2021-22 Annual Network Pricing Report

April 2021

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Background

The Australian Energy Regulator (AER) has responsibility for the economic regulation of Distribution Network Service Providers (DNSPs) in all jurisdictions except Western Australia. The AER requires Essential Energy to publish an Annual Network Pricing Report. This report is part of the annual Pricing Proposal and establishes a process of price notification and review by the AER for annual price changes.

The Annual Network Pricing Report complies with the requirements of the AER – Final decision - Essential Energy Distribution Determination 2019-24 (the Determination), the Electricity DNSP's annual information reporting requirements, and section 6.18 of the National Electricity Rules (the Rules).

This pricing report specifically addresses the following:

> Prices for network distribution services

> Forthcoming changes in network prices

> Compliance with the regulatory arrangements relating to limits on price and revenue movements

> Impacts of the proposed changes on customers

> Pricing principles and the allocation of costs

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Our Proposal

Essential Energy is proposing an overall nominal increase in average prices for network services from 1 July 2021 of 5.77 per cent. The increase in prices for network services is driven by:

> Inflation (CPI) increase of 0.86 per cent;

> adjustments accounting for the forecast under recovery of DUoS revenue in prior years;

> adjustments accounting for the under recovery of TUoS revenue in prior years and

> increases in transmission use of system (TUoS) charges from TransGrid and Powerlink.

These increases are partially offset by:

> a decrease in real distribution use of system (DUoS) charges of 2.29 per cent; and

> adjustments for a Service Target Performance Incentive Scheme (STPIS) penalty.

Tariff Structure Statement

We will continue with the tariff assignment changes introduced 1 July 2018, including:

> Any new small customer connecting to the network will be assigned to a Time-of-Use (ToU) tariff.

> Any small customer whose meter is upgraded to a smart or interval type meter will be assigned to a ToU tariff.

> These customers will have the ability to opt out to an anytime flat rate tariff if they choose to.

> Large customers (consumption over 160MWh per annum) will continue to be assigned to a demand-based tariff with no opt out.

The AER Final Decision on Essential Energy's TSS for 2019-24 can be viewed HERE

Customer Classes

Rule Requirement

Clause 6.18.2(b)(2) of the National Electricity Rules (the Rules) requires that a pricing proposal must set out the proposed tariffs for each tariff class that is specified in the Distribution Service Network Provider's tariff structure statement for the relevant regulatory control period.

In addition, when developing procedures for assigning customers to tariff classes the AER is required to have regard to the following principles:

1. Customers should be assigned to tariff classes on the basis of one or more of the following factors:
   a. The nature and extent of their usage;
   b. The nature of their connection to the network;
   c. Whether remotely-read interval metering or other similar metering technology has been installed at the customer's premises as a result of a regulatory obligation or requirement;
2. Customers with a similar connection and usage profile should be treated on an equal basis;
3. However, customers with micro-generation facilities should be treated no less favourably than customers without such facilities but with a similar load profile.

Clause 6.18.3(d) requires that a tariff class be constituted with regard to the need to group customers together on an economically efficient basis, and the need to avoid unnecessary transaction cost.

Customers for Essential Energy's services are divided into service groups and classes for the purposes of assigning distribution network charges.

Standard Control Services

We established our customer classes for Standard Control Services by considering:

- historical pricing structures;
- existing metering capability and the cost-effectiveness of metering options;
- the connected voltage level of customers; and
- the cost-benefit of providing further disaggregation into additional customer classes.

There are five customer classes.

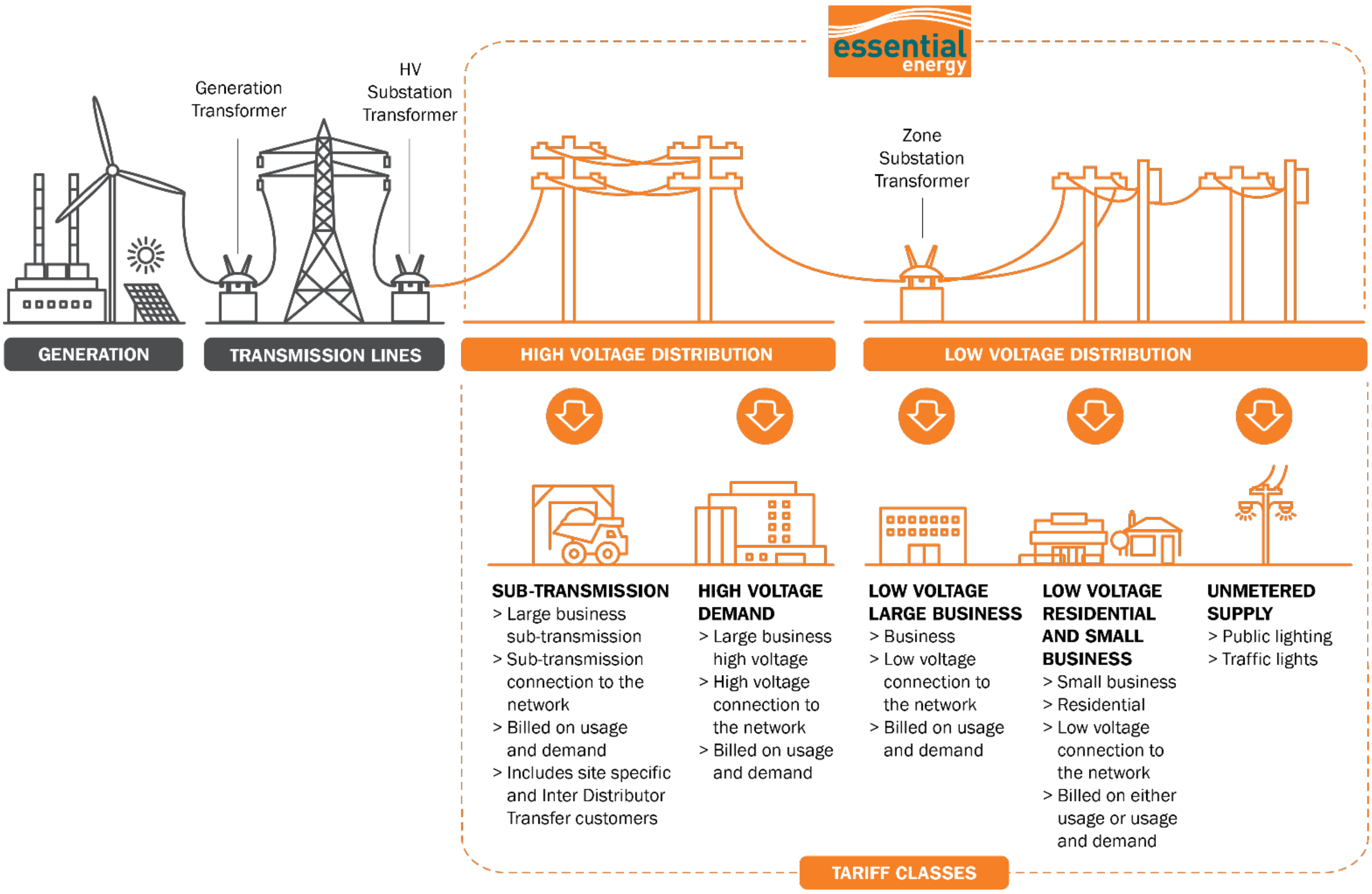
1. 1. Subtransmission (including inter-distributor transfers)
2. 2. High Voltage Demand
3. 3. Low Voltage Large Business (previously Low Voltage Demand)
4. 4. Low Voltage Residential and Small Business (previously Low Voltage Energy)
5. 5. Unmetered supply.

The threshold for the Large Business customer class is 160MWh a year.

Apart from our largest customers, who have site-specific charges, all customer prices are averaged for their class.

The network charges for these customer classes are included in Attachment 5 Network Price List.

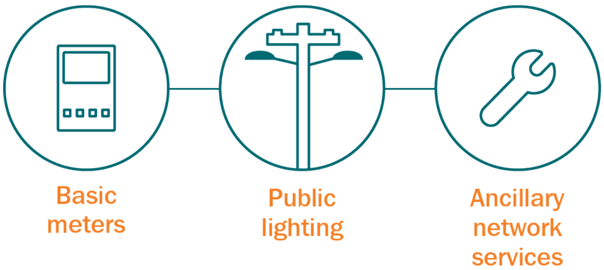
Standard Control Services customer classes



User pays services

We charge for our Alternative Control Services (ACS) on a user pays basis, so they are organised into three groups based on the type of service provided rather than customer characteristics.

Alternative Control Services customer classes



Basic meters service refers to services for Type 5 & 6 meters installed before 30 March 2018

Basic meters service refers to services for Type 5 & 6 meters installed before 30 November 2017.

There may be some level of competition for these services, but the market is not yet fully competitive. Therefore, costs are attributable to specific customers who pay for the service.

The prices for these services are included in Attachments 2, 3 and 4.

Proposed Tariffs and Charging Parameters

Rule Requirement

Clause 6.18.2(b)(3) of the Rules requires that the pricing proposal must set out, for each proposed tariff, the charging parameters and the elements of service to which each charging parameter relates.

This is the second step in designing distribution network charges. All new customers have a default pricing assignment for their customer type. Most new and existing customers can also choose other pricing options if they meet the eligibility criteria. We reassign customers if their characteristics change.

Default charging assignment

Default distribution network charge assignment happens when a customer starts consuming electricity from a new connection point (greenfield site) or they receive a meter upgrade.

We assign each customer to their appropriate default customer class based on technical properties such as their estimated load (demand and/or usage), the voltage level at which they are connected to the network and their meter type.

To assign (or reassign) customers to an appropriate customer class, we combine our own information with information from the retailer's service in order to:

> assign the customer to the appropriate customer class, based on the class criteria; and

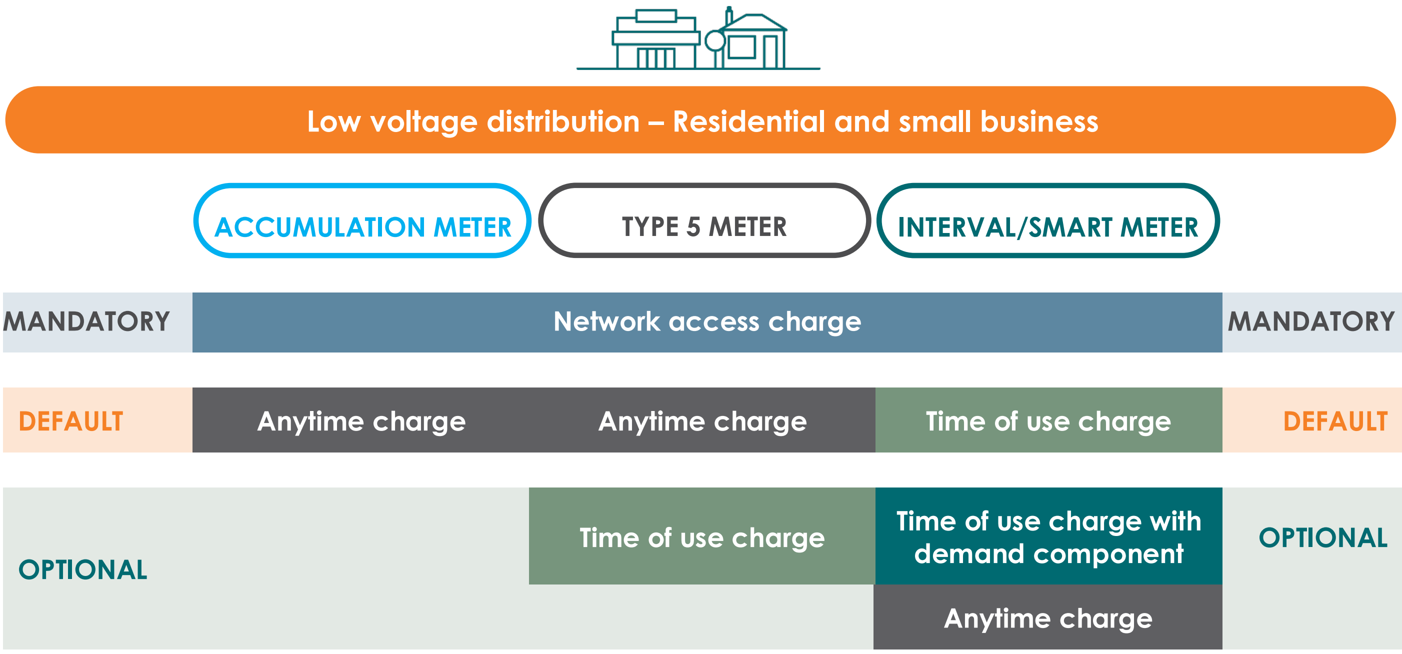
> assign the customer to an appropriate distribution network charge within the class, based on their connection, load and metering characteristics, and customer type e.g. residential or business.

