	118.00			14.4043					3.1138		-0.5975				5.80	1.45
SUN21	3	Small Two Rate Solar Installation Premium Feed In	Yes	118.00			16.2513					3.3664		-0.5975	-60.0000				
SSP21	7	Small Interval Meter Time of Use Solar Installation Premium Feed In	Yes	118.00					21.9828	19.2702	16.9009	6.0349		-0.5975	-60.0000				
SSP27	7	Small Interval Meter Time of Use Solar Installation Standard Feed In	No	118.00					21.9828	19.2702	16.9009	6.0349		-0.5975					
NEE27	3	Small Two Rate Solar Installation Standard Feed In Pre December 2012	Yes	118.00			16.2513					3.3664		-0.5975					
NEE28	3	Small Two Rate Solar Installation Standard Feed In Post January 2013	No	118.00			16.2513					3.3664		-0.5975					
NSP27	7	Small Interval Meter Low Peak Time of Use	No	118.00					21.9828	19.2702	16.9009	6.0349							
NEE25	4	Small Two Rate 8:00 to 8:00	No	118.00			15.3832					3.2069							
NEE40	6	Medium Single Rate	Yes	118.00	22.7386														
NEE41	6 & 9	Medium Single Rate & Dedicated Circuit	Yes	118.00	22.7386								3.1141						
NEE42	6 & 10	Medium Single Rate & Dedicated Circuit with Afternoon Boost	Yes	118.00	22.7386								3.1141						
NEE43	6 & 11	Medium Single Rate & Dedicated Circuit 8:00 to 8:00	Yes	118.00	22.7386								3.1141						
NEE51	3	Medium Two Rate	Yes	118.00			19.6475					4.1612							
NEE52	3	Medium Unmetered	No				16.8960					8.5660							
NEE55	12	Medium Snowfields	No	118.00			14.6469					4.0962							
NSP55	7	Medium Interval Meter Time of Use Snowfields	No	118.00					39.0925	34.2073	29.9379	2.3688							
NSP56	13	Medium Critical Peak Demand 160MWh to 400MWh	No	2,550.00			11.1483	8.1171				3.8096				19.39	32.32		
NEN56	13	Medium Critical Peak Demand 160MWh to 400MWh within Embedded Network	No	2,550.00			8.9787	6.2577				3.8922				19.39	32.32		
NEE60	5	Medium Seven Day Two Rate	Yes	118.00			10.1722					3.9558							
NEE74	3	Large Two Rate	Yes	142.00			25.1793					7.1535							
NSP75	13	Large Critical Peak Demand 400MWh to 750MWh	No	5,701.00			3.2421	2.1968				1.2530				47.11	79.01		
NSP76	13	Large Critical Peak Demand 750MWh to 2000MWh	No	5,701.00			2.9970	1.9641				1.1137				49.12	83.07		
NSP77	13	Large Critical Peak Demand 2000MWh to 4000MWh	No	5,701.00			2.9378	1.9379				1.0492				53.85	89.39		
NSP78	13	Large Critical Peak Demand over 4000MWh	No	5,701.00			2.6254	1.7328				0.9062				59.24	98.01		
NSP81	14	High Voltage Critical Peak Demand	No	5,701.00			0.5720					0.2314				38.77	63.54		
NSP82	13	High Voltage Critical Peak Demand Traction	No	5,701.00			0.5141	0.5141				0.4380				35.54	58.16		
NSP83	13	High Voltage Critical Peak Demand low energy use	No	5,701.00			9.6514	3.3772				1.0517				4.14	6.84		
NSP91	14	Sub transmission Critical Peak Demand <25MVA & <20KM from TS	No	20,319.00			0.5190					0.0488				2.59	4.27		
NSP94	14	Sub transmission Critical Peak Demand >25MVA & <20KM from TS	No	20,319.00			0.4827					0.0310				1.93	3.21		
NSP95	14	Sub transmission Critical Peak Demand <25MVA & >20KM from TS	No	20,319.00			0.5601					0.0705				4.01	6.66		