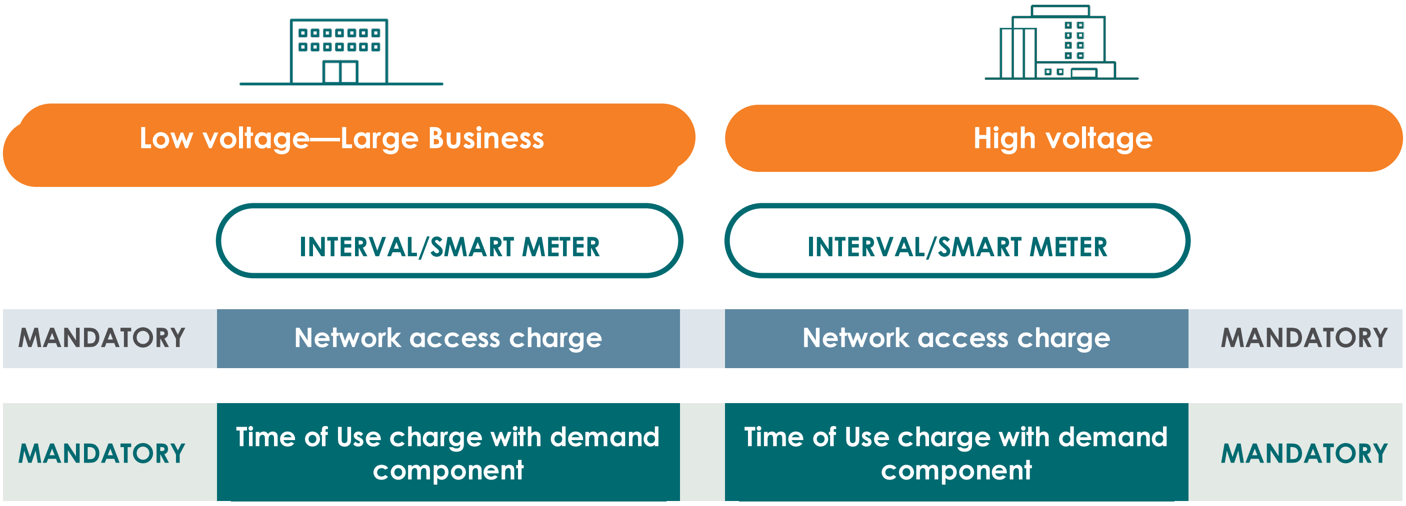
If there is a change of occupancy, we will assign the new customer to the most appropriate default distribution network charge, depending on the type of meter and customer.

Large Business customers who consume over 160MWh a year do not have the option to opt out of a demand-based charge.

The diagram shows our proposed distribution network charge structure for the 2019–24 regulatory period.

Essential Energy will begin trialling new tariffs for the 'Low voltage distribution – Residential and small business' customer class in the 2021-22 year. See section 16 Tariff Trials.





Distribution network charge reassignment

Customers will remain on their current distribution network charge unless:

> their meter is upgraded (although they may opt to move to a different distribution network charge);

> the customer or their retailer requests reassignment; or

> we request reassignment.

Reassignment to a different distribution network charge can be requested by a customer or retailer as a result of:

> a customer request, for example they want to move to an opt-in demand-based charge; or

> a change in the customer's load, connection and/or metering characteristics.

Reassignment can also occur through Essential Energy's review process if we identify that a customer's load, connection and/or metering characteristics have changed and it is no longer appropriate for them to be assigned to their current distribution network charge.

This review process is undertaken quarterly and compares each customer's billed consumption over the preceding 12 months to the conditions (MWh limits) of their current tariff using various software tools. A notification is sent to both customers and their retailer advising that their network tariff will be changed in six months' time if their consumption stays at the same level. This eliminates changing tariffs when consumption may change over a short time period. A final check is done on consumption levels before the network tariff is changed.

If a customer does not have the appropriate metering for the network tariff they should be assigned to, notification is sent to both the customer and their retailer advising they should have their meter upgraded to a smart meter. For example, if a customer is consuming over 160MWh in a year and only has a basic accumulation meter, they are advised they need a smart meter and should contact their retailer to arrange this.

A customer or retailer may only seek reassignment once a year unless they can prove mitigating circumstances.

Full details of our network charging assignment and reassignment processes can be found in Network Tariff Assignment and Reassignment Procedure.

Opt-in charging assignment options

Most new and existing customers have the option to choose another distribution network charge. However, our opt-in demand charges are the most efficient of our cost-reflective distribution network charges, so we have made them an attractive option.

Export tariffs

Export tariffs are assigned to small customers with solar or other forms of generation. Under the current Rules, s6.1.4 prohibits networks from charging for energy exports, however this is expected to change in June this year following the Australian Energy Market Commission's (AEMC) recent draft determination in relation to Access, Pricing and Incentive Arrangements for Distributed Energy Resources. The draft Rule proposes to update the regulatory framework to allow networks to charge for export services as part of their distribution services.

A trial of export charges will be considered as part of Essential Energy's 'Low voltage distribution – Residential and small business' customer class tariff trials that will begin in the 2021-22 year. For more information, see section 16 Tariff Trials.

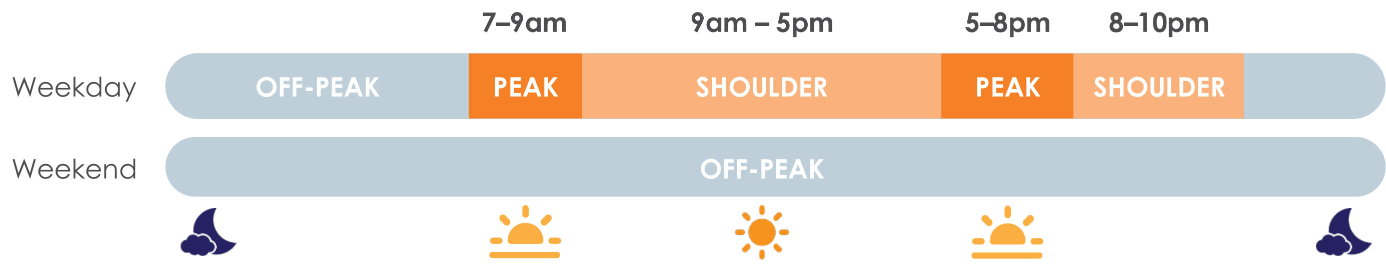
Charging windows

Our Time-of-Use (ToU) charging windows for consumption and demand charges are set to different time windows, according to the type of meter a customer has.

Basic accumulation meters with ToU capability (Type 5 meters) cannot be cost-effectively reprogrammed, so they still record a morning peak between 7am and 9am on weekdays.

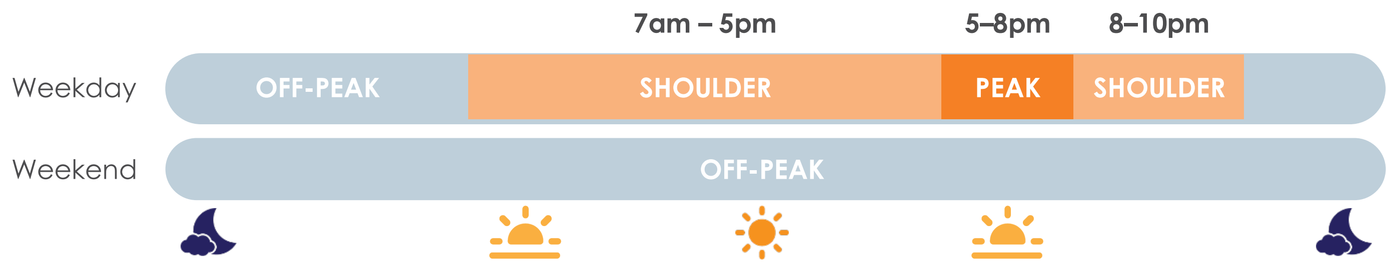
This additional peak window also applies to our obsolete charges (historical charges that are not cost-reflective and not available to new customers).

Charging windows for Type 5 meter



Interval/smart meters can be remotely reprogrammed. There is just one peak period for these types of meters.

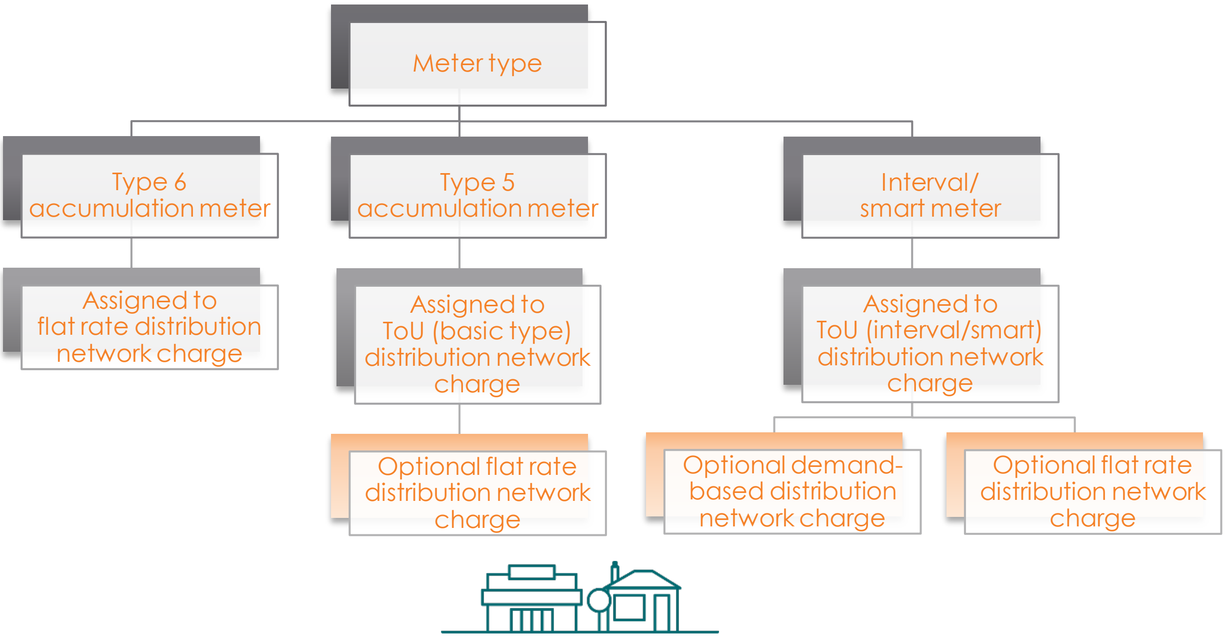
Charging windows for interval/smart meters



Distribution network charge structures by customer class

Residential and Small Business customers are assigned to different distribution network charges based on their meter type. There are three categories of meters that define our distribution network charges: Basic accumulation meter (Type 6 meter), Type 5 meters and smart/interval meters. The distribution network charge structures for each of these distribution network charge types are shown in the following tables.

Additional charge structures, other than those shown below, will be trialled for the 'Low voltage distribution – Residential and small business' customer class beginning in the 2021-22 year. For more information see section 16 Tariff Trials.



Low voltage distribution—Residential and Small Business

(residential premises wholly used as private dwelling and business premises where business consumption does not exceed 160MWh a year)

<table>
<tr><th>DISTRIBUTION NETWORK CHARGE</th><th>NETWORK ACCESS
Fixed dollar per day charge</th><th colspan="3">CONSUMPTION</th><th>DEMAND</th></tr>
<tr><td>Anytime <100MWh</td><td>✓</td><td colspan="3">Flat rate regardless of time of day</td><td rowspan="3">Does not apply</td></tr>
<tr><td>ToU (basic type 5 meter) < 100MWh</td><td>✓</td><td>Peak weekdays
7–9am and 5–8pm</td><td>Shoulder weekdays
9am – 5pm and 8–10pm</td><td>Off-peak
All other times</td></tr>
<tr><td>ToU (interval/smart meter)</td><td>✓</td><td rowspan="2">Peak weekdays
5–8pm</td><td rowspan="2">Shoulder weekdays
7am – 5pm and 8–10pm</td><td rowspan="2">Off-peak
All other times</td></tr>
<tr><td>ToU with Demand component</td><td>✓</td><td>One charge for maximum demand during the peak period in the month</td></tr>
</table>

✓ Applies

Energy Saver (previously Controlled Load)

DISTRIBUTION NETWORK CHARGE

LOW VOLTAGE RESIDENTIAL AND SMALL BUSINESS

NETWORK ACCESS
Fixed dollar per day charge

CONSUMPTION
Flat cents per kWh rate

	Eligibility	Consumption charging
Energy Saver 1	> Premise has another primary metering point at the same metering point as the secondary load and the load is remotely controlled > Load is permanently connected or on a dedicated power circuit with indicators to show when supply is available > The load types connected shall not exceed more than 25 Amps resistive > Other conditions apply, as detailed in the Network Pricelist and Explanatory Notes published as part of our annual pricing proposal	Between five and nine hours overnight on weekdays and extra hours at the weekend, except where the load is controlled by a clock
Energy Saver 2		Between 10 and 18 hours a day on weekdays and extra hours at weekends, except where the load is controlled by a clock

Low voltage—Large Business

(low voltage connection where consumption exceeds 160MWh a year)

DISTRIBUTION NETWORK CHARGE	NETWORK ACCESS	CONSUMPTION			DEMAND
	Fixed dollar per day charge	Cents per kWh rate based on time of day			Dollars per kVA per month
		Peak weekdays 5–8pm	Shoulder weekdays 7am – 5pm and 8–10pm	Off-peak All other times	

	Eligibility	Demand charging
Low voltage – ToU three rate Demand	> Low voltage connection > Business premises where consumption exceeds 160MWh a year	Charge based on the highest measured half-hour kVA demand registered in each of the peak, shoulder and off-peak periods during the month
Low voltage – ToU Demand alternative	> Low voltage connection > Business premises where consumption exceeds 160MWh a year	One charge based on the highest measured half-hour kVA demand registered in either the peak or shoulder periods during the month
Transitional – Demand	> Eligible customers will be automatically assigned—pricing not available on request > Eligible customers on Anytime or ToU pricing but who no longer meet the associated eligibility requirements and are worse off under equivalent Low Voltage – ToU Demand pricing > Low voltage connection > Business premises where consumption exceeds 160MWh per year	Charge based on the highest measured half-hour kVA demand registered in each of the peak, shoulder and off-peak periods during the month
Low voltage – ToU average daily Demand	> Not available to new customers > Low voltage connection > Business premises where consumption exceeds 160MWh per year > Monthly load factor greater than 60% for at least four of the most recent 12 months coinciding with a minimum on-season Anytime monthly demand of 1500 kVA > Intended for customers with a seasonal demand	Demand charge calculated on the average daily ToU demand for peak, shoulder and off-peak periods for the month

High voltage

(high voltage connection and metering point)

DISTRIBUTION NETWORK CHARGE	NETWORK ACCESS	CONSUMPTION			DEMAND
	Fixed dollar per day charge	Cents per kWh rate based on time of day			Dollars per kVA per month
		Peak weekdays 5–8pm	Shoulder weekdays 7am – 5pm and 8–10pm	Off-peak All other times	

	Eligibility	Demand charging
High voltage – ToU monthly Demand	> Business premises connected and metered at high voltage network	Charge based on the highest measured half-hour kVA demand registered in each of the peak, shoulder and off-peak periods during the month
High voltage – ToU average daily Demand	> Not available to new customers > Monthly load factors greater than 60% for at least four of the most recent 12 months coinciding with a minimum on-season Anytime monthly demand of 1500kVA. The minimum demand and load factor requirements will be waived where a generator supports a substantial part of the load on the load side of the meter > Intended for customers with seasonal demand	Demand charge calculated on the average daily ToU demand for peak, shoulder and off-peak periods for the month

Subtransmission

(connected at a subtransmission voltage network, including site-specific and inter-distributor transfer customers)

DISTRIBUTION NETWORK CHARGE

NETWORK ACCESS
Fixed dollar per day charge

CONSUMPTION
Cents per kWh rate based on time of day

Peak weekdays	Shoulder weekdays	Off peak
5–8pm	7am – 5pm and 8–10pm	All other times

DEMAND
Dollars per kVA per month

	Eligibility	Demand charging
Subtransmission – ToU monthly Demand	> Subtransmission connection (as defined by Essential Energy) > Not applicable for connection to dual purpose subtransmission/ distribution circuits	Charge based on the highest measured half-hour kVA demand registered in each of the peak, shoulder and off-peak periods during the month
Site-specific	> Large Business customers on a case-by-case basis by application to Essential Energy	Various combinations of fully cost-reflective structures

Unmetered

(Type 7 metering installation. Applies to loads detailed in the AEMO National Electricity Market Load Tables[1])

DISTRIBUTION NETWORK CHARGE	Eligibility	NETWORK ACCESS	CONSUMPTION: Cents per kWh rate based on time of day		
LV unmetered supply	All new unmetered supply connections will have this pricing	Fixed dollar per day charge	Flat rate not based on time of day		
LV Public Lighting ToU	All new public street lighting connections will have this pricing	Does not apply	Peak weekdays 7–9am and 5–8pm	Shoulder weekdays 9am – 5pm and 8–10pm	Off-peak All other times

1 https://www.aemo.com.au/-/media/Files/Electricity/NEM/Retail_and_Metering/Metering-Procedures/NEM-Load-Tables-For-Unmetered-Connection-Points.pdf

Forecasting Methodology

Essential Energy have prepared updated electricity forecasts for the remaining three years of the 2019-24 regulatory determination period, these forecasts have been used as the basis for 2021-22 volumes. Forecast for 2021-22 is based on;

- Customer numbers – based on straight line trend, demonstrating strong continued growth in both residential and small business customer numbers
- Average customer use – showing either growth or decline in consumption based on the various customer segments, with drivers such as solar uptake and industry growth considered.

The straight-line customer number trends can be seen in Chart 1 and Chart 2

Chart 1: Residential customer count

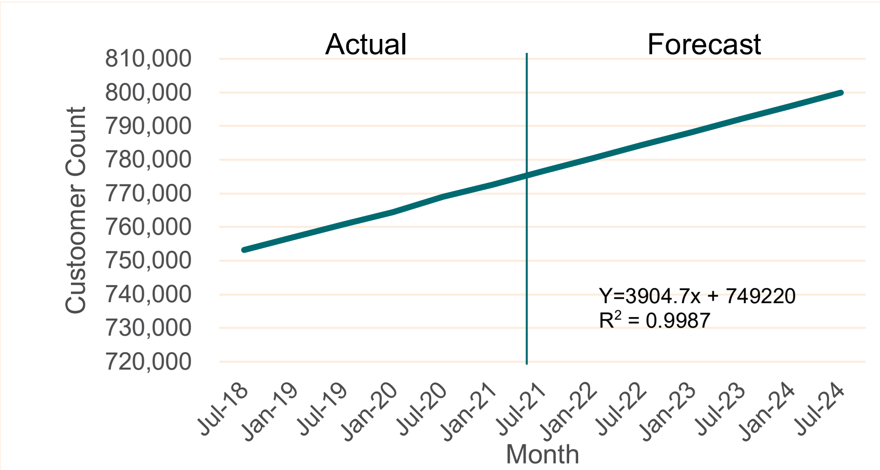
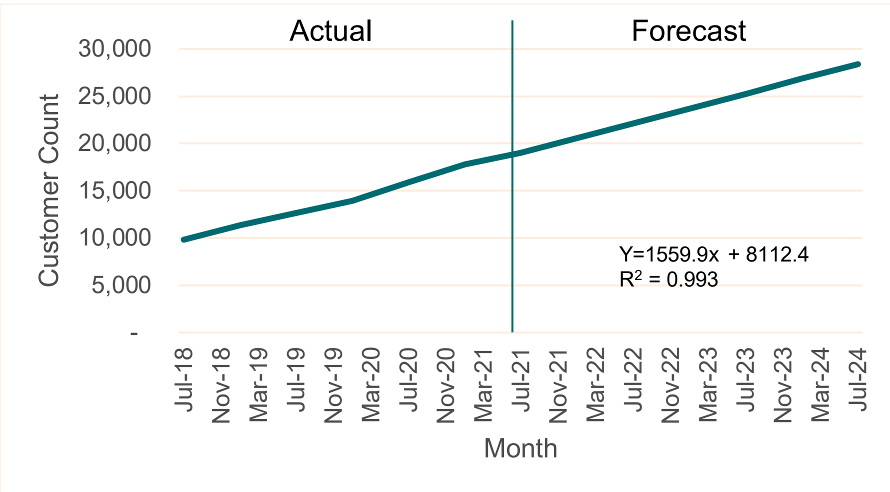


Chart 2: Small Business time of use customer count



The forecasts prepared by Essential Energy take into consideration the shift of residential and small business customers between our legacy time of use tariffs and the default interval time of use tariffs for new connections and meter upgrades. Chart 3 and Chart 4 show the movements in the underlying tariff classes for residential and small business tariffs.

Chart 3: Consumption by Residential tariff

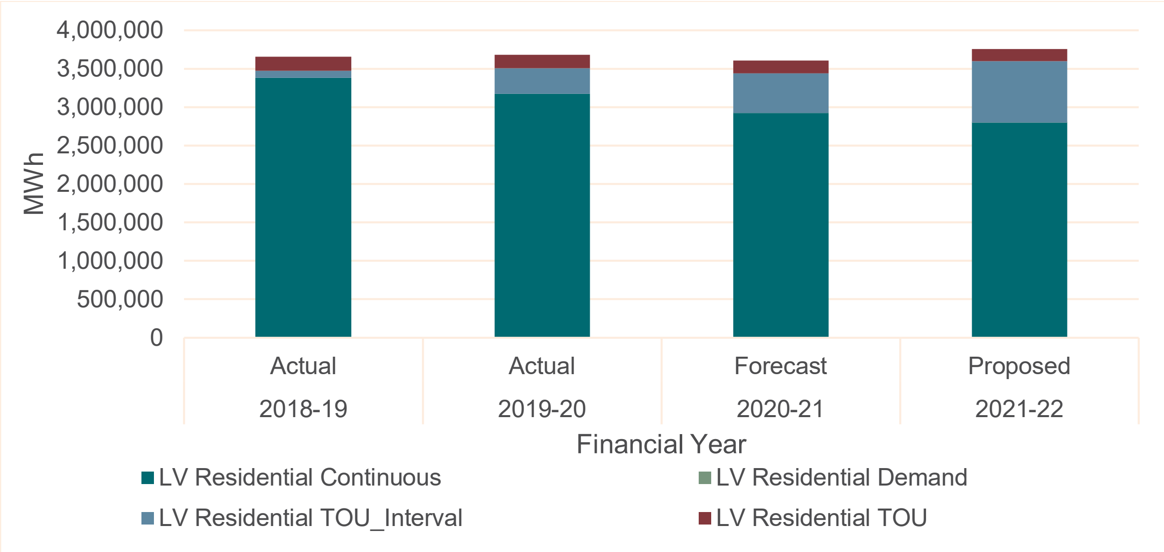
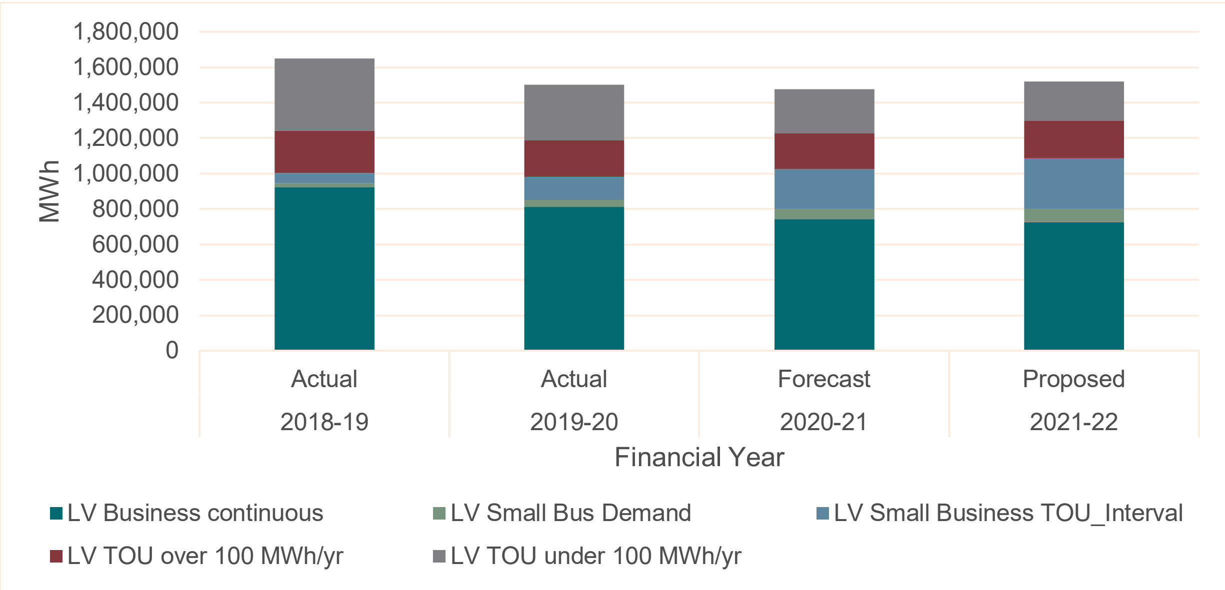
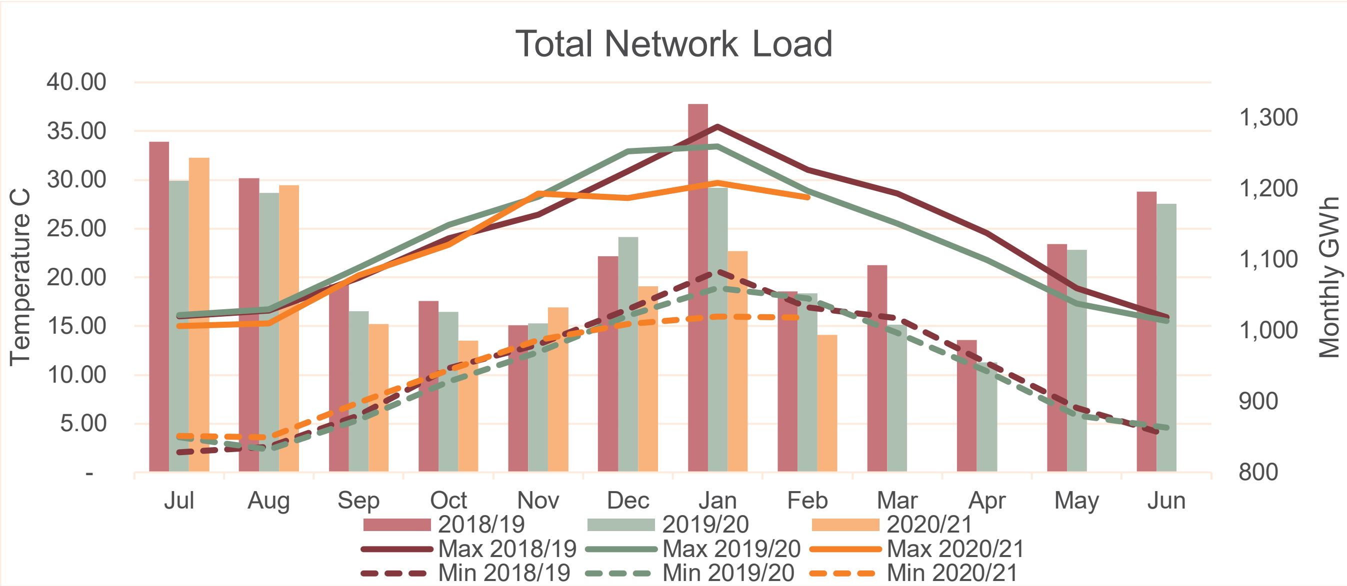