10.3 Transmission tariff schedule

Tariff Code	Tariff Structure	Description	Closed to New Entrants	Standing Charge $/Year	Block 1 c/kWh	Block 2 c/kWh	Peak c/kWh	Shoulder All Year c/kWh	Summer Peak c/kWh	Summer Shoulder c/kWh	Winter Peak c/kWh	Off Peak c/kWh	Dedicated Circuit c/kWh	Summer Export c/kWh	Feed In Rates c/kWh	Capacity $/kVA/Year	Critical Peak Demand $/kVA/Year	Monthly Peak kW Demand $/kW/Mth	Monthly Off Peak kW Demand $/kW/Mth
Residential																			
NEE11	1	Small Single Rate	No		2.0495	2.0495													
NASN11	15	Small Residential Single Rate	No		2.0495	2.0495													
NASN11P	15	Small Residential Single Rate Premium Feed In	Yes		2.0495	2.0495													
NASN11S	15	Small Residential Single Rate Standard Feed In	No		2.0495	2.0495													
NEN11	1	Small Single Rate within Embedded Network	No		2.0495	2.0495													
NGT11	6	Small Flexible Single Rate	No		2.0495														
NEE13	1 & 9	Small Single Rate & Dedicated Circuit	Yes		2.0495	2.0495							0.5716						
NEN13	1 & 9	Small Single Rate & Dedicated Circuit within Embedded Network	Yes		2.0495	2.0495							0.5716						
NGT13	6 & 9	Small Flexible Single Rate & Dedicated Circuit	Yes		2.0495								0.5716						
NEE14	1 & 10	Small Single Rate & Dedicated Circuit with Afternoon Boost	Yes		2.0495	2.0495							0.5716						
NEN14	1 & 10	Small Single Rate & Dedicated Circuit with Afternoon Boost within Embedded Network	Yes		2.0495	2.0495							0.5716						
NGT14	6 & 10	Small Flexible Single Rate & Dedicated Circuit with Afternoon Boost	Yes		2.0495								0.5716						
NEE15	1 & 11	Small Single Rate & Dedicated Circuit 8:00 to 8:00	Yes		2.0495	2.0495							0.5716						
NEN15	1 & 11	Small Single Rate & Dedicated Circuit 8:00 to 8:00 within Embedded Network	Yes		2.0495	2.0495							0.5716						
NGT15	6 & 11	Small Flexible Single Rate & Dedicated Circuit 8:00 to 8:00	Yes		2.0495								0.5716						
NEE20	3	Small Two Rate	No				2.0495					0.5716							
NEN20	3	Small Two Rate within Embedded Network	No				2.0495					0.5716							
NSP20	7	Small Interval Meter Time of Use	No						2.0495	2.0495	2.0495	0.5716							
NEE23	3	Small Two Rate Solar Installation Standard Feed In Pre December 2012	Yes				2.0495					0.5716							
NEE26	3	Small Two Rate Solar Installation Standard Feed In Post January 2013	No				2.0495					0.5716							
SUN23	3	Small Two Rate Solar Installation Premium Feed In	Yes				2.0495					0.5716							
NSP23	7	Small Interval Meter Time of Use Solar Installation Standard Feed In	No						2.0495	2.0495	2.0495	0.5716							
SSP23	7	Small Interval Meter Time of Use Solar Installation Premium Feed In	Yes						2.0495	2.0495	2.0495	0.5716							
NEE24	4	Small Two Rate 8:00 to 8:00	No				2.0495					0.5716							
NGT26	8	Small Flexible	No		2.0495	2.0495		2.0495				0.5716							
NGT23	8 & 9	Small Flexible & Dedicated Circuit	Yes		2.0495	2.0495		2.0495				0.5716	0.5716						
NGT24	8 & 10	Small Flexible & Dedicated Circuit with Afternoon Boost	Yes		2.0495	2.0495		2.0495				0.5716	0.5716						
NGT25	8 & 11	Small Flexible & Dedicated Circuit 8:00 to 8:00	Yes		2.0495	2.0495		2.0495				0.5716	0.5716						
NEE30	9	Small Dedicated Circuit	Yes										0.5716						
NSP30	9	Small Interval Dedicated Circuit	Yes										0.5716						
NEE31	10	Small Dedicated Circuit with Afternoon Boost	Yes										0.5716						
NSP31	10	Small Interval Meter Dedicated Circuit with Afternoon Boost	Yes										0.5716						
NEE32	11	Small Dedicated Circuit 8:00 to 8:00	Yes										0.5716						
NSP32	11	Small Interval Meter Dedicated Circuit 8:00 to 8:00	Yes										0.5716						

Notes

1. To be read in conjunction with section 10.5 Tariff structure and charging parameters, and section 10.6 Minimum metering requirements.
2. New entrants cannot be assigned to a Closed to New Entrants tariff. An existing site may be allowed to be assigned to a closed tariff where the existing tariff has the same meter requirements and tariff structure as the tariff they are moving to.
3. Prices in Ex GST.