Chart 4: Consumption by Small Business tariff



There was minimal impact seen from the Covid-19 pandemic in this customer category, with the main driver for reduced consumption for the 2020-21 year being the milder temperatures, particularly over the summer period. Chart 5 below shows the variation in temperatures for 2020-21 compared to previous years and close co-relation to consumption levels.

Chart 5: Total Essential Energy Network load vs Temperature



The impact of the Covid-19 pandemic can be seen in the large business low voltage demand tariff class. This class includes hotels, clubs and pubs, and universities, which were all significantly impacted by the lock down requirements. Whilst this class has recovered to some extent it is still not at the average consumption levels seen prior to the pandemic. The other major factor that has impacted consumption in this tariff class was the drought which resulted in significant reduced consumption in large agriculture businesses but has resumed again. All these factors have been taken into consideration in deriving forecast consumption for 2021-22.

The forecast volumes by tariff class have been summarised in Table 1 below.

Table 1: Actual and Forecast consumption by tariff class (GWh)

Tariff class	2018-19 Actual	2019-20 Actual	2020-21 Forecast	2021-22 Proposed	Reasoning
Low voltage - Residential and Small Business	6,275	6,142	6,021	**6,223**	Reduced volumes in 2020-21 were due to significantly milder temperatures, particularly in the summer months
Low voltage - Large Business	2,535	2,359	2,266	**2,260**	LV large business have been impacted the most by the Covid-19 pandemic and weather factors, however seem to be recovering. Small reduction included in forecast consumption
High voltage – Demand	951	933	880	**923**	
Sub-transmission (including IDTs)					
Subtransmission	352	369	377	**390**	Steady increase in consumption seen across Mines with Essential Energy's network
Site Specific	2,526	2,559	2,566	**2,593**	
Unmetered Supply	90	87	89	**89**	
Total GWh	**12,730**	**12,450**	**12,199**	**12,478**	

Compliance

Rule Requirement

Clause 6.18.2(b)(4) of the Rules requires that the pricing proposal must 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.

Revenue allowance

The determination allows us to recover DUoS revenue of $1,011.8 million in the 2021-22 year. The 2021-22 prices have been set to recover this amount of DUoS revenue - being $1,011.8 million.

Assuming the same level of energy consumption, this DUoS revenue recovery implies an average increase in nominal price terms for distribution prices for 2021-22 of 3.55 per cent, including a CPI of 0.86 per cent. The following table demonstrates the weighted average change in DUoS revenue by tariff class.

Table 2: DUoS average tariff class revenue change ($'000)

Tariff class	Weighted average revenue 2020-21	Weighted average revenue 2021-22	Change %
Low voltage - Residential and Small Business	726,096	752,657	3.66%
Low voltage - Large Business	180,308	185,946	3.13%
High voltage – Demand	48,115	49,776	3.45%
Sub-transmission (including IDTs)	15,364	15,880	3.36%
Unmetered Supply	7,341	7,579	3.24%
Total DUoS revenue	**977,224**	**1,011,838**	**3.54%**

Variations to Tariffs

Rule Requirement

Clause 6.18.2(b)(5) of the Rules requires that the pricing proposal must 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.

Essential Energy does not propose to vary or adjust our proposed Network tariffs during the course of the 2021-22 regulatory year. However we are planning to start some trials of new tariffs as described in 16 Tariff Trials.

Jurisdictional Schemes

Rule Requirement

Clause 6.18.2(b)(6A) of the Rules requires that the 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.

Clause 6.18.2(b)(6B) requires that the pricing proposal must describe how each approved jurisdictional scheme that has been amended since the last jurisdictional scheme approval date meets the jurisdictional scheme eligibility criteria.

Climate change levy

Legislation requires Essential Energy to contribute $56.4 million to the New South Wales Climate Change Fund (CCF) in 2021-22. Essential Energy is permitted to collect this contribution from its customers through network prices and is required to take into account any under or over recovery from previous years. It is also a requirement that only 25 per cent of this contribution is collected from residential customers.

Expected climate change fund revenue and expense for 2021-22 is summarised in Table 3 below.

Table 3: Climate change fund levy unders and overs account ($'000)

Component	2021-22 (forecast)
Revenue from CCF Tariffs	61,110
CCF Payments	56,421
Opening balance of (unders)/overs account	(4,604)
CCF unders and overs account	
Nominal WACC	3.71%
Opening balance	(4,604)
Interest on opening balance (365 days)	(171)
(Under) / over recovery for financial year	4,689
Interest charged on (under)/over recovery for financial year	86
Closing balance	**0.0**

Queensland Solar Bonus Scheme

Legislation requires Essential Energy to pay eligible customers located in Queensland and connected to Essential Energy's network an amount for their solar export. As this scheme is a designated jurisdictional scheme under the Rules, Essential Energy is recovering the amount paid to these customers back through tariffs in a similar manner to the Climate Change Fund.

Expected Queensland Solar Bonus Scheme revenue and expense for 2021-22 is summarised in Table 4 below.

Table 4: Queensland Solar Bonus Scheme unders and overs account ($'000)

Component	2021-22 (forecast)
Revenue from QLD Solar Bonus Scheme Recovery (QSS) Tariffs	1,027
QSS Payments	1,008
Opening balance of (unders)/overs account	(19)
QSS unders and overs account	
Nominal WACC	3.71%
Opening balance	(19)
Interest on opening balance (365 days)	(1)
(Under) / over recovery for financial year	19
Interest charged on (under)/over recovery for financial year	0
Closing balance	**0**

Transmission Use of System

Rule Requirement

Clause 6.18.2(b)(6) of the Rules requires that the 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.

In addition, clause 6.18.7 states that the amount to be passed on for a particular regulatory year must not exceed the estimated amount of the designated pricing proposal charges adjusted for over or under recovery.

Transmission-related cost recovery arrangements

The AER allows Essential Energy to recover transmission-related costs by setting TUoS prices to recover:

- Transmission charges paid to transmission network service providers (TNSPs)
- Avoided TUoS payments to embedded generators calculated in accordance with the Rules
- Inter-distributor transfer payments to other network distribution businesses.

The Determination requires Essential Energy to demonstrate compliance with transmission cost recovery requirements and in accordance with that Determination Essential Energy is permitted to recover those costs and take account of any under or over recovery of TUoS revenue. As part of the 2021-22 price approval process, the AER has been provided with the expected cost of transmission related payments which includes a price increase of 11 per cent for payments to TransGrid.

Essential Energy also recovers avoided TUoS payments to large embedded generators who have advised they will be supplying energy into our Network. As this effectively represents less transmission from TransGrid's network, Essential Energy is required to pay avoided TUoS to these generators under section 5.5 of the Rules.

The total transmission revenue Essential Energy required in 2021-22 has increased by 18.06 per cent from the revenue forecast amount to be recovered for 2020-21. Expected transmission revenue and expense for 2021-22 is summarised in Table 5 below.

Table 5: Transmission use of system unders and overs account ($'000)

Component	2021-22 (forecast)
Revenue from TUoS charges	254,354
Less total transmission related payments	**246,648**
Transmission charges to be paid to TNSP	*230,276*
Inter-distributor payments	*12,967*
Avoided TUoS payments	*3,405*
(Under)/over recovery for regulatory year	7,706
TUoS unders and overs account	
Nominal WACC	3.71%
Opening balance	(7,567)
Interest on opening balance	(280)
(Under)/over recovery for regulatory year	7,706
Interest on (under)/over recovery for regulatory year	141
Closing balance	**(0.0)**

8 Transmission Use of System

Transmission charges are not in a form that readily translates into network price structures. Essential Energy translates historical kilowatt demand and daily locational charges from transmission authorities into equivalent anytime or peak, shoulder and off-peak energy rates in order to allocate those charges to the network use of system tariffs.

Essential Energy allocates transmission charges to network prices using the following principles:

> The total TUoS allocated to network prices aligns with total expected transmission related payments to be made by Essential Energy

> Transmission charges are allocated to network prices in a way that reflects the cost drivers present in transmission

> The pass through of transmission charges and the structure of network prices have been aligned wherever possible by Essential Energy

> Site specific customers have transmission charges allocated in a way that preserves the location and time signals of transmission pricing as per chapter 6 of the Rules. These charges are passed through as closely as possible to reflect the way the charges are levied on Essential Energy

> Network prices for standard customer classes have transmission charges allocated on an average consumption level basis. This is due to the difficulties associated with equitably allocating the general and common service fixed charge as a fixed network access charge and passing through location price signals which cannot be preserved when the end price is applied to many customers within the network.

For large customers with individual prices, the individual cost of transmission is directly assigned to the customer. The balance is allocated to standard customer classes.

Distribution Use of System

Rule Requirement

Clause 6.18.2(b)(7) of the Rules requires that the pricing proposal must 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.

Distribution Use of System

DUoS revenue to be recovered in 2021-22 is set out in the determination and for 2021-22 this amount is $1,011.8 million. This DUoS revenue includes CPI of 0.86 per cent and an X factor of 2.29 per cent (decrease). The 2021-22 prices have been set to recover this amount of DUoS revenue.

Table 6: Distribution use of system unders and overs account ($'000)

Component	2021-22 (forecast)
Revenue from DUoS charges	1,011,838
Less TAR for the relevant year	**967,408**
Smooth revenues (AAR*t*)	*986,515*
STPIS adjustment (S*t*)	*-19,107*
(Under)/over recovery for regulatory year	**44,430**
DUoS unders and overs account	
Nominal WACC	3.71%
Opening balance	(43,629)
Interest on opening balance (dealt with @ B above)	(1,617)
(Under)/over recovery for regulatory year	44,430
Interest on (under)/over recovery for regulatory year	816
Closing balance	**0.0**

Changes From Previous Regulatory Year

Rule Requirement

Clause 6.18.2(b)(8) of the Rules requires that the pricing proposal must 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.

The changes to tariffs or tariff assignment for 2021-22 from 2020-21 are summarised below.

Table 7: Summary of changes from previous regulatory year

Component	Network charge type	Annual update
DUoS	ToU network charges	Differentiate peak and shoulder rates by applying:
		> a 2 per cent increase to the peak component; and
		> a 2 per cent decrease to the shoulder component each year.
	Residential and Small Business customers	The fixed charge component is given a $5 increase then the average percentage increase/decrease in revenue is applied to each of the fixed charge, consumption and demand components.
	LV ToU <100 MWh and >100MWh	Apply a 2.5 per cent decrease to the fixed charge to transition this component down to same fixed rate charge as other Small Business customers.
	Small Business Opt-in Demand	Apply a 20 per cent increase to the energy consumption components to take into account the removal of the shoulder period from the demand component put forward in our Revised Proposal and Revised TSS.
	Obsolete network charges	To incentivise customers to move to more cost-reflective network charges:
		> if there is an increase in overall DUoS prices, the percentage increase in revenue is doubled for obsolete network charges; and
		> if there is an overall decrease to DUoS prices then rates are held flat.
	All	Average increase or decrease to recover required revenue, including adjustment for any over-recovery or under-recovery.
TUoS	Site-specific	Rates provided by transmission companies applied as closely as possible.
	All other	Average increase to recover required revenue, including adjustment for any over-recover or under-recovery.
	ToU network charges	Differentiate peak and shoulder rates by applying a 2.5 per cent increase to the peak component each year.
NSW Climate Change Fund Levy	All	Average increase or decrease to recover required revenue, including adjustment for any over-recovery or under-recovery, with only 25 per cent from Residential customers.
Queensland Solar Scheme	All	Average increase or decrease to recover required revenue, including adjustment for any over-recovery or under-recovery.

Customer Impacts

Rule Requirement

Clause 6.18.2(b)(7) requires that the pricing proposal demonstrates compliance with the Rules and applicable distribution determination, and takes into account 6.18.5 Pricing principles to reflect efficient costs.

This report explains how Essential Energy's prices meet regulatory arrangements. This section demonstrates the impact of the forthcoming changes in network tariffs on typical customers' bills. Each tariff will have a different change in their average rate due to the mix of DUoS, TUoS, CCF and QSS as part of the overall NUoS tariff rates.

Table 8 demonstrates the average impact of the proposed prices on the residential and business customer classes. It shows the average increases expected for each of the consumption types for residential and business network prices based on average annual consumption. These include standard supply, Time-of-Use, controlled load (Energy Saver), and demand network prices for business customers.

Table 8: Average increases for residential and small non-residential customers.

		Average annual MWh	Average annual account 2020-21	Average annual account 2021-22	Average change per customer	Average increase (%)	Average c/kWh 2020-21	Average c/kWh 2021-22
Residential	Anytime	5.00	$830.44	$875.87	$45.43	5.47%	$16.61	$17.52
	Time-of-Use	8.40	$1,003.24	$1,064.20	$60.96	6.08%	$11.94	$12.67
	Time-of-Use - Interval	4.78	$700.29	$740.66	$40.37	5.76%	$14.65	$15.49
	Energy Saver 1	2.02	$78.12	$84.43	$6.31	8.07%	$3.86	$4.17
Noon-Residential	Anytime	23.00	$3,643.44	$3,839.94	$196.51	5.39%	$15.84	$16.70
	Time-of-Use	36.03	$5,477.32	$5,522.11	$44.80	0.82%	$15.20	$15.33
	Time-of-Use - Interval	21.75	$2,654.57	$2,805.78	$151.22	5.70%	$12.20	$12.90
	Energy Saver 2	1.97	$126.72	$135.61	$8.88	7.01%	$6.43	$6.88
	Optional Demand	57.68	$3,770.69	$4,194.21	$423.52	11.23%	$6.54	$7.27

The average residential customer connected to an anytime tariff, without energy saver, in Essential Energy's distribution area will see an increase of approximately $45.43 or 5.47 per cent for the 2021-22 year based on an annual consumption of 5 MWh.

The average small non-residential customer connected to an anytime tariff in Essential Energy's distribution area will see an increase of approximately $196.51 or 5.39 cent for the 2021-22 year based on an annual consumption of 23 MWh.

A typical residential customer living in Essential Energy's distribution area would generally be connected to the following network prices:

> BLNN2AU: Residential Anytime Tariff

> BLNC1AU: Residential Energy Saver 1

11 Customer Impacts

Table 9 below provides an analysis of the impacts of price increases for a low usage customer and a typical usage customer.

Table 9: Impact of price increases for typical residential customers of Essential Energy

Customer type	Energy saver load %	2020-21 Quarterly network bill	2021-22 Quarterly network bill	Change in quarterly network bill
Low usage (3,500 kWh)	35%	$151.14	$159.47	$8.34
Typical usage (6,500 kWh)	35%	$208.19	$220.12	$11.93

A typical small non-residential customer operating in Essential Energy's distribution area would generally be connected to the following network price:

> BLNN1AU: Small Business Anytime Tariff

Table 10 below provides an analysis of the impacts of price movements for a customer that consumes 20 MWh per annum and a customer that consumes 40 MWh per annum.

Table 10: Impact of prices for typical non-residential customers of Essential Energy

Customer type	2020-21 Monthly network bill	2021-22 Monthly network bill	Change in Monthly network bill
20 MWh	$267.34	$281.74	$14.41
40 MWh	$509.23	$536.76	$27.53

The examples provided above for typical residential and small non-residential customers all fall within the Low voltage Residential and Small Business tariff class.

Table 11 below shows the expected movement in the average rate for each of Essential Energy's tariff classes for DUoS charges only.

Table 11: Impact of DUoS prices for each tariff class

Tariff class	2020-21		2021-22	
	Forecast Revenue $'000	Forecast average rate c/kWh	Forecast Revenue $'000	Forecast average rate c/kWh
Low voltage Residential and Small Business	726,096	11.71	752,657	12.14
Low voltage Large Business	180,308	7.98	185,946	8.23
High voltage Demand	48,115	5.21	49,776	5.39
Sub-transmission	15,364	0.52	15,880	0.53
Unmetered Supply	7,341	8.23	7,579	8.49
Total average DUoS rate		**$7.84**		**$8.12**

Network price increases 2020-21 to 2021-22

The 2021-22 year is the third year of the current regulatory determination period. The revenue we are allowed to recover in this year for DUoS charges is provided by the AER in their Final Determination and is $1,011.9 million. As detailed in Table 6 above this revenue allowance includes adjustments for any over or under recovery of revenue in prior years and the application of a STPIS penalty.

Under a revenue price cap control mechanism, the same units are used to calculate the prices for network charges. Taking this into account, along with adjustments for over or under recoveries, the average change in prices for 2021-22 is an increase of 5.77 per cent. This differs to the change in revenue we expect to recover year on year due to a different forecast of unit sales. The change in revenue to be recovered is an increase of 7.89 per cent. This difference is demonstrated in Table 12 below.

Table 12: Network price increase ($M nominal)

Charge component	2020-21		2021-22	Year on Year Price change %	
	Forecast Revenue	Calculated Revenue	Revenue to be recovered	Forecast Revenue	Calculated Revenue
Distribution use of system charges	960.0	977.16	1,011.8	5.40%	3.54%
Transmission use of system charges	215.4	221.49	254.4	18.06%	14.89%
Climate change levy	54.7	56.24	61.1	11.64%	8.66%
QLD Solar Scheme	1.0	1.05	1.0	1.03%	-1.50%
Network use of system charges	**1,231.2**	**1,255.93**	**1,328.3**	**7.89%**	**5.77%**
GWh sales	***12,686.7***	***12,478.1***	***12,478.1***		

Tariff Structure Statement

Rule Requirement

Clause 6.18.2(b)(7A) of the Rules requires that the pricing proposal must 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.

Comparison of proposed and indicative prices

Our proposed prices for 2021-22 are in line with those approved by the AER in our TSS. The only differences are due to:

> Updated X factor (revenue allowed to be recovered)
> Updated cost of debt
> Inclusion of 0.86% CPI for 2021-22, 1.84% CPI for 2020-21 and 1.78% for 2019-20 (Indicative prices in TSS are in $2018-19)
> Increases in TUoS charges as advised by TransGrid and Powerlink
> True up for under recovery of actual revenues in 2019-20 and forecast revenue for 2020-21
> STPIS adjustments
> Decrease to the amount we are required to contribute to the CCF in 2021-22 of approximately $0.3 million.

These changes can be seen in Table 13 below.

Table 13: Comparison of Essential Energy's Proposed vs Indicative NUOS charges 2021-22

Tariff Code	Description		Network Access $/year	Energy Anytime c/kWh	Energy Peak c/kWh	Energy Shoulder c/kWh	Energy Off-Peak c/kWh	Peak Demand $/kVA/M	Shoulder Demand $/kVA/M	Off-Peak Demand $/kVA/M
Tariff Class A; Low voltage Residential and Small Business										
BLNN2AU	Residential Anytime	Proposal	320.75	11.1023						
		Indicative	296.22	10.0461						
		% difference	8.3%	10.5%						
BLNT3AU	Residential ToU	Proposal	320.75		14.9398	12.4767	4.8006			
		Indicative	296.22		13.5009	11.2839	4.3053			
		% difference	8.3%		10.7%	10.6%	11.5%			
BLNT3AL	Residential ToU_Interval meter	Proposal	320.75		15.4876	12.0192	4.8006			
		Indicative	296.22		14.0062	10.8619	4.3053			
		% difference	8.3%		10.6%	10.7%	11.5%			
BLND1AR	Residential – Opt-in Demand	Proposal	320.75		4.8773	3.8419	2.3743	4.1087		
		Indicative	296.22		4.2181	3.3182	2.0670	3.7903		
		% difference	8.3%		15.6%	15.8%	14.9%	8.4%		
BLNC1AU	Energy Saver 1	Proposal	34.12	2.4857						
		Indicative	31.48	2.1697						
		% difference	8.4%	14.6%						
BLNC2AU	Energy Saver 2	Proposal	34.12	5.1517						
		Indicative	31.48	4.5861						
		% difference	8.4%	12.3%						
BLNN1AU	LV Small Business Anytime	Proposal	320.75	15.3008						
		Indicative	298.26	13.8892						
		% difference	7.5%	10.2%						

Tariff Code	Description		Network Access $/year	Energy Anytime c/kWh	Energy Peak c/kWh	Energy Shoulder c/kWh	Energy Off-Peak c/kWh	Peak Demand $/kVA/M	Shoulder Demand $/kVA/M	Off-Peak Demand $/kVA/M
BLNT2AU	LV ToU < 100MWh	Proposal	1,674.45		15.9352	13.3918	7.0029			
		Indicative	1,674.45		14.3891	12.0980	6.3068			
		% difference	0.0%		10.7%	10.7%	11.0%			
BLNT2AL	LV Business ToU_Interval meter	Proposal	552.25		16.5073	12.9139	6.7834			
		Indicative	509.78		14.9169	11.6572	6.1044			
		% difference	8.3%		10.7%	10.8%	11.1%			
BLNT1AO	LV ToU > 100MWh	Proposal	1,674.45		15.9352	13.3918	7.0029			
		Indicative	1,674.45		14.3891	12.0980	6.3068			
		% difference	0.0%		10.7%	10.7%	11.0%			
BLND1AB	Small Business – Opt-in Demand	Proposal	552.25		7.2569	5.5626	3.2621	6.6767		
		Indicative	509.78		6.5975	5.0095	2.9062	6.1166		
		% difference	8.3%		10.0%	11.0%	12.2%	9.2%		
Tariff Class B; Low voltage Large Business										
BLND3AO	LV ToU Demand 3 Rate	Proposal	5,650.12		4.8934	4.1494	2.7476	10.1189	9.1552	2.2584
		Indicative	5,212.31		4.2377	3.6004	2.3854	9.6854	8.7933	2.0834
		% difference	8.4%		15.5%	15.2%	15.2%	4.5%	4.1%	8.4%
BLND3TO	LV ToU Demand – alternate tariff	Proposal	5,650.12		14.2151	11.6296	5.1702	12.2531		
		Indicative	5,212.31		12.8371	10.5009	4.6203	11.3037		
		% difference	8.4%		10.7%	10.7%	11.9%	8.4%		
BLNDTRS	Transitional Demand	Proposal	4,987.51		6.7337	5.6898	3.4568	8.4324	7.6293	1.8820
		Indicative	4,622.67		5.9296	5.0167	3.0390	8.0711	7.3278	1.7362
		% difference	7.9%		13.6%	13.4%	13.7%	4.5%	4.1%	8.4%

Tariff Code	Description		Network Access $/year	Energy Anytime c/kWh	Energy Peak c/kWh	Energy Shoulder c/kWh	Energy Off-Peak c/kWh	Peak Demand $/kVA/M	Shoulder Demand $/kVA/M	Off-Peak Demand $/kVA/M
BLNS1AO	LV ToU Avg Daily Demand	Proposal	5,940.05		4.5401	3.8660	2.6232	11.7138	10.5982	2.7087
		Indicative	5,374.35		3.9036	3.3324	2.2696	10.5982	9.5888	2.4507
		% difference	10.5%		16.3%	16.0%	15.6%	10.5%	10.5%	10.5%
Tariff Class C; High voltage demand										
BHND3AO	HV ToU mthly Demand	Proposal	6,993.95		3.7264	3.1940	2.6424	9.1017	8.2349	2.4643
		Indicative	6,452.00		3.2411	2.7843	2.3027	8.3965	7.5968	2.2733
		% difference	8.4%		15.0%	14.7%	14.8%	8.4%	8.4%	8.4%
BHNS1AO	HV ToU Avg Daily Demand	Proposal	6,797.91		3.6738	3.2104	2.6347	9.6379	8.7200	2.6094
		Indicative	6,271.15		3.1925	2.7994	2.2957	8.8911	8.0443	2.4072
		% difference	8.4%		15.1%	14.7%	14.8%	8.4%	8.4%	8.4%
Tariff Class D; Sub-transmission										
BSSD3AO	Sub Trans 3 Rate Demand	Proposal	6,942.52		4.5695	2.7352	2.2773	3.5123	2.5040	0.9982
		Indicative	6,404.56		3.8630	2.3221	1.9348	3.2402	2.3099	0.9208
		% difference	8.4%		18.3%	17.8%	17.7%	8.4%	8.4%	8.4%
Tariff Class E; Unmetered Supply										
BLNP1AO	LV Unmetered NUoS	Proposal	320.75	16.5338						
		Indicative	298.26	15.0254						
		% difference	7.5%	10.0%						
BLNP3AO	LV Public Lighting ToU NUoS	Proposal			18.1240	14.7710	7.2959			
		Indicative			16.4071	13.3692	6.5760			
		% difference			10.5%	10.5%	10.9%			

Compliance with the National Electricity Rules

Rule Requirement

Clause 6.18.2(b)(7) of the Rules requires that a pricing proposal demonstrates 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.