Tariff Code	Tariff Structure[1]	Description	Closed to New Entrants[2]	Standing Charge $/Year	Block 1 c/kWh	Block 2 c/kWh	Peak c/kWh	Shoulder All Year c/kWh	Summer Peak c/kWh	Summer Shoulder c/kWh	Winter Peak c/kWh	Off Peak c/kWh	Dedicated Circuit c/kWh	Summer Export c/kWh	Feed In Rates c/kWh	Capacity $/kVA/Year	Critical Peak Demand $/kVA/Year	Monthly Peak kW Demand $/kW/Mth	Monthly Off Peak kW Demand $/kW/Mth
Business																			
NEE12	1	Small Single Rate	No		2.0495	2.0495													
NASN12	15	Small Business Single Rate	No		2.0495	2.0495													
NASN12P	15	Small Business Single Rate Premium Feed In	Yes		2.0495	2.0495													
NASN12S	15	Small Business Single Rate Standard Feed In	No		2.0495	2.0495													
NASN19	15	Business >40MWh Single Rate	No		2.0495	2.0495													
NEN12	1	Small Single Rate within Embedded Network	No		2.0495	2.0495													
NEE16	1 & 9	Small Single Rate & Dedicated Circuit	Yes		2.0495	2.0495							0.5716						
NEN16	1 & 9	Small Single Rate & Dedicated Circuit within Embedded Network	Yes		2.0495	2.0495							0.5716						
NEE17	1 & 10	Small Single Rate & Dedicated Circuit with Afternoon Boost	Yes		2.0495	2.0495							0.5716						
NEN17	1 & 10	Small Single Rate & Dedicated Circuit with Afternoon Boost within Embedded Network	Yes		2.0495	2.0495							0.5716						
NEE18	1 & 11	Small Single Rate & Dedicated Circuit 8:00 to 8:00	Yes		2.0495	2.0495							0.5716						
NEN18	1 & 11	Small Single Rate & Dedicated Circuit 8:00 to 8:00 within Embedded Network	Yes		2.0495	2.0495							0.5716						
NEE21	3	Small Two Rate	No				2.0495					0.5716							
NEN21	3	Small Two Rate within Embedded Network	No				2.0495					0.5716							
NSP21	7	Small Interval Meter Time of Use	No						2.0495	2.0495	2.0495	0.5716							
NASN21	2	Business >40MWh Two Rate	No				2.0495					0.5716							
NASN2P	2	Business >40MWh Two Rate Premium Feed In	Yes				2.0495					0.5716							
NASN2S	2	Business >40MWh Two Rate Standard Feed In	No				2.0495					0.5716							
SUN21	3	Small Two Rate Solar Installation Premium Feed In	Yes				2.0495					0.5716							
SSP21	7	Small Interval Meter Time of Use Solar Installation Premium Feed In	Yes						2.0495	2.0495	2.0495	0.5716							
SSP27	7	Small Interval Meter Time of Use Solar Installation Standard Feed In	No						2.0495	2.0495	2.0495	0.5716							
NEE27	3	Small Two Rate Solar Installation Standard Feed In Pre December 2012	Yes				2.0495					0.5716							
NEE28	3	Small Two Rate Solar Installation Standard Feed In Post January 2013	No				2.0495					0.5716							
NSP27	7	Small Interval Meter Low Peak Time of Use	No						2.0495	2.0495	2.0495	0.5716							
NEE25	4	Small Two Rate 8:00 to 8:00	No				2.0495					0.5716							
NEE40	6	Medium Single Rate	Yes		2.0495														
NEE41	6 & 9	Medium Single Rate & Dedicated Circuit	Yes		2.0495								0.5716						
NEE42	6 & 10	Medium Single Rate & Dedicated Circuit with Afternoon Boost	Yes		2.0495								0.5716						
NEE43	6 & 11	Medium Single Rate & Dedicated Circuit 8:00 to 8:00	Yes		2.0495								0.5716						
NEE51	3	Medium Two Rate	Yes				2.0495					0.5716							
NEE52	3	Medium Unmetered	No				2.0495					0.5716							
NEE55	12	Medium Snowfields	No				2.0495					0.5716							
NSP55	7	Medium Interval Meter Time of Use Snowfields	No						2.0495	2.0495	2.0495	0.5716							
NSP56	13	Medium Critical Peak Demand 160MWh to 400MWh	No				2.0495	2.0495				0.5716							
NEN56	13	Medium Critical Peak Demand 160MWh to 400MWh within Embedded Network	No				2.0495	2.0495				0.5716							
NEE60	5	Medium Seven Day Two Rate	Yes				2.0495					0.5716							
NEE74	3	Large Two Rate	Yes				2.0495					0.5716							
NSP75	13	Large Critical Peak Demand 400MWh to 750MWh	No				2.0495	2.0495				0.5716							
NSP76	13	Large Critical Peak Demand 750MWh to 2000MWh	No				2.0495	2.0495				0.5716							
NSP77	13	Large Critical Peak Demand 2000MWh to 4000MWh	No				2.0495	2.0495				0.5716							
NSP78	13	Large Critical Peak Demand over 4000MWh	No				2.0495	2.0495				0.5716							
NSP81	14	High Voltage Critical Peak Demand	No				2.0495					0.5716							
NSP82	13	High Voltage Critical Peak Demand Traction	No				2.0495	2.0495				0.5716							
NSP83	13	High Voltage Critical Peak Demand low energy use	No				2.0495	2.0495				0.5716							
NSP91	14	Sub transmission Critical Peak Demand <25MVA & <20KM from TS	No				2.0495					0.5716							
NSP94	14	Sub transmission Critical Peak Demand >25MVA & <20KM from TS	No				2.0495					0.5716							
NSP95	14	Sub transmission Critical Peak Demand <25MVA & >20KM from TS	No				2.0495					0.5716							