Rule 6.18.5 sets out the pricing principles that are relevant to determining tariffs and charging parameters.

The pricing principles of the Rules:

Clause	Principle
6.18.5(e)	The revenue expected to be recovered for each tariff class must lie on or between: > an upper bound representing the stand-alone cost of serving the retail customers who belong to that class; and > a lower bound representing the avoidable cost of not serving those retail customers
6.18.5(f)	Each tariff is based on the Long Run Marginal Cost (LRMC) of providing the service
6.18.5(g)	Tariffs reflect the efficient costs of serving customers and minimise distortions in price signals for efficient usage
6.18.5(h)	The need to consider the impact on customers of tariff changes
6.18.5(i)	Tariff structures must be reasonably capable of being understood by customers
6.18.5(j)	Tariffs must comply with all applicable regulatory instruments

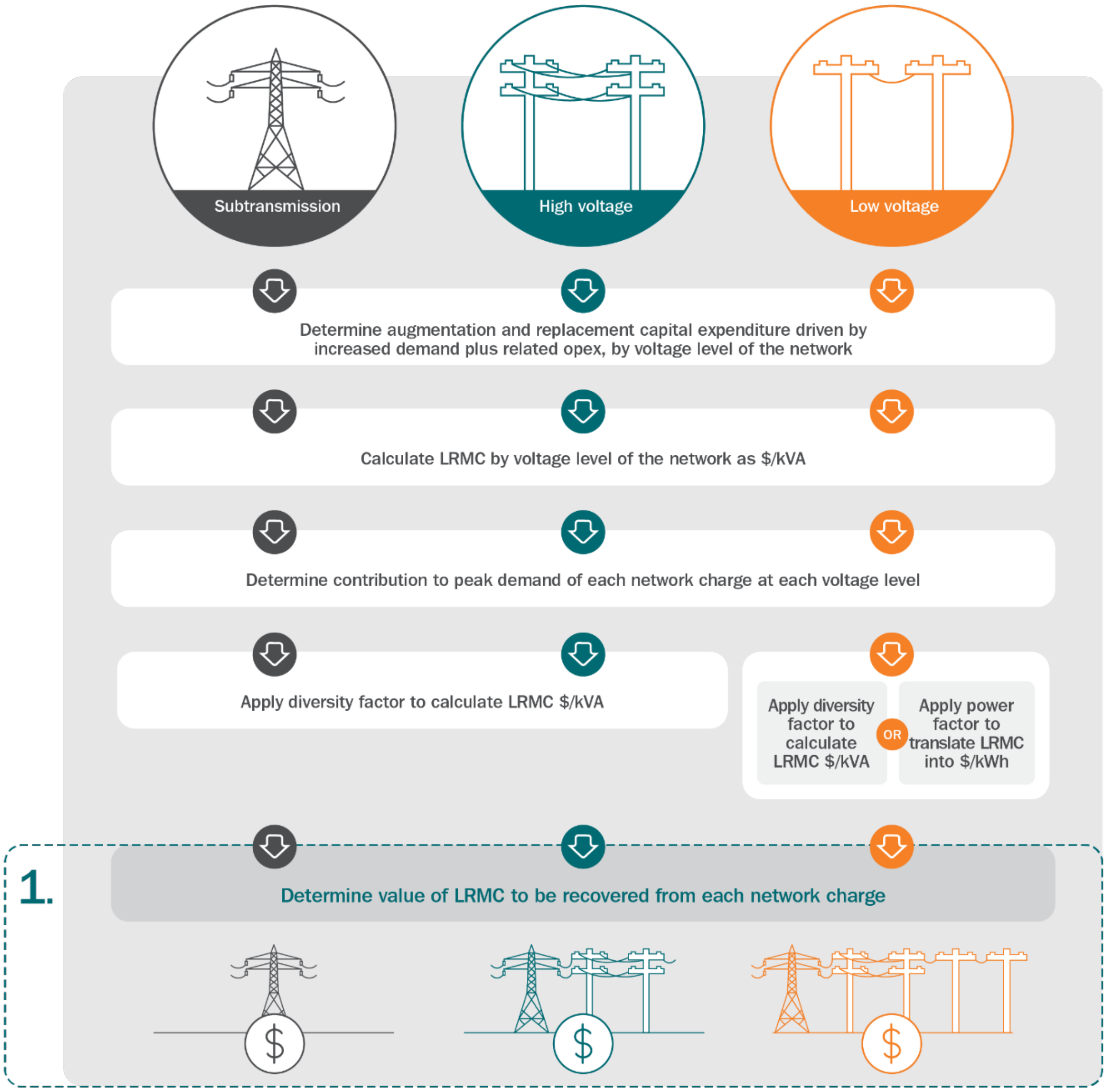
Pricing Principles and Cost Allocation

The network prices we charge each customer should reflect our business' efficient costs of providing network services to that customer. Specifically, each tariff must be based on the Long Run Marginal Cost (LRMC) of providing the service to which it relates to the retail customers assigned to that tariff. Efficient pricing preserves the LRMC (the cost of consuming or adding one more unit) while also allocating costs that have already been incurred (residual costs) in a way that will provide minimal demand distortion.

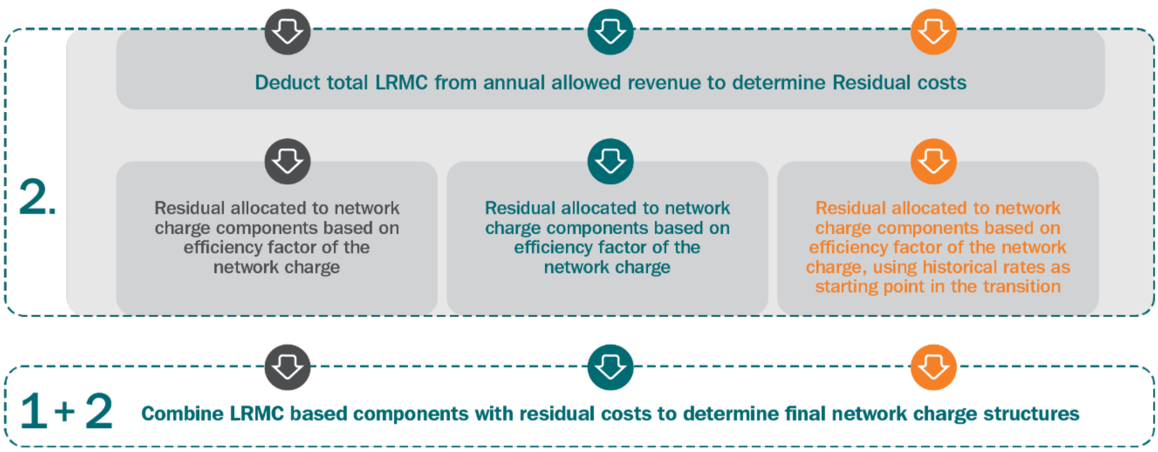
Efficient pricing needs to signal to customers the future network cost of consuming the next unit of electricity. Where there are no network constraints, such as in off-peak times, this cost will be very low. However, if the network is reaching capacity at peak times, the cost to the network of consumers using more energy/demand at that time will grow until it requires us to augment the network to continue to meet demand. These additional costs should, under the Rules, be reflected in the relevant variable usage charge of the tariff structure.

Using only a LRMC calculation to set tariffs would not allow us to recover all our network costs. There are residual costs that are not recovered when prices are set to equal marginal cost. How we recover these residual costs has implications for efficiency. The method we have used for setting prices based on LRMC and how residual costs have been allocated is explained below.

PART 1. Determine LRMC by voltage level and network charge



Part 2. Determine residual costs by voltage level and network charge



Clause 6.18.5(e) of the Rules establishes limits on the residual costs that can be recovered from any one tariff class, with the revenue expected to be recovered for each tariff class lying between an upper bound (the stand-alone cost) and a lower bound (the avoidable cost).

More detail on our pricing principles and cost allocation can be found in the Explanatory Statement to our Revised TSS found at: http://www.essentialenergy.com.au/content/tariff-structure-statement

Network prices based on incremental and stand-alone cost principles

There are two principles that can be used to test for cross subsidisation in monopoly services:

> **Stand-alone costs**

Cross subsidisation exists when customers pay more for a service than the costs that would be incurred to build a network to provide supply to that class of customer only.

> **Incremental costs**

Cross subsidies do not exist when the revenues received for a service are less than the stand-alone cost or are greater than the incremental or marginal cost of providing the service. The incremental cost test is appropriate when the goal is to show that prices for services are not 'unfair'.

The range of prices that lies between incremental cost and stand-alone cost is known as the subsidy-free pricing zone. Cross subsidisation occurs when prices lie outside this zone. Essential Energy has developed a marginal cost and stand-alone Cost of Supply model for this purpose. The Explanatory Statement to our Revised TSS provides details of the methodology used, incremental cost and stand-alone cost of supplying network distribution services to customers connected to Essential Energy's network.

Table 14: How our proposed 2020–21 revenue ($m) by customer class complies with the NER

Customer class	Avoidable	Stand-alone	Proposed	Proposed revenue lies between stand-alone and avoidable cost?
Low voltage Residential & Small Business customers	298	2,258	753	Yes
Low voltage Large Business	70	560	186	Yes
High voltage Demand	26	227	50	Yes
Sub-transmission	11	95	16	Yes
Unmetered Supply	1	36	7.6	Yes

Network prices based on fully distributed cost principles

Network costs are largely fixed and sunk, and due to the meshed nature of electricity distribution networks, pricing must involve a substantial degree of averaging.

For these reasons, Essential Energy's approach to allocating costs to customers is primarily founded on equity considerations, where there is some degree of averaging present in the calculation of standard network prices for the majority of customers belonging to general customer classes.

Essential Energy has adopted the average or fully distributed cost approach for the allocation of the revenue requirement. Network revenue as a cost is allocated to standard customer classes based on the use of network assets, with prices averaged by customer class. It is applied to individual prices for very large customers and standard published network prices.

We believe this average allocation approach best reflects the way costs are incurred by customer classes and provides equitable and reasonably efficient outcomes.

Marginal and stand-alone cost allocation process

Essential Energy's Cost of Supply model assesses cost allocations to customer classes both on a LRMC and stand-alone basis. It is inappropriate for network distribution service charges to be below the incremental cost (or LRMC) of supply as it results in inefficient pricing signals. It is also inappropriate for charges to exceed that which the customer could pay for the stand-alone cost to supply that customer class.

The stand-alone cost of supply is the total cost that would be required to serve those customers if we were to build the network anew to meet their specific requirements. This upper bound ensures that customers in any given tariff class do not pay more as a result of the provision of services to other customers.

Marginal costs are established by assessing the marginal component of the cost pools and allocating these costs to customer classes. This process considers the usage of the distribution network and other distribution network services and the impact on future capital expenditure made by each customer class. The LRMC of the distribution network is determined by separately identifying capacity related expenditure and averaging this over a forecast change in output (the Average Incremental Cost Approach). Further details on the LRMC calculations are contained in the Addendum to our TSS.

The network price for each customer class is then compared with the stand-alone costs and LRMC to determine if any cross-subsidisation exists.

Table 15 of this report demonstrates the relationship between current network prices and LRMC.

Table 15: Proposed transition of peak prices to efficient levels

Tariff	Description	Current 2020-21	Proposed 2021-22	LRMC Price Level
ToU tariffs				
BLNT3AU	Residential Anytime	10.3909	10.9558	4.7739
BLNT3AL	LV Residential ToU_Interval meter	10.9104	11.5036	4.9694
BLNT2AU	LV ToU <100MWh	10.8530	11.4430	4.1656
BLNT2AL	LV Business ToU_Interval meter	11.3956	12.0152	6.9427
Demand tariffs				
BLND1AR	Residential - Opt-in Demand	3.9748	4.1087	5.4045
BLND1AB	Small Business - Opt-in Demand	6.4590	6.6767	5.4045
BLND3AO	LV ToU Demand 3 Rate	9.9526	10.1189	2.6376
BLNDTRS	Transitional Demand	6.6351	8.4324	2.4151
BHND3AO	HV ToU mthly Demand	8.8051	9.1017	2.7617
BSSD3AO	SUB TRANS Demand 3 rate	3.3978	3.5123	0.6734

Table 14: Detailed checklist of the National Electricity Rules

Rule	Relevant requirement	Relevant section
6.18.1C	**Sub-threshold tariffs**	
6.18.1C(a)	No later than four months before the start of a regulatory year (other than the first regulatory year of a regulatory control period), a Distribution Network Service Provider may notify the AER, affected retailers and affected retail customers of a new proposed tariff (a relevant tariff) that is determined otherwise than in accordance with the Distribution Network Service Provider's current tariff structure statement, if both of the following are satisfied:	Section 16 and Attachment 9
6.18.1C(a)(1)	the Distribution Network Service Provider's forecast revenue from the relevant tariff during each regulatory year in which the tariff is to apply is no greater than 0.5 per cent of the Distribution Network Service Provider's annual revenue requirement for that regulatory year (the individual threshold); and	Section 16
6.18.1C(a)(2)	the Distribution Network Service Provider's forecast revenue from the relevant tariff, as well as from all other relevant tariffs, during each regulatory year in which those tariffs are to apply is no greater than one per cent of the Distribution Network Service Provider's annual revenue requirement for that regulatory year (the cumulative amount)	Section 16
6.18.2(b)	**A Pricing Proposal must:**	
6.18.2(b)(2)	set out the proposed tariffs for each tariff class that is specified in the Distribution Network Service Provider's tariff structure statement for the relevant regulatory control period;	Section 2 & Attachment 5
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 3 & Attachment 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;	Section 4
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;	Section 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 7
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 6
6.18.2(b)(6B)	describe how each approved jurisdictional scheme that has been amended since the last jurisdictional scheme approval date meets the jurisdictional scheme eligibility criteria;	n/a
6.18.2(b)(7)	demonstrate compliance with the Rules and any applicable distribution determination, including the Distribution Network Service Provider's tariff structure statement for the relevant regulatory control period;	Section 8 and Appendices
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	Section 11 & Attachment 7
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.	Section 9
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.	Attachment 5 to this pricing Report
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.	Attachment 5 to this pricing Report
6.18.5	**Pricing principles**	
6.18.5(e)	For each tariff class, the revenue expected to be recovered must lie on or between:	

13 Compliance with the National Electricity Rules

Rule	Relevant requirement	Relevant section
6.18.5(e)(1)	an upper bound representing the stand alone cost of serving the retail customers who belong to that class; and	Section 12
6.18.5(e)(2)	a lower bound representing the avoidable cost of not serving those retail customers.	Section 12
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:	Section 12& TSS
6.18.5(f)(1)	the costs and benefits associated with calculating, implementing and applying that method as proposed;	Section 12 & TSS
6.18.5(f)(2)	the additional costs likely to be associated with meeting demand from retail customers that are assigned to that tariff at times of greatest utilisation of the relevant part of the distribution network; and	Section 12 & TSS
6.18.5(f)(3)	the location of retail customers that are assigned to that tariff and the extent to which costs vary between different locations in the distribution network.	Section 12 & TSS
6.18.5(g)	The revenue expected to be recovered from each tariff must:	
6.18.5(g)(1)	reflect the Distribution Network Service Provider's total efficient costs of serving the retail customers that are assigned to that tariff;	Section 12
6.18.5(g)(2)	when summed with the revenue expected to be received from all other tariffs, permit the Distribution Network Service Provider to recover the expected revenue for the relevant services in accordance with the applicable distribution determination for the Distribution Network Service Provider; and	Section 8
6.18.5(g)(3)	comply with sub-paragraphs (1) and (2) in a way that minimises distortions to the price signals for efficient usage that would result from tariffs that comply with the pricing principle set out in paragraph (f).	Section 8 & 12 & TSS
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:	Section 10 & TSS
6.18.5(h)(1)	the desirability for tariffs to comply with the pricing principles referred to in paragraphs (f) and (g), albeit after a reasonable period of transition (which may extend over more than one regulatory control period);	Section 12 & TSS
6.18.5(h)(2)	the extent to which retail customers can choose the tariff to which they are assigned; and	Attachment 5 & TSS
6.18.5(h)(3)	the extent to which retail customers are able to mitigate the impact of changes in tariffs through their usage decisions.	TSS

Network Charge Assignment and Reassignment

This chapter sets out our policies and procedures governing assignment or reassignment of Essential Energy's retail customers for direct control services.

Procedures for assigning and reassigning retail customers to customer classes

1 The procedure outlined in this section applies to direct control services.

Assignment of existing customers to customer classes at the commencement of the regulatory control period

2 Essential Energy's customers will be taken to be assigned to the customer class to which they were assigned immediately prior to 1 July 2019, if:

- They were a customer prior to 1 July 2019, and
- Continue to be a customer as at 1 July 2019.

Assignment of new customers to a network charge class during the regulatory control period

3 New connection or a change of occupancy will trigger assignment.

4 For new connections, Essential Energy will use the estimated information collected from the retailer's B2B service order, in conjunction with the system of assessment described here, to assign the new customer to the appropriate network charge.

5 New residential and small business customers connecting to the network, will be assigned to the default cost-reflective network charge relevant to their metering technology.

6 Change of occupancy will lead to assignment to the default cost-reflective network charge where the appropriate metering technology is available at the premises. If the premises do not have a smart or interval meter, the customer will be assigned the network charge that previously existed at the premises. Where a network price change is required in connection with a change of occupancy, the retailer must request a network charge reassignment in accordance with the section on Network charge reassignment procedure below.

7 These customers will have the choice to opt out to an alternative network charge if they satisfy the necessary eligibility requirements.

Reassignment of existing customers to another existing or a new customer class during the regulatory control period

8 Reassignment can be triggered when an existing customer's load, connection and/or metering characteristics have changed such that it is no longer appropriate for that customer to be assigned to the network charge to which the customer is currently assigned. Existing residential and small business customers who:

- upgrade their connection, through installing three-phase power or embedded generation, will be assigned to the default cost-reflective network charge relevant to their metering technology.
- change their meter characteristics with the installation of a smart metering, with no other change to their connection, will be assigned to the default cost-reflective network charge relevant to their metering technology

9 Reassignment can be triggered by Essential Energy or a customer's retailer.

10 Customers may notify their retailer or Essential Energy if they identify that their current assignment is no longer appropriate.

11 If notified by a customer directly, Essential Energy is obliged to investigate, and where it finds the assignment is no longer appropriate, to initiate reassignment. In these instances Essential Energy is obliged to provide all notifications otherwise only sent to the customer's retailer, to both the customer's retailer and the customer directly.

12 In general, customers and customer's retailers may make one application for reassignment in any 12-month period per connection point. Essential Energy will consider exceptions on a case-by-case basis.

13 Whether the customer's retailer or Essential Energy initiates a network charge reassignment, Essential Energy will use the system of assessment described above to reassign the customer to the appropriate network charge.

14 The network charge change being applied from the last actual meter read date. For Smart Meters where daily reads occur, the last meter read date will be taken as the last invoiced meter read date (therefore end of month).

Reassignment triggered by the customer or customer's retailer

15 Customers and the customer's retailer should monitor the suitability of the network charge applied. Where a customer or customer's retailer identifies the existing network charge is not suitable, they must advise Essential Energy of the need for reassignment. Additionally, where it identifies a need for reassignment, Essential Energy can initiate reassignment.

16 Where the customer's retailer requests a network charge reassignment (on its own initiative or at the customer's request):

- the customer's retailer applies in writing by submitting the Supply Service Works Service Order (SSW-SO) for Network Charge Change via the Energy Market B2B processes; or
- if the request requires a metering configuration or update the customer's retailer would need to raise the appropriate B2B service order (Metering Service Works Service Order MSW-SO).

Reassignment triggered by Essential Energy

> Where Essential Energy initiates the network charge reassignment, it will provide a notice to the customer's retailer prior to the actual network charge reassignment. Essential Energy will also advise the customer prior to the assignment if they are a business customer.

> The obligation to notify a customer's retailer does not apply if the customer has agreed with its retailer and Essential Energy that its network charges are to be billed by Essential Energy directly to the retail customer, in which case Essential Energy must notify the customer directly.

Obsolete network charge

17 An obsolete network charge is a network charge that may apply to existing Essential Energy customers but is not available to new customers. Customers who choose to transfer off an obsolete network charge will lose all rights to all obsolete network charges on that premise, therefore the entire site will be required to move onto a currently available network charge. Exceptions apply when customers connect to additional services. Refer to Essential Energy's Network Price List and Explanatory Notes which is available on www.essentialenergy.com.au for further details in relation to obsolete network charge.

18 Customers may not go back onto an obsolete network charge once they have transferred off it.

Energy Saver (Controlled load)

19 Where a customer wishes to change from Energy Saver 1 to Energy Saver 2 (or vice-versa) the customer must notify its retailer.

20 To change Energy Saver network charge, the customer's retailer is required to submit the relevant Metering Service Works (Meter reconfiguration) B2B service order to trigger the necessary meter / relay re-configuration. Once the meter / relay reconfiguration has taken place, Essential Energy will perform the appropriate network charge reassignment without requiring the retailer to submit a SSW-SO.

21 The network charge will be changed as at the date of the Meter reconfiguration (therefore Frequency Injection Relay channel change).

Notifications

22 Essential Energy will notify the customer's retailer in writing of the network charge to which the customer will be assigned or reassigned prior to the network charge assignment or reassignment occurring:

- in the event Essential Energy initiates the network charge reassignment, Essential Energy will notify the customer's retailer in writing prior to the actual network charge reassignment occurring; and
- in the event the customer's retailer initiates the network charge reassignment, Essential Energy will notify the retailer in writing of the success or otherwise of the application. Where the application is not successful or where Essential Energy has decided to assign a network charge other than that proposed by the retailer, Essential Energy will advise the retailer of the reasons for the decision.
- The obligation to notify a customer's retailer does not apply if the customer has agreed with its retailer and Essential Energy that its network charges are to be billed by Essential Energy directly to the retail customer, in which case Essential Energy must notify the customer directly.

23 As part of its notification procedures, Essential Energy will advise the retailer that they can request further information from Essential Energy and that they may object to the network charge reassignment decision made by Essential Energy. Essential Energy will encourage retailers to request further information or clarification of its network charge reassignment decision before an objection is lodged.

24 If, in response to a notice issued in accordance with paragraph 23 above, Essential Energy receives a request for further information from a customer's retailer or customer, then it must provide such information. If any of the information requested is confidential then it is not required to provide that information to the retail customer.

25 The customer's retailer is wholly responsible for conveying the correct information to Essential Energy and communicating any further requests and decisions made by Essential Energy to the customer.

Objections

26 Essential Energy must allow retailers to object to a network charge reassignment decision made by Essential Energy. The objection procedure allows retailer's to formally request a review of the network charge reassignment decision.

27 The following steps will be applied as part of the objection procedure:

(a) Retailers must submit an objection in writing using Essential Energy's Network Charge Reassignment Objection form. Supporting evidence or documentation related to the decision being reviewed must be provided by the retailer. Retailers should make reference to their customer's load, connection and metering characteristics as part of the network charge reassignment objection. The completed form and supporting information and documentation will be emailed to networktariffchange@essentialenergy.com.au.

(b) Essential Energy's Network Pricing Manager must review the objection, including any documentation provided. In reviewing the objection, the Network Pricing Manager must assess if the original decision complies with this Network Charge Assignment and Reassignment policy, Essential Energy's regulatory obligations and must take into consideration any supporting evidence and documentation provided.

(c) Within 20 days of receiving the completed Network Charge Reassignment Objection form, Essential Energy must notify the customer's retailer, and where appropriate the customer, in writing of the outcome of the Network Pricing Manager's review and reasons for accepting or rejecting the objection. If Essential Energy believes the objection review process will take longer than 20 business days, Essential Energy must advise the retailer, and where appropriate the customer, accordingly.

28 If an objection to an assignment or reassignment is upheld:

(a) If the completed objection form is received within 20 business days from the date the retailer was advised of the original network charge reassignment decision, Essential Energy must apply the changes from the last actual meter read date prior to the original network charge reassignment application.

(b) If the completed objection form is received after 20 business days from the date the retailer was advised of the original network charge reassignment decision, Essential Energy must apply the changes from the last actual read date prior to the date the completed objection form is received.

(c) if Essential Energy requests further information from the retailer pertaining to the objection application, and such information is not provided within 20 business days from the date requested, Essential Energy must apply the changes following a subsequently successful objection from the last actual read date prior to the date the additional requested information is received.