10.4 Jurisdictional scheme tariff schedule

Tariff Code	Tariff Structure	Description	Closed to New Entrants	Standing Charge $/Year	Block 1 c/kWh	Block 2 c/kWh	Peak c/kWh	Shoulder All Year c/kWh	Summer Peak c/kWh	Summer Shoulder c/kWh	Winter Peak c/kWh	Off Peak c/kWh	Dedicated Circuit c/kWh	Summer Export c/kWh	Feed In Rates c/kWh	Capacity $/kVA/Year	Critical Peak Demand $/kVA/Year	Monthly Peak kW Demand $/kW/Mth	Monthly Off Peak kW Demand $/kW/Mth
Residential																			
NEE11	1	Small Single Rate	No		0.5555	0.5555													
NASN11	15	Small Residential Single Rate	No		0.5555	0.5555													
NASN11P	15	Small Residential Single Rate Premium Feed In	Yes		0.5555	0.5555													
NASN11S	15	Small Residential Single Rate Standard Feed In	No		0.5555	0.5555													
NEN11	1	Small Single Rate within Embedded Network	No		0.5555	0.5555													
NGT11	6	Small Flexible Single Rate	No		0.5555														
NEE13	1 & 9	Small Single Rate & Dedicated Circuit	Yes		0.5555	0.5555							0.4663						
NEN13	1 & 9	Small Single Rate & Dedicated Circuit within Embedded Network	Yes		0.5555	0.5555							0.4663						
NGT13	6 & 9	Small Flexible Single Rate & Dedicated Circuit	Yes		0.5555								0.4663						
NEE14	1 & 10	Small Single Rate & Dedicated Circuit with Afternoon Boost	Yes		0.5555	0.5555							0.4663						
NEN14	1 & 10	Small Single Rate & Dedicated Circuit with Afternoon Boost within Embedded Network	Yes		0.5555	0.5555							0.4663						
NGT14	6 & 10	Small Flexible Single Rate & Dedicated Circuit with Afternoon Boost	Yes		0.5555								0.4663						
NEE15	1 & 11	Small Single Rate & Dedicated Circuit 8:00 to 8:00	Yes		0.5555	0.5555							0.4663						
NEN15	1 & 11	Small Single Rate & Dedicated Circuit 8:00 to 8:00 within Embedded Network	Yes		0.5555	0.5555							0.4663						
NGT15	6 & 11	Small Flexible Single Rate & Dedicated Circuit 8:00 to 8:00	Yes		0.5555								0.4663						
NEE20	3	Small Two Rate	No				0.5555					0.4663							
NEN20	3	Small Two Rate within Embedded Network	No				0.5555					0.4663							
NSP20	7	Small Interval Meter Time of Use	No						0.5555	0.5555	0.5555	0.4663							
NEE23	3	Small Two Rate Solar Installation Standard Feed In Pre December 2012	Yes				0.5555					0.4663							
NEE26	3	Small Two Rate Solar Installation Standard Feed In Post January 2013	No				0.5555					0.4663							
SUN23	3	Small Two Rate Solar Installation Premium Feed In	Yes				0.5555					0.4663							
NSP23	7	Small Interval Meter Time of Use Solar Installation Standard Feed In	No						0.5555	0.5555	0.5555	0.4663							
SSP23	7	Small Interval Meter Time of Use Solar Installation Premium Feed In	Yes						0.5555	0.5555	0.5555	0.4663							
NEE24	4	Small Two Rate 8:00 to 8:00	No				0.5555					0.4663							
NGT26	8	Small Flexible	No		0.5555	0.5555		0.5555				0.4663							
NGT23	8 & 9	Small Flexible & Dedicated Circuit	Yes		0.5555	0.5555		0.5555				0.4663	0.4663						
NGT24	8 & 10	Small Flexible & Dedicated Circuit with Afternoon Boost	Yes		0.5555	0.5555		0.5555				0.4663	0.4663						
NGT25	8 & 11	Small Flexible & Dedicated Circuit 8:00 to 8:00	Yes		0.5555	0.5555		0.5555				0.4663	0.4663						
NEE30	9	Small Dedicated Circuit	Yes										0.4663						
NSP30	9	Small Interval Dedicated Circuit	Yes										0.4663						
NEE31	10	Small Dedicated Circuit with Afternoon Boost	Yes										0.4663						
NSP31	10	Small Interval Meter Dedicated Circuit with Afternoon Boost	Yes										0.4663						
NEE32	11	Small Dedicated Circuit 8:00 to 8:00	Yes										0.4663						
NSP32	11	Small Interval Meter Dedicated Circuit 8:00 to 8:00	Yes										0.4663						

Notes

1. To be read in conjunction with section 10.5 Tariff structure and charging parameters, and section 10.6 Minimum metering requirements.
2. New entrants cannot be assigned to a Closed to New Entrants tariff. An existing site may be allowed to be assigned to a closed tariff where the existing tariff has the same meter requirements and tariff structure as the tariff they are moving to.
3. Prices in Ex GST.

Tariff Code	Tariff Structure	Description	Closed to New Entrants	Standing Charge $/Year	Block 1 c/kWh	Block 2 c/kWh	Peak c/kWh	Shoulder All Year c/kWh	Summer Peak c/kWh	Summer Shoulder c/kWh	Winter Peak c/kWh	Off Peak c/kWh	Dedicated Circuit c/kWh	Summer Export c/kWh	Feed In Rates c/kWh	Capacity $/kVA/Year	Critical Peak Demand $/kVA/Year	Monthly Peak kW Demand $/kW/Mth	Monthly Off Peak kW Demand $/kW/Mth
Business																			
NEE12	1	Small Single Rate	No		0.5555	0.5555													
NASN12	15	Small Business Single Rate	No		0.5555	0.5555													
NASN12P	15	Small Business Single Rate Premium Feed In	Yes		0.5555	0.5555													
NASN12S	15	Small Business Single Rate Standard Feed In	No		0.5555	0.5555													
NASN19	15	Business >40MWh Single Rate	No		0.5555	0.5555													
NEN12	1	Small Single Rate within Embedded Network	No		0.5555	0.5555													
NEE16	1 & 9	Small Single Rate & Dedicated Circuit	Yes		0.5555	0.5555							0.4663						
NEN16	1 & 9	Small Single Rate & Dedicated Circuit within Embedded Network	Yes		0.5555	0.5555							0.4663						
NEE17	1 & 10	Small Single Rate & Dedicated Circuit with Afternoon Boost	Yes		0.5555	0.5555							0.4663						
NEN17	1 & 10	Small Single Rate & Dedicated Circuit with Afternoon Boost within Embedded Network	Yes		0.5555	0.5555							0.4663						
NEE18	1 & 11	Small Single Rate & Dedicated Circuit 8:00 to 8:00	Yes		0.5555	0.5555							0.4663						
NEN18	1 & 11	Small Single Rate & Dedicated Circuit 8:00 to 8:00 within Embedded Network	Yes		0.5555	0.5555							0.4663						
NEE21	3	Small Two Rate	No				0.5555					0.4663							
NEN21	3	Small Two Rate within Embedded Network	No				0.5555					0.4663							
NSP21	7	Small Interval Meter Time of Use	No						0.5555	0.5555	0.5555	0.4663							
NASN21	2	Business >40MWh Two Rate	No				0.5555					0.4663							
NASN2P	2	Business >40MWh Two Rate Premium Feed In	Yes				0.5555					0.4663							
NASN2S	2	Business >40MWh Two Rate Standard Feed In	No				0.5555					0.4663							
SUN21	3	Small Two Rate Solar Installation Premium Feed In	Yes				0.5555					0.4663							
SSP21	7	Small Interval Meter Time of Use Solar Installation Premium Feed In	Yes						0.5555	0.5555	0.5555	0.4663							
SSP27	7	Small Interval Meter Time of Use Solar Installation Standard Feed In	No						0.5555	0.5555	0.5555	0.4663							
NEE27	3	Small Two Rate Solar Installation Standard Feed In Pre December 2012	Yes				0.5555					0.4663							
NEE28	3	Small Two Rate Solar Installation Standard Feed In Post January 2013	No				0.5555					0.4663							
NSP27	7	Small Interval Meter Low Peak Time of Use	No						0.5555	0.5555	0.5555	0.4663							
NEE25	4	Small Two Rate 8:00 to 8:00	No				0.5555					0.4663							
NEE40	6	Medium Single Rate	Yes		0.5555														
NEE41	6 & 9	Medium Single Rate & Dedicated Circuit	Yes		0.5555								0.4663						
NEE42	6 & 10	Medium Single Rate & Dedicated Circuit with Afternoon Boost	Yes		0.5555								0.4663						
NEE43	6 & 11	Medium Single Rate & Dedicated Circuit 8:00 to 8:00	Yes		0.5555								0.4663						
NEE51	3	Medium Two Rate	Yes				0.5555					0.4663							
NEE52	3	Medium Unmetered	No				0.5555					0.4663							
NEE55	12	Medium Snowfields	No	224.00															
NSP55	7	Medium Interval Meter Time of Use Snowfields	No	224.00															
NSP56	13	Medium Critical Peak Demand 160MWh to 400MWh	No	261.00															
NEN56	13	Medium Critical Peak Demand 160MWh to 400MWh within Embedded Network	No	261.00															
NEE60	5	Medium Seven Day Two Rate	Yes	224.00															
NEE74	3	Large Two Rate	Yes	261.00															
NSP75	13	Large Critical Peak Demand 400MWh to 750MWh	No	261.00															
NSP76	13	Large Critical Peak Demand 750MWh to 2000MWh	No	261.00															
NSP77	13	Large Critical Peak Demand 2000MWh to 4000MWh	No	261.00															
NSP78	13	Large Critical Peak Demand over 4000MWh	No	261.00															
NSP81	14	High Voltage Critical Peak Demand	No	261.00															
NSP82	13	High Voltage Critical Peak Demand Traction	No	261.00															
NSP83	13	High Voltage Critical Peak Demand low energy use	No	261.00															
NSP91	14	Sub transmission Critical Peak Demand <25MVA & <20KM from TS	No	261.00															
NSP94	14	Sub transmission Critical Peak Demand >25MVA & <20KM from TS	No	261.00															
NSP95	14	Sub transmission Critical Peak Demand <25MVA & >20KM from TS	No	261.00															

10.5 Tariff structure and charging parameter

Tariff structure	Tariff component	Unit	Charging parameter
1	Standing charge Inclining block 1 Inclining block 2	$/yr c/kWh c/kWh	 1020 kWh/qtr kWh balance
2	Standing charge Peak Off peak Demand	$/yr c/kWh c/kWh $/kW/mth	 7:00 AM to 11:00 PM Monday to Friday All other times 3:00 PM to 9:00 PM ADST Monday to Friday. Peak season – December to March, Off peak season – All other months
3	Standing charge Peak Off peak	$/yr c/kWh c/kWh	 7:00 AM to 11:00 PM Monday to Friday All other times
4	Standing charge Peak Off peak	$/yr c/kWh c/kWh	 8:00 AM to 8:00 PM Monday to Friday All other times
5	Standing charge Peak Off peak	$/yr c/kWh c/kWh	 7:00 AM to 11:00 PM Monday to Sunday All other times
6	Standing charge Energy	$/yr c/kWh	 All energy
7	Standing charge Summer peak Summer shoulder Winter peak Off peak	$/yr c/kWh c/kWh c/kWh c/kWh	 2:00 PM to 6:00 PM Monday to Friday, December to March 12:00 PM to 2:00 PM and 6:00 PM to 8:00 PM Monday to Friday, December to March 4:00 PM to 8:00 PM Monday to Friday, June to August All other times
8	Standing charge Summer Peak	$/yr c/kWh	 2:00 AM AEST First Sunday in October to 2:00 AM AEST First Sunday in April 3:00 PM to 9:00 PM Monday to Friday