29 Any adjustment to network charges billed to retailers, or directly to customers, because of upholding an objection to an assignment or reassignment, Essential Energy must do as part of the normal billing process, including of any compensation relating to the time value of money.

30 If an objection to a network charge class assignment or reassignment is upheld, then any adjustment which needs to be made to network charge levels will be done by Essential Energy as part of the next annual review of prices.

If any objection is not satisfactorily resolved under Essential Energy's internal review procedure within a reasonable timeframe, then to the extent that the matter relates to a small retail customer and resolution of such disputes are within the jurisdiction of the Energy and Water Ombudsman NSW (EWON) the retail customer is entitled to escalate the matter to the EWON.

31 If the objection is not resolved to the satisfaction of the retail customer under Essential Energy’s internal review procedure or EWON processes, then the retail customer is entitled to seek a decision of the AER via the dispute resolution process available under Part 10 of the NEL

Alternative Control Services

Alternative control services are those that are provided by distributors to specific customers. They do not form part of the distribution use of system revenue allowance provided in the Determination. As these services are provided to specific customers, we recover the costs of providing alternative control services through a selection of fees, most of which are charged on a 'user pays' basis.

Public Lighting

Public lighting continues to be classified as an alternative control service in this regulatory control period.

Public lighting prices are set in accordance with the Determination and a full listing of public lighting charges is provided as Attachment 2 Public Lighting Price List.

Ancillary Network Services

Ancillary network services (ANS) are non-routine services distributors provide to individual customers on an 'as needs' basis. ANS may be a 'fee-based service' for tasks that are performed routinely and are based on a labour rate and a set time to perform the task, or a 'quoted service' which are once-off and specific to a customer's request. The cost of these services will depend on the actual time taken to perform the service, however with the hourly rate set, the longer it takes the distributor to perform the service, the more the customer will pay.

ANS fees for 2021-22 are in accordance with the Determination and rates are provided in Attachment 3 Ancillary Network Services (ANS) Price List. No new fees are being introduced.

Type 5 and 6 metering charges

The AER classified type 5 and 6 metering services as alternative control services from 1 July 2015. The control mechanism for alternative control metering services is a cap on the prices of individual services. This means that the costs relating to the provision and maintenance of type 5 and 6 meters have been removed from standard control services and will be recovered through a separate metering charge.

The AER's Determination approves two types of metering service charges:

- Upfront capital charge (for all new and upgraded meters installed from 1 July 2015)
- Annual charge comprising of two components:
  - capital—metering asset base (MAB) recovery
  - non-capital—operating expenditure and tax.

The metering charges for 2021-22 are in accordance with the Determination and rates are provided in Attachment 4 Schedule of Metering Services.

Tariff Trials

Essential Energy is utilising clause 6.18.1C of the Rules to introduce sub-threshold tariffs for the *Low voltage - Residential and Small Business* customer class in the 2021-22 year. Up to five tariffs will be trialled, though as the final form of the tariffs has yet to be approved by the business, the specific tariff components and their associated prices have yet to be determined.

The business hopes to begin the tariff trials on 1 December 2021 and has included expected revenues from the tariffs in preparing the 2021-22 pricing proposal on the basis of the following high-level calculation:

> Indicative revenues from the trials have been derived on the assumption that the trials will involve the participation of up to 5,000 customers.

> The revenue to be recovered from the trials is expected to be largely consistent with existing average customer revenues, though the actual amount charged to each customer in the trial will necessarily vary, with some customers paying more and some paying less.

> The customer numbers and associated revenues for the various tariffs have been adjusted to allow for 7/12 of the annual revenues for these customers to be derived from sub-threshold tariffs, reflecting the 7 months of the year over which the trials will operate (1 December expected trial start date through to 30 June 2022), with the remaining 5/12 of revenue arising from existing tariffs.

> The resulting amount of revenue expected to be recovered from sub-threshold tariffs in total is $2.4 million which is less than the one percent of the annual revenue requirement allowed in clause 6.18.1C (a)(2) of the Rules.

> When this amount is divided by five trials, the average expected revenue from each trial is $0.5million which is less than the 0.5 percent of the annual revenue requirement allowed for each trial in clause 6.18.1C (a)(1) of the Rules.

Given the trials will continue through to the end of the current regulatory period (30 June 2024), any over or under-recovery of revenues from the trials in the 2021-22 year will be trued up in the setting of prices in the FY23 and FY24 years.

Why we are undertaking tariff trials

As part of the 2019-24 TSS, Essential Energy committed to undertaking tariff trials to determine customers' response and the associated bill impacts. In the absence of hard evidence, the business has found it difficult to gain customer and stakeholder support for significant changes to *Low voltage - Residential and Small Business* customer tariffs that are more cost-reflective and have the potential to be implemented on a broad-scale.

The intention was to trial at least two innovative tariffs and an export charge, though this has grown and the business now intends to trial up to five different tariffs. The recent AEMC draft rule determination proposes changes to allow networks to begin charging for exports. The final rule determination is expected to be published in late June, well before Essential Energy's intends trials start date of 1 December 2021.

The full scope of the project is yet to be confirmed, but Essential Energy will keep the AER, retailers and customers informed of the trials through the 2021-22 and subsequent years pricing proposals and any other forms of communication that the AER determines appropriate. In addition, the business has already been engaging with retailers and customers in designing the tariffs to trial. This engagement will continue in the lead up to the trials.

Overview of the tariff trials project

The tariff trials project consists of four phases.

> The first stage is close to completion and has involved working with customers and stakeholders to agree the principles for designing new tariffs and co-design acceptable tariffs to trial.

> The second phase will involve working with retailers, technology partners, university researchers and behavioural economists to design the scope of the trials, determine the success measurements, recruit customers, install any relevant technologies and develop the business processes to bring the trials to 'go live', ideally by 1 December 2021.

> The third phase will involve the on-going monitoring and reporting of the trials. This phase will run from the 'go live' date through to the end of the current regulatory period, 30 June 2024.

  It is important the trials continue for more than one year as evidence indicates that people will change their consumption behaviour in the first year but that, over time, old habits return as the novelty of the trial wears off.

  Essential Energy will measure the customer response as the trials progress. Should the desired response not be observed, the prices of the respective tariff components will be refined. The goal is to use the trials to derive the optimum price point for the various tariff components that delivers the desired response to 'solve' the network problems.

> The fourth phase entails analysing the trial data and using the results to inform tariffs for consultation with customers and stakeholders as part of the TSS for Essential Energy's 2024-29 regulatory period. This phase will begin in the second half of 2022, when consultation on the 2024-29 regulatory proposal begins.

Tariff trial design principles

As part of Essential Energy's co-design engagement to date, the principles that should shape network tariff design were devised and agreed with customers and stakeholders. These principles are shown (in descending order of importance) in Table 14 and will be considered in selecting the composition of the final tariffs to trial.

The network problems tariffs can 'solve'

Before embarking on the tariff trials journey, Essential Energy determined the network problems that tariffs can help solve. These are shown in Table 15 on the following page and are encompassed within the 'Effective' tariff trial design principle shown above.

The ability to solve these problems will inform the final tariffs taken to trial and their relative success measures. The trials themselves will then allow the business to test whether providing customers the opportunity to benefit (from lower bills) delivers sufficient behavioural response to alleviate these network problems, such that network investment is deferred (or even avoided).

Table 16: Principles for network tariff design

Principle	This means
AVOID BILL SHOCK	Tariffs minimise the risk of bill shock for customers (especially vulnerable customers)
EASY TO UNDERSTAND	Tariffs are relatively simple to interpret
FAIR	Customers pay their fair share of network costs (cost-reflective)
FACILITATE GREEN ENERGY	Tariffs accommodate changing technology, energy flows and greener customer choices
EFFECTIVE	Tariffs do the job - they solve network issues and do not create new ones

Scope of the tariff trials

The full scope of the trials, including locations and number of customers, is yet to be determined however, as mentioned above, we expect to trial up to five different tariffs.

The level of technology overlay for customers within each trial will be varied so that the strength of behavioural change correlated with technology can be determined and the customer experience related to the level of technology assessed.

In addition, a further trial of simple consumption messages to minimise network impacts (and costs) and information about interpreting appliance energy consumption and how customers can change their behaviour to lower their electricity bill will also be undertaken.

The intention is to determine the level of behavioural change that can be achieved through simple messaging alone. The results, of which, will be measured using smart meter data via a desktop study.

Table 17: Network problems that tariffs need to solve (in order of importance)

Network problem	How tariffs could deliver a solution	Benefit to customers
1. Manage exports into the network • Address widening of the voltage envelope • Avoid voltage and thermal constraints	> Send appropriate price signals to ensure the required supply standards (upper and lower voltage supply limits) can be achieved > Encourage efficient use of customers' Distributed Energy Resources (DER)	> Avoided power quality issues > Limited export constraints > DER connections continue without constraints > DER customers benefit from new market opportunities > Lower customer bills than would otherwise be the case, through reduction in the network costs required to accommodate DER
2. Underutilised network assets • Improve utilisation	> Encourage consumption away from peak time, into other times of the day > Encourage efficient use of customers' Distributed Energy Resources (DER)	> Avoided blackouts > Improved utilisation of existing network assets > Efficient use and improved return on customers' DER assets > Lower customer bills than would otherwise be the case, through deferred (or even avoided) costly augmentation capex to meet growing peak demand
3. Manage peak demand • Avoid thermal constraints		
4. The level of replacement expenditure that will increase the size of the RAB	> Encourage customers to spread their energy consumption	> Improved utilisation of existing network assets > Deferred replacement expenditure

Proposed tariff structures

Given Essential Energy is still in the process of co-designing the tariffs to trial with customers and stakeholders, the final tariffs that will be trialled and their associated structures is not yet 100 percent certain.

Feedback from customers and stakeholders will play a large part in shaping the final tariff trial structures and Essential Energy believes this co-design approach will deliver tariff trials that are genuinely supported by customers and stakeholders. More importantly, should any of the trial tariffs be successful, they already come with a built-in level of support for broad-scale adoption.

More information on the possible tariff structures can be found in Attachment 9 – Letter to the AER outlining the intended use of sub-threshold tariffs.

Partnerships, funding and knowledge sharing

Essential Energy does not have the expertise to conduct these trials alone. As just one part of the supply chain, partnering with retailers for the trials will be imperative. In addition, technology providers and the skills of university researchers and behavioural economists will be required to design robust trials and ensure the delivery of useful data and results that can inform the development of tariffs for consultation the next regulatory period.

Essential Energy intends to use a portion of its Demand Management Innovation Allowance Mechanism (DMIAM) to help fund the trials and the associated annual DMIAM compliance report will assist with knowledge sharing from the trials.

In addition, the business is currently overseeing the development of an industry supported Australian Renewable Energy Agency (ARENA) funding application to assist with the remainder of the costs. The ARENA application will be put forward by a consortium, including Essential Energy, retailers, technology providers and universities and have the endorsement of consumer advocacy groups and other distribution networks.

Should the ARENA funding application be successful, annual on-going findings and updates will also be provided to ARENA, as well as a final report that will be published on the websites of all consortium members. Wherever possible the consortium will raise awareness of the project and identify opportunities to share knowledge efficiently through existing events. In addition, the consortium will host at least two dedicated webinars to present the study and will attend at least two conferences within Australia to present the study.

Alignment with TSS strategy

This tariff trials project aligns with the tariff strategy and pricing principles outlined in Essential Energy's 2019-24 TSS[2]. The electricity industry is undergoing rapid change driven by changes in the way customers source and use energy, the push to decarbonise energy supply, and the increased decentralisation of the energy supply chain. Tariff trials are essential to the business successfully designing and testing network charges that recognise the characteristics of both our network and our customers, now and for the foreseeable future.

In particular, Essential Energy's 2019-24 TSS specifically identified several factors to encourage the adoption of more cost-reflective network charges including the need for education, collaboration, trials and technology[3], all of which feature within the proposed tariff trials.

Essential Energy is committed to keeping the AER, retailers and customers informed of the project and progress of these tariff trials.

Compliance with 6.18.2C

Table 18 shows how the proposed DUoS revenue from each trial tariff, and the total of all trial tariffs, meet the sub threshold limits as set out in section 6.18.2C of the Rules.

Table 18: Expected 2021-22 revenue from tariff trials

		$'000
Revenue requirement 2021-22		**$1,011.84**
Subthreshold total tariffs	1 per cent	$5,059.19
Subthreshold per tariff	0.5 per cent	$2,023.68
Tariff Trial A		$481.32
Tariff Trial B		$481.32
Tariff Trial C		$481.32
Tariff Trial D		$481.32
Tariff Trial E		$481.32
Total Trial Tariffs		**$2,406.59**

[2] Attachment 1 Tariff Structure Explanatory Statement, Essential Energy, January 2019, p. 3 & 4

[3] *Ibid* p.4

Modification History

Version	Date	Description
1	31/03/2021	Original version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