	Shoulder Off peak	c/kWh c/kWh	7:00 AM to 3:00 PM and 9:00 PM to 10:00 PM Monday to Friday, 7:00 AM to 10:00 PM Saturday to Sunday All other times AEDT in summer, AEST all other times
9	Standing charge Off peak	$/yr c/kWh	11:00 PM to 7:00 AM Monday to Sunday
10	Standing charge Off peak	$/yr c/kWh	11:00PM to 7:00 AM and 1:00 PM to 4:00 PM Monday to Sunday
11	Standing charge Off peak	$/yr c/kWh	6 or 8 Hrs between 8:00 PM to 8:00 AM Monday to Sunday
12	Standing charge Peak Off peak	$/yr c/kWh c/kWh	1 May to 30 September All other times
13	Standing charge Peak Shoulder Off peak Capacity Critical peak demand	$/yr c/kWh c/kWh c/kWh $/kVA/yr $/kVA/yr	7:00 AM to 10:00 AM and 4:00 PM to 11:00 PM Monday to Friday 10:00 AM to 4:00 PM Monday to Friday All other times Fixed value Average of five recorded between 3:00 PM and 7:00 PM ADST on five days nominated in advance
14	Standing charge Peak Off peak Capacity Critical peak demand	$/yr c/kWh c/kWh $/kVA/yr $/kVA/yr	7:00 AM to 11:00 PM Monday to Friday All other times Fixed value Average of five recorded between 3:00 PM and 7:00 PM ADST on five days nominated in advance
15	Standing charge Inclining block 1 Inclining block 2 Monthly demand	$/yr c/kWh c/kWh $/kW/mth	1020 kWh/qtr kWh balance 3:00 PM to 9:00 PM ADST Monday to Friday. Peak season – December to March, Off peak season – All other times

10.6 Minimum metering requirements

Tariff code	Minimum metering requirement
NEE11, NEN11, NEE12, NEN12, NGT11, NEE40	Basic type 6 single register accumulation meter.
NEE60	A basic type 6 dual register, with standard time switching capacity.
NEE20, NEN20, NEE21, NEN21, NEE24, NEE25, NEE30, NSP30, NEE31, NSP31, NEE32, NSP32, NEE51, NEE52, NEE55, NEE74	A basic type 6 dual register with an electronic time switch, capable of switching all loads to off peak overnight and at weekends.
NEE13, NEN13, NGT13, NEE14, NEN14, NGT14, NEE15, NEN15, NGT15, NEE16, NEN16, NEE17, NEN17, NEE18, NEN18, NEE41, NEE42, NEE43	Two basic type 6 single register accumulation meters, one switched by timing device, or a basic type 6 dual register accumulation meter with second register switched by timing device.
NASN11, NASN12, NASN19, NASN21, NSP55	An advanced interval single element meter, “smart meter”.
NSP20, NSP21, NSP27, NGT26	An advanced interval single element meter, and an electronic time switch, capable of switching all loads to off peak overnight and at weekends, “smart meter”.
NSP23, SSP21, SSP23	An advanced interval meter with export registers and an electronic time switch, capable of switching all loads to off peak overnight and at weekends, “smart meter”.
NGT23, NGT24, NGT25	An advanced internal two element meter, “smart meter” where the second element applies to a dedicated circuit that is switched by AusNet Services and that is required to be separately measured to other off peak load.
SUN21, NEE23, SUN23, NEE26, NEE27, NEE28, NASN11P, NASN11S, NASN12P, NASN12S, NASN2P, NASN2S	An interval meter with export registers and an electronic time switch, capable of switching all loads to off peak overnight and at weekends.
NSP56, NEN56, NSP75, NSP76, NSP77, NSP78, NSP81, NSP82, NSP83, NSP91, NSP94, NSP95	An interval meter, capable of measuring kWh and kVAR integrated over a 30-minute period.

10.7 Prescribed metering schedule

Metering data services

Unmetered supplies			
	Fixed Charge	$/NMI/pa	$327.80
	Fixed Charge	$/Light/pa	$1.7197

Meter provision (< 160 MWh per annum)

Single Phase Single Element Meter			
	Fixed Charge	$/meter/pa	$51.40

Single Phase Two Element Meter With Contactor			
	Fixed Charge	$/meter/pa	$60.60

Multi Phase Meter			
	Fixed Charge	$/meter/pa	$73.00

Multi Phase Direct Connected Meter With Contactor			
	Fixed Charge	$/meter/pa	$80.85

Multi Phase Current Transformer Connected Meter			
	Fixed Charge	$/meter/pa	$103.95

The charges will be applied on a per meter basis in the following manner:

1. Where a site is > 160 MWh, a > 160 MWh Multi Phase CT Connected Meter Provisioning tariff will be applied on a per meter basis.
2. For < 160 MWh sites:
   a. Which have Multi-phase connections with CT equipment, a Multi Phase CT Connected Meter Provisioning tariff will be applied on a per meter basis.
   b. Which have Multi-phase connections with a Direct Connection, a Multi Phase, Direct Connected tariff will be applied on a per meter basis.
   c. With only one meter, which is a Single-phase, single register connection a Single Phase Non Off Peak Meter Provisioning tariff will be applied.
   d. With Single-phase connections that do not receive a Single Phase Non Off Peak Meter tariff, a Single Phase Off Peak Meter tariff will be applied.

   Note that if a site fits the criteria for more than one of the < 160 MWh tariffs, all applicable tariffs may be applied.

The Meter Provisioning charges will be calculated by applying a daily rate to the time period covered in the related NUoS bill.

These charges will be visible in the detailed Billing file, provided on a monthly basis. The charges will be presented in the “600” line structure.

The “quantity” field in this structure will reflect the number of days being charged for. In a situation where there are multiple Multi-Phase meters being charge under the same tariff, the “quantity” will be number of days multiplied by the number of meters.

The “EventDate” field will reflect the “EndDate” presented in the NUoS record.

Meter Exit fees

Date of Application - 1 January 2020

B2B Code	Meter Type	2020 ($)
	Single Phase Single Element	364.17
	Single Phase Two Element with Contactor	359.43
	Multiphase	363.24
	Multiphase with Contactor	458.84
	Multiphase CT Connected	545.23

10.8 Ancillary services schedule

FEE BASED ALTERNATIVE CONTROL SERVICES

Date of Application - 1 January 2020

B2B Code	Code	AH/NH	Field officer visits	$ GST Excl
020600	020600	0	Field officer visits—BH	20.04
020600AH	020600	1	Field officer visits—AH	360.98
020710	020710	0	Remote Re-energisation - Any Time	6.85
020720	020720	0	Remote De-energisation - Any Time	6.85
020800	020800	0	Remote Meter Re-configuration	30.56
020900	020900	0	Remote Special Read	1.46
			Routine new connections — AusNet Services responsible for metering, customers<100amps	
010107	010107	0	Single Ø Overhead—BH	432.93
010107AH	010107	1	Single Ø Overhead—AH	522.07
010125	010125	0	Install 95mm overhead service from LVABC - BH	713.48
010125AH	010125	1	Install 95mm overhead service from LVABC - AH	893.79
010109	010109	0	Single Ø Underground—BH	224.85
010109AH	010109	1	Single Ø Underground—AH	287.60
010111	010111	0	Multi Ø Overhead—Direct Connected Meter—BH	462.70
010111AH	010111	1	Multi Ø Overhead—Direct Connected Meter—AH	557.97
010112	010112	0	Multi Ø Overhead—CT Connected Meter—BH	621.20
010112AH	010112	1	Multi Ø Overhead—CT ConnectedMeter—AH	749.12
010113	010113	0	Multi Ø Underground—Direct Connected Meter—BH	336.47
010113AH	010113	1	Multi Ø Underground—Direct Connected Meter—aH	416.72
010114	010114	0	Multi Ø Underground—CT Connected Meter—BH	485.45
010114AH	010114	1	Multi Ø Underground—CT ConnectedMeter—AH	601.23
010115	010115	0	Temporary Overhead Supply—Coincident Disconnection (Truck visit)—BH	364.27
010115AH	010115	1	Temporary Overhead Supply—Coincident Disconnection (Truck visit)—AH	462.65
			Routine new connections — AusNet Services not responsible for metering, customers<100amps	
010116	010116	0	Single Ø Overhead—BH	432.93
010116AH	010116	1	Single Ø Overhead—AH	522.07
010126	010126	0	Install 95mm overhead service from LVABC - BH	713.48
010126AH	010126	1	Install 95mm overhead service from LVABC - AH	893.79
010118	010118	0	Single Ø Underground—BH	224.85
010118AH	010118	1	Single Ø Underground—AH	287.60
010120	010120	0	Multi Ø Overhead—Direct Connected Meter—BH	462.70
010120AH	010120	1	Multi Ø Overhead—Direct Connected Meter—AH	557.97
010121	010121	0	Multi Ø Overhead—CT Connected Meter—BH	621.20
010121AH	010121	1	Multi Ø Overhead—CT ConnectedMeter—AH	749.12
010122	010122	0	Multi Ø Underground—Direct Connected Meter—BH	336.47
010122AH	010122	1	Multi Ø Underground—Direct Connected Meter—AH	416.72
010123	010123	0	Multi Ø Underground—CT Connected Meter—BH	485.45
010123AH	010123	1	Multi Ø Underground—CT ConnectedMeter—AH	601.23
010124	010124	0	Temporary Overhead Supply—Coincident Disconnection (Truck visit)—BH	364.27
010124AH	010124	1	Temporary Overhead Supply—Coincident Disconnection (Truck visit)—AH	462.65
			Service truck visits	
030000	030000	0	Service Truck Visit—BH	364.27
030001	030001	0	Wasted Truck Visit—BH	207.28
030001AH	030001	1	Wasted Truck Visit—AH	299.67
030000AH	030000	1	Service Truck Visit—AH	462.65
030100AH	030100	1	Truck Appointment—AH	Quoted service
			Meter equipment tests	
060100	060100	0	Single phase	171.52
060200	060200	0	Single phase (each additional meter)	63.89
060300	060300	0	Multi Phase	203.49
060400	060400	0	Multi Phase (each additional meter)	95.84
			Small Generator Installations (including PV)	
100100	100100	0	Pre Approval of PV and small generator installation < 4.6kW - BH	
100101	100101	0	Pre Approval of PV and small generator installation 4.6kW to 15kW - BH	159.75
100102	100102	0	Pre Approval of PV and small generator installation 15kW to 30kW - BH	211.79
100103	100103	0	Meter Exchange for PV and small generator installation	Exit Fee + Service Truck Visit
100104	100104	0	Meter Reconfiguration for PV and small generator installation	30.25

QUOTED ALTERNATIVE CONTROL SERVICES

Date of Application - 1 January 2020

		2020	2020
Labour category	Service description	$/hour rate - BH	$/hour rate - AH
Labour—wages	Construction Overhead Install	111.83	135.82
Labour—wages	Construction Underground Install	109.22	132.65
Labour—wages	Construction Substation Install	109.22	132.65
Labour—wages	Electrical Tester Including Vehicle & Equipment	195.27	220.16
Labour—wages	Planner Including Vehicle	150.12	-
Labour—wages	Supervisor Including Vehicle	150.12	-
Labour—design	Design	128.18	155.67
Labour—design	Drafting	98.50	119.62
Labour—design	Survey	116.02	140.92
Labour—design	Tech Officer	116.02	140.92
Labour—design	Line Inspector	111.83	135.82
Labour—design	Contract Supervision	116.02	140.92
Labour—design	Protection Engineer	128.18	155.67
Labour—design	Maintenance Planner	116.02	140.92

10.9 Public lighting schedule

PUBLIC LIGHTING PRICES
Effective 1 January 2020
NOTE: ALL PRICES EXCLUSIVE OF GST

PUBLIC LIGHTING OPERATION,REPAIR,REPLACEMENT AND MAINTENANCE CHARGES

The following prices apply to Standard and Non Standard public lights that are maintained by AusNet Services Electricity under the Public Lighting Code throughout its distribution area unless an alternative charge has been negotiated and agreed in writing with the public lighting customer.

Central is Local Government areas of:

• Banyule, Cardinia, Casey, Darebin, Frankston, Greater Dandenong, Hume, Knox, Manningham, Maroondah, Nillumbik, Whittlesea, Yarra Ranges.

North and East are Local Government areas of:

• Alpine, Bass Coast, Baw Baw, Benalla, Bogong Trading Company, East Gippsland, Falls Creek Resort, Indigo, La Trobe, Mansfield, Mitchell, Moira, Mount Buller Resort, Murrindindi, South Gippsland, Strathbogie, Towong, Wangaratta, Wellington, Wodonga.

Annual Charge

Charge Code	Service Description (LIGHT TYPE AND RATING)	Central $	North & East $
Category P lights			
17*114	Standard Output LED (Includes 18W LED)	16.27	16.74
17*115	Non Standard Luminaire, Standard Output LED	16.27	16.74
17*116	High Output LED	16.27	16.74
17*108	2 x 14W T5 Fluorescent	35.60	40.60
17*112	2 x 24W T5 Fluorescent	42.08	47.91
17*113	32W Compact Fluorescent	31.59	36.13
17*107	42W Compact Fluorescent	31.59	36.13
17*001	50W Colour Corrected Mercury Vapour	67.27	73.93
17*002	80W Colour Corrected Mercury Vapour	43.97	49.95
17*003	125W Colour Corrected Mercury Vapour	64.63	73.93
17*010	50W High Pressure Sodium	46.14	53.84
17*109	70W Metal Halide	191.93	190.05
Category V Lights			
17*117	L1 LED	23.59	24.09
17*118	L2 LED	24.30	24.89
17*119	L3 LED	25.83	26.37
17*004	250W Colour Corrected Mercury Vapour	110.37	121.81
17*005	400W Colour Corrected Mercury Vapour	114.58	125.32
17*009	100W High Pressure Sodium	111.36	126.69
17*100	150W High Pressure Sodium	104.07	118.40
17*101	250W High Pressure Sodium	105.12	117.12
17*102	400W High Pressure Sodium	149.26	166.31
17*110	100W Metal Halide	248.49	250.78
17*111	150W Metal Halide	282.31	284.91

The following obsolete light types have been deleted from AusNet Services' Standard and Non Standard Light offering.

17*006	700W Colour Corrected Mercury Vapour
17*007	90W Low Pressure Sodium
17*008	180W Low Pressure Sodium
17*103	2x20W Fluorescent
17*104	4x40W Fluorescent

The third character (*) in the above charge Codes is variable dependent upon location and shared or full cost allocation.

PUBLIC LIGHTING PRICES

Effective 1 January 2020

NOTE: ALL PRICES EXCLUSIVE OF GST

PUBLIC LIGHTING WRITTEN DOWN VALUE AND AVOIDED COSTS	Central $	North & East $
WDV RAB - MV 80 Luminair	59.22	65.08
WDV RAB - HP Sodium 150W	71.25	76.64
WDV RAB - HP Sodium 250W	72.68	77.21
WDV RAB - HP Sodium 400W	103.21	109.63
Avoided Costs (Materials & labour - bulk lamp change and repair of faults)		
MV 80 O & M	-25.95	-31.36
HP Sodium 150W	-38.91	-47.75
HP Sodium 250W	-39.51	-46.86
HP Sodium 400W	-56.11	-66.54